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Unhealthy language: linguistic investigations of COVID-19 discourse

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Unhealthy language: linguistic investigations of COVID-19 discourse

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Editorial: Unhealthy language: linguistic investigations of COVID-19 discourse

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COVID-19, pandemic, text, language, discourse, communication

Editorial on the Research Topic
Unhealthy language: linguistic investigations of COVID-19 discourse

Unhealthy Language: Linguistic investigations of COVID-19 discourse aims to bring some clarity to a period of great disruption and chaos and the way, in the midst of this chaos, language – emanating from official sources and exchanged in our everyday lives – functioned to inform us, to scare us, to reassure us, and to help us make sense of the radical change we were going through. The original objective was to produce an agile, accessible, and scholarly reliable book that would follow a rapidly changing and volatile situation. Some of the papers therefore are the result of studies still in progress or just concluded. In other words, we tried to capture the immediacy of the 'unprecedented' (COVID-19 buzz word) situation while it was still developing.

The choice of an open access volume also aligns with our determination to make the investigations of the book immediately accessible to everyone who wants to reflect on the COVID-19 phenomenon. The volume offers geographical, disciplinary and methodological diversity. It contains eight papers, written by 27 authors, from 14 universities/institutions, across six European countries (UK, Belgium, Ukraine, Bulgaria, Italy, Estonia). Several of the papers have are the result of a collaboration between linguists and health scientists. Data for the studies include official documents, public signs, media texts, interviews and diaries, and these data are approached from range of perspectives, i.e., computational, sociolinguistic, semantic-pragmatic, discourse analytical, and ethnographic.

One of the main challenges people faced during the pandemic was adapting to new health-related practices and regulations, some of which involved the development of new terminology and new genres of discourse and interaction. This is the focus of the paper by Bafort et al. based on research conducted in collaboration with the Flemish Agency of Health, entitled "*COVID-19 telephone contact tracing in Flanders as a "contested" new genre of conversation: discrepancies between interactional practice and media image*". The authors analyse the interactional dynamics of contract tracing calls and compare their findings to media representation of such calls. They discover that the mainstream media's representation of contact tracing, which focused mostly on privacy concerns and the background of the tracers rather than the purpose and the conduct of the calls, presented a distorted image that may have had considerable consequences for the efficacy of contact tracing.

Another paper which highlights the mismatch between media representations and official discourses associated with the language of the pandemic is Kania "*Snake flu", "killer bug", and "Chinese virus*": *A corpus-assisted discourse analysis of lexical choices in early UK press coverage of the COVID-19 pandemic*, in which she reveals how, contrary to WHO guidelines, UK newspapers regularly used terms such as "killer bug" and "Chinese virus" to refer to the virus, likely stoking fear and promoting racism among their readers.

Giorgis et al. "*We are at War" The Military Rhetoric of COVID-19 in Cross-cultural Discourses* focus on the discourse of both mainstream media and political speeches in Italy, Bulgaria, and Ukraine. The Authors examine how the metaphor of WAR, which is found in such constructions as "We are at war" or "We will win this war," was used differently in different political and cultural contexts.

While the three papers described above focus on media discourse, others address similar issues in the discourse of ordinary people. Wilding et al. for example, in their paper "*A metaphor analysis of older adults' lived experience of household isolation during COVID-19*", examine the way adults in the UK used metaphors to describe their experiences of lockdown. The Authors show how the participants negotiated their sense of agency by resisting and refashioning the dominant public metaphors that circulated as part of Government campaigns.

While Wilding et al. focus on how people coped through repurposing metaphors, Robinson et al. in their paper "*Introducing the keyconcept approach to the analysis of language: The case of REGULATION in COVID-19 diaries*" show how broader concepts were repurposed in the COVID-19 discourse of ordinary people. Focusing on how participants in the 12th May Diary project, which is part of the Mass Observation Archive, discursively constructed the keyconcept of REGULATION during the first COVID-19 lockdown in the UK, they show how the concept of REGULATION was associated with a complex collection of thoughts, feelings and experiences including the experience of limited individual agency and feelings of both fear and gratitude.

In another study which explores diary data curated during the first COVID-19 lockdown in the UK, Cowie et al. in their paper entitled "*Imagining the city in lockdown : Place in the COVID-19 self-recordings of the Lothian Diary Project*", analyse audio and video diaries from residents of Edinburgh In particular they focus on how diarists made sense of disruptions in place-time during COVID-19 pandemic using three different narrative orientations or "chronotopes".

The ways the pandemic disrupted people's experience of space is particularly evident in the papers that explore changes to the linguistic landscapes of European cities and towns during the pandemic. Bagna and Bellinzona in their paper "*Everything will be all right (?)": discourses on COVID-19 in the Italian linguistic landscape*", show how the interaction between public and private discourse in the linguistic landscape of Florence during different phases of the pandemic provides a window onto the ways citizens communicated about the "shared shock" of the pandemic and formulated social discourses and emotional responses to it.

Similarly, Tragel and Pikksaar in their paper "*Authority and solidarity on the Estonian COVID-19 signs*: *In line with the government's guidelines, we ask you to wear a mask*" explore the linguistic strategies used on door signs in Estonian cities and towns during the pandemic. The Authors identify the linguistic strategies people used to negotiate relationships of authority and/or solidarity between the authors of the signs and their readers.

The Research Topic includes a commentary on all eight papers by Jones entitled "*How to have agency in a pandemic*" in which he identifies *agency* as a key theme running through all of the papers and delineates how, in the range of contexts represented in these papers, people employed discourse as a tool to make sense of and, in some cases, challenge, constraints on their ability to take action, make choices, and control what was happening around them.

As these brief summaries suggests, these contributions capture people's attempts to cope with the new reality through formulating new ways of speaking, writing, acting and interacting and through adapting to or contesting the new discursive regimes that were imposed on them. What characterizes this volume is a linguistic focus accompanied by a deep interest in understanding how human nature can be resourceful and confront the unexpected. The book shows us how language functions as a socio-cognitive tool that people use both to make sense of reality, and to construct it.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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"Snake flu," "killer bug," and "Chinese virus": A corpus-assisted critical discourse analysis of lexical choices in early UK press coverage of the COVID-19 pandemic

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Now mostly known as "COVID-19" (or simply "Covid"), early discourse around the pandemic was characterized by a particularly large variation in naming choices (ranging from "new coronavirus" and "new respiratory disease" to "killer bug" and the racist term "Chinese virus"). The current study is situated within corpus-assisted discourse studies and analyses these naming choices in UK newspaper coverage (January–March 2020), focusing on terminology deemed "inappropriate" as per WHO guidelines on naming infectious diseases. The results show that 9% of all terms referring to COVID-19 or the virus causing it are "inappropriate" overall, with "inappropriate" naming being more prevalent (1) in tabloids than broadsheets and (2) in the period before compared to the period after the virus was officially named on 11th February, 2020. Selected examples within each of the categories of "inappropriate" names are explored in more detail [terms (1) inciting undue fear, (2) containing geographic locations, and (3) containing species of animals], and the findings are discussed with regard to the contribution of lexical choices to the reproduction of (racist and otherwise problematic) ideologies in mainstream media.

KEYWORDS

corpus-assisted discourse studies, corpus linguistics, critical discourse analysis, lexical choices, Sinophobia, Anti-Asian racism, UK press, COVID-19

Introduction

The first cases of the disease that would become known as COVID-19 were identified in central China in December 2019, and media coverage in early 2020 often linked the outbreak specifically to the Huanan Seafood and Wildlife Market in Wuhan. Since then, the spread of COVID-19 has been accompanied by a rise in Anti-Asian hate speech and hate crime in many countries (for the US, see Gover et al., 2020; for the UK, see Gray and Hansen, 2021). It has already been noted that "[t]hroughout history, pandemic-related

health crises have been associated with the stigmatization and "othering" of people of Asian descent" (Gover et al., 2020, p. 647). This "othering" has often involved the conflation of different ethnicities (e.g., viewing all "Asians" as a monolithic group; Yeh, 2020) and perpetuation of pernicious stereotypes, for example of (alleged) Chinese foodways as "exotic" or "disgusting" and potentially to blame for the spread of diseases (King, 2020).

In light of this history, terms such as "Chinese virus" or "Wuhan virus" are highly problematic and inappropriate, since they further contribute to a construal inextricably linking the virus and the illness it causes to China. They also do not comply with WHO guidelines (WHO, 2015), which aim to minimize negative effects potentially resulting from inappropriate naming. The current study focuses on lexical choices around COVID-19 and Sars-CoV-2 in one specific context, i.e., UK press coverage from January until March 2020, aiming to provide a critical analysis of newspapers' "politics of naming" from the perspective of corpus-assisted discourse studies.

Background and previous research

The WHO guidelines for "Best practices for the Naming of New Human infectious diseases" state that disease names should be carefully chosen to "avoid causing offense to any cultural, social, national, regional, professional, or ethnic groups" (WHO, 2015, p. 1). The guidance is designed to "span the gap between identification of a new human disease event and assigning a final name by ICD [International Classification of Diseases]" (ibid.), offering "examples of useful terms" as well as "examples to be avoided," the latter of which include "terms that incite undue fear" (such as "death" or "fatal"), "geographic locations," "people's names," "species/class of animals or food" (ibid., p. 3).[1] While these guidelines cover diseases specifically (not the pathogens causing them), the organization responsible for naming viruses—the International Committee on Taxonomy of Viruses (ICTV) is also aware of potentially harmful consequences and follows a code according to which "[n]ew names shall be chosen with due regard to national and/or local sensitivities" (ICTV, 2021). Furthermore, the WHO states that "WHO and ICTV were in communication about the naming of both the virus and the disease" (WHO, 2020). Consequently, the official names, announced on 11th February 2020, do not include any terms deemed inappropriate: coronavirus disease (or COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (or SARS-CoV-2; replacing the temporary name "2019-nCoV," which was assigned on January 7th, 2020) (ibid.). However, the WHO states that "using the name SARS can have unintended consequences in terms of creating unnecessary fear for some populations, especially in Asia which was worst affected by the SARS outbreak in 2003," therefore they are "referring to the virus as "the virus responsible for COVID-19" or "the COVID-19 virus" when communicating with the public" (ibid.; for a critical discussion of the naming of the virus, see Jiang et al., 2020).

It is thus evident that lexical choices (not only) pertaining to the illness and the virus causing it matter, with inappropriate terms potentially exacerbating pre-existing stereotypes, discrimination, and racism (for "Reflections on the Racialised Discourse surrounding COVID-19," see Ng et al., 2021, pp. 144–146; also see Wang et al., 2021, for a broader discussion of "Representations of "China" in Britain")[2]. Some evidence for this connection has already been provided. For example, tweets including the hashtag #chinesevirus have been found to be much more likely to express Anti-Asian sentiment compared to more neutral ones such as #covid19 (Hswen et al., 2021). For the US, it has also been shown that a preference for a particular framing in the media (use of "COVID-19 virus" vs. "Chinese virus") aligns with people's political affiliation/ideology (Democrat/Republican and liberal/conservative), and that "amongst a host of other variables, media framing has an effect on the public's attitudes and feelings of blame for the pandemic" (Holt et al., 2022).

The study most directly related to the current one is Prieto-Ramos et al. (2020), who analyze relevant naming choices in the headlines of 2 newspapers each for the US, the UK, France, and Spain (in January and February 2020). They found a drastic reduction of inappropriate naming in all newspapers after the WHO announcement. For the two UK broadsheet newspapers they included (*The Times* and *The Telegraph*), inappropriate terms were found in 8.63 and 5.56% of all headlines "pre-naming," respectively, and in none at all "post-naming." Even though they briefly discuss the controversy around Donald Trump's use of "Chinese virus," there is no in-depth analysis, since their dataset does not extend to March 2020 when Trump used this term repeatedly.

While also being concerned with these "politics of naming," the current study has a different scope and focus: it deals exclusively with the UK context but includes more newspapers,

1 Even after the explicit discussion on COVID-19 nomenclature, problematic naming practices around pathogens and diseases persist, as evident in the discourse around the recent "monkeypox" outbreak (Roberts, 2022).

2 While particularly the early phase of the COVID-19 pandemic is linked to a rise in Anti-Asian racism, it should be noted that later developments are associated with other forms of xenophobia, connected to the emergence and naming of different variants of the virus. Prominent examples are terms such as "UK/Kent," "South African" or "Indian" variant. This is why the WHO introduced a new system for naming variants in May 2021. The use of letters of the Greek alphabet (e.g., Delta instead of Indian Variant) was suggested, complementing (though not replacing) the scientific names (such as B. 1.617. 2) in order "to simplify discussions but also to help remove some stigma from the names" (BBC, 2021).

which allows for a comparison between tabloid vs. broadsheet publications. Furthermore, the time-frame is slightly longer (extending to 31st March 2020), providing more data "post-naming" and making it possible to observe longitudinal shifts in reporting (as well as coverage of Trump's use of "Chinese virus"). Lastly, while more specific search terms were used for the compilation of the current corpus (see methods section below), it includes the full text of articles, not just the main headlines, making it possible to analyse the broader context from a discourse analytic perspective as well.

Methods

This corpus-based study is situated within corpus-assisted discourse studies (henceforth CADS; see e.g., Partington, 2004; Partington et al., 2013; Ancarno, 2020) and thus combines corpus linguistics and discourse analysis. The approach has been chosen because of "CADS's" ability to reconcile close linguistic analyses with the more broad-ranging analyses made possible by using corpus linguistic methods [...], [which] allows for insights into micro- and macro-level phenomena to be explored simultaneously" (Ancarno, 2020, p. 165).

The contribution made by corpus linguistics methods consists of the compilation of a specialized corpus, the analysis of absolute and relative frequencies of relevant terms, the identification of collocates for the two most frequent head nouns, and the use of selected concordances for explorations of their discourse context (using *AntConc*; Anthony, 2020). Corpus linguistic techniques are combined with a close reading approach from the perspective of critical discourse analysis, drawing on the notion of ideology as well as previous research on newspaper language and lexical choices therein.

As ""systems of ideas," ideologies are sociocognitively defined as shared representations of social groups [...] [I]deologies organize [a social group's] identity, actions, aims, norms and values, and resources as well as its relations to other social groups" (van Dijk, 2006, p. 115). Since they "are acquired, expressed, enacted and reproduced by discourse, this must happen through a number of discursive structures and strategies" (ibid., p. 126). In particular, "ideologies are institutionally co-produced and reproduced by powerful (business) institutions such as newspapers" (ibid., p. 138), so their discursive strategies are of primary interest. The idea that newspaper language is far from "neutral" is not new (see, e.g., Kress, 1983), and since the "variation of lexical items (that is, lexical style) is a major means of ideological expression in discourse" (van Dijk, 2000, p. 205), lexical choices often receive analytical attention (e.g., van Dijk, 1988, 1991, 1995; Crespo Fernández and Martínez Lirola, 2012 of course, other semiotic systems such as images are also important; see, e.g., Machin, 2013).

Apart from the choices *per se*, it is crucial to consider how they are embedded within articles, e.g., through various means of speech representation (see, e.g., the framework proposed by Semino and Short, 2004; one study applying it to UK newspaper data is Lampropoulou, 2014). This means that a decontextualized, quantitative analysis of specific lexical items is just the first step, which has to be followed by an in-depth look at the broader discourse context.

Data

Data for this study consist of the COVID-19-related corpus collected for a research project on Sinophobia and representations of Chinese (food) culture in the UK press (focusing on historical and COVID-19-related manifestations; see Kania and González-Díaz, in preparation). For 1st January until 31st March, 2020, i.e., the early stages of the COVID-19 pandemic, relevant data were extracted from *Nexis*[search string used: (Covid* OR corona* OR "SARS-CoV-2" OR virus OR *nCoV*) AND (Chine* OR China*) AND (food* OR eat* OR consum* OR cook* OR restaurant* OR takeaway*)]. Consequently, not all UK news articles covering COVID-19 from January until March 2020 are included here but only those mentioning China (and foodways) in some way.[3] The corpus consists of 555 articles from both tabloid and broadsheet publications, including online versions (where available), totaling 716,411 words. An overview of the composition of the corpus is presented in Table 1.

This study is mainly interested in the distribution of different "neutral" vs. "inappropriate" terms for COVID-19 and the associated pathogen in the time-frames before and after the official names were announced. It is also interested in differences between broadsheet and tabloid coverage, both in terms of absolute and relative frequencies of "inappropriate" terms and how "inappropriate" terms such as "Chinese virus" are embedded in the articles and how they contribute to the construction and reproduction of particular ideologies.

Results and discussion

As stated above, the official names were only announced on 11th February 2020, so different lexical choices were

3 While the specificity of the dataset should be kept in mind and may be seen as a limitation, it should be noted that China is usually mentioned as the country with the first reported cases, often linked to the Huanan Seafood Wholesale Market. Furthermore, given the history of Anti-Asian prejudice outlined above, lexical choices around the disease as well as the virus and its potential origin are of particular interest in this context. This dataset thus allows for the identification of trends in the early reporting on COVID-19 in tabloid vs. broadsheet newspapers regarding these specific "politics of naming".

TABLE 1 Overview of the corpus composition.

Tabloid	Print circulation (Mayhew, 2020)	Online	Articles	Words
The Daily Mail/Mail on Sunday	1,169,241/967,043	X	188	338158
The Metro	1,426,535	–	2	435
The Mirror/Sunday Mirror	451,466/367,244	X	51	32874
The Sun/The Sun on Sunday	1,250,634/1,042,193	X	47	34885
The Daily Star/The Daily Star Sunday	277,237/162,345	X	25	11749
The Express/Sunday Express	296,079/252,733	X	32	24191
		Total	345	442292
Broadsheet	**Print circulation**	**Online**	**Articles**	**Words**
The Guardian/Observer	132,341/156,217	X	70	162854
The Independent (published online only)	n/a	X	49	30163
The Times/Sunday Times	368,929/645,108	X	50	41236
Telegraph	Not available	X	40	37923
		Total	210	274119

available before and after. Therefore, following the approach by Prieto-Ramos et al. (2020), the dataset has been split into two timeframes: (1) 1st January–10th February (41 days, pre-naming, average number of news stories per day = 7.24), and (2) 11th February–31st March (50 days, post-naming, average number of news stories per day = 5.16). An overview of the subsets can be found in Table 2. Overall, there are more articles in the pre-naming than in the post-naming timeframe (297 vs. 258), despite the former being shorter, potentially because some later coverage may not have mentioned China (instead focusing on UK-specific information on the first lockdown, for example). Furthermore, there was a decrease in the tendency, particularly by tabloids, to publish several online news stories per day—there are fewer tabloid articles post-naming (199 vs. 146), while there is actually a slight increase in broadsheet coverage (98 vs. 112).

Exploratory searches were done for likely lexical choices (e.g. "*virus" and "illness"), and further terms were identified by close reading of all headlines and a random sample of 100 articles in the dataset (25 each for tabloid and broadsheet pre- and post-naming). References to other illnesses and viruses (e.g., SARS and Zika) were identified and excluded manually through the inspection of all concordance lines. For this analysis, context for key head nouns included in the table was limited to pre-modifiers. Cases where the noun for the virus or illness was used as the first part of a compound (e.g., "coronavirus outbreak") were included here as well (e.g., under "coronavirus"), unless the relevant compound containing a term for the virus denoted the "illness", in which case it was included in the counts for the illness (e.g., "new viral coronavirus illness").

"Neutral" vs. "inappropriate" terms

The first analyses on lexical choices focus on absolute and relative frequencies of different terms used for (1) the virus officially called SARS-CoV-2 and (2) the illness it causes, officially named COVID-19. While in theory there is a clear distinction between terms for the virus and the illness, respectively, in practice the boundaries are often blurred, with e.g., COVID-19 being used for the virus (e.g., "The new virus, officially called Covid-19," *The Telegraph*, 19th March, 2020) or a term for the illness being used as a synonym for the virus ("Wuhan pneumonia is the name for a new coronavirus," *Daily Mirror Online*, 24th January, 2020). This is why no strict boundary between these two categories was imposed in the presentation of the results.

The guidelines do not explicitly state that comparisons to similar pathogens should be avoided (e.g., "SARS-like virus")—however, the WHO ultimately recommended to avoid the term SARS, since it may "create unnecessary fear" (WHO, 2020; see discussion above) and it has thus been categorized as "inappropriate." Furthermore, "unknown" is explicitly listed by the WHO as an example to be avoided, so similar terms such as "mysterious" and "previously unknown" were also categorized as inappropriate. In other cases, though, a

TABLE 2 Corpus composition, broken down by tabloid vs. broadsheet and "pre-naming" vs. "post-naming."

Pre-naming	Articles	Words	Post-naming	Articles	Words
Broadsheet	98	129190		112	144929
Tabloid	199	262162		146	180190
Totals	297	391352		258	325199

TABLE 3 Overview of frequencies of "neutral" vs. "inappropriate" terms ("inappropriate" terms and counts in italics, total counts per term and overall counts in bold).

	Broadsheet 01/01-10/02	Broadsheet 11/02-31/03	Tabloid 01/01-10/02	Tabloid 11/02-31/03	Total
Total virus "neutral"	383 (4)	931 (4)	1848 (5)	734 (8)	**3896 (21)**
Total virus "inappropriate"	*54 (4)*	*32 (3)*	*258 (24)*	*65 (1)*	***409 (32)***
Total virus	**437 (8)**	**963 (7)**	**2106 (29)**	**799 (9)**	**4305 (53)**
Total coronavirus "neutral"	673 (35)	739 (59)	1653 (93)	1302 (83)	**4367 (270)**
Total coronavirus *"inappropriate"*	*52 (7)*	*4 (–)*	*339 (13)*	*28 (–)*	***423 (20)***
Total coronavirus	**725 (42)**	**743 (59)**	**1992 (106)**	**1330 (83)**	**4790 (290)**
Total bug "neutral"	1 (1)	3 (–)	14 (–)	14 (1)	**32 (2)**
Total bug "inappropriate"	–	–	*15 (6)*	*16 (2)*	***31 (8)***
Total bug	**1 (1)**	**3 (–)**	**29 (6)**	**30 (3)**	**63 (10)**
Total nCoV "neutral"	23 (–)	1 (–)	82 (–)	9 (–)	**115 (–)**
Total nCoV "inappropriate"	–	–	–	–	–
Total nCoV	**23 (–)**	**1 (–)**	**82 (–)**	**9 (–)**	**115 (–)**
Total SARS-CoV-2 "neutral"	–	6 (–)	–	10 (–)	**16 (–)**
Total SARS-CoV-2 "inappropriate"	–	–	–	*1 (–)*	***1 (–)***
Total SARS-CoV-2	**–**	**6 (–)**	**–**	**11 (–)**	**17 (–)**
Total COVID(-19) "neutral"	–	219 (5)	–	272 (–)	**491 (5)**
Total COVID-19 "inappropriate"	–	–	–	*3 (–)*	***2 (–)***
Total COVID(-19)	**–**	**219 (5)**	**–**	**275 (–)**	**494 (5)**
Total condition "neutral"	1 (–)	–	14 (–)	–	**15 (–)**
Total condition "inappropriate"	–	–	*7 (–)*	–	***7 (–)***
Total condition	**1 (–)**	**–**	**21 (–)**	**–**	**22 (–)**
Total flu "neutral"	2 (2)	– (–)	– (–)	–	**2 (–)**
Total flu "inappropriate"	*7 (–)*	*3 (–)*	*29 (1)*	*6 (–)*	***45 (1)***
Total flu	**9 (2)**	**3 (–)**	**29 (1)**	**6 (–)**	**47 (3)**
Total plague "neutral"	–	–	–	–	–
Total plague "inappropriate"	*– (–)*	*3 (–)*	*3 (2)*	*2 (–)*	***8 (2)***
Total plague	**– (–)**	**3 (–)**	**3 (2)**	**2 (–)**	**8 (2)**
Total infection "neutral"	81 (1)	57 (1)	140 (1)	140 (–)	**418 (3)**
Total infection "inappropriate"	*5 (–)*	*– (–)*	*47 (1)*	*9 (–)*	***61 (1)***
Total infection	**86 (1)**	**57 (1)**	**187 (2)**	**149 (–)**	**479 (4)**
Total disease "neutral"	108 (–)	89 (1)	203 (2)	93 (–)	**493 (3)**
Total disease "inappropriate"	*6 (1)*	*– (–)*	*32 (4)*	*9 (1)*	***47 (6)***
Total disease	**114 (1)**	**89 (1)**	**235 (6)**	**102 (1)**	**540 (9)**
Total illness "neutral"	32 (–)	14 (–)	107 (1)	59 (–)	**212 (1)**
Total illness "inappropriate"	*14 (2)*	*1 (–)*	*14 (–)*	*3 (1)*	***32 (3)***
Total illness	**46 (2)**	**15 (–)**	**121 (1)**	**62 (1)**	**244 (4)**
Total pneumonia "neutral"	33 (1)	9 (–)	224 (2)	4 (–)	**270 (3)**
Total pneumonia "inappropriate"	*8 (1)*	*1 (–)*	*3 (–)*	*1 (–)*	***13 (1)***
Total pneumonia	**41 (2)**	**10 (–)**	**227 (2)**	**5 (–)**	**283 (4)**
Overall total "neutral"	**1337 (44)**	**2068 (70)**	**4285 (104)**	**2637 (92)**	**10327 (310)**
Overall total "inappropriate"	*146 (15)*	*44 (3)*	*747 (51)*	*143 (5)*	*1080 (74)*
Overall total	**1483 (59)**	**2112 (73)**	**5034 (155)**	**2780 (97)**	**11407 (384)**

fairly conservative approach was taken—for example, "highly-contagious," while potentially inducing fear, was deemed appropriate since "contagious" is included in the WHO examples of "useful terms."

Since the focus here is on neutral vs. "inappropriate" lexical choices, counts for terms within these categories have been conflated for each of the head nouns for the presentation of the results in Table 3 (the head nouns are: virus, coronavirus, bug, corona, n-CoV, SARS-CoV-2, COVID-19, condition, flu, plague, infection, disease, illness, pneumonia).

A full list of terms and the breakdown of their frequencies is made available as Supplementary Table 1.

Furthermore, selected terms will be discussed in more detail below.

The first number in each cell provides the total count for the category, whereas the number in brackets indicates how many of the instances were included in a main headline.

Overall, there are 11,407 explicit mentions of either COVID-19 or the virus causing it in the whole corpus-−1,080 (or 9%) of these terms have been categorized as "inappropriate" (percentages are rounded to the nearest whole number). Inappropriate terms are particularly prevalent in headlines (74 out of 384, i.e., 19%). The vast majority of "inappropriate" terms are found "pre-naming" (895 out of 6,515, i.e., 14%) rather than "post-naming" (174 out of 4,892, i.e., 4%), and the same trend can be observed for headlines (66 out of 214, i.e., 31% for "pre-naming" as opposed to 8 out of 170, i.e., 5% for "post-naming").

This indicates a shift toward more "neutral" terminology over time, with the terms "virus," "coronavirus" and the official name "COVID-19" being the most frequent choices ("SARS-CoV-2" as the official name for the virus is only used 17 times and—with only 5 uses—"Covid" is not an established term yet). This shift is broadly in line with Prieto-Ramos et al. (2020), who found that "inappropriate names were dramatically reduced in the news headlines of the mainstream media observed" (p. 464)—however, with 8.63% (*The Times*) and 5.56% (*The Telegraph*) "pre-naming," and no inappropriate headlines at all "post-naming," the prevalence of "inappropriate" headlines is less pronounced in their dataset. This might be due to differences in criteria for data selection: while they were more general in their search terms (as opposed to including only coverage mentioning China and associated foodways alongside COVID-19), they only included two UK broadsheet newspapers (and no tabloids at all), and their "post-naming" was limited to 12–29th February 2020 (i.e., not extending until 31st March like in the current study).

Regarding the choice of newspapers: in the current dataset, 1 out of 14 relevant headlines in *The Times* (i.e., 7%) and 3 out of 19 relevant headlines in *The Telegraph* (i.e., 16%) are "inappropriate" "pre-naming," and they contribute none of the 3 inappropriate broadsheet headlines "post-naming," which aligns with Prieto-Ramos et al.'s results for these publications overall. So while the search terms may have had some influence, the differences are probably mostly driven by the other newspapers included. Since we may expect tabloids to make more use of sensationalist language (see, e.g., Wahl-Jorgensen, 2020), this aspect will be evaluated first.

For broadsheets, 146 out of 1,483 (i.e., 10%) terms overall are "inappropriate" "pre-naming" and 44 out of 2,112 "post-naming" (i.e., 2%), whereas for tabloids it is 747 out of 5,032 "pre-naming" (i.e., 15%) and 143 out of 2,780 "post-naming" (i.e., 5%).

For headlines only, "inappropriate" terms are included in 15 out of 59 for broadsheets "pre-naming" (i.e., 25%) and 3 out of 73 "post-naming" (i.e., 4%), whereas for tabloids it is 51 out of 155 headlines "pre-naming" (i.e., 33%) and 5 out of 97 "post-naming" (i.e., 5%).

This means tabloids do drive the numbers up, but since the percentage for inappropriate headlines in broadsheets is still higher than indicated by Prieto-Ramos et al. (2020), this indicates that the broadsheet newspapers *The Guardian* and *The Independent* have a stronger tendency to include inappropriate terms in their headlines compared to *The Times* and *The Telegraph* (since for broadsheets the overall percentage of inappropriate headlines pre-naming is 25%). In sum, it is likely that there are multiple factors at play here but the main cause seems to lie in the stronger tendency of the additional broadsheet and tabloid newspapers considered here to use "inappropriate" terms.

Overall, "inappropriate" terms constitute about 9% of all uses—they are more frequent in the "pre-naming" vs. the "post-naming" period, and—except for tabloids "post-naming"—particularly prevalent in main headlines. Throughout, broadsheets have a lower absolute and relative frequency of "inappropriate" terms compared to tabloids.

To get a first impression of which pre-modifiers are particularly prevalent in a corpus-linguistic sense, the top 20 3L-collocates were identified for the two most frequent head nouns ("coronavirus", $n = 4{,}790$, "virus," $n = 4{,}305$; see Supplementary Tables 2, 3 for parameters and full results).

For "coronavirus," "novel" features as one of the "appropriate" pre-modifiers throughout all sub-corpora (i.e., broadsheet as well as tabloid, pre- as well as post-naming). The most consistently used "inappropriate" pre-modifier is "deadly" (broadsheet pre- and post-naming and tabloid pre-naming), with the even stronger expression "killer" only reaching statistical significance in tabloids (both pre- and post-naming). For "virus," on the other hand, there is no "appropriate" pre-modifier/determiner found throughout (for broadsheet, there is "new" and the pre-naming and "the/this" as well as SARS-CoV post-naming; for tabloids, there are no relevant collocates in the top 20 at all). Similar to "coronavirus," "deadly" features as one of the "inappropriate" pre-modifiers (except for tabloids pre-naming). Interestingly, "killer" is not only found in tabloids (pre- and post-naming), but also in broadsheets pre-naming, and "Chinese" is found only for broadsheets (post-naming), indicating that specific "inappropriate" uses may in fact be more predominant in broadsheets rather than tabloids.

Use of "inappropriate" terms

Since an exhaustive analysis of all "inappropriate" terms is beyond the scope of this paper, the focus is on selected examples within these categories: (1) Terms inciting undue fear, (2) Terms including geographic locations, and (3) Terms including the names of species of animals, in each case starting with overall frequencies before analyzing selected examples in context.

Terms inciting undue fear

For broadsheets, 70 out of 146 (i.e., 48%) "inappropriate" terms "pre-naming" contain expressions inciting undue fear, as opposed to 14 out of 44 (i.e., 32%) "post-naming". For tabloids, it is 504 out of 747 "pre-naming" (i.e., 67%) and 126 out of 143 (i.e., 88%) "post-naming."[4]

For headlines only, it is 11 out of 15 for broadsheets "pre-naming" (i.e., 73%) and 0 out of 3 "post-naming" (i.e., 0%), whereas for tabloids it is 45 out of 51 "pre-naming" (i.e., 88%) and 5 out of 5 "post-naming" (i.e., 100%). This means that terms inciting undue fear are present in both broadsheets and tabloids but—both in absolute and relative terms—tabloids make more use of terms like "deadly coronavirus," particularly in headlines. Furthermore, while both broadsheets and tabloids make use of the pre-modifiers "deadly" or "mysterious," tabloids are more likely to use particularly sensationalist terms such as "killer bug" or "killer virus" (the latter of which is used 51 times "pre-naming" and 8 times "post-naming" by tabloids, and occurs in 5 headlines "pre-naming")—in fact, the only term containing "killer" found in broadsheets is "killer virus." While this is used 6 times, an analysis of concordance lines reveals that all uses are quotes and refer to coverage in other media outlets such as the tabloid *The Daily Mail*:

(1) "Is the **killer virus** here?" shrieks the headline on the Daily Mail (emphasis added; *The Guardian*, 23th January, 2020).

This is not the only example of explicit intertextuality, with broadsheets quoting or referring to tabloid coverage, usually in the context of a negative evaluation (see the discussion of "snake flu" below).

Terms including geographic locations

For broadsheets, 69 out of 146 (i.e., 47%) "inappropriate" terms "pre-naming" contain a geographic location, as opposed to 25 out of 44 (i.e., 57%) "post-naming." For tabloids, it is 249 out of 747 "pre-naming" (i.e., 33%) and 15 out of 143 (i.e., 10%) "post-naming." For headlines only, it is 9 out of 15 for broadsheets "pre-naming" (i.e., 60%) and 3 out of 3 "post-naming" (i.e., 100%), whereas for tabloids it is 13 out of 51 "pre-naming" (i.e., 25%) and 0 out of 5 "post-naming" (i.e., 0%). This means that, in relative terms, this inappropriate naming strategy is more prevalent in broadsheet vs. tabloid newspapers, in part driven by the stronger tendency of the latter to include terms inciting undue fear, as discussed above. It might also indicate, though, that the inclusion of terms such as "Wuhan," "China," or "Chinese" is seen as relatively unproblematic, particularly by broadsheet newspapers, for which the relative use even increases "post-naming" compared to "pre-naming."

A closer look at the distribution of terms shows that the vast majority of cases within this category refer to SARS-CoV-2 as "Wuhan (corona)virus" or "Chinese (corona)virus," sometimes with additional pre-modifiers like "new," "deadly," or "killer," with other terms such as "mystery China disease" or "deadly China virus" only appearing rarely. The locally more specific "Wuhan (corona)virus" dominates "pre-naming" for both broadsheets [with 52 vs. only 4 instances of "Chinese (corona)virus"] and tabloids [with 161 vs. 61 instances of "Chinese (corona)virus"]. It all but disappears "post-naming" (with no uses in broadsheets and only 7 instances in tabloids). While Prieto-Ramos et al. (2020, p. 646) view "Wuhan" as less inappropriate than "Chinese," since the latter "represents a broader generalization," some coverage clearly construes the "Wuhan coronavirus" as being linked to China more generally:

(2) An infected doctor in France became the country's first person to catch the **killer Wuhan coronavirus** without going to China (emphasis added; *Daily Mail Online*, 31st January, 2020).

It should be stressed, though, that some experts which are quoted in the news coverage use the term Wuhan as well, so in these cases the naming practices may be argued to reflect "the information available to public authorities and journalists during the first period of unstable naming" (Prieto-Ramos et al., 2020, p. 646; note that this makes the case for educating professionals on appropriate language even stronger—see e.g., Vazquez, 2020):

(3) "I think it unlikely that the **Wuhan coronavirus** will cause a major public health issue in the UK, in large part because of our existing health system." (emphasis added; *The Guardian*, 23rd January, 2020—featured quote by Paul Hunter, professor in medicine at the University of East Anglia).

As stated above, Chinese (corona)virus is less prevalent than Wuhan (corona)virus pre-naming and in contrast to the latter there is already some awareness and explicit coverage (though only in broadsheets) of the term being potentially problematic:

4 In a lot of cases expressions belong to more than one category—e.g., "deadly Chinese coronavirus" contains both a term inciting undue fear and a geographic location, so has been included in counts for both categories.

(4) Raymond Huo, a local MP, said the coronavirus matter was the "number one issue" in the Chinese community. "We are concerned about any racist comments or discriminatory behavior. There have been a few isolated cases," he said, adding that negative sentiment and fear had been fuelled by headlines describing the disease as a "Chinese virus." *(The Telegraph*, 1st February, 2020).

It is quite striking, then, that the use of "Chinese (corona)virus" increases in broadsheet coverage "post-naming" (from 4 to 24 uses—for tabloids, there is a decrease from 61 to 5 uses). Again, a close look at the concordance line reveals that decontextualized frequency data does not tell the whole story—all 23 uses of "Chinese virus" in broadsheets are construed as (parts of) quotes, predominantly linking it to then-US president Donald Trump (see Figure 1).

This ties in with the overall stance taken by broadsheets, which—particularly "post-naming"—attribute problematic terms to other people (or media outlets) and provide an explicit negative evaluation of these lexical choices (e.g., referring to the term "foreign virus" as "xenophobic rebranding by Donald Trump"; *The Guardian*, 13th March, 2020).

This is in contrast to the dominant construal found in tabloids—"pre-naming," choice of terminology is usually not problematized, and even though there are way fewer instances of inappropriate terms post-naming (see Figure 2 for concordance lines of "Chinese virus"), there is a tendency to present a negative evaluation of using problematic terms to individuals featured in the article rather than the stance of the newspaper itself (see example 5).

(5) Parents have claimed Chinese children are being ostracized by their friends in British schools, with some refusing to play with them. Mothers have told the BBC that people are being **"racist"** against the youngsters because of an **"unfair"** perception that the outbreak is a **Chinese virus** (emphasis added, *The Daily Mail Online*, 14th February, 2020).

Furthermore, there is a piece entitled "Let's get angrier at cruel markets that caused virus," which implies that Donald Trump does not go far enough in his assignment of blame for COVID-19:

(6) So why is there so little outrage about the wet markets that we know have the potential to cause catastrophic outcomes to human health? Even Donald Trump—slammed for branding COVID-19 the **"Chinese virus"**—avoided criticizing the wet markets when prompted during a press conference at the White House on Wednesday (emphasis added, *The Sun*, 27th March, 2020).

Terms including the names of species of animals

For broadsheets, 5 out of 146 (i.e., 3%) "inappropriate" terms "pre-naming" contain animal names, as opposed to 4 out of 44 (i.e., 9%) "post-naming." For tabloids, it is 32 out of 747 "pre-naming" (i.e., 4%) and 6 out of 143 (i.e., 4%) "post-naming."

Only 4 instances occur in headlines (all for tabloids "pre-naming"). This is the only category that not featuring in Prieto-Ramos et al. (2020), since there are no occurrences in the headlines of *The Times* or *The Telegraph*. The predominant term is "(deadly) (Chinese) snake flu"—used by broadsheets 3 times each "pre-" and "post-naming" and 27 times "pre"- and 6 times "post-naming" by tabloids.

It first appears in *The Daily Mirror*, where its potential impact is compared to other diseases such as the "Marburg virus" or "Lassa fever":

(7) **Snake flu**, as it will surely become known, could turn out to be worse than all of those (emphasis added, *Daily Mirror Online*, 24th January, 2020).

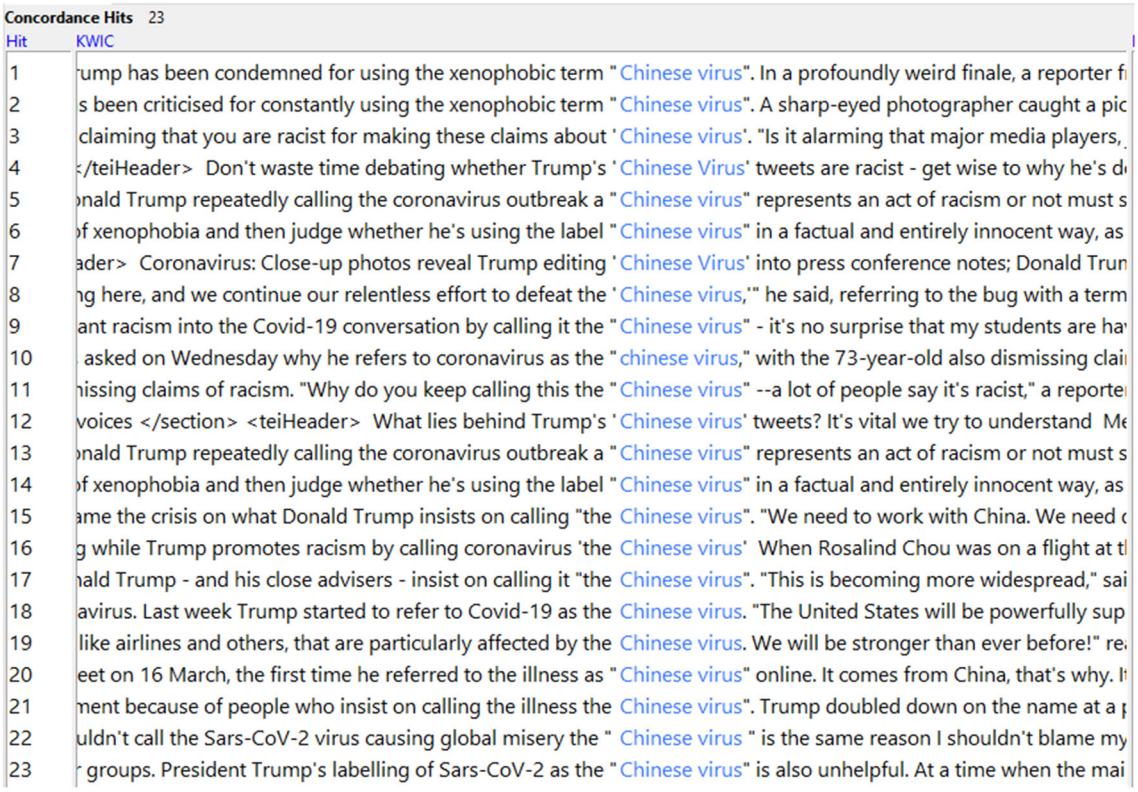
Like observed for "killer bug" above, all the mentions in broadsheets do, in fact, refer to tabloid coverage, and even though there are way fewer mentions in tabloids "post-naming" (and none at all after 2nd March, 2020), this lexical choice is salient enough to be explicitly commented on:

(8) [O]ne tabloid [is] seemingly desperate for the moniker **"snake flu"** to catch on, because snake flu sounds so much slicker and scarier than boring old COVID-19, doesn't it? Who the hell do these people from the WHO think they are, trying to be responsible with the naming of this illness so as not to create stigma? What do we want? **Snake flu**! When do we want it? NOW! (emphasis added, *The Telegraph*, 15th February, 2020).

The misnomer is particularly relevant for a wider discussion of the xenophobic assignment of blame for the pandemic since snakes feature saliently in the coverage of so-called "wet markets" as the potential source of the outbreak:

(9) Scientists who have been looking at the current coronavirus outbreak believe it comes from **snakes** and bats—animals that had been sold live at the Wuhan seafood market, before being killed and eaten (emphasis added, *Daily Mail Online*, 19th March, 2020).

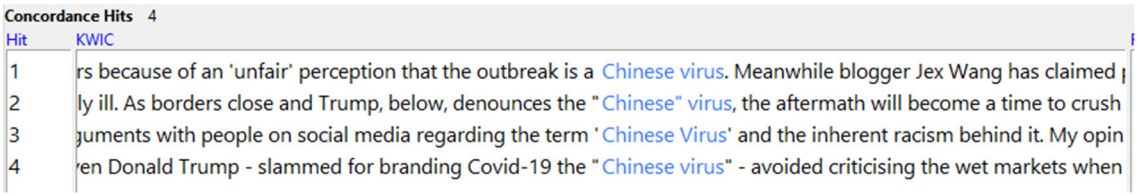
A full exploration of this is beyond the scope of this paper, but naming strategies pertaining to "wet markets" are ideological as well. As Lin et al. (2021) discuss, many of the so-called "wet markets," which are prevalent (not only) in east and southeast Asia, "sell only fresh produce and dead domesticated animals,"



Concordance Hits 23

Hit	KWIC
1	ump has been condemned for using the xenophobic term " Chinese virus". In a profoundly weird finale, a reporter f
2	s been criticised for constantly using the xenophobic term " Chinese virus". A sharp-eyed photographer caught a pic
3	claiming that you are racist for making these claims about ' Chinese virus'. "Is it alarming that major media players,
4	/teiHeader> Don't waste time debating whether Trump's ' Chinese Virus' tweets are racist - get wise to why he's d
5	nald Trump repeatedly calling the coronavirus outbreak a " Chinese virus" represents an act of racism or not must s
6	f xenophobia and then judge whether he's using the label " Chinese virus" in a factual and entirely innocent way, as
7	ader> Coronavirus: Close-up photos reveal Trump editing ' Chinese Virus' into press conference notes; Donald Trun
8	g here, and we continue our relentless effort to defeat the ' Chinese virus,'" he said, referring to the bug with a term
9	ant racism into the Covid-19 conversation by calling it the " Chinese virus" - it's no surprise that my students are ha
10	asked on Wednesday why he refers to coronavirus as the " chinese virus," with the 73-year-old also dismissing clai
11	issing claims of racism. "Why do you keep calling this the " Chinese virus" --a lot of people say it's racist," a reporte
12	voices </section> <teiHeader> What lies behind Trump's ' Chinese virus' tweets? It's vital we try to understand Me
13	nald Trump repeatedly calling the coronavirus outbreak a " Chinese virus" represents an act of racism or not must s
14	f xenophobia and then judge whether he's using the label " Chinese virus" in a factual and entirely innocent way, as
15	ame the crisis on what Donald Trump insists on calling "the Chinese virus". "We need to work with China. We need c
16	g while Trump promotes racism by calling coronavirus 'the Chinese virus' When Rosalind Chou was on a flight at t
17	ald Trump - and his close advisers - insist on calling it "the Chinese virus". "This is becoming more widespread," sai
18	avirus. Last week Trump started to refer to Covid-19 as the Chinese virus. "The United States will be powerfully sup
19	like airlines and others, that are particularly affected by the Chinese virus. We will be stronger than ever before!" re
20	eet on 16 March, the first time he referred to the illness as " Chinese virus" online. It comes from China, that's why. I
21	ment because of people who insist on calling the illness the Chinese virus". Trump doubled down on the name at a p
22	uldn't call the Sars-CoV-2 virus causing global misery the " Chinese virus " is the same reason I shouldn't blame my
23	groups. President Trump's labelling of Sars-CoV-2 as the " Chinese virus" is also unhelpful. At a time when the mai

FIGURE 1
Concordance lines for "Chinese virus" in broadsheets ("post-naming").



Concordance Hits 4

Hit	KWIC
1	rs because of an 'unfair' perception that the outbreak is a Chinese virus. Meanwhile blogger Jex Wang has claimed p
2	ly ill. As borders close and Trump, below, denounces the " Chinese" virus, the aftermath will become a time to crush
3	guments with people on social media regarding the term ' Chinese Virus' and the inherent racism behind it. My opin
4	en Donald Trump - slammed for branding Covid-19 the " Chinese virus" - avoided criticising the wet markets when

FIGURE 2
Concordance lines for "Chinese virus" in tabloids ("post-naming").

yet terminologically they "are often incorrectly conflated with live-animal or wildlife markets" (p. e386). Not only does this lack of differentiation potentially lead to a blanket-stigmatization of assumed "foreign" foodways (i.e., "alimentary xenophobia;" Chuvileva et al., 2020), the homogenization of all "wet markets" also makes it harder to create and implement policies targeting the relatively few which pose "a disproportionately large risk" (Lin et al., 2021, p. e392). The corpus does contain examples of this terminological conflation, also in broadsheets:

(10) "All the evidence gathered to date suggests that the now notorious Chinese "wet markets"—places selling live and dead animals for human consumption—provide an opportunity for coronaviruses to jump easily from animals to people." (*The Guardian*, 25th March, 2020).

Therefore, it would be interesting to analyze terms used to refer to the Huanan Seafood Wholesale Market in Wuhan (which is a "wet market, live-animal market, and wildlife market"; Lin et al., 2021, p. e386) in particular but also lexical choices around "wet markets" in general and to explore whether the UK press has a tendency to construe "wet markets" as "universally dangerous instead of recognizing specific practices within them as predictable

catalysts for preventable disease" (Chuvileva et al., 2020, p. 1).

Summary and conclusion

This study has analyzed the distribution of "neutral" vs. "inappropriate" lexical choices in early UK newspaper coverage of the COVID-19 pandemic, focusing on terms used for the disease and the virus causing it. Overall, about 9% of all terms are "inappropriate," with a stronger prevalence in "pre-naming" vs. "post-naming" and in tabloids vs. broadsheets. Furthermore, terms inciting undue fear and those containing geographic locations are particularly prevalent in terms of relative frequency. A closer look at the discourse context for selected terms ("killer bug," "Wuhan (corona)virus," Chinese (corona)virus' and "snake flu") revealed that broadsheets tend to explicitly distance themselves from these terms, unambiguously evaluating them negatively (particularly "post-naming"), while tabloids tend to not problematize naming choices and also distance themselves from a negative evaluation of "inappropriate" terms by attributing the evaluation to someone else.

There are still multiple aspects of the rich dataset that were not explored here—apart from the naming choices around "wet markets" briefly discussed above, this includes the dispersion of terms (e.g., within individual articles or newspaper sections), semantic prosody, the analysis of images, or a closer analysis of "inappropriate" terms such as "killer virus" and how they are embedded in other "fear-inducing" language often found predominantly in tabloids (see, e.g., Wahl-Jorgensen, 2020). Lastly, it would be interesting to analyze articles explicitly covering Sinophobic and Anti-Asian incidents and hate crimes in terms of their construal in tabloids vs. broadsheets.

Data availability statement

The original contributions presented in the study are included in the article/Supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

UK conducted all analyses presented here and was the only one involved in the composition of the manuscript.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/frai.2022.970972/full#supplementary-material

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Imagining the city in lockdown: Place in the COVID-19 self-recordings of the Lothian Diary Project

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The COVID-19 pandemic brought about a profound change to the organization of space and time in our daily lives. In this paper we analyze the self-recorded audio/video diaries made by residents of Edinburgh and the Lothian counties during the first national lockdown. We identify three ways in which diarists describe a shift in place-time, or "chronotope", in lockdown. We argue that the act of making a diary for an audience of the future prompts diarists to contrast different chronotopes, and each of these orientations illuminates the differential impact of the COVID-19 lockdowns across the community.

KEYWORDS

COVID-19, pandemic, lockdown, narrative, chronotope, diary, time, place

Introduction

The COVID-19 pandemic brought about a profound change to the organization of space and time in our daily lives. The onset of the pandemic saw restrictions to mobility at both local and global levels, severely impacting everything from daily commutes to international travel. In the lockdowns, we spent the longest periods of our lives in the smallest amount of space. Our interactions with the physical environment changed. For many, lockdowns entailed shifts to learning and working from home, but the perception of space also changed for key workers working outwith the home. The subjective experience of time began to change as well, apparently shrinking and expanding. It is not surprising that many people began to rethink their understanding of place, by which we mean space imbued with meaning and emotional attachment (Cresswell, 2015).

The Lothian Diary Project collected audio and video self-recordings about COVID-19 from May 2020 to July 2021. The only criterion for participation was residency in Edinburgh or the Lothian counties (Scotland), so contributors may have been primed to reflect on place, in particular. The present paper describes how lockdown affected diarists' experience of place and time, and how they represent this change. To capture the distinct discourses of place that appear in the narratives, we draw on Bakhtin's notion of the chronotope (1981). Chronotopes are "descriptions of the looks, behaviors, actions

and speech of certain characters, enacted in specific timespace frames" (Blommaert and De Fina, 2017, p. 3). We argue that diarists use chronotopic shifts to express emotion and to signal their attitude to social restrictions. Our analysis of a specific subsection of participants finds three distinct chronotopic shifts expressing how the experience of space and time changed for these diarists during lockdown. International students, in particular, were found to have shifted from experiencing the city solely as a place to study toward claiming ownership over it as a place to live. Secondly, retirees notably shifted their busy schedules of activities from the physical world to the virtual world, finding it a satisfactory and, for safety reasons, necessary substitute. And finally, men resident near the city center expressed a sense of having lost freedom of movement and choice as a result of lockdown.

The Lothian Diary Project

A full description of the Lothian Diary Project corpus and the methods of its collection is available in Hall-Lew et al. (2022). Participation was open to any resident of any background (and any language) residing in the city of Edinburgh, Scotland's capital (2020 population, 488,050) and its surrounding counties, known as the Lothians (2020 population, 413,405). The LDP is comparable to other COVID-19 diary projects that have a geographical locus (e.g., Sneller et al., 2022) and distinct from diary projects that have a wide geographical distribution (e.g., Faircloth et al., 2022). The data collection process was geared toward public engagement: prioritizing financial support for participants and local charities, offering free citizen science training and awards for young people, producing a report and roundtable event for the Scottish Parliament, and creating an oral history archive. The multidisciplinary academic team of sociolinguists, data scientists, political analysts, and health scientists are using the resulting corpus (Hall-Lew et al., 2021) to address a range of theoretical and methodological questions (Markl and Lai, 2021; Hall-Lew et al., 2022; Markl, 2022). For the purposes of the chronotopic analysis we employ in this paper, it is important to note that all of the diaries analyzed in the current paper were recorded between May and July 2020 (the latter months of the first lockdown in the Lothians), unlike others in the full sample which were made between August 2020 and July 2021, a period during which public policies and public attitudes toward COVID-19 shifted considerably.

Recruitment of the diarists took place through word of mouth, radio and social media advertisements, and in some cases through charity partners who were working with those most severely affected by the pandemic (e.g., unhoused people, people usually reliant on various support groups and social services which were disrupted by the pandemic). These local charities recruited their clients for participation and assisted with recordings in exchange for extra financial compensation. Participants recorded themselves speaking in response to questions posted on the project's website:

Audio/video diary prompts

- How has your life changed during lockdown?
- What was a typical day like before lockdown, and what's it like now?
- What's been the hardest part for you during lockdown?
- Have you learned any new skills or taken up any new hobbies?
- Have you been working from home? Has it been challenging?
- Have there been any bright spots about the lockdown?
- Who are you in lockdown with, and how are they doing?

Some answered these prompts directly, like a self-interview; others addressed them more abstractly. On submission, participants could opt in to the inclusion of their diary in an oral history archive. The diaries were transcribed automatically and then checked by hand. Ongoing analysis of audience design (Hall-Lew et al., in prep) finds a wide range of genres represented by the collection of what we call "diaries" for simplicity's sake. These include video recordings stylized like vlogs (Pihlaja, 2018), recordings framed as broadcasts (e.g., "shout out to the NHS"), and recordings designed for a historical archive (e.g., "maybe 1 day when you hear this you'll get an idea of what it was like in 2020"). However, most entries were less overtly oriented to any particular audience and therefore more "diary"-like in style, even though they were one-off accounts instead of a more conventional personal diary with regular entries. For example, roughly half of the contributions begin with a greeting ("Hi" etc.), and for most of them this is the only audience-directed utterance in the recording; for the other half, there are none at all. After recording the diary, participants uploaded the file and completed a survey of demographic questions and questions about lockdown experience.

For this paper, we focus on the transcripts of those diarists who were living alone at the time of making their diary ($N = 36$ of 195). The effects of isolation were a common topic in the early days of the pandemic and it will take many years before we fully understand them (see Ganesan, 2021). We decided to start our analysis with the "living-alone" sample, as their diaries are more reflective of their personal experience—potentially including senses of place and conceptions of time-space—rather than focused on the changing interpersonal dynamics of members of a household. At the outset of our more in-depth analysis of the diaries, we wished to avoid singling out a demographic. The "living alone" sample is mixed in terms of age, gender, sexuality, ethnicity, and residential status.

We are able to draw the sample reliably because diarists had to provide information about occupancy on the accompanying

survey. However, most of the diarists in the sample announced their lone status very explicitly. Even though the question about cohabitants is the last of the prompts, diarists tend to announce it at the start of their diary, as part of a surprisingly uniform introduction routine. A typical diarist in our subsample will give their name, sometimes their area, note that they are living alone, and express themselves fortunate to not be as adversely affected by illness as others, before describing their lockdown experience. In the section Place in the LDP and in the "living alone" diaries we elaborate on the role of place in the diaries, and especially in the subsample used for this paper. In the section Chronotopic analysis we outline some of the applications of "chronotope", especially in narrative analysis. In the section Shifts in chronotopic orientation, as a unit of analysis, the chronotope allows us to explore different identities that are linked to representations of place. We will see that the act of making a diary (possibly for an audience of the future) prompts diarists to produce different chronotopes, and in our analysis we attempt to map the relations between those chronotopes. In the Discussion section, we take into account the material conditions of the diarists, and their demographic characteristics, to understand the ideological positioning that is signaled by chronotopic shift.

Place in the LDP and in the "living alone" diaries

In our early exploratory analysis of the LDP data with the the Edinburgh Geoparser[1], a natural language processing tool developed to identify place name references in English text[2], we found that the majority of place name mentions (53%, $n = 438$) were actually of locations outside of the UK, as contributors talked about video calls with friends and family abroad, and canceled travel plans. Certainly the LDP diaries, like any discourse of the pandemic, reflect the global increase in virtual connectivity accompanying the global loss of physical mobility (Scott et al., 2022).

Given that residency in Edinburgh and Lothians was a requirement of participation, there is perhaps less mention of places in Edinburgh and the Lothians than we might expect: 31 mentions of locations within Edinburgh, 122 mentions of Edinburgh itself, and 18 mentions of locations in the Lothian area. As Cresswell notes, place is typically described in terms of "[n]eighbourhoods, villages, towns and cities", because they are "small in scale, but not too small" (Cresswell, 2015, p. 18). Neighborhoods do not appear to dominate these discourses of the pandemic, in contrast to their prominence in the interviews of previous sociolinguistic projects in Edinburgh (e.g., Esling, 1978). Given media reports of real and perceived increases in community cooperation during the first lockdown[3], we expected to find stories of specific neighborhoods pulling together. Such accounts are not prevalent, however. We found only one in the living-alone sample (1), and the location is not in fact mentioned.

(1) Jess[4]
"I worried about my wee town that there wasnae any community spirit and, you know, we just didnae help each other oot and scratch each other's back and do wee favors. You know like, if you're going doon to the shop you w- and get Wee Maggie a loaf of bread and, a pint of milk and, you know, I was worried that all of that was disappearing and our world was fully technology and we were becoming quite cold and that and not acting properly with people. But through this—it it shows me that our wee community can rally together and become really, really strong."

With three exceptions, the diarists of the "living alone" sample started with a mention of their inner city area or suburb, and a mention of Edinburgh, e.g., "I live in Leith, in Edinburgh". University students referred to the "University of Edinburgh" or simply "the university". This suggests that they are primed to discuss the city, although we will see that the *ways* in which they talk about the city vary considerably.

Most of the living alone sample recorded diaries from their homes. Two outliers were Jonathan and Veronica who were in temporary accommodation at the time of recording. Both experienced very extreme and literal displacement during lockdown. For Jonathan, who suffered a psychological breakdown during lockdown and became homeless, there is a stark contrast between Edinburgh and "wandering the country" (2).

(2) Jonathan
"During the lockdown I was actually homeless and I spent quite a majority of the first part of it wandering the country. I was suffering a breakdown and I lost all my possessions. Eventually when I came to Edinburgh I was hospitalized, suffering from extreme breakdown and diagnosed with bipolar. Since then I was passed on to the council and they're providing me with temporary accommodation currently."

For Veronica, a recovering addict who relied on charities for food and temporary accommodation, lockdown meant daily travel right across the city, first on foot, and then by bicycle (3).

1 https://www.ltg.ed.ac.uk/software/geoparser/

2 With thanks to our colleagues on the Lothian Diary Project Team: Clare Llewellyn (School of Social and Political Science and Edinburgh Futures Institute) and Beatrice Alex (School of Literatures, Linguistics and English Language, and Edinburgh Futures Institute).

3 https://www.bbc.co.uk/news/uk-scotland-54161706

4 Diarists who opted to be public are referred to by their first name, and others are provided with pseudonyms.

(3) Veronica
"The hardest part of lockdown for me [. . .] physically to walk three and a half miles to get food and three and a half miles back. I struggled but I did it and I never thought I would have been able to do, especially going up the hills and everything in Edinburgh. But I did it, slowly but surely, I did it. [. . .] Again, going back to the charities who helped me with that donated bicycle, the bicycle was the real gift. I took to it really well. Again, a major struggle going up the hills, but I just persevered and had a lot of fun coming back down them and my food would still be hot by the time I would get home."

Veronica's experience of the city is evidently transformed. However, the shifts in time-space that the remainder of the "living alone" diarists describe, emerge from a highly confined and isolated experience, often driven by the shift of work, and other routines, into the home and online[5] We will see that diarists express these changes in space and time in different ways, and with different stances. Their representations of the city are abstract, often to do with desire, rather than events or stories. This quality means that chronotopic analysis is most suitable for our analysis of place. In the section Chronotopic analysis, we review studies that have explored the role of chronotopes (and related concepts such as figures of personhood) in narrative.

Chronotopic analysis

Bakhtin (1981, p. 84–85) use of *chronotope* or "timespace" is concerned with "the intrinsic connectedness of temporal and spatial relationships," initially focused on literary analysis. This concept is connected to Bakhtin's theory of *heteroglossia*, the multivocality (i.e., complex indexicality) of every act of speaking. Every utterance occurs in a timespace that constrains or enables its legibility. A literary analyst can use chronotopes to identify when different fictional events are in "dialogue" with one another. Extending Bakhtin's application in literature (Blommaert and De Fina, 2017, p. 3), the concept was taken up in sociology and anthropology with a focus on social types (e.g., Goffman, 1981), or as a "nexus [...] of time, space, and identity" (Schiffrin, 2009, p. 421). The imagined speaker (narrator or narrated) of a timespace frame has been described as a "figure of personhood" (Agha, 2007). This figure of personhood (and thus the chronotope), which is not always overtly referenced, can be indexed through appearance, behavior, demeanor, character and practice (Park, 2021, p. 49–51). Something as small as a certain phrase (Blommaert and De Fina, 2017) or the pronunciation of a name (Rosa, 2016) can index a chronotope.

Here we are most interested in approaches that foreground a geographic location or place in the chronotope. Britt (2018) examines "discourses of place" and chronotopic representations of Flint, Michigan, "that cast the locale (Flint) as a certain type of place (i.e., "apocalyptic" and in decline) populated by a certain type of person … at a certain moment in time" (Britt, 2018, p. 253). This chronotope is the way residents of Flint depict the views of outsiders, and they then counter this view in their own narratives, distancing the views of the outsider through the use of reported speech.

Narrators use chronotopes to relate everyday human experience to what (Bakhtin, 1981, p. 208) called "the collective historical life of the social whole" (Pritzker and Perrino, 2021, p. 367). LDP contributors reflect on the everyday reality of the lockdown, but their act of contributing a diary to the project orients them to the collective historical life of the social whole not just of Edinburgh, but also the pandemic. Because these are snapshots, taken toward the end of the first lockdown, they differ from the "coronatopes" universally experienced over the course of the pandemic, such as the daily graph of cases and deaths, the calculations of quarantine periods, the passage of subsequent lockdowns, even the order of the variants (Weichselbraun, 2022).

One might expect the LDP diaries to be comparable to other chronotopes of crisis, for example showing a chaotic narrative structure (Goldstein, 2012). However, in a separate analysis (Hall-Lew et al., in prep) we find very few chaotic narratives among the LDP contributions. We suspect that this is because the nature of the crisis in most cases is more existential than imminent: everything is happening and yet nothing is happening, because at the time of speaking the speakers' movements are (unusually) restricted. None of the LDP contributors, and none of their immediate family, were suffering from COVID-19 at the time of recording. The chronotope is specifically about the conditions of lockdown, not crisis.

This is contrast to the COVID-19 diaries collected by the Mass Observation Archive which show an "ebb and flow of consciousness" (Pattrick and Scantlebury, 2021), as they were collected collected at points over a period (Barnett and Clarke, 2021; Sneller et al., 2022), when experiences with COVID-19 were constantly in flux.

Among the contributors to the Lothian Diary Project during the first lockdown we see connections to other chronotopic representations of cities as being at a "standstill". As Weichselbraun (2022) observes, "stopping movement in space also somehow produced a sense of stopping time, by stopping/interrupting our quotidian activities, the streets were dead". The main chronotopic shift into lockdown was that time seemed to change quality, or operate differently, than it had before. Weichselbraun notes that her students in Vienna divided time into before and after lockdown. The LDP website prompted diarists to distinguish between pre-lockdown and lockdown,

5 https://www.bbc.com/worklife/article/20201023-coronavirus-how-will-the-pandemic-change-the-way-we-work, https://post.parliament.uk/the-impact-of-remote-and-flexible-working-arrangements/, https://www.theguardian.com/money/2021/dec/30/how-the-pandemic-transformed-the-world-of-work-in-2021.

motivating the production of opposing chronotopes, but also motivated by our research team's own experiences. "Before lockdown" and "lockdown" become distinct chronotopes in which space and time are organized differently, much in the way that previous work has shown between different cultures (Schiffrin, 2009, p. 423) or different historical genres (Bakhtin, 1981; Park, 2021, p. 53).

In all the recordings analyzed here, speakers employ shifts in tense and shifts in deixis to "zoom in" and "pan out" of time and space (Pritzker and Perrino, 2021). In doing this they move from their present reality closer to and further away from imagined ideas of Edinburgh and their local area. De Fina (2021) describes how "through narratives, participants bring to bear in their present interactions worlds and historical moments that belong to different geographical and temporal scales" and in so doing "create new understandings of reality and also new patterns of social interaction" (2021, p. 60). Pritzker and Perrino (2021) show how the narrator Moreno, an Italian fashion executive, shifts between chronotopes, interweaving his company's history and his family's history with an "imagined collective identity" (p. 371). Moreno uses biological metaphors such as "it's in our DNA" to connect his personal body to the public world of Mantua and of the "Made in Italy" national brand (Pritzker and Perrino, 2021, p. 368–375). We notice a similar process in which LDP diarists take affective stances (Du Bois, 2007) toward pre- and post-lockdown chronotopes, constructing an ideological position on the pandemic. Park (2021, p. 48, 50) notes how understanding imagined figures of personhood and their chronotopes, with reference to the material conditions of the speaker, facilitates a critical analysis of the political processes underlying society. As Creswell says: "Place, at a basic level, is space invested with meaning in the context of power" (2015, p. 19).

Our observations of the time-space frames by diarists in the LDP show that they typically produce at least two chronotopes in their narrative, imaginings of the city prior to lockdown and imaginings of the city in lockdown. We are interested in this distinction, or the shift between these chronotopes, and what ideological positions it makes possible for diarists: in particular, whether they are supportive of the government's lockdown policy, or not. In the following analysis of the 36 diarists living alone, we have identified three of these shifts in chronotopic orientation, which are not exhaustive, but seem to represent three quite different kinds of experiences of lockdown.

Shifts in chronotopic orientation

Edinburgh as a place to study vs. Edinburgh as a place to live

In the living-alone sample, nine diarists had a temporary residential status (as indicated on the accompanying survey), and all but one of them talked about a fresh encounter with their material environment, in which they renegotiated their position toward the city. Tengfei, a doctoral student, says "the good thing is Edinburgh became very quiet and I can just walk around the city. Uh, you know, enjoy the city and see". Shuxin "felt grateful that I'm living in a city, Edinburgh, where it's not so chaotic or so huge as in London". A more elaborate description of the new cityscape by Catherine, a student from Brazil, involves many shifts in perspective (4). The sea is brought closer ("just half an hour away") but then walks open up with parks, and parks open up with lakes. We are then brought back through proximal deixis to "this very tiny room".

(4) Catherine
"I think that the lockdown, er, helped me to truly know the city I have been living for almost a year now. When I arrived in Edinburgh last September to pursue a master's degree, I didn't have many chances to visit spots other than the main touristic attractions, and during my academic year my usual route was from the student accommodation to George Square, stopping by the supermarket, and I also used to go to the swimming pool three times a week. It felt like I was an international student living in, in a city, with a well-known university. But during lockdown, I committed myself to go for a walk, every day, in order to exercise, and then I had a chance to know a city that was totally new for me. I discovered that my place was just half an hour away from the sea. I found lovely {parks} in Water of L- Leith walks, lakes that I've never seen before in Holyrood Park, and for the first time since I arrived, I really felt part of this place. . . . I think that lockdown was certainly a challenge for me because I was away from home, and I had to spent most of my time in this very tiny room. But, if it wasn't for it, I wouldn't have a chance to really experience Edinburgh, and feel like this place, is also mine."

Another student, Patricia, a postgraduate student from Hong Kong originally; living in the Lothians since 2017, speaks of a new attention to her environment, and in the same way, reflects on how this makes her feel about Edinburgh (5). She talks about a feeling of "how it is to live in Edinburgh", creating a contrast between studying in the city and living in the city.

(5) Patricia (translated from Cantonese)
就其，某程度上多、多去，真去感受Edinburgh生活感
It turned out that, to a certain extent, I had more time and opportunity to feel how it is to live in Edinburgh
即比留意多，即呢境、身人、身啊,
I paid more attention to the environment, the people around and the shops around.
即就算人，都多去察,
Even when the shops were closed, I would still observe that
哦，原呢度有，哦到lockdown完都想、想去呢睇一睇
oh, there was such a shop here, I would want to come here and have a look after the lockdown.

我得呢可以lockdown，其中一改我地方，
I would say this is a change that I had during the lockdown,
就，就我依家好享受即自己一落街行
I really enjoy walking alone on a street now,
就好似好漫目的行
walking as though there isn't a purpose,
粹for想更加感受下呢城市
Purely for experiencing/feeling this city more.

For newcomers/temporary residents, because their primary locus is elsewhere, they may previously have been inhibited from exploring in this physical, sensory way. Catherine, too, draws a parallel between two city-chronotopes (see Pritzker and Perrino, 2021, p. 380 on parallelistic structures). One is the city with a well-known university, and the figure of the international student, where time and space is chunked into student-related activities. These take place in, for example, the library, and "touristic attractions", where the emphasis is on socializing rather than sensory experience. Timespace previously distanced from the material world because of this international student lifestyle and identity, shifts to become more concrete, or closer to the timespace of the material world (Park, 2021, p. 53).

In the chronotope of lockdown conveyed by Tengfei, Shuxin, Catherine, and Patricia, the figure of the international student is backgrounded, and the figure of an Edinburgh resident emerges. In contrast are international students who do describe the lockdown chronotope in terms of loss rather than gain. Rajesh, a postgraduate student from India, describes a vacuum created by the lockdown:

(6) Rajesh
"This is too much to handle. I can't go to the library, and I avoid gatherings and everything, can't do much of things. There's no lectures, there's no activities, no football, no sports, nothing."

Rajesh is oriented to a very different lockdown chronotope than the other international students see so far. His description in (6) frames the lockdown period as deeply overwhelming, "too much to handle." And yet that which is "too much" is not an overwhelming abundance of something, but the absence of everything. Rajesh's lockdown storyworld is constructed as "nothing", a nothingness that is discursively enhanced by the parallelism of the four "no X" constructions immediately preceding it. Virtual space is not entertained as a possible new space, but rather the absence of space: "no lectures" erases the existence of online lectures, and "no activities" erases all student-oriented activities that were moved to virtual spaces. Another student, Siu Ming (speaking in Cantonese), says that his friends and classmates "were not used to being alone, staying home all the time, working at home, studying at home etc. I did try my best to help them". The parallelism of "at home" is similar to Rajesh's parallelism in the way it conveys stasis, but it is less bleak, in that there is a something, and not just nothing. The chronotopic contrast that both Rajesh and Siu Ming orient to frames the lockdown timespace as a loss, whereas the other students frame the lockdown time-space as a gain.

Although Catherine is still an international student at the time of speaking, she distances herself from her life as an international student through use of the past tense ("I was an international student living in, in a city, with a well-known university"). Her de-identification with this figure and its chronotope evidences a shift and re-negotiation of identity (Blommaert, 2015; Blommaert and De Fina, 2017). For both Patricia and Catherine, there is a transition from actions ("my usual route was…") to experiences ("I discovered…"; "I paid more attention…") and feelings ("I really felt…"; "I really enjoy…") and, for Catherine, a transition to a new identity ("part of this place"). When Patricia says she enjoys walking alone, she shifts into the present tense. For these speakers, the lockdown chronotope is characterized by possibility and change. This negotiation is different for Rajesh, who does not identify any new identities available in the lockdown chronotope ("nothing").

Physical place can be replaced by virtual space

For many diarists, activities that constitute important parts of their identity have moved online, and this is foregrounded in their diaries. While some students framed this change in a wholly negative way (6), diarists in retirement described the impact of this particular shift quite differently. Previously, few if any of their daily activities and social actions took place in virtual space.

Alistair is an older male who retired to a small town in the Lothians just before the pandemic. Although (like the students above) he is not long in the area, he sees himself as someone who will live out his life there and be an active member of the community. He announces this intention as he opens the diary, and then lists the range and extent of his activities pre-lockdown (7), emphasizing the importance of having a full schedule and "keeping busy". At the center of this is attending services in the local church. Strikingly, and in contrast to Rajesh's sentiment in (6), Alistair expresses satisfaction that he can continue with the new community that he has acquired and its local character, online, in lockdown:

(7) Alistair
I retired from business recently as now I'm 73 years old and I wanted to contribute to my local community, meet new people as I'm an– as I am a new boy in Haddington and have an interest in activity. I helped at a day care center, and packed food parcels at a nearby food bank in Tranent, and also volunteered as a greeter at the local NHS hospital in Haddington. These activities kept me busy 5 days

per week. In addition, other activities centered around the local Holy Trinity church of which I am a new member of the congregation. When the virus struck and lockdown and isolation became the rule I was forced by my age to stop all the voluntary activities. And then the church was ordered to close… The Rector at Holy Trinity started offering Eucharist services on zoom. That was an excellent substitute for attending the service in the church and a fine opportunity to see new friends in the congregation and chat informally after the service time."

Sheila is also a retiree, and she presents herself in a similar way as someone with a busy life. Although this is not so explicitly linked to place as the speaker from Haddington, she opens by mentioning her suburb of Edinburgh, and certain activities that are attached to very specific locations such as volunteering at "Oxfam bookshop".

(8) Sheila
"Before lockdown, I led a really busy life. Retirement opened up time for all sorts of groups and classes. I have done history {work}, pottery and gallery tours among others. I am a Taoist Tai Chi instructor and attend classes four times a week as well as traveling in GB and Europe to workshops … Swimming has always been one of my activities. I usually swim three or four times a week… I volunteer in Oxfam bookshop one afternoon a week. Theaters, films, and meals out with family and friends also keep my diary pretty filled. Like many retired people, I wonder where I find time to work … I go to virtual theater, ballet, and opera a couple of times a week. Sometimes I coordinate this with friends and we virtually share a wee glass of wine, or two, if we're watching something on YouTube."

As Sheila lists her pre-lockdown activities (8) she switches from simple past ("opened up"), to present perfect ("have done") to the habitual present ("usually swim"). Notably, her lockdown activities are delivered in this same habitual present ("we virtually share"). Alistair uses the simple past for pre-lockdown and lockdown activities. Neither therefore use tense to distinguish between their daily routine pre-lockdown and post-lockdown.

Although in her diary Sheila also talks about missing physical contact, and the difficulties of social distancing with her grandchildren, some aspects of her busy schedule can be moved online. For certain activities such as theater, which are not only for entertainment but for socializing, she creates a parallel structure (Pritzker and Perrino, 2021, p. 380) in her narrative of pre-lockdown and lockdown. Both speakers work to keep their previous schedules the same in lockdown. Space has changed from the physical to the virtual, but the experience of time is presented as staying the same, and the experience of place is presented as being a satisfactory substitute.

Edinburgh was all about freedom and choice

Andrew, also retired, mentions three pubs in his area by name, following an introduction in which he mentions his area of the city and how long he has lived there (25 years). As a response to the prompt "what have you missed?" he lists places he would visit, even the days of the week that he would visit them, and the activity involved (9).

(9) Andrew
"Erm I miss good beer and, and going to pubs like, er, Sandy Bell's on a Friday night or, er, on Thursday night the Antiquary, and, er, I miss the music that was played there, and I miss reading a newspaper late at night at The Stockbridge Tap, that was another, erm, er, enjoyable thing to do. Trips to the cinema, erm, again this is something which I did quite frequently, maybe at least once a month."

This is similar to the older speakers in the section Physical place can be replaced by virtual space, with their full and busy lives, but this speaker dwells on activities which can't be replaced with the virtual version, partly because the specific location is constitutive of the activity, and also likely because the communities linked to that are not comprised of known individuals, but shifting populations of similar characters. The timing of these activities is necessarily unstructured so as to provide choice. It is more than just a question of different activity types, however; all of the diarists have a mix of activities. It is not a resistance to technology (Andrew later discusses communicating with friends and family online) or a resistance to socializing (he is in a "bubble"[6] with a friend). Rather, diarists like Andrew are drawing attention to those activities which cannot be made virtual; aspects of a particular neighborhood chronotope that were lost in lockdown.

The pre-lockdown lifestyles of choice described in this section are of course more characteristic of those living-alone, but urbanization and choice takes on greater significance in lockdown. The COVID-19 lockdown created a chronotopic shift from a place of choice to a place of restriction, and this is seen most acutely for those living closer to the city center. Postcodes show that all the diarists we mention in this section live relatively close to the heart of the city. In Nick's discussion of entertainment options that are no longer available, he begins with a general discussion of cafes, explaining that he suffers from anxiety and felt ambivalent about cafes even before the pandemic. So when he moves onto missing pubs (10), he talks about what they represent ("such a cozy atmosphere"), rather

6 A "bubble" was "a network that links 2 households" (GOV UK) which was introduced during COVID-19 to allow for social support while also limiting social contagion. https://www.gov.uk/guidance/making-a-support-bubble-with-another-household.

than giving a faithful account of changes to his own routine. This idealization of the pre-lockdown possibility of going to a pub is then linked with the city ("such an Edinburgh experience").

(10) Nick
"I still haven't really been to pubs. I mean, I know they're closed now, but I haven't really been to pubs, erm, very much because as we can see they're, they're not safe intrinsically, inherently. So those aspects, I mean ((it could)), coming into winter in Edinburgh it's actually very sad that the pubs closed, because, er, they represent such a cozy atmosphere, such a Edinburgh experience ((is)), you know, going to a Victorian wood-cladded pub with a fireplace perhaps and having a nice bi- bitter."

Nick's commentary on pubs and what they represent is delivered in the present tense, compared to his narrative of lockdown, which is in the past tense ("nothing fundamentally changed") with an occasional note in the historical present ("you're stuck. That's it. You stay inside"). As they reflect on their lives and routines before the government-imposed lockdown, in which traveling around the city was a regular feature of their day-to-day lives, these participants, all of them male, discursively construct Edinburgh as a place full of possibilities. The exercise of choice between these possibilities is an important part of their identity. The connection to gender is supported by corpus analysis[7] which shows that in the entire set of diaries there is a quantitative tendency for men to use the word "choice" more than women, and other research (e.g., Collignon et al., 2021) showing less support for lockdown measures in the UK among men than among women. In their LDP diaries, these men look back to their quotidian activities pre-lockdown and long for the autonomy of that life. Fergus observes that their world has literally become smaller, but with the loss of choice it is metaphorically smaller too ("because your world becomes a lot smaller your choices diminish") (11).

(11) Fergus
"Before the Lockdown, life was what now seems very different but then was normal. Life was very busy and it was all about freedom and more than anything choice . . . Erm, I work shifts so some days I might reward myself with a long lie, some days I may be up for work really early. I might go to the gym, erm, shopping I need to get in. Visiting people, maybe go outdoors for a walk. Life is very mixed. And, again, it's that freedom and that choice that I speak about. You could create your own day and almost overnight that that freedom was gone you could still- could still go outside during lockdown but the choice was gone. You no longer had the choice, "will I go to the gym? will I stay inside? will I go and see a friend? will I take a walk myself? will I go and visit sister and brother-in-law? will I go and visit parents?" that— the choice element, I think is the main difference, you know, your world becomes a lot smaller and because your world becomes a lot smaller your choices diminish. You–you can't choose to do the same things that you would normally do when you're only talking about being able to go into a much—a much smaller area than you would previously have at your disposal."

Fergus clearly has difficulty situating the choices that he values about his lifestyle in the past. His first mention of pre-lockdown is in the past tense ("life was very busy"); but this is followed by the habitual ("I work shifts"). He lists the choices of pre-lockdown life in the subjunctive ("some days I might reward myself") with occasional shifts to the present ("life is very mixed"); in some places he apparently abandons tense altogether ("visiting people"). With reference to the period of lockdown, he quotes his no-longer-available options in the future tense ("will I go to the gym?").

In shifting to an impersonal "you" halfway through, he "tries to generalize his situation to that of others" (Piazza, 2019b). The locations given in (11) are rather generic (gym and shops), but later in the diary he changes the scale (Pritzker and Perrino, 2021), going from the loss of personal choices to the loss of choices "people" make in Edinburgh the city, panning out to the region, the country (12).

(12) Fergus
"Are people not gonna want to travel as widely around the city, around the region, around the country? are people not gonna want to meet up with friends, and maybe just go to an art gallery, go shopping, go for lunch because they're so accustomed to staying at home? Will we see an end to the Edinburgh Festival?"

The loss of the potential choices offered by the city leads Fergus to imagine the transformation of the city itself, and cities in general. The loss that he describes in (12), now experienced by a collective "we", culminates in the imagined loss of the Edinburgh Festival, an annual, world-renowned arts and culture festival. The relationship of Edinburgh residents to the Edinburgh Festival is certainly complex, but the identity of the city is nevertheless bound up with the festival (Jamieson, 2004). The picture Fergus paints in (12) is of Edinburgh as a place in a dangerous flux – one whose identity is undergoing significant change and whose future is uncertain. The COVID-19 lockdown measures are ideologized as potentially dangerous, by extension.

Discussion

Our analysis identified three ways in which those living-alone experienced a change in the organization of time and space before and during the first Covid-19 lockdown. In the first, international students are seen to shift away from their

7 With thanks to our colleague Clare Llewellyn (School of Social and Political Science and Edinburgh Futures Institute).

international student identity, with its highly structured time-space chronotope, taking on the outlook of a local, entitled to walk unspecified streets at their leisure. In the section Physical place can be replaced by virtual space, a small sample of retirees are seen to embrace a shift to virtual space in order to keep up their busy pre-lockdown social schedules. In the section Edinburgh was all about freedom and choice, a small sample of men living close to the city center experienced a loss of free unstructured time and space. While a robust analysis of demographic differences would require a larger sample size, the cases here demonstrate just some of the striking diversity in experiences of time and space in the first COVID-19 lockdown among residents of one geographic location.

We have talked about a shift in chronotopic orientation, rather than a metamorphosis or total transformation, because these subjects have not arrived at an entirely new identity: they are experiencing liminality, "the existential state of being caught between different times and spaces" (Piazza, 2019a, p. 3). Cox and Perry (2011) have described how, in the wake of disasters, and in the liminal period before a new identity is reconstructed, subjects struggle to put together identity markers. The COVID-19 lockdowns placed every member of society into a kind of liminality typically only experienced by the marginalized. Everyone was momentarily made to "strip[] off their ordinary identities, roles, and positions" (Eksner and Orellana, 2005, p. 2), and thrust into "the change process", when a person is "in between two identity constructions: when they are neither one thing nor the other" (Beech, 2011, p. 286). The "world of the telling" (Perrino, 2005) in each LDP diary is a liminal space-time in which the individual reflects on both life-before-lockdown and life-in-lockdown. This "narrative practice" (De Fina, 2021) is also a "liminal practice" (Beech, 2011) where diarists negotiate new place identities. The relationship between structure and agency was radically impacted by the COVID-19 lockdowns, and individuals negotiate the resulting liminality through chronotopic discourse. While previous work has focused on liminality resulting from migration and displacement (e.g., Koven, 2019; Piazza, 2019b), here we see individuals responding to an unsettling liminality experienced within the home; forced sedentarism as opposed to forced mobility (see Britain, 2016).

As liminal practices, discourses around lifestyle changes express ideological positions on speakers' situation in relation to the pandemic. Their act of speaking is situated in material conditions (Park, 2021, p. 48, 50). The diarists of these three sections, though in a number of ways materially secure, are all in their own ways members of marginalized communities, whether due to race, nationality, age, or their shared characteristic of living-alone, excluded from many popular discourses of the pandemic, e.g., homeschooling, getting along with people in a confined space. Most of them go out of their way to signal that they feel fortunate in comparison to others who are suffering more for reasons related to the pandemic. Most also appear to embrace their liminality, as in (4) ("lovely…I really felt part of this place") and (5) ("I really enjoy walking alone on a street now"). Or, they deny it altogether, as in (7) ("an excellent substitute for attending the service in the church and a fine opportunity to see new friends") and (8).

At the same time, each speakers' diary simultaneously constructs a position on their marginalized status. For example, while the retirees in the section Physical place can be replaced by virtual space were able to maintain their pre-lockdown schedules by virtue of their access to resources and technology, their advanced age also made them especially susceptible to the worst effects of COVID-19. We suggest that narratives describing successful transitions to the virtual are not trivial, but rather that they enact a coping mechanism in a more existential sense: keeping busy will keep them inside and therefore will keep them alive. The overt figure of personhood here is the busy retiree, but the implied one is the stoic survivor.

In the section Edinburgh was all about freedom and choice we see liminality expressed through the construction of a place as a target of desire (Koven, 2019). The parallelism of Andrew's use of "I miss" (9) enacts the speaker's desires with an emphasis. The objects of those desires are all highly specific chronotopes, which together construct a before-lockdown storyworld. Directional expressions, "going to" and "trips to", position Andrew as outside his desired chronotope (Koven, 2019). This is even more prominent in Fergus' narrative (11), where the desire to "go" and the inability to fulfill that desire is precisely what constructs a world that is "a lot smaller," a description he uses three times in a parallel structure (Pritzker and Perrino, 2021, p. 380). Fergus is trapped between a nostalgia for the life that used to be, and to which he may not be able to return, and an uncertainty about what life will be like in the future. This is a typical expression of liminality: "home" is a place in the past or the future (Den Boer, 2015, p. 488); or home itself is "a longing for a nostalgic past or utopian future" (Al-Ali and Koser, 2002, p. 7).

In contrast, for Rajesh (6), the lockdown storyworld is constructed as "nothing," the total lack of the implied "everything" that then characterizes the pre-lockdown storyworld. He stands out as orienting to a very different lockdown chronotope than the other international students, clearly suffering from the enforced liminality of the lockdown.

Interestingly, Nick (10) does not use any linguistic indicators of desire. While all three men quoted in the section Edinburgh was all about freedom and choice lament the loss of access to pubs, their narratives suggest contrasting ideologies toward the COVID-19 lockdown measures. Nick expresses an affective evaluation ("it's actually very sad") about the restriction, but precedes this with a statement that aligns him with government health measures ("they're not safe") and a claim to epistemological truth ("intrinsically, inherently"). In contrast, although Fergus makes no overt statements about emotion,

his repetition of the world being "small" is clearly marked with negative affect, and is preceded by other statements of negative evaluation, e.g., that "freedom was gone" and "your choices diminish." Based on this, we argue that Fergus' narrative expresses an anti-lockdown ideology and Nick's a pro-lockdown ideology. In liminal spaces, new identities are available for construction and negotiation. Other work has explored how these new identities connect to existing ones, specifically in terms of support for or against the UK COVID-19 lockdowns (e.g., Collignon et al., 2021).

For the international students, Edinburgh was a liminal place even before the lockdown: a temporary place of residence associated primarily with "the university" as place, time, and events. While the diary narratives in (4) and (5) associate walking the streets with ownership ("this place is also mine"), this simultaneously constructs their pre-lockdown experience as one of lack of ownership, drawing attention to their actual, highly temporary, status. Perhaps it is not so surprising, then, that their chronotopes suggest an ideology in favor of the lockdown policy; even Catherine's negative framing of her "very tiny room" (4) is immediately self-negated by a positive evaluation. Those social groups who experience limits on their agency in non-lockdown times may be more likely than others to produce lockdown chronotopes of opportunity, possibility, and belonging. The feeling of community becomes more available to them, even as it becomes less available to the dominant population.

Despite the small sample size, the contrast between most of the living-alone international students, on the one hand, and the Scottish men, on the other, is striking. Noting that all but one of the students who constructed a chronotope of possibility were female, a possible intersectional analysis emerges. The COVID-19 lockdown measures clearly restricted individual agency with respect to place. Men, in general, and especially white Scottish men, can be viewed as less used to restrictions on their place-based agency than women, especially immigrant women. In our dataset, Scottish men are more likely than immigrant women to comment on their loss of agency directly, and perhaps this is because it is quite literally more remarkable.

On a different note, it is striking that two students from Hong Kong [Patricia (5) and Siu Ming, not quoted here] chose to submit their diaries in Cantonese. Given that the Lothian Diary Project was associated with their university, we might expect them to deliver a diary in the English mode in which they are assessed. We suggest that the disruption of an international student identity and the liminality of lockdown means that their sociolinguistic identity can be more fluid, and they are able to use Cantonese as an index of non-student (or perhaps "real me", Sharma, 2018) identity, even while describing a feeling of belonging in a non-Cantonese-speaking place.

The use of Cantonese is interesting in light of other material conditions at the time the diaries were recorded. In early 2020, rates of COVID-19 cases and movement restrictions in China were both frequent topics of discussion in European media. This heightened focus on China alongside a discursive framing of the COVID-19 virus as "Chinese" contributed to a spike in sinophobia and racist discourse and attacks targeting residents perceived to be Chinese: globally, nationally, and specifically in Edinburgh[8], [9]. One of the other Chinese participants, who was not part of the living-alone sample analyzed here, commented explicitly on feeling threatened if they walked outside. Although Chinese participants in the living-alone sample construct the lockdown chronotope explicitly in terms of the freedom to walk, and their sense of ownership, the material conditions of their act of speaking (Park, 2021, p. 48, 50) include real threats to Chinese students in Edinburgh that were taking place at the time. Furthermore, at the time of speaking, they are genuinely caught between two worlds: not safe in Edinburgh, not able to travel to China, and potentially not safe in China even if they did so. Chronotopes of belonging are therefore particularly striking among these speakers.

Conclusion

In analyzing 36 audio/video diaries of Edinburgh and Lothian residents who lived alone during Scotland's first COVID-19 lockdown, we identified three sets of chronotopic orientation that seem characteristic of three demographic groups. International students experienced a loss of 'the student experience' but were split between a lockdown experience that opened up the city to them and one that afforded no benefits. Retirees experienced lockdown through the transition from real to virtual space, emphasizing the similarities between the two and the ability to maintain pre-lockdown schedules. Men living near the city center experienced lockdown as a loss of freedom and choice, and their expression of this in some cases may be a reflection of their differing ideological positions toward government health measures.

These three groups represent 15 of the 36 diarists in the subsample; other demographic groups within the remaining speakers (e.g., gay/queer; disabled) did not show any consistent patterns of changes in chronotopic orientation. We will in future return to those speakers, as well as those who were not living alone, whose contributions go beyond the scope of the present paper.

The COVID-19 lockdown measures had a dramatic impact on personal experiences of space and place, across the world. By focusing on a diverse sample of individuals living alone in

8 Example incident, 15 December 2020: https://www.edinburghnews.scotsman.com/news/crime/despicable-racist-attack-against-22-year-old-student-outside-university-edinburgh-library-3066434.

9 Example incident, 15 March 2021: https://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-5611304.

the Edinburgh area, we have shown how the first UK lockdown shifted experiences of belonging, and therefore, narratives of place and even ideologies of the pandemic response. These government-imposed restrictions on the occupation of space and places was not universally experienced as a loss of agency. Rather, pre-lockdown social differences, and the material conditions of those differences, resulted in dramatically contrasting chronotopes of lockdown life.

Data availability statement

The datasets presented in this article are not readily available because Diaries are archived at the University of Edinburgh datastore. Diarists could choose to make their diaries public. These are shown on our website and at exhibits. Requests to access the datasets should be directed to claire.cowie@ed.ac.uk.

Ethics statement

The studies involving human participants were reviewed and approved by PPLS Ethics committee, School of Philosophy, Psychology, and Language Sciences, University of Edinburgh. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

ZE, NM, and SM collected the data. NM and AK processed the data. All authors contributed to the data analysis, which was led by CC. CC and LH-L wrote the paper, with feedback and contributions from the other authors. The analysis was conceived of and designed collaboratively among all authors. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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A metaphor analysis of older adults' lived experience of household isolation during COVID-19

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In March 2020, Public Health England provided social distancing and shielding guidance for all adults aged 70 and over in response to the COVID-19 pandemic. This article seeks to provide insight into the lived experiences of older people during this period of household isolation. To do so, we analysed the metaphors used by 13 older adults during interviews discussing their experiences of household isolation, focusing on how these metaphors relate to a loss of agency. We found that participants negotiated their sense of agency through the use of metaphors involving physical force, movement, space, and animation of COVID-19. Metaphors were particularly used to discuss negative emotional impacts of the pandemic. Perceptions of a loss of agency were sometimes redressed through the use of comforting metaphors involving patterns and structure. In addition, participants explicitly rejected or refashioned dominant public metaphors that circulated as part of Government campaigns and wider public discourse to describe the pandemic and encourage certain behaviors. It has been argued that commonly used metaphors relating to containment, e.g., "bubble", when applied to the context of household isolation, foreground the actions of those outside the container rather than those inside it, leading to a loss of feelings of agency. The participants' reactions to these suggest that common metaphors in public discourses are appropriated selectively and challenged by those at whom they are targeted. Hence, metaphor analysis can be used to paint a rich picture of the lived experience of older people experiencing household isolation, including their reaction to dominant public metaphors.

KEYWORDS

COVID-19, older adults, metaphor, household-isolation, agency, terminology, language

Introduction and background to the study

In the United Kingdom (UK), from 23 March−1 May 2020, Public Health England (PHE) provided guidance for those aged 70 or older, regardless of medical conditions, which recommended social distancing with, and within, their household. Further advice included the need to significantly limit face-to-face interactions with friends and family, to arrange deliveries of food, medicines, and essential services, to access medical assistance remotely, and to postpone routine medical appointments. The only reason for leaving the house was to take daily exercise.

One way to gain deeper insight into people's lived experience during this time is to look at the language they use when describing their time of household isolation, with a particular focus on metaphor, as metaphor analysis has been shown to be a useful tool for exploring people's emotional responses to their lived experiences. Metaphors provide a precise and efficient way of describing complex ideas and experiences (Colston and Gibbs, 2021) and offer an effective means to communicate the qualitative aspects of internal states. For this reason, when people experience challenging, new situations, they often reach for metaphor as a tool to help them make sense of and express their experiences (Semino, 2011). People produce more metaphors when describing intense emotional experiences than when describing actions (Fainsilber and Ortony, 1987) and they generate more novel metaphors when writing about their own emotional experiences than when writing about the feelings of others (Williams-Whitney et al., 1992). An example of the central role of metaphor in enabling people to express and come to terms with challenging experiences is provided by Gibbs and Franks (2002), who found a particularly high density of powerful metaphors in the narratives produced by women diagnosed with cancer. Here, metaphor allowed these women to conceptualize and express the illness and its complex and disorientating impacts more clearly. Studying the metaphors that people use in emotionally difficult situations is a powerful tool for identifying the ways in which people experience and respond to those situations (Littlemore and Turner, 2019a,b; Turner et al., 2020). Some metaphors that people use are highly idiosyncratic and provide insights into the particular ways in which they are experiencing a given situation. Others will be more conventional, and are more likely to have been acquired through exposure to the wider linguistic environment. These more conventional metaphors also provide insights into people's lived experiences insofar as these experiences are socially constructed and shaped by the broader social and linguistic context in which they took place.

There have been a small number of studies outside of the UK in which researchers have used metaphor as a lens to investigate the lived experiences of those affected by COVID-19. For example, in their study of metaphors employed by 210 Turkish adults to describe their experiences of living with COVID-19, Gök and Kara (2021) identified seven metaphor categories which they labeled: being restricted, restlessness, uncertainty/obscurity, deadly/dangerous, struggling, faith/destiny, and supernatural. They then distilled these categories into three themes, which they labeled: anxiety/concern, risk, and faith. In their analysis of what they describe as the "collective trauma" caused by COVID-19 in the USA, Stanley et al. (2021) interviewed 44 participants, asking them to compare the pandemic with an animal and a color, and then to provide explanations for their choices. Stanley et al. (2021) used their findings to identify four mental models of participants' experiences (uncertainty, danger, grotesqueness, and misery) and four emotions that were associated with those mental models (grief, disgust, anger, and fear). Through their analysis of the metaphors used to describe these mental models, the researchers were able to identify the qualitative aspects of their participants' lived experiences that are unlikely to have been revealed by other more "literal" research methods (Stanley et al., 2021).

In a study that was conducted in Wuhan, Deng et al. (2021) interviewed 27 Wuhan residents about their lived experiences of COVID-19. They found that their participants employed many different metaphors to convey the emotions, including feelings of isolation, that they had experienced during the pandemic. Most of these metaphors drew on embodied sensorimotor experiences such as the use of body parts, battling, hitting, weight, temperature, spatialization, motion, violence, light, and journeys, and they concluded that the bodily experiences of the pandemic, the environment, and psychological factors had combined to shape the way in which people used metaphor to construe their experiences. Finally, Bailey et al. (2021) examined the physical and mental health of older adults (aged 70+) in Ireland and elsewhere while isolating at home during the COVID-19 pandemic. They found that the idea of "cocooning" was often contested or resisted, with participants in the study saying that they disliked the term as it made them feel infantilized. These studies show that by analyzing the metaphors that people employ and their responses to metaphors that are in the public domain, we can identify the complexities and nuances embedded within people's emotional reactions to the pandemic. Metaphor analysis is therefore a promising methodology for the study of the way in which older adults in England experienced the pandemic and its associated need for household isolation.

Metaphors are not only present in the way individuals talk about their own experiences, but also in the wider context of public discourse. Public discourses around COVID-19 in the UK, and specifically the need for older adults to isolate within their households, contained specific terminology, much of which was characterized by the use of metaphor. This led to several investigations into the ways in which metaphors have been

used in the public realm to frame COVID-19. One of the key findings from these studies is that the pandemic was frequently framed through war-related metaphors, which communicate the severity of the COVID-19 and the necessity of stringent protective measures to limit the spread of the virus (Olza et al., 2021). Such framings (e.g., "battles", "frontline", "combat") are not unprecedented; war-based metaphorical imagery has also been dominant in discourses surrounding earlier flu-like pandemics (Taylor and Kidgell, 2021). The use of war metaphors such as these has been criticized for, amongst other things, reducing complex social issues to a simple dichotomous conflict against an external enemy (Chapman and Miller, 2020), and provoking anxiety amongst the public (Sabucedo et al., 2020).

This has led several metaphor researchers to challenge the dominant "war"-focused metaphorical rhetoric and propose alternative metaphorical formulations that allow the pandemic to be conceptualized in different ways. The most important of these is the #ReframeCovid multilingual database. This database contains instances of metaphors that offer alternative ways of describing the pandemic. Examples include framing the virus in terms of a fire or natural disaster and framing distancing and isolation practices in terms of hibernation (Pérez-Sobrino et al., 2021).

Another criticism that has been leveled at public discourse around COVID-19 in the UK is its use of metaphors that appear to attribute a lack of agency (i.e., the amount of control that one has, or feels that one has, over one's own situation) to people who need to self-isolate (Charteris-Black, 2021). Charteris-Black (2021) observes the frequent use of containment-related metaphors, expressed through phrases such as "bubble", "pocket", "pod", "cocoon", "petri dish", and "protective ring". He states that, when used in discussions of isolation and social distancing, these framings foreground the actions of those outside the container rather than those inside it. He also suggests that these metaphors form part of an "overt moral coercion" as they are designed to provoke a strong emotional reaction which is expected to influence behavior, and lead to a reduction in feelings of empowerment by those who are obliged to isolate within their household. He goes on to suggest that these feelings of disempowerment can be exacerbated by the use of metaphors in which COVID-19 is personified as an "invisible enemy" or even an "alien apocalypse" (Charteris-Black, 2021).

Crucially, Charteris-Black (2021) contends that the repeated use of metaphorical formulations such as those discussed above may have led people who were required to self-isolate to internalize the idea that they lack agency. This contention is not without foundation. There is extensive evidence from metaphor "framing studies" suggesting that metaphors can exert a powerful influence over people's reasoning abilities and decision-making (Thibodeau et al., 2017; Panzeri et al., 2021). For example, Thibodeau and Boroditsky (2013) presented participants with one of two versions of a newspaper article about a crime in a fictional American city, and asked them to state what they thought the best solution to the problem might be. One group of participants was shown a version of the text in which crime was described metaphorically as a "virus" and the other group was shown a version in which it was described metaphorically as a "beast". Thibodeau and Boroditsky (2013) found that those participants who had seen crime framed as a virus were more likely to make recommendations involving education and reform, whereas those who had seen it framed as a beast were more likely to recommended punishment and imprisonment. Similar studies have since examined the framing effects of metaphor in different contexts, with mixed results. The strength of the effect has been found to vary considerably depending on the positioning of the metaphor, its creativity and the extent to which it is extended in the text (Steen et al., 2014; Reijnierse et al., 2015), and the methods employed in the studies (Boeynaems et al., 2017). However, in general, there does appear to be a strong body of evidence suggesting that at least to some extent, metaphors that are used by others to frame a given situation do have the ability to affect the ways in which people think about that situation.

It is therefore possible that metaphors employed by politicians and others in the public arena to frame the pandemic and the need to self-isolate may have influenced the way those involved think about household isolation, especially those who have had to spend long periods in isolation, such as older adults. Hence, by exploring the metaphors used by participants, including those metaphors found in public discourse (such as containment metaphors, war metaphors, and so on) this study also seeks to gain some insight into the extent to which they have taken these views on board and the extent to which they feel able to challenge them.

The aims of this study

In this study, we analyzed the metaphors used by older adults in the UK when talking about their experiences of household isolation during the COVID-19 pandemic with a view to answering a general research question:

- What metaphors do older adults in the UK who have had to self-isolate use to describe their lived experience and what do they use them to talk about?

And a more specific research question:

- To what extent have older adults in the UK who have had to self-isolate appropriated metaphors used in public discourse that are thought to have reduced their sense of agency?

To answer these research questions, we identified the metaphors employed by older adults in the UK to describe their experiences of self-isolation. We then focused specifically on metaphors that reveal the degree of agency they experienced and their attitudes toward household isolation. This approach enabled us to gain deeper insight into their lived experience, especially their feelings of agency (or lack thereof), as well as to what extent they had accepted or rejected the metaphors used in public discourses around COVID-19 and instructions to isolate within their household.

The study employed a subset of data that was primarily designed to explore the longitudinal impact of COVID-19 on older people, gathered by one of the authors of this paper. To gain insights into the lived experiences of older adults who had to isolate within their household in England and the Republic of Ireland, author 5 interviewed 19 older adults, exploring if or how isolation and social distancing impacted their lives.

In this paper, we report findings from a secondary analysis, focusing on the use of metaphor in a subset of transcripts ($n = 13$), exploring the ways in which participants use metaphors to describe their experiences, in order to provide insights into their thoughts, feelings, and attitudes during this unprecedented crisis. We are particularly interested in identifying (a) what their use of metaphor reveals about the ways in which they negotiate agency and (b) the ways in which they respond to metaphors that are prevalent in public discourses around COVID-19.

Methodology

The study employed a subset of the data from COVID-19 study reported in Brooke and Clark (2020) and Brooke et al. (2022). Following ethical approval provided by the University Research Ethics Committee at Birmingham City University (6290/Am/2020/Apr/HELS FAEC), the original data was collected from 19 participants in England and the Republic of Ireland, who each completed six qualitative semi-structured interviews. Five interviews were completed at 2-week intervals and a final sixth interview was completed a month following the fifth interview. Participants were informed of the purpose and structure of the study beforehand and were given the opportunity to ask questions. Subsequently, informed consent was obtained verbally on the phone, which was recorded (see Brooke and Clark, 2020 for more information).

In the current secondary analysis, whose findings we present below, we analyzed the metaphors employed by 13 of the older adults in the original transcripts to describe their experiences of household isolation. This subset comprises only participants who live in England, given that the Republic of Ireland provided different national (government) guidance.

The transcripts were annotated for linguistic metaphor using Cameron and Maslen's (2010) approach to metaphor identification, which classifies metaphor at the level of the meaning unit rather than only focusing on individual lexical items. This allows the researcher to capture particular experiences that are described through metaphor. According to Cameron and Maslen (2010) p. 102–103, "linguistic metaphor can be operationalized … through identifying words or phrases that can be justified as somehow anomalous, incongruous or 'alien' in the on-going discourse, but that can be made sense of through a transfer of meaning in the context." Following Steen et al. (2010), this transfer of meaning was coded as metaphor when it involved a comparison with a more basic sense. This basic sense could be more concrete, or more strongly related to a physical or bodily action than the contextual meaning. If the phrase had a more basic current–contemporary meaning in other contexts than the given context, and the contextual meaning contrasted with the basic meaning but could be understood in comparison with it, it was marked as metaphorical. Our method departed from Steen et al.'s (2010) method in that we allowed word class boundaries to be crossed. For example, we considered the verb "cocooned" to be metaphorical as it can be understood *via* a process of comparison with the literal noun "cocoon". In the majority of cases, the presence of a more basic sense was clear to the coders. In cases where the coders were unsure whether there was a more basic sense, the Longman Dictionary of Contemporary English Online (2022) was consulted.

Under this technique resulting from a combination of Cameron and Maslen (2010) and Steen et al. (2010), an expression such as "my wings are clipped" would be coded as a single metaphorical expression as the metaphorical meaning is conveyed by the whole expression rather than by the individual words that it contains. There is, however, a clear comparison with a more basic sense in which a bird that has had its wings clipped is physically unable to fly.

It is important to note that neither of these methods distinguishes between metaphors based on their conventionality. As a result, the metaphors identified in this study range from common conventional metaphors to highly idiosyncratic metaphors. However, what unifies the metaphors discussed below are shared themes or topics.

The technique employed here is particularly useful for analyzing the ideas that the metaphors are being used to convey and for identifying systematic uses of related metaphors (see Cameron, 2003, 2007; Low et al., 2008). In this study, metaphors were coded according to (a) the category of metaphor, (b) the topic that they were being used to discuss, and (c) whether they performed an evaluative function, and if so, whether the evaluation was positive, negative, or both (valence). Cases where participants commented on metaphors that are used in the media were also recorded. For example, the metaphor "I'm just plodding along" was coded as (a) "moving ego" metaphor that was (b) being used to talk about life and that was (c) not evaluative. The metaphor "the virus … will still be there somewhere, lurking waiting to bounce" was classified as (a) an

animation metaphor that was (b) used to talk about the virus and that (c) conveyed negative evaluation. It should be noted that neither the categories or topics were mutually exclusive, so some metaphors were coded as fitting into more than one category or applying to more than one topic.

Three metaphor researchers (authors 1, 2 & 3) were responsible for the identification of the metaphors, their categories, the topics that they were used to talk about, and their valence. To establish the protocol, the three researchers initially met and worked through three of the thirteen transcripts together. This process resulted in the identification of core a set of metaphor categories, each of which had one or more instantiation in the corpus that would form the focus of the identification procedure in the remaining 10 transcripts. The three coders also discussed each instantiation of metaphor within these categories and coded it according to (a) the topic that it was being used to described and (b) whether it performed a (positive or negative) evaluative function. After this calibration meeting had taken place, two of the metaphor researchers (authors 1 & 2) coded one transcript each and met to verify each other's coding and resolve ambiguous cases where the metaphoricity or the valence of a particular utterance was unclear. They then met with the third researcher (author 3) to corroborate the identification and discuss any remaining ambiguous cases. At this stage, further categories and topics of metaphor were identified and the three original transcripts were checked for metaphors that these could apply to. This procedure was repeated four more times, with the same coders responsible for the same parts of the procedure until all the transcripts had been coded for metaphor categories, topics, and valence. These preliminary findings were discussed with authors 4, 5. This iterative reflexive process enabled us to identify the metaphor categories, topics, and valence that emerged from the data.

Findings

Introduction

Here we provide an account of the different ways participants experienced the household isolation, seen through the lens of the metaphors that they employed to describe their experiences. In Table 1 we see a breakdown of the topics that participants used metaphor to discuss, and information on the extent to which the metaphors conveyed a negative evaluation of the topic.

These topics emerged through an iterative coding process (see above). Some metaphors were used to convey more than one topic. When this occurred they were coded under both topics. It is interesting to note that the topic of "emotions" attracted the highest number of metaphors and that in most cases (even in comparison to the other topics) they were used to perform a negative evaluation. Metaphors were labeled as belonging to the category of "emotions", either when an explicit reference was made to a particular emotion (e.g., "There has been a background of fear behind all of this") or when the qualitative nature of an emotion was described metaphorically (e.g., "it has been very up and down this time" in response to "how are you?"). Overall, we did not find a tendency toward negative or positive metaphors in individual participants or across the participants as a whole. However, we did still find it useful to look at whether individual metaphors were used positively or negatively, particularly when they were used to refer to emotions.

One of the aims of the study was to explore the extent to which the participants employed metaphors used in wider public discourse to describe the pandemic, most notably war metaphors and metaphors of containment. To begin to answer this question, we first present our findings regarding the broad categories of metaphors that we identified in our data. These are shown in Table 2.

In Table 2, we can see that most of the metaphor categories that we identified involved reference to broad categories of human experience (e.g., fighting and physical force, physical support, and space). We also had a final category of one-off "miscellaneous" metaphors which did not fit into any of the larger categories, but which referred to more specific human experiences. These included metaphors such as: "Us oldies will be the last in the queue" or "I have had a long innings" (one of the few metaphors which referred to sport).

We can see from Table 2 that participants did indeed employ containment metaphors and fighting/war metaphors. Half of the containment metaphors were used to perform a negative evaluation, and three quarters of the fighting/physical force metaphors were used negatively. At first sight, these figures appear to suggest that the participants had indeed adopted the two main categories of metaphor that have been identified as being both prevalent and potentially problematic in public discourse. However, when we explored the data in a more qualitative way, studying the metaphors in context, we found that the picture was somewhat more complicated than this; feelings of agency (or lack thereof) were expressed through a range of different metaphors, and in many cases, participants appeared to resist the metaphors used in dominant public discourses. Our qualitative analysis therefore revealed a somewhat different (much richer) picture than that suggested by our quantitative analysis. Through this analysis, we identified four aspects of the experience of the household isolation, all of which relate in some way to the issue of control. These are: metaphors that appeared to relate directly to agency; metaphors involving patterns and structure; metaphorical construals of time; and participants' reactions to metaphors that have been used to discuss COVID-19 and isolation. These are discussed in the following sections.

TABLE 1 Topics that were discussed using metaphor.

Metaphor topic	Description of topic	Example from data*	Number of metaphors	Proportion of which were negative
COVID-19	Talking about the virus itself	*It doesn't mean **the virus** has disappeared, it will still be lurking there*	7	0.71
Public action	Talking about the action taken by the public in reaction to the virus, including lockdown measures	*So there is two ends of the **social distancing**, of the spectrum*	17	0.47
Emotional support	Talking about the ways others emotionally assist them	*I don't think [friends] are getting the same **support** [as me]*	4	0.5
Emotions	Talking about the ways they are feeling, including explicitly labeling emotions	*It is the little minor **frustrations** are creeping in*	56	0.73
Life	Talking about their day-to-day experience or overarching lifetime	*It is slipping back to **how I remember it as a child***	14	0.71
Time	Talking about progressing through the period of household isolation	*The **days** seem to be slipping by*	44	0.25
Being isolated	Talking about their own experience of the household isolation they have been instructed to partake in	*I have been very nicely **cocooned***	16	0.5
Relationships	Talking about the way they relate to their friends and family	*All deaths made that a very particular sort of vacuum **between us***	11	0.36
Identity	Talking about the way they see themselves or believe they are seen by others	*It can be quite patronizing the way people **categorize you and put you into a box***	3	0.33

*Metaphors underlined and relevance to topic in bold.

Metaphors that are directly related to agency: Physical force, movement, and space

Many participants used metaphors to comment on their perceived lack of control over their circumstances. As we stated above, it has been suggested that the ways in which containment and personification metaphors were used in public discourse during the COVID-19 pandemic in the UK involved behavioral nudging that may have led to a loss of agency in those who needed to isolate (Charteris-Black, 2021), including older adults who were deemed to be particularly vulnerable to infection. Through qualitative analysis of our data, we found that the participants' concerns regarding agency were expressed through their use of several different metaphors, namely: physical force, movement, space, and animation, which were often used in combination.

The participants' perceived lack of control was apparent in the metaphors they employed to animate COVID-19 itself. COVID-19, which does not literally have agency, is lifted into an animated state where the virus becomes a living animal-like "thing" capable of goal-directed movement, as we can see in the following examples[1]:

> "Viruses don't just disappear, we are not going to arrive at the 30th June and we have not lost anybody that week, it doesn't mean the virus has disappeared, it will still be there somewhere, lurking waiting to bounce." (Martha)[2].
>
> "You can't have the virus running rampant there." (Carole, talking about the island she comes from)
>
> "It is interesting people still don't recognize that this virus will not just disappear, there are still people who think a couple of more weeks, and the virus will have died if you like, for want of a better expression." (Martha)

Both of Martha's examples above share the sentiment that coronavirus is omnipresent, and occupying physical space, which Katherine also expresses when she refers to the virus as the sword of Damocles:

> "It is a bit like the sword of Damocles, like an overhanging threat, which is constantly there in the background."

Interestingly, both Louise and Martha portrayed the virus as "lurking", a state that is defined as preceding an attack (Cambridge English Dictionary, 2022). In describing COVID-19 as "lurking", Louise and Martha drew on the "fighting"

1 Longer quotes have been provided for context, but the metaphorical phrase has been underlined.

2 Pseudonyms are used for all the participants in the study.

TABLE 2 Broad categories of metaphor identified in the transcripts.

Metaphor category	Description of category	Example from data	Number	Proportion of which were negative
Containment	Drawing on physical restriction or repression	*You get in a bubble*	21	0.48
Fighting, physical force and animation	Relating to physical contact or movement, including fighting and war imagery	*They feel they will be pushed over the edge*	35	0.77
Physical support	Pertaining to the physical underpinning of something	*I have a lot of support in place*	5	0.4
Shape and structure	Pertaining to physical structures or shapes	*I feel there is going to be a second wave as they have opened the doors a little bit*	18	0.39
Space	Pertaining to physical space, e.g., on a spectrum from left to right, top to bottom, or front to back	*There is always a background anxiety*	55	0.67
Moving ego	Relating to time, whereby time stands still and the person moves forward or backwards through it	*Going back to childhood days*	8	0.25
Moving time	Relating to time, whereby the person stands still and time moves past them	*I don't want time to go very quickly*	27	0.22
Medical	Drawing on the field of medicine, surgery, or health	*I am beginning to get withdrawal symptoms from my family*	3	0.67
Miscellaneous	Metaphors which made a comparison but which did not draw on the above categories, including one-off similes	*It is like walking on a postage stamp*	32	0.69

*Metaphors underlined.

frame to make sense of their experience. As such, the virus was implicitly construed as an opponent in a fight, "waiting to bounce". This idea of fighting an animal-like virus was not uncommon in our data.

At first sight, this finding appears to suggest that the participants had adopted the "war" metaphors that have been identified as being prevalent in public discourse. However, most of the metaphors that related to fighting tended to refer to individual circumstances and there were very few references to any kind "national war effort". One exception to this is Walter's description of panic-buying, in which he says that "everybody thought it was going to be a siege". Here, he appears to be referring to a specific battle-scenario that parallels his experience by highlighting the feelings of entrapment. He appears to be covertly critical of the war metaphor and how it appears to shape people's behavior. Other participants did employ metaphors related to war and fighting, but rather than using them to talk about the virus itself, they used them to criticize the government's response to the virus, so the topic was different. For example, when speaking about the "track and trace" system, Hilda remarked:

> "I think initially it sounded like a good idea but I think it might actually be a weapon that might come back to hit us big time".

Here, Hilda construes one of the COVID-19 response measures as a "weapon", expressing a critical attitude toward it and displaying a degree of uncertainty and skepticism toward the government strategies that were being devised to protect the population. She thus refers to a lack of control at a national level.

Metaphors that appeared to involve fighting were much more likely to foreground physical force and movement rather than "war" *per se*. Thus, there appears to be little evidence of any wholesale adoption by the participants in our study of the war and fighting metaphors that dominated much of the public discourse surrounding COVID-19.

Many of the metaphors that participants employed involved references to physical force and revealed a sense of powerlessness in the face of this force. Katherine talked repeatedly about the "impact" that various experiences had on her and others. These included the emotional impact of isolation or hearing about deaths, and the more physical impact of the virus:

> "I can imagine this seclusion for a lot of people [. . .] will have a huge impact on their mental ability."
>
> "As I say, [lockdown] is not having a great deal of impact on me at the minute."
>
> "I am concerned of the impact [catching coronavirus] would have on us."
>
> "That is going to have an impact when I hear some of the distressing stories of people's experiences... I can't help it,

> I am compelled to put the TV on for the latest update, and I look at the figures and think horrendous, and I think that is going to have an impact on me for sure, and will increase my levels of anxiety."

Here, "impact" can be seen as a metaphor because it is used to describe the effect or influence that an event or situation has on someone in terms of the more basic and concrete sense of "the force of one object hitting another" (Longman Dictionary of Contemporary English Online, 2022). However, it should be noted that the non-literal use of "impact" is very conventionalised.

The idea of physical force is particularly strong in Louise's comment: "Do other people say that as well, that they feel they will be pushed over the edge?" In contrast, this same idea of "pushing" is used in a more positive way by Vincent, when he talks about how the sense of community has improved due to household isolation measures: "this has sort of pushed it together".

Other metaphors relating physical force and movement also revealed participants' perceived lack of agency; particularly, references to emotions being *up* or *down* were frequent in the data. Many examples of these embodied "emotion as physical movement through space" metaphors are built on the well-established "positive is up" and "negative is down" metaphors. For example, Martha says: "most of the time I am fine, just sometimes a low mood will strike". This draws on both movement and physical force, positioning herself as the one taking an emotional blow. However, this low mood is not constant. In fact, several participants described their moods as fluctuating by metaphorically locating emotion on a vertical axis:

> "It has been very up and down this time, I haven't been very well, so that sort of threw me a bit." (Barbara)
>
> "I think there has been an escalation of emotions, that has been a bit of a roller coaster" (Katherine)

Katherine's description of her emotions as being on a roller coaster is particularly illuminating with reference to agency, as it foregrounds the loss of control over her emotions, because a rollercoaster cannot be steered. There are also references to activities that "lift" or "stabilize" participants' mood, help them cope and foster wellbeing. Jessica, for example, recounts how going for a walk with her daughter "gave [her] a big boost actually". Freda says, "If I am painting, my mind stays fairly stable", suggesting that creative expression helps her to control her mood.

Participants" relationships with agency were also revealed by the ways in which they used metaphor to animate feelings or reactions, thereby transferring the potential for agency to their emotional states, which made them more difficult to control:

> "There has been the odd frustrations, which have probably crept in this week." (Katherine)
>
> "The little minor frustrations are creeping in." (Jessica)
>
> "It is those little things that jump on and bite you in the bum." (Jessica)
>
> "A little bit of confusion crept in I think." (Katherine)

Both Katherine and Jessica describe frustrations as entities entering their space and thereby affecting them, with the word "creeping" shading this experience as decidedly negative and unwanted, maybe even scary. Jessica ascribes agency to "the little things", suggesting that although these may not be things of objective magnitude, they nonetheless have the power to affect her.

Other participants also use metaphors that locate emotion in space, but without animating these states:

> "There is always a background anxiety about some of my family members." (Edith)
>
> "There has been a background of fear behind all of this, fear I might pick it up, I might not survive." (Katherine)

Both participants describe their negative emotions (anxiety and fear) as taking up room within their mental space. It seems that the location of the emotion within that mental space also indicates its prominence, or, metaphorically speaking, the amount of room it takes up. While their anxiety and fear are not at the forefront of their minds, they seem to be omnipresent in the background.

Stephen also draws on metaphors involving location in space when he commented: "I don't think we should become prisoners of fear". Charteris-Black (2021) notes that confinement metaphors commonly used in public discourses around the pandemic can be positively or negatively framed, depending on whether they employ "imprisonment" or "public safety" as the source domain. In his prison metaphor, which may be borne out of dominant public narratives, Stephen warns that we should not allow these anxieties to take up more space. This suggests a very strongly negative metaphor, where fear imprisons people completely.

Thus, we see a wide variety of metaphors being used to refer to participants' feelings of agency vs. helplessness when faced with the virus and household isolation. On balance, they appear to convey a degree of powerlessness but are not entirely pessimistic. Some of the metaphors they use do resemble those used in public discourse, but we cannot say whether they have been acquired through exposure to such discourse or whether they constitute standard ways of expressing the kinds of emotions that one would expect to feel in such a situation.

Metaphors involving patterns and structure

Some participants referred to a need for structure to counterbalance the feeling of a lack of agency, as represented by a regular pattern in their lives. For example, Jessica's desire for structure and control becomes apparent in the way she talks of doing activities, including jigsaw puzzles, at certain times of the day: "I am a jigsaw puzzle addict, well not an addict as I have never had the time, so I am doing all my jigsaws I have done for presents, so I don't sit down until about 4 o'clock. Then it is an hour's jigsaw and then it is the government's briefing, and then cook tea and watch the telly". Furthermore, there is a sense of structure in the very act of completing a jigsaw puzzle, which provides an interesting overlap between the metaphorical and literal. Hilda also explains how she finds the communications about government restrictions confusing, which is difficult for her because she is "a rules girl". This suggests that, like Jessica, Hilda also views structure as a positive thing that would help her deal with the difficult situation of household isolation.

The participants' desire for structure was also often expressed through metaphors referring to different patterns that they appeared to find comforting in the context of the household isolation. For some participants, the imposition of structure served as a mechanism through which they could re-introduce a level of control over their lives. For example, Jessica repeats the metaphor of structure both in reference to the hours of a day, and life overall:

> "I have got to have structure to my life."
> "You have to have structure within your *day*."
> "He needs a structure in his life."

Here, the word "structure" can be interpreted as metaphorical because Jessica is using it in an abstract way to describe the non-physical organization of her life. This meaning can be compared with a more basic sense of the word structure, which is defined by the Longman Dictionary of Contemporary English Online (2022) as: "something that has been built, especially something large such as a building or bridge". It should be noted that, as with "impact" in the previous section on metaphors that are directly related to agency, the non-literal meaning of the word "structure" is also highly conventional.

For Jessica, planning things appears to be a way of coping with a lack of control over the time passing and the restrictions of household isolation. She did this frequently in the first three interviews, but did not make any references to structure in the final three interviews, perhaps because the need for structure became less prevalent after many weeks of household isolation, or perhaps because she had adjusted to the situation, and accepted that her agency was limited by events outside of her control.

Other participants also refer to structure when reflecting on their lack of agency during household isolation. For instance, Trevor repeats a metaphor about "rigidity":

> "There is a rigidity about [your day], I think it is that you have to accept that or you might get a bit frustrated with it."
>
> "I think people understand, but you have to build a rigidity into [government guidelines], and people can stick to them or not."

Unlike Jessica's evaluation of structure as a positive thing that helps her cope, Trevor seems to see it as neutral, as he uses it to describe the situation rather than evaluate it, which could be because he is not struggling to cope with the conditions of household isolation as much as some other participants.

Although all these participants use structure to reflect on the degree of control that they feel they have over their lives, they do not refer to the same kind of structures. While Jessica imposes the structure on her own life through timetabling her activities, Trevor describes the structure imposed on the public by mandatory household isolation. Hence, structure can be both positive and negative: for Jessica it is a necessity in her life, whereas for Trevor, structure is a vital but not necessarily positive restrictive measure. This highlights how structure is linked to participants' sense of agency; where Jessica experiences structure as something that helps her reclaim agency over her life, Trevor refers to structure as an imposition which reduces agency.

Metaphorical construals of time

Participants often reflected on the passing of and their relationship with time, revealing their sense of agency (or lack thereof). For example, Freda reflects on her relationship with and control over time when discussing what the concept of "the future" means for older people, who do not have as much time left: "There is not that sort of future to make plans for;" "To accept, in a way, living day-by-day;" "It isn't a sort of fear of dying, it is sort of trying to manage the time you have left, without bringing grief to yourself and other people." Participants also used metaphor to talk about time, which we separated into two categories: "moving ego" and "moving time".

Boroditsky and Ramscar's (2002) study of "moving time" vs. "moving ego" is one of the most widely-cited pieces of work on the metaphorical relationship between time and space. Two contrasting perspectives are implicit in English expressions relating to time: the moving time metaphor conceptualizes time as moving forward toward the ego and the moving ego metaphor

conceptualizes the ego as moving forward toward the future. When people are asked "Next Wednesday's meeting has been moved forward 2 days; when is the meeting now that it has been rescheduled?", individuals employing a "moving time" metaphor will report that it has been moved to Monday, whereas individuals employing a "moving ego" metaphor will report that it has been moved to Friday.

Participants tended to use the "moving time" perspective more than the "moving ego" perspective, which at first sight suggests that they felt a lack of control over their lives. Almost all instances of moving time are to comment on their perception of time going quickly rather than slowly – sometimes positively, and sometimes negatively. For example, some participants talk of time moving quickly in a negative sense, some explicitly due to their age:

> "Time is going very quickly, I don't want time to go very quickly!" (Barbara)
> "It is scary how quickly the *day* goes, and I do sleep OK, I dream quite a lot, but the days and weeks do go so quickly." (Jessica)

Many participants combine moving time and moving ego metaphors. Below are some examples of moving time:

> "Time seems to be whizzing past." (Edith)
> "It is extraordinary how quickly it comes round." (Edith)
> "We will have to face that when it comes." (Martha)
> "I know how time flies." (Hilda)
> "The days seem to be slipping by." (Hilda)

However, the same participants also use moving ego metaphors:

> "I am just plodding along." (Edith)
> "It is going forward further than that." (Martha)
> "I am keeping well and getting through each day." (Hilda)

These examples show that participants work with both conceptualisations of time at once and that they are rendered coherent by the context. The fact that people often mix metaphors in this way when describing personal experiences has been observed in a number of studies (see Gibbs, 2016 for a selection of relevant studies), as one metaphor only provides a partial picture of the phenomenon under discussion. Although the ways participants used moving time and moving ego metaphors related to their experiences of agency and helplessness, the two conceptualisations did not map neatly onto the two types of experience, largely because both conceptualisations could be used positively and negatively.

Public metaphors: Awareness and evaluation, acceptance, and rejection

Finally, we reflect on the extent to which participants were aware of metaphors that they themselves employed, and metaphors others used to refer to them or the situation. We explore their acceptance and rejection of metaphor, and by extension of the wider situation and their own place in society. Some participants explicitly evaluated metaphors, with participants weighing up the advantages and disadvantages of different metaphorical framings. We also found examples of outright rejection of some metaphors employed in the political arena to discuss the situation. Resistance to metaphor can be an empowering strategy for people who are at risk being adversely affected by the metaphors employed by those in power (see, for example, Wackers et al., 2021).

Interestingly, participants produced explicit evaluations of containment metaphors, which are the metaphors that Charteris-Black (2021) describes as being "coercive". Some talked about the idea of "cocooning", which they viewed as a positive reframing of the "lockdown" metaphor and other metaphors involving containment. They appear to have considered the various metaphors that are used in public discourse and have selected the ones that they believe to be the most beneficial to them. This appears to be a way of coping with the situation as it helps them to re-evaluate a situation that is outside of their control into something that is positive and comfortable. Interestingly, this contrasts with (Bailey et al., 2021) aforementioned findings, and underscores the presence of variation in people's responses to the different metaphors that are used to influence behavior.

For instance, Katherine explicitly states that she sees cocooning or bubbling as a positive thing, not just as it provides protection from coronavirus, but as protection from the negative impact of household isolation. She also contrasts the metaphorical idea of *cocooning* with the more literal idea of being *cooped up:*

> "I have felt cocooned through this isolation, and in a bit of a bubble, and protected from the outside, obviously I haven't been shopping, my son has helped out enormously, and also I have had quite a bit of success with home deliveries, so I haven't been out and had those frustrations, so that is a positive element of this cocooning, being in a bubble."
> "We previously mentioned the word cocooned didn't we? … In contrast, a word I have heard quite a bit, as I say in contrast is the word cooped up, cooped up, I have heard a few times. Not from me personally, I promise I haven't felt cooped up, and I don't know… I think I have said it before, I don't know if I can say I am self-isolating and I

> don't feel, generally feel, deep down that I am, I don't feel cooped up at all. Cocooned, yes, but in a nice gentle manner, so I am still quite reasonably content to remain cocooned."

Katherine also explicitly rejects the word *lockdown* itself: "The lockdown… I don't really like that word, but you can't seem to get away from it, and they seem to refer to it more these days, don't they, 'lockdown' rather than self-isolation."

This rejection of some metaphors and acceptance of others could reflect a desire for control. She refuses the public discourse about the situation, perhaps because of the "overt moral coercion" it creates (Charteris-Black, 2021). Furthermore, she seems to be trying to control her own situation by controlling her language, by replacing negative metaphors (*lockdown*, *cooped up*) with a more positive one (*cocooning*).

Stephen uses a containment metaphor that differs to those used in public discourse, such as "bubble", "cocoon", or "pod" (Charteris-Black, 2021), in the phrase "prisoners of fear". Here he is still drawing on the source domain of containment but seeks to limit the extent to which he is "contained". Trevor also comments on the language used in the media to describe "the race to get back to so-called normal". Likewise, Freda reflects on the idea of a "return to normal", commonly seen in public discourse as a positive thing, saying "that is a bit daunting, because it was a lonely normal anyway". Despite the prevalence of fighting and war metaphors in the public discourse, participants did not tend to use these in their interviews, but they did refer to the "frontline". It could be that participants did not comment on the prominent war metaphors because they were experiencing and reflecting on the household isolation on a personal level, and wars tend to be group activities carried out on a national level. However, we did see commentary on a lack of control nationally when Hilda referred to the track and trace system as a "weapon".

There were several other examples where participants displayed skepticism toward some of the metaphors that were prominent in public discourse. For example, as we saw above, Walter questions the accuracy of the term "lockdown": "we are not actually locked down into the house all the time", resisting large scale, government discourse metaphors around COVID-19. Perhaps most poignantly, Freda comments on how expressions such as "lockdown" and "being locked in" only apply to certain groups of people: "It is not true they are locked in, as the people that have the money to go to Spain and all these places on holiday, are not really the locked in ones. The true locked in ones are the poor people."

Edith frequently signals her metaphors, which also serves to reveal her attitude toward them, showing awareness of and perhaps even resistance to them (see italics for signaling):

> "Us oldies will be the last in the queue *as it were*."
> "They are *rather* up the creek without a paddle."
> "I feel *to some extent* my wings are clipped."

Martha employs a similar strategy by marking some of her metaphors, acknowledging that they are not to be taken literally:

> "So there is the two ends of the social distancing, of the spectrum *if you like* and there is everything in between *I suppose*."
> "The virus will have died *if you like, for want of a better expression*".

This final example especially highlights some resistance to the animation of the virus, as outlined in the previous section on metaphors that are directly related to agency.

In this section, we have seen that many participants were willing and able to challenge the metaphors used in the prevailing discourse and did not appear to be cowed by them. Rather, they talked explicitly about the extent to which they felt certain metaphors were appropriate and were willing to reject ones that they did not deem relevant, which demonstrates their desire to reclaim agency over the situation. It should be noted that the participants were highly educated and literate, which may explain some of their awareness of metaphor and their ability to question metaphors that they did not feel were appropriate. However, this still highlights the interaction between the metaphors the participants used and how they were feeling; metaphors can be used to help reframe a situation more positively or negatively, and positive or negative feelings can result in use of different metaphors at different times.

Conclusion

Although limited to a small number of participants, our metaphor analysis has provided insight into a range of ways in which older adults experienced and linguistically negotiated the period of household isolation. At first sight, our findings appear to suggest that the participants had adopted the dominant public metaphors of war and containment, but our qualitative analysis of the data revealed a much more nuanced picture. Although the participants did make use of metaphors related to war and fighting, they tended to direct them toward other targets, such as the government's "track and trace" system, or were covertly critical of their use. Other metaphors appeared to be more useful for describing their experiences. The first set of metaphors based around physical force, movement, and space, as well as metaphorical construals of time, appeared to be used by participants to negotiate their sense of agency. They further addressed their need for control through the use of comforting metaphors involving patterns and structure. The use of these metaphors appears to have served as a reflective method for coping. Participants made nuanced use of metaphor relating time and space, and as such their use of moving time vs. moving ego metaphors did not map neatly on their feelings regarding

the lack or presence of agency. The various ways in which they use metaphor to talk about their experience of time during the household isolation provided insights into their evolving emotions. We also saw clear cases of participants questioning or rejecting metaphors, reflecting a desire to reclaim agency. Our findings reveal how metaphors that are prevalent in public discourses are appropriated selectively and are often challenged by those at whom they are targeted. Metaphor analysis offers a useful framework for reflecting on the lived experience of people experiencing household isolation.

Data availability statement

The datasets presented in this article are not readily available because it would be a violation of the terms of agreement that the participants consented to. It has been agreed that the transcripts will be destroyed on the completion of analysis and publication and dissemination of results. Requests to access the datasets should be directed to joanne.brooke@bcu.ac.uk.

Ethics statement

The studies involving human participants were reviewed and approved by University Research Ethics Committee, Birmingham City University. The Ethics Committee waived the requirement of written informed consent for participation.

Author contributions

JB was responsible for the original data collection as part of a broader study investigating the experiences of older adults during household isolation. JB and MC contributed expertise on qualitative psycho-social research to the design of this study. JL contributed expertise on metaphor analysis to the design of the study and responsible for data visualization. EW and SB analyzed the data under the supervision of JL. EW, SB, and JL interpreted the data. All authors wrote sections of the first manuscript and contributed to reviewing and editing the final manuscript.

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The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Authority and solidarity on the Estonian COVID-19 signs: In line with the government's guidelines, we ask you to wear a mask

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This article presents the results of a quantitative analysis of 900 Estonian COVID-19 door signs, which were studied to investigate the linguistic means of establishing and maintaining contact between the sign's author (institution) and the addressee (client). Malinowski's notion of "phatic communion" and Laver's notions of "self-oriented" and "other-oriented" utterances as means for expressing status relations—authority and solidarity—between the participants of the communication act were used to establish four types of grammatical person usage on the COVID-19 signs: (1) "neither 1st nor 2nd person"; (2) "1st person only"; (3) "2nd person only", and (4) "both 1st and 2nd person". Grammatical person of personal pronouns and verb forms were included. The presence and absence of two other means for expressing authority—the imperative mood and lexical expressions of authority—were analyzed within these four types of grammatical person usage. The most important difference emerged between the signs belonging to the types "2nd person only" (i.e., signs with only other-oriented 2nd person, without 1st person) and "both 1st and 2nd person" (i.e., signs with both self-oriented 1st person and other-oriented 2nd person). On the signs belonging to the type "2nd person only" that, relying on Laver, express the higher status of the sender of the message in relation to the receiver of the message, the authors of the signs use significantly more imperative mood and less refer to an authority outside the communication act, thus putting themselves in the role of authority. However, on the signs belonging to the type "both 1st and 2nd person" that, relying on Laver, express the solidarity of the sender of the message with the addressee, the authors of the signs seem less inclined to assume the role of authority (using less imperative mood) and rather call the reader of the sign to submit to some higher authority (using lexical expressions of authority, e.g., *Vabariigi Valitsus* "Government of the Republic", *Terviseamet* "Health Board", etc.) to which the author of the sign and the addressee are both in a subordinate position and, therefore, of equal status.

KEYWORDS

phatic communion, Estonian, grammatical person, imperative mood, authority, solidarity, COVID-19, public sign

Introduction

We have recently lived in times of different kinds of social distancing—complete lockdown, keeping a 1.5–2 m distance, wearing a mask, etc. The government announced a state of emergency in Estonia on 12 March 2020, whereby various measures to combat the COVID-19 were implemented. These measures led to the temporary closure of many institutions. The situation and measures varied in different countries, but the main aim was to restrict face-to face communication between people to stop the spread of the virus. Public signs were one of the many means to deliver messages of closure or restrictions during the COVID-19 pandemic across the world.

The traditional framework for public signs' research has been Linguistic Landscape. This approach defines signs as "the linguistic items found in the public space" (Shohamy, 2006, p. 110), and as a form of asynchronous, one-way communication addressing unknown recipients (see, e.g., Shohamy, 2006; Barron, 2012; Blommaert, 2013). During the coronavirus pandemic, the global discourse emerged, which provided the unifying feature of the COVID-19 public signs: the setting, i.e., the situation where certain conditions are clearly established and even declared by the governments (e.g., the official declaration of the lockdown). Public messages of the pandemic could thus be studied as an example of crisis communication. In this field, there are a few studies of public signs of the crisis from a pre-COVID era (e.g., Tan and Said, 2015; Doroja-Cadiente and Valdez, 2019) and increasing amount of studies about COVID-19 signs (Kellaris et al., 2020; Li, 2020; Hua, 2021; Jing and Wang, 2021; Marshall, 2021; Ogiermann and Bella, 2021; Bella and Ogiermann, 2022; Dancygier et al., in press; Isosävi, in press). In addition to the different situations (crisis or non-crisis etc.) in which public signs are used, the perspective from which the analysis of the signs is conducted is also significant. Linguistic Landscape studies focus on multilingualism and/or interpret public signs as semiotic objects. There is significantly less research on the linguistic (lexical and/or grammatical) means used on public signs (from the pre-COVID era, e.g., Wierzbicka, 1998; Wetzel, 2010; Mautner, 2012; Wagner, 2015; Bonner, 2016; Ferenčík, 2018; Svennevig, 2021; and about the COVID-19 signs, e.g., Dancygier, 2021; Ogiermann and Bella, 2021; Bella and Ogiermann, 2022; Dancygier et al., in press). Our study contributes to the latter direction.

There are two important relations in the texts of the signs: interpersonal relations between the author and the addressee, and intertextual relations between the sign's text and other texts, e.g., regulations by the authority. What makes COVID-19 signs significant as a communication challenge is that the speech act performed by the sign implies *a priori* that the addressee of the message will behave accordingly—these signs function as behavioral directives. As a text genre, COVID-19 signs are unique in that, on the one hand, they have a very clear and strict informative content which is intended to prompt the addressee to obey and behave accordingly. Yet, on the other hand, some authors of the signs seek to maintain good relations with their addressees alongside informing them of practical guidelines. What linguistic means are used on the signs to reach this seemingly contradictory goal? One of the (likely unconscious) decisions that the author of a sign has to make is what to express explicitly and what to leave implicit. Using any markers of grammatical person on the sign is by no means compulsory or necessary. Thus, we regard the use of grammatical person as a meaningful choice by the sign author and set off from the broader ground to explore the linguistic expression of interpersonal relations on the signs.

In the common understanding of language as means for exchanging information, the other crucial function of language in communication is often overlooked: equally importantly, language creates and maintains social relations. The importance of this function of language has been brought to linguistics by B. Malinowski and referred to as phatic communion: "a type of speech in which ties of union are created by a mere exchange of words" (Malinowski, 1930 [1923], p. 315). We consider the COVID-19 sign as a genre of its own with special discourse roles, discursive moves and specific purposes (cf. Swales, 1990; Dancygier, 2021; Ogiermann and Bella, 2021). Drawing on Laver's further development of Malinowski's notion of "phatic communion" (see the next section for details), we relate the presence and absence of markers of 1st and 2nd grammatical person on the COVID-19 signs to solidarity and status relations between the authors of the signs and the addressees. Besides that, we investigate how the use of grammatical person is connected to other linguistic means of expressing authoritarity (cf. Svennevig, 2021)—the imperative mood and lexical expressions of authority, i.e., the nouns that refer to institutional authorities (the government, Health Board, etc.) and the legal regulations issued by them. As far as we know, there is no previous research that addresses these three linguistic means simultaneously in the context of public signs prompted by the crisis.

Initially, we qualitatively observed COVID-19 language in the case of Estonian door signs. As time went by, however, the pandemic produced a sufficient number of signs for quantitative analysis which became an important part of our study. As mentioned above, there are studies of the linguistic means used on public signs of the pre-COVID era, but they are mostly qualitative, i.e., analyzing the nature and variety of linguistic phenomena rather than the frequency or extent of it, due to the insufficient amount of data for a quantitative study. Despite the absence of such previous examples, there are already a few pioneering quantitative studies of the linguistic means used on COVID-19 signs (e.g., Ogiermann and Bella, 2021; Bella and Ogiermann, 2022).

The article is structured as follows: in the next section, the overview of the theoretical background is given; after that, data collection and organization are introduced, followed by

the methodology used for the analysis. Then, in the section Analysis and Results, there are four subsections. The first three address analyzed linguistic phenomena: person, imperative mood, and expressions of authority, and the fourth introduces the interrelations among those. In the Discussion section, the results are considered in the context of previous research and the main conclusions of the analysis are presented. Finally, further research perspectives are discussed.

Theoretical background

The term "phatic communion" was coined by Malinowski about 100 years ago to describe Trobriand Islanders' greeting formulae (Malinowski, 1930 [1923]). Malinowski's and our research share the concept of phatic communion: participants of the act of communication use specific linguistic means for social purposes—to create or maintain contact, to express solidarity, etc. Phatic communion (communication) has been studied and developed further by prominent linguists (e.g., Jakobson, 1960). Phatic communion has been said "to establish and maintain a feeling of social solidarity and well-being" (Lyons, 1968, p. 417). "[P]haticity may be best seen as a constellation of interactional goals that are potentially relevant to all contexts of human interchange" (Coupland et al., 1992, p. 211).

Our research draws from Laver who, in a further development of Malinowski's concept, divided phatic utterances into three tokens according to their orientation: (1) neutral (e.g., "Nice day"), (2) self-oriented (e.g., "My legs weren't made for these hills"), and (3) other-oriented (e.g., "Do you come here often?"). He associates the three categories (tokens) with the relative status of the parties in the communication situation: the use of language depends on whether one is in a lower or higher position than their partner, or their status is equal. If the social relations between the participants of a conversation are solidary, both personal (i.e., about oneself and the partner) and neutral (i.e., about something outside the participants, e.g., about the weather) phatic utterances are used in the conversation. In case the status of the parties is equal, but not solidary, neither the self-oriented nor the other-oriented categories are chosen, but only neutral utterances are used. If, however, there is a difference in social status between participants, the lower status participant (inferior) may use self-oriented phatic utterances, and the higher status participant (superior) may use the opposite strategy—other-oriented phatic utterances—in addition to neutral utterances that are available to speakers of any status (Laver, 1975, p. 223–224).

Phatic communion tokens (Laver, 1975, p. 223) are also in line with the previous studies about the grammatical category of person and social deixis (Siewierska, 2004, p. 214–215; cf. also Dancygier et al., in press). Grammatical person markers express the roles and relations of the participants of the act of communication: the speaker (first person), the addressee (second person), and a party talked about who is neither the speaker nor the addressee (third person) (Siewierska, 2004, p. 1). The connection between social relations and the use of the grammatical category of person has been researched before, e.g., in the use of personal pronouns. In many languages, 2nd person plural is used when addressing a person of higher status, and 2nd person singular is used when addressing a person of lower status (Brown and Gilman, 1960). The term "solidarity" has been used for the symmetric relationship (reciprocal use of 2nd person singular) between the speaker and addressee who have something in common, and contact between them should show like-mindedness (Brown and Gilman, 1960, p. 258). In the COVID-19 discourse, all of us as members of the global discourse community affected by the pandemic also shared a context of the situation (common ground of the pandemic), which made institutions and citizens somehow more equal and closer than in the pre-pandemic era.

Keeping that in mind, however, the study of language used on public signs is complicated by the fact that signs are one-way communication—we cannot account for the addressee's response to the received message. Therefore, we cannot compare the reciprocal use of pronouns or other linguistic means between the sign's author and the addressee. Laver's approach, on the other hand, allows us to interpret the establishment of social relations between the participants of a communication act based only on the choice of linguistic means by the initiator of the communication (the author of the sign). Thus, we found this approach to be a suitable tool for analyzing the status relations conveyed in the texts of the signs.

Previously, primarily lexical expressions have been researched as elements of phatic communication but that approach has also been used to explain the use of the vocative case (Jørgensen and Martinez, 2010) and emoticons (Aull, 2019). We decided to examine the usage of grammatical person as a means of expressing social relations on the COVID-19 signs because the author of a sign has no obligation to use 1st or 2nd person forms in the sign's text, as the message could as well be conveyed without them (e.g., *Wearing a mask is mandatory*). Thus, we want to explore how, by using and combining different grammatical forms of person, imperative mood, and expressions of authority, the author of a sign can thereby create different communication situations by expressing authority and solidarity [cf. also Dancygier et al. (in press) about emotional and interpersonal meanings on storefront signs in the time of COVID].

Materials and methods

During the 1st wave of COVID-19 in Estonia (13.03.2020–15.10.2020), the only known and available method to stop the spread of the virus was reducing the contact between people to the bare minimum by social distancing. That included

abruptly closing off most of the non-vital private and public services for an unknown period of time. However, the 2nd and 3rd wave (in Estonia 16.10.2020–25.08.2021 and 26.08.2021–29.11.2021, respectively) brought more elaborate restrictions, like mandatory mask-wearing, limitations to the number of people gathering and eventually the vaccination certificate, all meant to reduce the spread of the virus while preventing a full lockdown. During the second wave, the government even ran a campaign "Let's keep Estonia open!", encouraging people to act responsibly and follow the restrictions.

The photos of the COVID-19 signs in our dataset were collected by the authors using crowdsourcing: an open call was distributed *via* social media and mailing lists instructing people to submit a photo of a COVID-19 sign (see Figure 1). In the call we asked contributors to submit the name of the institution or enterprise the sign was used at, the sign's location (e.g., door, floor, table, window, wall, cashier, elevator, elsewhere indoor), the date the photo was taken, and any other relevant information they wanted to share. Approximately a quarter of the signs were photographed by the authors of this article themselves. For the present study, we gathered 900 door signs (300 signs for each of the first three waves). Overall, 19,734 words (7298 + 6692 + 5744) were analyzed. We did our best to create the most varied possible assortment of signs by different type and size of commercial and non-commercial institutions. Most of the signs were created by establishments themselves, even though there were printable posters compiled by the governmental institutions available on the official webpage of the crisis communication. Our data includes signs about closing and reorganizing businesses, canceling events, keeping social distance, disinfecting hands, limiting the number of people in an area, wearing a mask, presenting a certificate, etc. The sample includes signs from large businesses (e.g., chain stores like Rimi and Maxima), small businesses (e.g., local restaurants, pubs, coffee shops, beauty salons) and non-business places (e.g., educational institutions, hospitals, libraries, museums, theaters, churches). Duplicates were excluded from our sample (e.g., the signs that were used in many stores of large chains were included in the sample once). The geographical distribution of the signs was approximately following: ½ from Tartu, ¼ from Tallinn, and ¼ from the rest of Estonia.

The door sign was chosen for the analysis as the most common COVID-19 sign since it marks the border between the sign author's space and the addressee's space and could thus be described as a barrier between the sign's author and the addressee (cf. Dancygier et al., in press). Door signs were also relevant because different measures applied in outdoor and indoor spaces. Thus, the signs marked a border between different regulations or starting points of the regulations. Signs on the windows or notice boards next to the entrances were also considered door signs. Example signs in this article were deliberately chosen about wearing a mask to enable the reader to compare

Sotsiaalosakonda	*sisene-des*	*palu-me*
social_department.ILL	enter-GER	ask-**1PL**
Tei-l	*maski*	*kand-a!*
PP.**2PL**-ADE	mask.PART	wear-INF1

"We ask you to wear a mask when entering the social department!" (ID: 3W_22)

FIGURE 1
Estonian COVID-19 door sign. Linguistic means represented on the sign: type of person usage "both 1st and 2nd person" (expressions_of_authority_NO + imperative_NO).

Hea	*külaline,*	*meie*	*majja*
Good	guest	PP.**1PL**.GEN	house.ILL
sisene-des	*palun*	*kanna*	*maski*
enter-GER	please	wear.**IMP.2SG**	mask.PART

"Dear guest, please wear a mask when entering our house" (ID: 3W_99)

FIGURE 2
Type of person usage "both 1st and 2nd person" (expressions_of_authority_NO + imperative_YES).

the use of linguistic means of content as homogenous as possible.

As linguists, we were interested in the linguistic means through which the authority and solidarity in the message were conveyed. Extra-language modalities (colors used on the sign, the size and shape of the font, company logos, text placement on the sign, etc.) were left out of this study even though we acknowledge that these also play a significant role. Similarly, we have excluded from our analysis the other phatic linguistic means that can be found on the signs, e.g., greetings (e.g., *hea külaline* "dear guest", see Figure 2) and other linguistic expressions of politeness (e.g., *palun* "please", see Figure 2, *aitäh* "thanks", see Figure 4). Ogiermann and Bella (2021) analyzed such expressive speech acts on the COVID-19 closure signs in London and Athens and found that they are much more frequent on COVID-19 signs than on other closure signs. On COVID-19 signs they do not function so much as formal expressions of politeness but often rather as means of creating and maintaining emotional relationships, i.e., fulfilling a phatic function similar to what we assumed of the forms of grammatical person. Thus, it would be reasonable to include expressive speech acts in the analysis of grammatical person in the future. We have not done it yet because it requires a time-consuming manual coding, while the grammatical person is accessible through tools of automatic language analysis.

Even though multilingualism of the signs has been a traditional topic in the Linguistic Landscape paradigm, and although we did have multilingual signs in our sample (163

TABLE 1 The grammatical person forms of Estonian personal pronouns and verbs taken into account in the present study (in the imperative mood, only 1PL has the person marker; marker *-ge-* in 1PL and 2PL forms after the stem *püsi-* of the example verb *püsima* "to stay" indicates imperative mood).

Grammatical person	Pronouns	Verbs		
		Indicative affirmative	Imperative affirmative	Imperative negative
1SG	***mina/ma***	*püsi-**n***	-	-
1PL	***meie/me***	*püsi-**me***	*püsi-ge-**m***	*är-ge-**m** püsi-ge-**m***
2SG	***sina/sa***	*püsi-**d***	*püsi-Ø*	*ära-Ø püsi-Ø*
2PL	***teie/te***	*püsi-**te***	*püsi-ge*	*är-ge püsi-ge*

multilingual signs out of 900: Estonian—English 84, Estonian—Russian 53, and Estonian—English—Russian 26), we analyzed only Estonian texts on the signs and presented English translations of Estonian texts in examples.

The text and metadata of the signs were organized in an Excel table. Texts were automatically analyzed (identifying expressions of authority, 1st and 2nd grammatical person, and mood) using the Python package ESTNLTK (Orasmaa et al., 2016). For statistical analysis, we used χ^2-tests to determine whether significant relationships existed between the studied linguistic features. The statistically significant results are reported. Statistical analysis was performed using the chisq.test() function of the R software package "stats" version 4.0.5 (R Core Team, 2021).

Analysis and results

In this section, linguistic phenomena on the COVID-19 signs—grammatical person, imperative mood, and expressions of authority in Estonian—are introduced. Then, the quantitative analysis of the presence and absence of imperative mood and expressions of authority is presented in relation to types of person usage. Finally, most frequent combinations of the type of the person usage, imperative mood and lexical expressions of authority are described, providing the basis for further discussion about expressing authority and solidarity on a sign.

Person

In Estonian, grammatical person is expressed by personal pronouns (PP) and verbal suffixes, which are combinations of person (1, 2, 3) and number - singular (SG) and plural (PL).[1] In the imperative mood, verb forms are usually used without personal pronouns (e.g., *Kand-ke maski*! "Wear-IMP.2PL a mask!"). In the indicative mood, verbal suffixes are sometimes used simultaneously with personal pronouns in subject function (e.g., ***me*** *kanna-**me*** "PP.1PL wear-1PL"). Still, in indicative affirmative, it is also quite common to omit (pro-drop) personal pronouns (e.g., *kanna-**me*** "wear-1PL") as the person is marked in the verb (-**me** "1PL"). However, since there are no explicit person markers in indicative negative, a pronoun is obligatory in the case of negation (e.g., ***me*** *ei kanna* "PP.1PL NEG wear.CONNEG"). In all syntactic functions other than subject, the personal pronoun is not omitted because the verb form expresses only the grammatical person of the subject (see Figure 1).

Table 1 presents all forms of the grammatical person which were included in the analysis. From the verbal paradigm, affirmative and negative imperative and affirmative indicative present tense forms of 1st and 2nd person singular and plural were included. Negative forms of the indicative mood were excluded from the analysis because verbal negation does not explicitly express grammatical person in Estonian. As of personal pronouns, 1st and 2nd person singular and plural[2] in both long (e.g., *meie* "we") and short forms (e.g., *me* "we") were included. Additionally, there are 14 cases in Estonian[3], all of which can be applied to all personal pronouns, including the genitive form which also functions as a possessive pronoun like *my* or *our* in English (see Figure 2). All the forms of 1st and 2nd person pronouns in all cases were included in the automatic analysis [For more detailed description of the person markers in Estonian, see Erelt, 2003, p. 53 (about verbal markers) and Pool, 1999 (pronominal markers).].

1 Abbreviations for grammatical categories used in the examples in this article: (-) hyphen, is used to separate segmentable morphemes; (.) period, is used to separate non-segmentable morphemes; 1, 1st person; 2, 2nd person; 3, 3rd person; ADE, adessive case; COM, comitative case; CONNEG, connegative; GEN, genitive case; GER, gerund; ILL, illative case; IMP, imperative; INE, inessive case; INF1, da-infinitive; INF2, ma-infinitive; NEG, negation; PART, partitive case; PL, plural; PP, personal pronoun; PPP, past passive participle; SG, singular; V, verb.

2 In Estonian, there are no grammatical means for distinguishing exclusive and inclusive 1PL.

3 In Table 1, nominative case of the personal pronoun is presented.

TABLE 2 Types of the person usage on the Estonian COVID-19 signs (V, verb; PP, personal pronoun; SG, singular; PL, plural; 1,2, person).

Type of the person usage	1st person forms of which at least one is present on the sign: V_1SG, V_1PL, PP_1SG, PP_1PL	2nd person forms of which at least one is present on the sign: V_2SG, V_2PL, PP_2SG, PP_2PL	Signs ($n = 900$)
Neither 1st nor 2nd person	No	No	201
1st person only	Yes	No	237
2nd person only	No	Yes	215
Both 1st and 2nd person	Yes	Yes	247

We used automatic search for the person markers on all signs and distinguished four types of person usage found in details in Table 2: (1) neither 1st nor 2nd person (see Figure 3); (2) 1st person only (see Figure 4); (3) 2nd person only (see Figure 5); (4) both 1st and 2nd person (see Figure 6).

Maski *kandmine* *on* *KOHUSTUSLIK*
mask.GEN wearing is mandatory

"Wearing a mask is mandatory" (ID: 3W_39)

FIGURE 3
Type of person usage "neither 1st nor 2nd person" (expressions_of_authority_NO + imperative_NO).

PALU-ME *KAND-A* *MASKI.* *AITÄH!*
ask-**1PL** wear-INF1 mask.PART thanks

"We ask for mask-wearing. Thanks!" (ID: 2W_279)

FIGURE 4
Type of person usage "1st person only" (expressions_of_authority_NO + imperative_NO).

KANNA *MASKI* *JA* *ESITA*
wear.**IMP.2SG** mask.PART and provide.**IMP.2SG**

COVID *TÕEND!*
COVID certificate

"Wear a mask and provide a COVID certificate!" (ID: 3W_250)

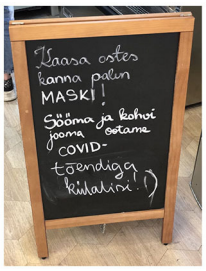
FIGURE 5
Type of person usage "2nd person only" (expressions_of_authority_NO + imperative_YES).

Imperative mood

The imperative mood in Estonian has means to express affirmative and negative polarity, person, and number. First person singular form of the imperative is absent (as it is illogical to give orders to oneself) and 2nd person singular is unmarked. In the plural forms of 1st and 2nd person, the imperative marker *ge/ke* is used. For more detailed description of the imperative in Estonian, see Metslang (2004), Metslang and Sepper (2010, p. 533–537). The overview of the imperative forms included in this study is given in Table 1 above.

The imperative is one of the most common linguistic means to express status relations. Usually, only higher-status participants are eligible to give orders to the lower-status participants in the act of communication. The main functions of imperative mood are to deliver requests, orders, commands, and demands, and it also calls for the addressee's responsibility. Other-oriented 2nd person forms are the central elements of the imperative mood paradigm. These forms imply that the speaker does not submit to the action referred to by the behavioral directive: the sender of the message is the source of the command, and the addressee is the performer of the commanded action. In the COVID-19 discourse, sign authors were in the specific discourse role of communicating the message, initially delivered by the government, to the addressees who are expected to behave in a way the sign instructs (e.g., wear a mask). Using the imperative, the author of the sign directly presents themselves as the author of the behavioral directive. When the imperative is not used, the original author of the order (e.g., the government) is often referred to explicitly with an expression of authority (see Figure 7).

There is only one person and number form in the Estonian imperative mood paradigm that includes the speaker—1st person plural *kand-ke-m* "let's wear", *hoid-ke-m* "let's keep", *püsi-ge-m* "let's stay". Because it indicates the speaker as well as the addressee, it is both self- and other-oriented. This form appeared on 13 signs (5 times in the type "only 1st person" and 8 times in the type "both 1st and 2nd person"), which is not much but still



Kaasa with	*ost-es* buy-GER	*kanna* wear.**IMP.2SG**
palun please	*MASK!* mask.PART	*Söö-ma* eat-INF2
ja and	*kohvi* coffee.PART	*joo-ma* drink-INF2
oota-me wait-**1PL**	*COVID-tõendi-ga* COVID_certificate-COM	*külalisi!* guest.PL.PART

"Please wear a mask when buying to-go! To eat and drink coffee we await guests with a COVID-certificate! :)" (ID: 3W_299)

FIGURE 6
Type of person usage "both 1st and 2nd person" (expressions_of_authority_NO + imperative_YES).

HEA good	*KLIENT!* client	
SEOSES in_relation_to	*VALITSUSE* **government**.GEN	*POOLT* by
KEHTESTA-TUD impose-PPP	*PIIRANGU-TE-GA* **restriction**-PL-COM	*TULE-B* come-SG3
TEENINDUSJAAMA-S service_station-INE	*KAND-A* wear-INF1	*MASKI!* mask.PART

"Dear customer! Regarding the restrictions imposed by the government wearing a mask in the service station is mandatory!" (ID: 3W_77)

FIGURE 7
Type of person usage "neither 1st nor 2nd person" (expressions_of_authority_YES + imperative_NO).

remarkable since this form has been considered very rare, used only in the high style so far (Metslang and Sepper, 2010, p. 534). All other uses of person in the imperative are other-oriented.

An automatic search of markers of the imperative mood was conducted, and as a result, two groups of the signs were formed depending on whether the sign included at least one instance of imperative mood or not. The imperative was present on 401 (45%) signs (see Figures 1, 3, 4) and not present on 499 (55%) signs (see Figures 2, 5, 6).

Expressions of authority

We presumed that referring to legal measures issued by governmental institutions would also be a strategy sign authors use to achieve an expected behavior by the addressees (cf. Svennevig, 2021; Bella and Ogiermann, 2022). In addition to their primary function of supporting authority of the message, those expressions are used to establish a discourse community: the author of the sign assumes that the reference is accessible and understandable to the addressee. To find out how and when this intertextual reference is used, expressions referring to institutional authorities and legal acts were manually extracted from our dataset and converted into the following keywords: *eriolukord* "state of emergency", *vabariik* "republic", *riik* "state", *valitsus* "government", *terviseamet* "Health Board", *korraldus* "order", *otsus* "decision", *nõue* "demand", *piirang* "restriction", *meede* "means", *määrus* "decree", *ettekirjutus* "guideline", *juhis* "instruction", *sisekorraeeskiri* "internal rules" (cf. also Tragel and Tomson, 2022).

Next, the automatic search of keyword lemmas was conducted on the condition that at least one of these expressions would be present on the sign. The search resulted in two groups: signs with (in total 231 of 900 signs, i.e., 26%; see Figure 7) and without expression of authority (669 of 900 signs, i.e., 74%; see Figures 1–6).

Interrelations between the types of person usage, imperative mood, and expressions of authority

In Table 3, the distribution of the presence and absence of the imperative mood and expressions of authority is presented within each type of person usage. This table enables us to simultaneously follow the correlations between the three linguistic features we attribute to authority and solidarity dynamics: use of person, expressions of authority and imperative mood. Values of the four types of person usage are (1) neither 1st nor 2nd person; (2) 1st person only; (3) 2nd person only, and (4) both 1st and 2nd person. Features "expression of authority" and "imperative" have two values: (1) yes (present) and (2) no (absent).

In the table, the darker cells with the same color represent higher values and the lighter cells represent lower values. The red cells in the last column of each type of person usage show the distribution of signs with and without expressions of authority. The blue cells in the last row of every type of person usage show the distribution of signs with and without the imperative mood. The purple cells show the distribution of signs between the two features simultaneously: the presence or absence of expressions of authority and the imperative mood.

Expressions of authority and types of person usage

Table 3 shows that the number of signs without expressions of authority is larger than the number of signs with them in all types of person usage. The percentages, however, vary: the type "2nd person only" has significantly fewer signs with expressions of authority (10%), while the type "both 1st and 2nd person" had the most (35%).

The difference between the use of person markers on signs with or without expressions of authority is also statistically significant [$\chi^2_{(3)} = 41.34$, $p < 0.0001$]: it can be seen that expressions of authority and the type "2nd person only" tend not to be used together on one sign (see Figure 8).

TABLE 3 The distribution of the presence (YES) and absence (NO) of the imperative mood and expressions of authority within each type of person usage.

Type of person usage	Expressions of authority	Imperative		
		YES	NO	TOTAL
Neither 1st nor 2nd person	YES	0%	27%	27%
($n = 201$)	NO	0%	73%	73%
	TOTAL	0%	100%	100%
1st person only	YES	1%	29%	30%
($n = 237$)	NO	1%	69%	70%
	TOTAL	2%	98%	100%
2nd person only	YES	9%	1%	10%
($n = 215$)	NO	84%	6%	90%
	TOTAL	93%	7%	100%
Both 1st and 2nd person	YES	26%	9%	35%
($n = 247$)	NO	53%	12%	65%
	TOTAL	79%	21%	100%

Imperative mood and 2nd person with and without 1st person

As for the imperative mood, it cannot be used in the type "neither 1st nor 2nd person", and it is very rare in the type "1st person only" (5 times in this type, see the section about imperative mood above). The imperative mood is used on most signs of the type "2nd person only" (93% of the signs have the imperative mood, 7% do not, see Figure 9). On the signs where 1st person is used in addition to 2nd person (i.e., the type "both 1st and 2nd person"), the imperative mood is used much less (79% of the signs have the imperative mood, 21% do not), although the presence of 2nd person would allow using the imperative mood in this type just as often as on the signs of the type "2nd person only". The difference in using the imperative mood in these two types of person usage is statistically significant [$\chi^2_{(1)} = 18.7, p < 0.0001$].

Imperative mood and expressions of authority

The statistical analysis of all four types of person usage together shows also a weak negative correlation between the features "expressions of authority" and "imperative mood" [$\chi^2_{(1)} = 8.0$, $p = 0.005$]: the signs with expressions of authority have less imperative forms (84 signs of 231, i.e., 36%) than the signs without expressions of authority (317 signs of 669, i.e., 47%)—see Figure 10. Hence, it is not very common to use the imperative mood and expressions of authority—the two means of implementing authority—together. The manifestation of their combination in each type of person usage is analyzed in the next subsection.

Most frequent combinations of the type of the person usage, imperative mood and expressions of authority

The most frequent combinations of the type of person usage, imperative mood, and expressions of authority can be found in the darkest purple cells in Table 3 above:

(1) of the 201 signs of the type "neither 1st nor 2nd person", the combination of "expressions_of_authority_NO + imperative_NO" is the most frequent (147 signs, i.e., 73%; see Figure 3), but the combination "expressions_of_authority_YES + imperative_NO" is also rather frequent (54 signs, i.e., 27%);
(2) of the 237 signs of the type "1st person only", the combination of "expressions_of_authority_NO + imperative_NO" is the most frequent (164 signs, i.e., 69%; see Figure 4), but the combination "expressions_of_authority_YES + imperative_NO" is also rather frequent (68 signs, i.e., 29%);
(3) of the 215 signs of the type "2nd person only", the combination of "expressions_of_authority_NO + imperative_YES" is the most frequent (182 signs, i.e., 84%; see Figure 5);
(4) of the 247 signs of the type "both 1st and 2nd person", the most frequent combinations are "expressions_of_authority_NO + imperative_YES" (132 signs, i.e., 53%; see Figure 6) and "expressions_of_authority_YES + imperative_YES" (63 signs, i.e., 26%; see Figure 11). Additionally, the other two combinations were more present here than the less frequent combinations in the other types of person usage. The combination "expressions_of_authority_YES + imperative_NO" (23 signs, i.e., 9 %) is represented in Figure 12 and the combination "expressions_of_authority_NO + imperative_NO" (29 signs, i.e., 12%) is represented in Figure 1.

For a native speaker of Estonian and a member of local COVID-19 discourse community, the absence of the imperative mood (Figures 1, 9) makes the signs sound less authoritative than the signs with the imperative mood present (Figures 6, 8). However, it does create a feeling of solidarity through the use of both 1st and 2nd person. Furthermore, the use of expressions of authority referring to an entity of higher status than both the sign's author and the addressee (see Figure 9) is likely to create a higher willingness in the addressee to collaborate than using only 2nd person imperative on the sign (see Figure 5), which leaves the addressee at an inferior position. In the following discussion, we will look deeper into expressing and combining

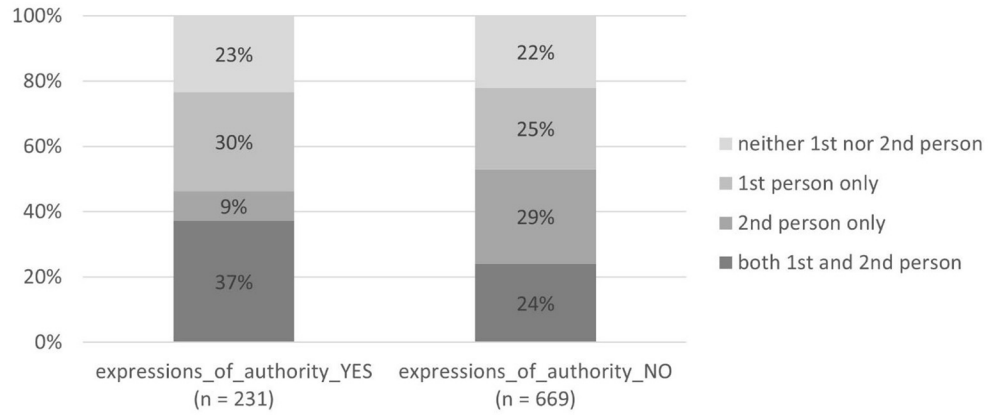


FIGURE 8
Expressions of authority and types of person usage.

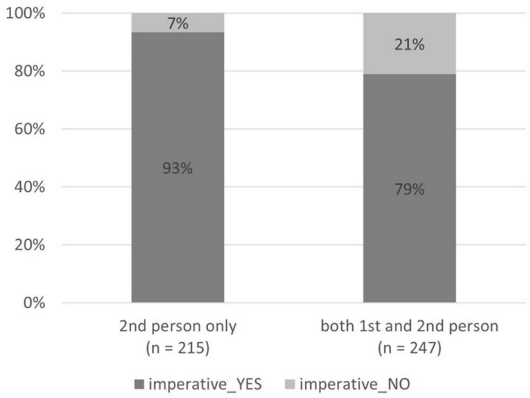


FIGURE 9
Imperative mood and 2nd person with and without 1st person.

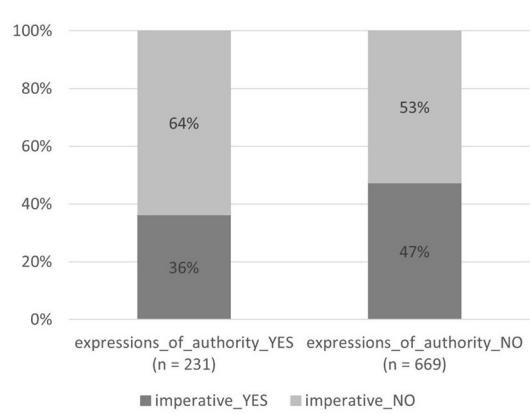


FIGURE 10
Imperative mood and expressions of authority (four types of person usage together).

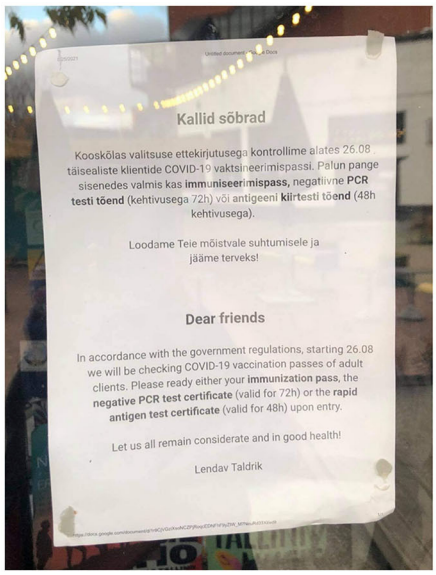
authority and solidarity. However, the scientific verification of this argumentation requires a sign-processing experiment we are currently designing for further research.

Discussion

In the previous section, we analyzed interrelations of the types of person usage, the imperative mood, and expressions of authority. We based our research on Malinowski's notion of "phatic communion" (Malinowski, 1930 [1923]) as a contact creation device. Relying on Laver's notions of "self-oriented" and "other-oriented" (Laver, 1975), we regarded personal pronouns and verb markers of 1st person as self-oriented and of 2nd person as other-oriented means of language. We found that using or not using 1st person and/or 2nd person forms on the sign establishes communication situations that express different authority and solidarity relations between the sign's author and the addressee.

Most significant findings about the interrelations of expressions of authority, imperative mood, and use of person markers could be concluded as follows:

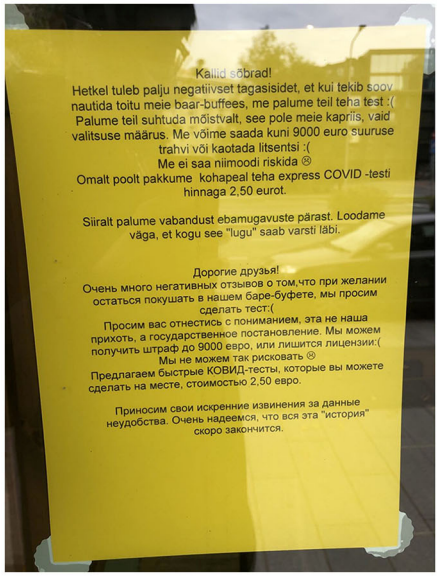
- On the signs with only other-oriented 2nd person (without 1st person) lexical expressions of authority are infrequent and authority is often expressed by imperative mood;
- On the signs with both self-oriented 1st person and other-oriented 2nd person, however, imperative mood is used less often. In this case, what add authority to the message are lexical expressions of authority which are used much more frequently on the signs in this type than on the signs of the type "2nd person only".



Kallid sõbrad
*Kooskõlas **valitsuse ettekirjutusega** kontroll**ime** alates 26.08 täisealiste klientide COVID-19 vaktsineerimispassi. Palun pan**ge** sisenedes valmis kas immuniseerimispass, negatiivne PCR testi tõend (kehtivusega 72h) või antigeeni kiirtesti tõend (48h kehtivusega). Lood**ame Teie** mõistvale suhtumisele ja jää**me** terveks!*

„Dear friends
In line with the **government's guidelines**, [we] are checking-**1PL** adult customers' COVID-19 certificates of vaccination starting from 26.08. Please prepare-**IMP**.**2PL** upon entry either a certificate of immunization, a certificate of a negative PCR test (72h validity), or a certificate of a rapid antigen test (48h validity). [We] hope-**1PL** for **your** understanding attitude and remain-**1PL** healthy!" (ID: 3W_66)

FIGURE 11
Type of person usage "both 1st and 2nd person" (expressions_of_authority_YES + imperative_YES).



Kallid sõbrad!
*Hetkel tuleb palju negatiivset tagasisidet, et kui tekib soov nautida toitu **meie** baar buffees, **me** palu**me teil** teha test :(Palu**me teil** suhtuda mõistvalt, see pole **meie** kapriis, vaid **valitsuse määrus**. **Me** või**me** saada kuni 9000 euro suuruse trahvi või kaotada litsentsi :(**Me** ei saa niimoodi riskida :(Omalt poolt pakku**me** kohapeal teha express COVID -testi hinnaga 2,50 eurot. Siiralt palu**me** vabandust ebamugavuste pärast. Lood**ame** väga, et kogu see "lugu" saab varst i läbi.*

„Dear friends!
At the moment, there is a lot of negative feedback, that if there is a wish to enjoy food in **our** bar buffet, **we** ask-**1PL** **you** to do a test :([We] ask-**1PL** for **your** understanding, it's not **our** whim but the **government's decree**. **We** can-**1PL** be fined up to 9000 Euros or lose the license :(**We** can't risk like that :(For our part, [we] offer-**1PL** to do an on-site express COVID-test that costs 2.50 Euros. [We] sincerely apologize-**1PL** for the inconveniences. [We] really hope-**1PL** that this whole "story" will be over soon." (ID: 3W_274)

FIGURE 12
Type of person usage "both 1st and 2nd person" (expressions_of_authority_YES + imperative_NO).

In everyday conversations, using the imperative mood in 2nd person is a natural way to address the interlocutor. However, using the other-oriented 2nd person (either with or without 1st person) also seems to connote the participants' status relations in the act of communication. It seems that using only 2nd person (i.e., saying something about the addressee) is more authoritative than using it along with 1st person (i.e., saying something about oneself as the author). The imperative mood—which can be assumed to "empower" the sign's message—is used more often on the signs of the type "2nd person only". The imperative mood (with the exception of the 1PL form) expresses non-solidary relations between participants: the author of the sign finds himself eligible to ask the addressee to behave in a certain way,

consequently placing himself in the superior position in the communication situation.

Furthermore, why are expressions of authority used significantly more often on the signs of the type "both 1st and 2nd person" than on the signs of the type "2nd person only"? A possible explanation is that it has to do with establishing and maintaining the solidarity relationship between the participants of the communication act: expression of authority would be used to justify behavioral directives or other pieces of potentially unpleasant information that must be communicated to the addressee. On the other hand, referring to oneself (i.e., using 1st person) reduces the authoritarianism of the sign's message by signaling the equality of the participants instead of the author's authority—the author of the sign and the addressee are both subjected to a superior authority to which the author invites the addressee to submit. The wide use of the lexical expressions of authority at the beginning of the pandemic justifies itself as people were adapting to an unfamiliar situation, for which restrictions needed explanation and justification. However, after some time, the addressee of a sign as a member of the global and local COVID-19 discourse could be assumed to know and understand the situation. Hence, such expressions were more likely to be redundant on the signs, but they did not disappear from them. This phenomenon presents itself as a general feature of the COVID-19 discourse, where community members possess shared knowledge about the situation but still decide to explicitly express it to emphasize joint responsibility as a means of coping with the crisis.

As for the remaining two types of person usage, signs of the type "1st person only" are associated with solidarity rather than authority, although lexical expressions of authority (if present on the sign) make them more authoritative. On the contrary, the signs of the type "neither 1st nor 2nd person" create no solidarity in the addressee. Instead, these signs convey the message without creating personal contact with the addressee (cf. Laver, 1975, neutral type).

Although the elements with phatic function can be very small, their role in communication is huge (McCarthy, 2003, p. 60). This also applies to the pronouns and verb markers analyzed in this article. The easiest way of presenting a behavioral directive is, surely, using the imperative forms of 2nd person, which might be the case when the sign's author is already tired of the prolonged situation and may want it to be over quickly. However, the addressee might also be tired of living in a world full of restrictions and might not be bothered to make an effort anymore. For a tired addressee, it is especially important to turn more attention to the language of a message (Barron, 2012, p. 71). When an already long crisis escalates even further, finding the right language for conveying instructions might become even more important.

It was established already in the pre-COVID era that the more interested a sign's author is in maintaining good relations with their customer (i.e., the addressee), the more solidarity they try to show in their choice of words, especially when following the guidelines is not legally mandatory but dependent on the customer's goodwill (Svennevig, 2021, p. 182). Even when the guidelines on the COVID-19 signs were legally mandatory, the authors of the signs still used additional linguistic means to create solidarity. Small-business entrepreneurs were thereat probably the most invested in creating the signs during the COVID-19 crisis since their income depended on maintaining good customer relations. Although, on the one hand, this might seem motivated by self-interest, on the other hand, making the addressee feel equality and solidarity is an integral part of crisis communication. It could be seen that private entrepreneurs served as a good example of how an addressee could be reached in a difficult situation. Thus, researching the signs of the COVID-19 crisis can also give us a broader awareness of the use of language in crisis communication, e.g., how to avoid putting the addressee of legally mandatory guidelines in the position of an inferior following orders and instead express their being a member of the society who does their part in coping with the difficult situation and submits to the sign communication effectiveness.

Messages where the author communicates empathy and hopes for empathy on the addressee's part are the ones that call for cooperation and shared effort the most. The importance of expressing solidarity and friendship in the communication between the authors of the COVID-19 signs (business enterprises) and the addressees (customers) has also been addressed by Dancygier et al. (in press). According to our analysis, a distinctive feature of such messages is using both 1st and 2nd grammatical person on the sign. Authority can be added by using lexical expression of authority, i.e., making an intertextual reference to governmental institutions to which both the author and the addressee of the sign are equally submitted. Even the imperative mood, which usually expresses authority, does not emphasize the gap between the statuses of the parties when used together with both 1st and 2nd person, compared to signs where only 2nd person is used.

Additionally, psychologists have also revealed that the best strategy for opening a conflict discussion is to use statements that include I-language (instead of you-language) and communicate "both self- and other-perspective", because such use of language significantly reduces "perceptions of hostility" (Rogers et al., 2018). The research of psychologists focuses on the message's content and not the grammatical means of language (e.g., if you-language statements include only the pronoun *you*, then I-language statements can include both the pronouns *I* and *you*, and not necessarily just *I*), just like Laver (1975), whom we are drawing on, did not directly associate self-oriented and other-oriented tokens with grammatical elements. However, a quantitative analysis of our empirical data, which demonstrates that since the use of grammatical person (self-oriented 1st person and other-oriented 2nd person) on COVID-19 signs is systematically connected to

other linguistic means of expressing authority (the imperative mood and lexical expressions of authority), confirms Laver's claim that the use of self-oriented and other-oriented utterances reflects the status relations of the interlocuters. Signs are a one-way communication act, thus the use of language on the signs expresses the role which the author of the sign takes for themselves in relation to the addressee—whether they present themselves as an authority to whom the addressee must submit, or as an equal partner, who invites the reader to together submit to some kind of external authority. In their research of the COVID-19 signs in UK and Greece, Bella and Ogiermann interpreted this kind of role-taking as a creation of identity by the authors of the signs and found that "[a]mong these identities, the one of the self-directed social actor turns to be most crucial" (Bella and Ogiermann, 2022, p. 644).

Thus, not only is what we tell each other important but also how we do it. We create and maintain social relations by using certain linguistic means because different means create different communication situations and evoke different feelings among the parties, influencing their behavior.

Ideas for further research

The study of COVID-19 signage is a multifaceted, multidisciplinary area of which we have only scratched the surface in our article. Many other questions remain to be studied to gain further insight into how solidarity and authority are expressed on the signs. An important comparison excluded from this article was that of institutions (e.g., grocery stores, pharmacies, restaurants, etc.) which we plan to research in the future. We also have not yet looked into the multilingualism of the signs, a traditional topic in the framework of the Linguistic Landscape, due to multilingual signs not being very widespread in Estonia, apart from the multilingual community in the capital Tallinn.

There are quite a few signs without imperative forms and expressions of authority in our data, e.g., in the type "neither 1st nor 2nd person" but also in other types of person usage. How does the author of the sign achieve authority in these acts of communication? We presume other means, which we did not analyze in this study, have been used instead, e.g., modal verbs and other modal expressions that have been mentioned in previous studies of signs (e.g., Svennevig, 2021), e.g., *needs to be, must be, can be, is allowed, is mandatory, is needed*. The visual aspect could also be used to instill authority (e.g., the company's logo, colors, capital letters, etc.). In the future, it would also be reasonable to investigate these factors in relation to the use of person, self- and other-oriented language, and the expression of authority and solidarity.

Further future directions are also the politeness distinction in 2nd person singular and plural (the connections between politeness, formality, and solidarity in 2PL) as well as other expressions of politeness (e.g., *please, thank you, we thank you, we excuse,* etc.)—do these expressions add to the solidarity conveyed by the message? Other possible topics for further research include the distribution of verb forms and personal pronouns in different types of person usage, the distinction between inclusive and exclusive 1PL, the placement of the expression of authority in the text, etc. Investigating the use of negation would also provide valuable insight into the research (e.g., *We do not offer service without a mask* is highly unlikely to create any sense of solidarity).

As other potential means of solidarity, handwritten signs can be researched for their ability to create more intimate contact between the author and the addressee (see Hua, 2021); likewise, the greetings at the margins of the signs (see Ogiermann and Bella, 2021) for which a "self-oriented" and "other-oriented" analysis could be applied (cf. Laver, 1981) as well as an analysis on how the author of the sign refers to themselves at the end of the sign. Dancygier et al. (in press) distinguish two ways the author of a COVID-19 sign relates to the addressee: (1) a compliant addressee or (2) a partner in a friendly exchange. How the division of these roles—authoritative commands or expressions of friendship as well as other markers of social deixis—are expressed in Estonian can, in the future, be researched based on our data. Furthermore, signs' formality and informality could be analyzed automatically by a resource currently in development, using genre-independent methodology for analyzing Estonian texts (Gailit, 2021; cf. Sheikha and Inkpen, 2012).

Lastly, it would be interesting to compare the signs in different countries and languages, e.g., according to the cultural scripts' approach (e.g., Wierzbicka, 1998), and see how different cultures create a sense of solidarity and achieve effective communication through public signs.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

Author contributions

Both authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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COVID-19 telephone contact tracing in Flanders as a "contested" new genre of conversation: Discrepancies between interactional practice and media image

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During the COVID-19 pandemic in Belgium, most COVID-19-related information was communicated to the public through mainstream media such as newspaper outlets, television, and radio. These media had substantial influence over which information was (widely) distributed and how this information was framed, subsequently shaping citizens' interpretations of matters concerning the pandemic. This chapter considers one of the government's endeavors to contain the pandemic: COVID-19 telephone contact tracing. Specifically, we compare the image of such telephone contact tracing generated by the media with the de facto interactional practice. We report on analyses made as part of a 1 year applied conversation analytic and pragmatic study conducted at Ghent University and the University of Antwerp in collaboration with the Flemish Agency of Health and Care. Methodologically, we use thematic content analysis to examine the portrayal of COVID-19 telephone contact tracing in widespread Flemish newspapers and its evolution throughout the pandemic. We then compare this media analysis to our analysis of a corpus of 170 recorded, transcribed, and interactionally analyzed contact tracing calls. Our results demonstrate how the mainstream media's image of contact tracing does not align with the various (interactional) functions of COVID-19 contact tracing calls identified in the study. We argue that this one-sided, distorted image produced by the media may have had considerable consequences for the efficacy of contact tracing, especially because the contact tracing call was a new genre of conversation. It was introduced to the public almost exclusively through mainstream media and, at the same time, its success relied for the most part on citizens' voluntary participation, trust, and willingness to share private information.

KEYWORDS

interactional sociolinguistics, media representation, COVID-19 contact tracing, call centers, pragmatics

1. Introduction

During the COVID-19 pandemic in Belgium, the media played a substantial role in communicating information to the public. Mainstream media were the main channel through which the population was informed about figures and numbers relating to, for example, infection rates, but also about the government's strategies for containing the pandemic, ranging from micro-level safety measures such as mandatory face masks, to macro-level measures such as instilling limited "social bubbles," contact tracing endeavors and vaccination strategies. In a number of respects, the media not only determined which information reached the general public and when, but also influenced how relevant information and reported practices were framed, and by implication interpreted by the general public.

This paper considers the media's portrayal of one aspect of the government's risk management strategy: centrally organized telephone contact tracing. We report on analyses made as part of a 1 year applied conversation analytic and pragmatic study conducted at Ghent University and the University of Antwerp in collaboration with the Flemish Agency of Health and Care. In doing so, we examine the image generated by the media of such telephone contact tracing and how this image evolved throughout the pandemic. Most importantly, we demonstrate how this image contrasts with the interactional reality.

This paper starts with an outline of how centralized COVID-19 contact tracing in Flanders was organized, and the role of telephone contact tracing in the government's strategy for containing the pandemic. We then briefly illustrate the important role of the media by referring to relevant literature. Next, we briefly outline the various (interactional) functions we identified in the COVID-19 contact tracing call. Following this outline, this paper analyzes how precisely contact tracing was reported on in the media, specifically in larger Flemish newspapers. Based on this analysis, we then discuss how the elements of contact tracing covered by the media relate to the identified (interactional) functions. A comparison of these two analyses demonstrates how the media have cast a distorted and one-sided picture of contact tracing. While our interactional analysis points to a complex set of communicative functions, including more practical functions such as giving and receiving information as well as the contact tracing telephone conversation being a care conversation with empathy taking up a central role, media coverage on this type of interaction is characterized by a lack of reporting on the supportive nature of these conversations and a stark focus on the more information-processing and organizational elements. This image may have had consequences for the efficacy of contact tracing, given how for large parts of the population the contact tracing telephone call was a new genre of conversation which was introduced to citizens mostly through popular media and press coverage in Flanders, and which depended to a large extent on voluntary participation and trust by the public.

2. COVID-19 telephone contact tracing

Contact tracing came into existence in the early 20th century, within the specific context of Syphilis and other STDs (Green et al., 2001). It is a commonplace practice to trace contacts in the context of HIV/AIDS, where it is sometimes referred to by means of the term "partner notification" (Hyman et al., 2003; Tomnay et al., 2005). Another medical context in which contact tracing is a common endeavor is tuberculosis, where contact tracing constitutes "in-depth interviews" with the infected person as the first stage (Fortuinet al., 1998; Begun et al., 2013). COVID-19 contact tracing, then, appeared in various national contexts during the pandemic. Among other countries, Belgium, the United Kingdom, France, Sweden, and the United States used it as a strategy to mitigate and contain the risk of the rapidly spreading illness (Jacob and Lawarée, 2021). Belgium's contact tracing strategy for COVID-19 has arguably been a unique case, as it entailed an automatic coupling of contact tracing activity to a central database of infected persons, as well as a massive switch from in-person interaction to "telephone contact tracing." The practice was implemented across the three regions of the country.

2.1. Contact tracing endeavors

Part of the Belgian government's strategic approach to containing the early COVID-19 pandemic was establishing a contact tracing system through which all infected citizens and their contacts at risk of being infected could be traced. In addition to the implementation of a contact tracing app, networks of COVID-19 contact tracing call centers were established in May 2020 and governed at the level of the Flemish, Walloon and Brussels Capital Regions. These contact tracing call centers varied in size and capacity because of continual fluctuations in infection rates that called for volatile downscaling and upscaling operations. Such a contact tracing system not only allows one to track and trace the spread of the virus, it also allows citizens to be informed that and for how long they need to isolate or quarantine, and what precisely this entails. Contact tracing initiatives were also developed at a local, city level. Although there was some collaboration between central and local contact tracing, most local initiatives were developed separately and functioned independently from the federal and regional initiatives.

The focus of this paper lies on the type of contact tracing organized at the regional level, more specifically in Flanders. Such centralized contact tracing mostly took the form of systematic telephone conversations conducted in call centers; in a limited number of cases, it included field agents who performed home visits. The procedure for telephone contact

tracing was as follows: when an infected person tested positive for the COVID-19 virus, this person was contacted by a contact tracer (CT) over the telephone, asked about their contacts and provided with instructions and other information regarding prevention measures (De Timmerman et al., 2022). The infected person is what we call the index patient (IP). The contact tracer asks the index patient about recent contacts, when and where the encounters took place, and so on. In cases where the index patient is not reachable *via* telephone, a field agent is sent to their home to carry out the contact tracing in person. In the next stage, the index patient's listed contacts are each contacted in their turn. The next step is for these contacts to self-quarantine and get tested. When a contact tests positive, the entire process is repeated, now with the contact as the index patient. Our study is limited to the first-stage telephone calls.

The contact tracing phone calls are conducted on the basis of a script, which is designed differently for calls with index patients, calls with low-risk contacts, and calls with high-risk contacts. This script has been integrated in a computer program with slots to be filled out, path dependency, and set questions. We specifically focus on the telephone conversations of one script type, "1A," viz. those with IPs.

2.2. A genre of conversation that was new to the general public

Arguably, COVID-19 contact tracing calls can be considered a new genre of conversation. Even though contact tracing had been around in various forms and variants, internationally and within the country, the COVID-19 contact tracing telephone conversation as a genre emerged more or less overnight. It emerged as a centralized practice which differed from pre-existing contact tracing conversations to contain infectious diseases such as tuberculosis. One novelty was its implementation on a large, population-wide scale in response to a global pandemic. This matter of re-scaling and the urgency which marked its introduction sets it apart from its more low-scale predecessors. The genre was also new because it was still 'unknown' to large parts of the general public.

Yet, at the same time, contact tracing in fact turned out to be a genre characterized by various affinities with already existing forms of discourse/interaction, such as patient-centered front line medical consultations. As an anticipated practice, it had even already been sketched in policy papers and was waiting to be activated. More specifically, the genre of COVID-19 contact tracing telephone conversations has ties with medical and institutional interactions, but also with call center interactions, given that the task of contact tracing was assigned to commercial call centers. In particular, regional centralized contact tracing in Flanders emerged as a collaborative endeavor of a consortium of government institutions including the Flemish Agency of Health and Care, call center companies, and the health insurance organizations.

The Belgian case of contact tracing telephone conversations has some notable features. Partly as a result of its urgent and rapid organization, and unlike in some other countries, contact tracing agents were not required to have a (para)medical schooling or background. Moreover, whereas one might expect the telephone conversations to be similar to medical interactions, because of its outsourcing to commercial call centers, the genre is influenced by elements of commercial call center conversations as well. Since contact tracing was a new concept to most Belgian citizens – i.e., a new genre of conversation with which most citizens were confronted only a limited number of times over the course of the pandemic – the public introduction and mass mediated image of contact tracing endeavors arguably played a crucial role in its overall reception, functioning and success rate.

Mainstream media in particular arguably had a substantial amount of influence on the public image and opinion of contact tracing in this regard. Interestingly, even though telephone contact tracing was a crucial measure taken by the government to reduce and contain COVID-19 infections nation-wide, only limited efforts were made to direct this and communicate the function of contact tracing to the public or inform/educate the public in a positive way. Moreover, even though the Flemish Agency of Health and Care stressed the care-oriented nature of these telephone conversations, no explicit campaigns were conducted to promote this preferred stance.

According to O'Connor et al. (2021), the COVID-19 pandemic can be considered an opportunity to positively highlight science communication in society. However, as their analysis of the Irish context points out, such promotion is not without risk. Specifically, the risks they identify are "feeding public alienation by purveying deficit model assumptions, reinforcing stereotypical images of scientists, and intensifying the politicization of scientific statements" (O'Connor et al., 2021, p. 19). Reminding of these risks, a study of the role of the Canadian print media in the public portrayal of essential health care services found that print media were predominantly "descriptive and uncritical" in their portrayals of public debate and institutional policy-making (Ogbogu and Hardcastle, 2021, p. 3). A case study by Filardo-Llamas and Perales-García (2022) on representations of the EU in Spanish media during the pandemic identified three frames used to both implicitly legitimize the EU and to do the opposite for certain actions by European institutions: a moral frame, including "calls for solidarity between member states of the EU" (293); an economic frame, including "potentially harmful economic consequences" (244); and a frame of conflict, including war metaphors (245). One study by Mroz et al. (2021) specifically targeted media representations of remote GP consultations in the UK. Their findings illustrate the presence of various themes such as technology and war metaphors, yet specific functions

and interactional affordances of remote consultations are not represented in their analysis. Moreover, they conclude that more positive communication regarding the shift from face-to-face to remote medical practice is necessary to restore the trust of the public. These findings from different contexts illustrate a wide array of risks or negative effects linked to media representations during the COVID-19 pandemic. These examples suggest that the study of contact tracing telephone conversations in Flanders can only benefit from an analysis of media representation to understand how contact tracing was introduced, framed and perceived by the public. It is also important to consider risks or flaws tied to the frames that were used to represent contact tracing by the media.

To get a concrete sense of the image that was communicated to the public by Flemish media, this paper examines the image of COVID-19 telephone contact tracing as constructed in mainstream press and compares this to actual interactional practice. To conduct the comparative analysis of media image and institutional practice, we rely on our analysis of a large dataset of recorded contact tracing interactions and a dataset of newspaper articles published during the pandemic. The next section outlines these data and covers the relevant methodological steps that were taken to facilitate the analysis and discussion in Sections 4 and 5.

3. Data and methodology

This paper reports on data collected within the context of a 1-year COVID-19 research project funded by the Research Foundation Flanders (FWO). Even though the main focus of the project was on interactional practice, i.e., to identify and optimize the interactional dynamics in contact tracing telephone conversations in Flanders, the project was transdisciplinary in nature through a collaboration between a team of (socio)linguists, medical experts, epidemiologists, a moral scientist and a representative of the Flemish Agency of Health and Care, and one of the private call center companies responsible for COVID-19 contact tracing in Flanders. The project involved a collaboration between academics, practitioners, and government representatives, all of whom were involved from the start in the formulation of the research questions, methodological approach and desired project outcomes.

The starting point of the project was a number of interactional problems which hinder the effective functioning of contact tracing in Flanders, and which emerged in the project team's early conversations with the stakeholders: e.g., calls remain too short; the talk is script-dominated; reluctance exists to divulge necessary information; there is a lack of rapport between interlocutors. In meetings in the early phases of the project, medical professionals from the Agency of Health and Care also voiced the need to accomplish call center conversations as "care" conversations in which interactional challenges are managed more adequately. As public support and public perception of call center contact tracing were rather negative in 2020 and COVID-19 contact tracing depended on voluntary participation, the project was thus premised on the idea that one pinnacle of success to remedy some of the problems reported by the stakeholders is a call center agent who is able to establish trust and maintain rapport with the index patient during the contact tracing interaction so that the experience is more positive, effective participation is ensured and vital information can be collected and transmitted. The project's central goal was then to diagnose the "interactional" state of telephone contact tracing on the basis of an interactional analysis of a corpus of recorded calls and to formulate evidence-based recommendations to improve contact tracing practice in Flanders.

The data and results reported on in this paper relate to three datasets (1) a corpus of 100 contact tracing calls (from the first phase of the project) conducted in Dutch between a contact tracer and index patient recorded between late 2020 and early 2021; (2) a series of interviews conducted between contact tracers and a researcher working on the project and (3) a corpus of Flemish newspaper articles published between March 2020 and May 2021 and between late 2021 and early 2022. Audio-recorded data (calls and interviews) were collected with informed consent and subsequently pseudonymized by transcription; all (pseudonymized) transcriptions were analyzed using NVivo. The analytical focus of this paper lies predominantly on the third dataset: the corpus of newspaper articles. To compare the analysis of this dataset to the interactional reality, we draw on a brief outline of findings from our interactional analysis. A more elaborate account of this interactional analysis can be found in an earlier publication: De Timmerman et al. (2022).

As the above suggests, these three datasets were analyzed separately. The analytical approach for the analysis of the recorded contact tracing calls was broadly discourse analytical in nature (Candlin and Candlin, 2003) and relied on both interactional sociolinguistic (Rampton, 2019) and applied conversation analytic methodologies (Schegloff, 2007; Hutchby and Wooffitt, 2008; Antaki, 2011; Slembrouck and Hall, 2011, 2019) with a focus on the turn-by-turn unfolding of linguistic interaction. Such sequence-based micro-interactional analysis allowed us to reveal relevant conversation-technical aspects of the phone call interactions and to identify why and how particular sequences count as "strained" or "fraught" as well as sequences which mark degrees of rapport, trust and efficient and relevant information exchange. This micro-interactional analysis relied on a list of constitutional determinants of conversational interaction as a point of departure, oriented to both the speaking and listening behaviors of tracers and patients, with particular attention to reciprocity and responsiveness. The determinants were: (i) turn-taking dynamics (incl. turn signaling

devices, overlapping talk, interruptions, a typology of question-answer sequences, follow-up questions), (ii) topic management (incl. the role of the script, topic initiations/digressions by the patient, narrative turns in the talk), (iii) aspects of formulation (incl. the formulation of intrinsically face-threatening acts, responses to signals of reluctance, anxiety; with specific attention to "delicate meanings" and "sensitive topics") and (iv) face work (respect for the index caller, reassurance of patients, avoidance of face loss, positive face work which stresses the importance of contact tracing). Detailed iterative coding of these interactional foci allowed us to arrive at qualitative and quantitative analyses of the contact tracing practice, and led to the identification of the key functions fulfilled by a contact tracing call.

Semi-structured interviews were conducted by the second author with 22 different contact tracers during the first phase of the project. Questions concerned the participating contact tracers' experiences with the conversations and their opinions on topics such as the adoption of a care stance during the calls. The interviews were analyzed by the third author by means of iterative coding though content and thematic analysis (Fereday and Muir-Cochrane, 2006; Corbin and Strauss, 2008). Themes were distilled across the different conversations by focusing on similarities and differences between the contact tracers' opinions and reported practices represented in the interviews.

The corpus of Flemish newspapers was collected by the first author and contains 76 Flemish newspaper articles published during the pandemic (March 2020 – February 2022), all of which mention COVID-19 telephone contact tracing. The corpus contains articles from three main quality papers. As the fourth estate, the (political) stance typically taken by these papers is generally supportive of official government policy and approach, but they also provided space for skeptic and libertarian/anti-big state voices (especially during the pandemic outbreak). The corpus is limited to Flanders and its three quality newspapers: *De Standaard* (DS), *De Morgen* (DM), and *De Tijd* (DT). Because of scarce coverage of COVID-19 contact tracing during the summer of 2021, we primarily consider the first year of the pandemic (i.e., between March 2020 and May 2021 – 54 articles) and more recent developments (i.e., late 2021 up until early 2022 – 22 articles). The corpus was analyzed using document analysis (Bowen, 2009). This entails that the articles were subject to iterative content and thematic analytical coding (Fereday and Muir-Cochrane, 2006; Corbin and Strauss, 2008), and specifically relevant excerpts were highlighted after which all highlighted elements were then compared so as to generate clusters of themes which appear across the different articles. These thematic formulations became more sophisticated and nuanced as the data was skimmed through for relevant elements three consecutive times. Lastly, then, the relationships between the themes were identified and mapped visually (cf. Section 5).

In this paper, the empirically identified interactional and conversational functions and features are compared to the depiction of COVID-19 telephone contact tracing in Flemish press coverage of the pandemic (i.e., the image civilians were regularly confronted with). Section 4 below reports on the interactional functions identified in the contact tracing call, with a predominant focus on the interactional manifestation of empathy or care in our corpus of contact tracing conversations. It is followed by Section 5, in which we compare these findings to the results of our analysis of the portrayal of contact tracing in the media.

4. COVID-19 contact tracing in practice: Multiple communicative functions and the caring stance

The interactional analysis carried out as part of the larger research project uncovers several different interactionally achieved functions of the contact tracing telephone conversation, which the CTs are tasked with (Slembrouck et al., 2021; De Timmerman et al., 2022). A visual overview can be found below (cf. Figure 1). Based on our analysis, we discovered that the interactional practice of contact tracing covers five functions in these telephone conversations: Contact tracers are not only expected to (i) gather information on an index patient's symptoms and contacts and (ii) provide instructions regarding quarantine, isolation and other safety measures; they are also expected to (iii) perform the two "core" functions efficiently: (iv) while transversally maintaining an individual, patient-centered, caring stance and communicate empathetically throughout the interaction. Finally, (v) they need to approach these functions in ways which align with their role as representatives of government policy. The latter is less

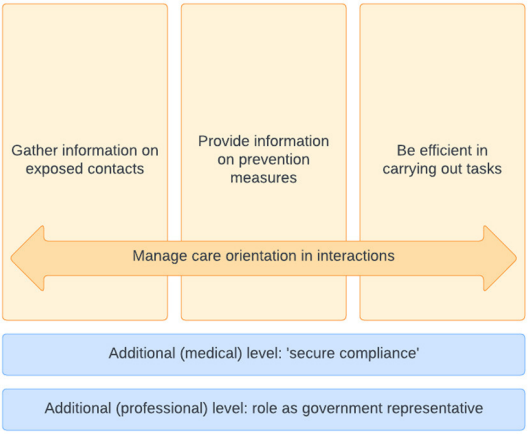

FIGURE 1
Functions of the contact tracing call, as identified through systematic interactional analysis.

straightforward than may appear at first sight, as government policy itself was heavily debated and contested during various stages of the pandemic.[1]

Arguably, the transversal function of empathy or adopting a caring stance was one of the functions on which much, if not the most, importance was placed. The Flemish Agency of Health and Care's stress on the importance of a caring orientation in contact tracing conversations was repeatedly emphasized in various meetings with the project team. Moreover, we do not only see this care function reflected in the interactional dynamics noted in the corpus, but also, for example, in the interviews with the contact tracers and in the focus on empathy in the contact tracer's training program. One of the most striking examples from our interactional corpus of the contact tracing conversation not only being information-focused, but just as much being care-oriented is Excerpt 1 found below. This particular episode spans from turn 34 of the conversation until turn 145 (which is, especially in comparison with the other calls in our corpus, strikingly long) is held between two women. The IP is between 70 and 80 years of age. Below we have included two brief segments from this lengthy episode which highlight the CT's care orientation.

In this case, the IP introduces several topics not included in the CT's script to elaborately describe her current situation and how miserable she feels. Rather than immediately deflecting the topic or listening only briefly and then returning to the script, the CT allows the IP to take all the time she needs to voice her issues and feelings. Many of the discussed issues do not even relate to the COVID-19 infection at all. Yet, the older woman needs support in the form of someone listening to her troubles and responding with affirmations, which the CT picks up on in this case and provides first, before returning to the more information-oriented part of the script.

1 For a detailed analysis and discussion of each function, see De Timmerman et al. (2022).

Excerpt 1 IP = woman, aged 70–80.

58	IP	yes . and with=righ-
		miss . I don't know . I'm not a hundred percent
		. 'cause I'm devastated by my husband's passing
59	CT	yes
60	IP	I=already need to process that]
		[and then] this too
61	CT	yes=yes
62	IP	why are they doing- . why are they doing this to me
		. it's all insurance anyway
63	CT	myeah ma'am [yeah]
64	IP	[but] now . now I'm stuck with this problem
		. and there's days where=I struggle
		you see . it's hard ((voice cracks))
65	CT	yes I can=it can=very much understand that ma'am
66	IP	[you're stuck- you're stuck] with=your misery all alone
[..]		
122	IP	u=hm yeah . it's not the end of the world right no ((voice cracks))
123	CT	no but it's not [pleasant right] . is it
124	IP	[ah well]
125	CT	no
126	IP	yes ma'am yes . you see
127	CT	yes
128	IP	u=h
129	CT	yeah. The best you can do is take things one step at a time ma'am
		[and uh make sure that uh]
130	IP	[well right it's like that right that's it but] sometimes it's-
		some[times it's hard] . why
131	CT	[it's hard . yes]

Translated from Dutch

The project's overarching analysis of concrete contact tracing conversations underlines the complexities of communicative work that is responsive, is accomplished sequentially and which is partly to be understood in affective and care-centered terms. Yet, when we compare the results of our analysis of the corpus of actual contact tracing interactions with the image of contact tracing in the mainstream press, we find a vastly different picture overall.

5. COVID-19 contact tracing in press coverage

Over the course of the pandemic, the mainstream press was one of the main channels through which the public was informed about anything related to contact tracing – up until then a genre of conversation and type of contact with the government unknown to most. This section covers our analysis of how Flemish newspapers portrayed telephone contact tracing throughout the first two years of the pandemic in Belgium. That is, what type of image they generated and how certain issues were framed (Lakoff, 2006). This section is divided into an overview of the media image in the early pandemic on the one hand, and more recent developments on the other.

5.1. Early pandemic outbreak (March 2020 – May 2021)

Overall, the vast majority of COVID-19 contact tracing coverage in Flemish newspapers reported on the more practical, organizational and more narrowly information-processing aspects related to contact tracing *via* telephone in the early pandemic. For a schematic overview of the interrelated connections between these topics, see Figure 2. Privacy issues and the gathering of personal information received much attention. Other issues reported on were the lack of medical schooling required for contact tracers and how much the operation would cost. One further aspect which received a considerable amount of attention was various technical-organizational issues with the contact tracing system and software, short-lived or not. From our analysis, it also becomes clear that in the early pandemic, most of the responsibility regarding contact tracing and keeping civilians safe was placed on the actions of regional and federal governments, rather than on individual citizens (cf. Figure 2).

In the early pandemic, most newspapers published articles in which contact tracing was contested because of the necessity to gather personal information. One article published in *De Standaard* (DS) discussed this issue at length: it reports on peoples' concern that, for as long as there is no clear legal framework, there is no guarantee of privacy being sufficiently safeguarded. Moreover, in one article, the ability of contact tracing to do so is questioned (DS 7 May 2020, p. 33). In this article specifically, contact tracing is framed as "violations" of privacy. The article concludes with a highly critical comparison of the government's reaction to the 2016 terrorist attacks in Brussels, which is argued to have been similarly "inadequate" and "rushed," causing "negative effects" years later still. There is no following explanation as to which negative effects they are referring to. Particularly interesting here is the use of *battle* [in Dutch "(in het heetst van de) strijd"] as a metaphor for the government's strategic reaction to both COVID-19 and the 2016 terrorist crisis. This is reminiscent of Mroz et al.'s (2021) analysis of media depictions of remote consultations in the UK and Filardo-Llamas and Perales-García's (2022) analysis of the representation of the EU during COVID-19 in Spanish media, which both demonstrate the prevalence of war and revolution metaphors in COVID-19 media discourse.

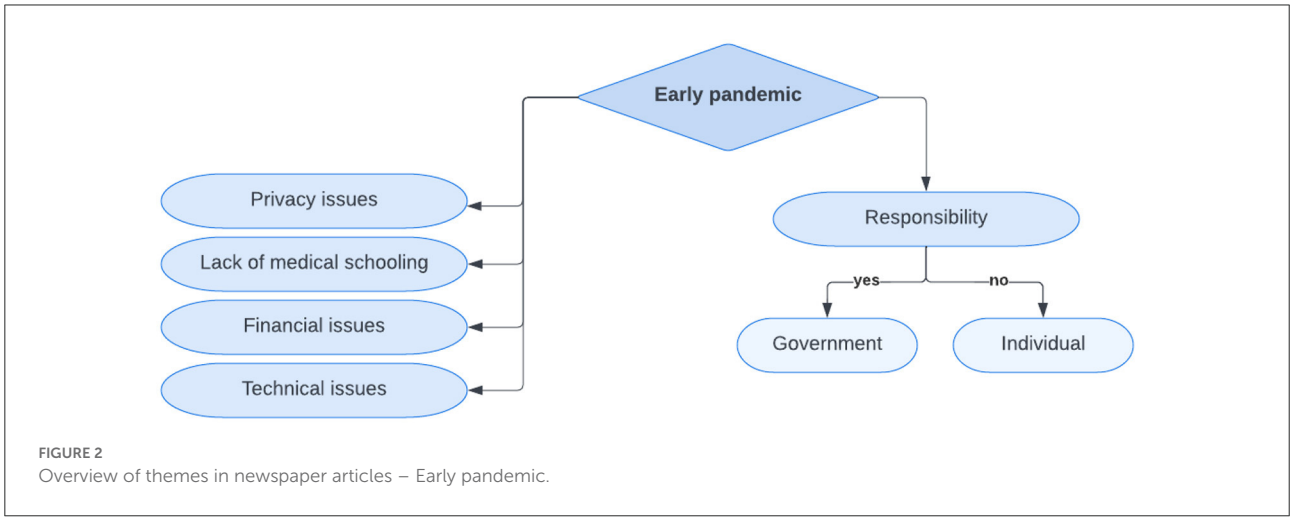

FIGURE 2
Overview of themes in newspaper articles – Early pandemic.

Another criticism expressed in a number of articles is the fact that contact tracers are not required to have more than a secondary education degree or to have any medical training or experience. For this reason, journalists and columnists alike critically address the very limited training (a few hours, it is claimed) contact tracers receive prior to fully starting the job. This criticism is backed for example by the argument that "people will be hesitant to share the necessary personal information – especially *via* telephone – if they are not sure their privacy will be safeguarded" (DS 7 May 2020, p. 33 – translated).

In articles addressing issues pertaining to privacy and contact tracer training, some attention is in fact paid to interaction, and even to the need for empathy. What should be noted, however, is that these discussions on interaction are largely positive, as criticism often focusses on quantifiable results such as the number of contacts shared or the duration of the call. One of the handful of articles in which interaction is explicitly attended to, introduces contact tracing in early May:

> It's not a simple task for a complete stranger to acquire, sometimes intimate, information from a patient, or to convince people to quarantine for two weeks. 'It's important that the contact tracers build a sense of trust though a relatively short conversation', says Dhaeze [Agency of Health and Care representative]. In the training, the importance of qualities such as empathy, openness and 'navigating between supportive and guiding listening' is insisted on. (DS 5 May 2020, online – translated)

A second mention of interactional practice can be found in the introduction of this same article. It commences with a list of "do's": "introducing yourself, staying calm, showing empathy, confirming correctness of information," and "don'ts": "eating or drinking during a call, improvisation, sighing" (DS 5 May 2020, online – translated). Although such an interactional description stands out in our corpus, the fact that improvisation is framed as not-done could be understood in terms of a need to remain focused or in other words, "strictly scripted." Such mentions of interactional practice lacking sufficient nuance could arguably cause issues with rapport, and subsequently even threaten people's proclivity to share personal information. One article published in April uniquely defends contact tracing explicitly, stating that it is not a "Chinese totalitarian technique" or similar to "Stasi practices." Remarkably, this article also stands out from the rest of the corpus through its explicit framing of empathy as a key function: "[CTs] don't need to be doctors or nurses, they do, however, need to be able to offer advice empathetically" (DS 22 April 2020, p. 7 – translated). Note that the articles we referenced here were all published before or around the onset of telephone contact tracing practice, and that they took the form of promotional interviews with stakeholders and Agency of Health and Care representatives.

Apart from privacy issues, most other articles reflect on the financial aspects of the government's contact tracing endeavors. This financial lens casts light mostly on the ever-growing amount of money invested in contact tracing. A documentary aired on "Pano" – a national critical documentary television program – at the end of 2020, even revealed that one of the call center companies was already on the brink of bankruptcy when it was hired by the government. This piece of information was later echoed in many newspaper articles.

Various articles also addressed financial concerns related to obligatory quarantine for at-risk contacts. As was written in *De Morgen* (DM): "Nobody likes to be the cause of somebody else needing to self-quarantine for 2 weeks" (DM 1 July 2020, p. 9 – translated). It is argued that index patients might be reluctant to share information on their contacts because obligatory quarantine is unpleasant and inconvenient, and because it may even have dire financial consequences for people in certain professions or financial positions (DM 19 May 2020). Such financial frames remind us of the economic frame Filardo-Llamas and Perales-García's (2022) analysis identified in the Spanish media coverage on COVID-19. In contrast to some articles considering privacy, interaction or empathy is surprisingly not mentioned in relation to these financial issues. This is quite striking, as the arguments provided nearly all relate to personal, possibly even emotional consequences.

Similarly, many articles discussing contact tracing's financial shortcomings critically evaluated it by referring to the many technical difficulties which characterized its first 3 months. One article sums up the issue as follows: "Don't forget that [the contact tracing system] was built in 2 weeks. It was good enough to get started and to train contact tracers, but there is still much work to be done" (DS 30 June 2020, p. 8 – translated). In this article, contact tracing is framed as a "complex machine," which requires "lots of dragging and pulling."

Overall, what these articles arguably (implicitly) reflect is a strong sense of responsibility being placed on the government for combatting the COVID-19 pandemic. The expectations of how the government should be carrying out its duties seem to be very high. As such, less or even no pressure is placed on civilians. This is mostly reflected in discussions of people's (possible) reluctance to share information. For the most part, this is ascribed to issues related to the "complex machine's" malfunctioning at various levels. Yet, a handful of articles point at how this can be mitigated in contact tracing phone calls through interactional practice, and point out the importance of empathy. However, whilst privacy concerns in an era of increased (biomedical) surveillance are surely legitimate (Jones, 2015), one could equally argue from a governmental perspective that such media discourses critiquing this issue might in fact influence citizens and render them even less inclined to share their personal information with a contact tracer over the telephone, thereby undercutting the efficacy of contact tracing

practices as a public health tool to fight a pandemic outbreak in Belgium.

5.2. Later developments (late 2021 – early 2022)

During the summer of 2021, contact tracing was hardly mentioned in the press. For the most part, this was because of limited news concerning the contact tracing endeavors at that time and incredibly low infection rates, most probably because 70% of the population had just been vaccinated. This changed by the end of November 2021, when allegations of fraudulent practices by one of the call centers in the consortium came to light. As opposed to the other issues mentioned across newspapers, this is the only incident which was covered by about every Flemish newspaper within a three-day timespan. Collaboration with this call center was terminated quite quickly (see e.g., DS 28 November 2021, DM 29 November 2021, DT 30 November 2021). In March 2022, one article reported that the official investigation into the matter 'identified that the call centers submitted nearly 25 million euro in "deviating" billing' but "due to the way contact tracing is structured, it remains unclear whether these are in effect fraudulent cases" (DS 26 March 2022, p. 8 – translated).

This one call center being suspended ties in directly with a different crisis unfolding at the time. In the final months of 2021, the infection rate among Flemish citizens was extremely high, causing contact tracing call centers to be under severe amounts of pressure. The removal of one call center from the consortium operations added oil onto the fire of "crisis in the management of crisis." This crisis was partly ascribed to the suspension of specific COVID-19 safety measures. Citizens were allowed to see a larger number of people (while remaining cautious) and restrictive limits on restaurants' and cafés' opening times were also lifted. On the one hand, the newspapers reported how it had become impossible for people to keep a record of their contacts (DS 23 November 2021). On the other hand, a government voice included in this same article stressed the underreporting of contacts during the calls: "The people who contact tracing is eventually able to reach, provide only 2,7 contacts on average.," but "[w]e all know that everyone has more than three contacts in the current social context" (DS 23 November 2021, p. 8 – translated).

The overburdened state of the call centers prompted the consortium tasked with contact tracing in Flanders to take drastic measures. At a certain point, a representative of the Flemish Agency for Health and Care is cited in *De Standaard*, stating that "those who have been infected are the priority now" (DS 21 November 2021, online – translated). Concretely, this referred to the decision to restrict calls to index patients, and no longer their contacts. At one point, not every index patient was even called but received the following text message: "We are unable to reach you *via* telephone, but self-isolate for at least 10 days if you tested positive for the Coronavirus" (DS 21 November 2021, online – translated). One spokesperson for the contact tracing consortium stated that "It is evident that we prefer to call people, so that we can provide them with additional information and address their questions. [..] But those who do not receive a call can still contact the contact tracing center with their questions" (DS 21 November 2021, online – translated). The focus here does not so much lie on the contact tracing itself, but more so on addressing people's concerns. The quote is followed by a statement that calling is preferred over texting because a text can be less compelling for people, who may not be as convinced of the need to get tested or to go into quarantine. This is the only excerpt in the corpus which implicitly reflects some form of a caring stance as a defining part of the contact tracing conversation in this period after November 2021. Again, it is mentioned by an Agency of Health and Care representative and with the goal to promote or mitigate.

Our thematic analysis of the quality press articles published more recently indicate more event-driven rather than aspect-driven accounts, i.e., less about characterizing aspects of the practice of contact tracing and more in response to developing newsworthy events related to contact tracing. The specific events in this period which received attention have been visualized in Figure 3.

Interestingly, in 2020 and early 2021, there were a few mentions of interactional practice or empathy in the newspapers, of which most were promotional in nature (cf. supra). Compared to this, in late 2021 there were distinctly fewer mentions of this dimension of contact tracing. Yet, the latter period was arguably the most crucial period in which to do so. Because of all the negative events reported on, the public image of contact tracing was severely damaged. Highlighting the interactional and empathetical quality of contact tracing calls could have been a great form of damage control and securing civilians' compliance in both the contact tracing system and the government's risk management strategy at large.

From our analysis of the newspaper article dataset, it becomes clear how the press in the studied period mostly

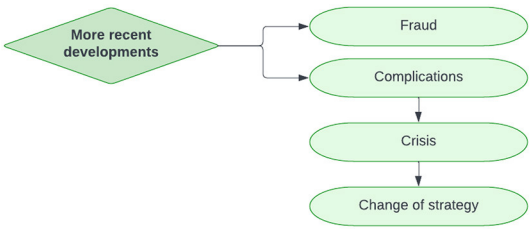

FIGURE 3
Overview of themes in newspaper articles – More recent developments.

tended to portray telephone contact tracing as a "system" designed to collect information about people's contacts and their whereabouts during their infectious period. Newspapers overwhelmingly reported on various types of matters related to the almost "mechanical" workings of this system: issues regarding privacy, financial concerns, but also practical issues and software issues. In doing so, newspapers even explicitly link this to contact tracing's efficacy by regularly stating that people may be reluctant to collaborate or share information as a direct result of such (persisting) issues. Even though contact tracing representatives explicitly mention that one purpose of contact tracing is to address people's concerns or to provide information alongside requesting it, the media image of telephone contact tracing under the period of scrutiny is mostly centered on the system itself and its perceived "main purpose" of gathering information from infected people and instructing people to go into quarantine or self-isolate. Even though a small number of articles mention the importance of interactional affordances and empathy in relation to these issues, especially after May 2021, the interactional dynamics of contact tracing practice itself, including the conversational scope and dynamics of the phone calls, remained fairly absent from the newspapers' pages.

6. Conclusion

This paper started by introducing strategies and contact tracing endeavors with the purpose of containing the COVID-19 pandemic in Flanders, Belgium. With its specific focus on telephone contact tracing, this paper compared its prevailing media image with the characteristics and functional orientations of on-the-ground interactional practice.

Our analysis of the contact tracing interactions uncovers the complexities and interdependency of different but interrelated functions. The purpose of the contact tracing telephone conversations clearly not only includes the gathering of information and provision of instructions. Contact tracers are simultaneously transversally tasked with maintaining an empathetic and caring stance, while managing their role as a representative of the government's public health policy. In addition to the difficult endeavor of balancing these four tasks, contact tracers are also expected to communicate efficiently. Our outline of this broader analysis in this paper specifically concentrated on the transversal care-imperative. In Section 4, we presented a particularly apt example of this transversal care-imperative which is representative of many interactional sequences in the corpus. For a more complete overview of the complex interrelations and interactions of these different functions of the contact tracing call, see De Timmerman et al. (2022) and Slembrouck et al. (2021).

On the basis of our comparison of this interactional reality to the media-generated image of COVID-19 telephone contact tracing in Flanders, we conclude that the media, on the other hand, have mostly tended to portray contact tracing quite negatively, or with the purpose of informing the public of its existence, its flaws, and – in a limited number of cases – its interactional affordances. This is manifested in an abundance of (sometimes quite sensationally presented) reports on the faults or malfunctions of the contact tracing system as well as the mostly narrow portrayal of the purpose of contact tracing as limited simply to information exchange: that is, gathering personal information on people's contacts and whereabouts. Here, we see Ogbogu and Hardcastle's (2021) findings reflected, as one can argue that the media representations found in our dataset of newspaper articles can be considered descriptive and fairly uncritical in the sense that representations do not accurately portray the realities of contact tracing talk. Moreover, we also see reflected in our data O'Connor et al.'s (2021, p. 19) observation about "feeding public alienation by purveying deficit model assumptions," as many of the articles in our dataset focused on practical, economic, and privacy-related "deficits" of Flemish contact tracing endeavors, without (sufficiently) addressing the interactional affordances of actual contact tracing practice, including its dimensions of patient and citizen support. The latter could have greatly benefited contact tracing's efficacy by nurturing public trust in organized contact tracing practice. The only exceptions in our media corpus include the explicit promotion of the caring stance by stakeholders, which occurred quasi exclusively in the early stages of telephone contact tracing practice.

In an interesting way, a lot of the prescriptive "how to"-literature related to contact tracing in contexts of HIV and TB stresses the pitfalls of stigmatization and loss of privacy. Respect for privacy is vital to secure reliable information that can be used efficiently to contain virus spread. However, as it turns out, telephone contact tracing is equally about addressing uncertainty, attending to questions which an IP may have in terms of where things are going – e.g., vaccination, providing affirmation for emotional concerns, or even giving medical advice (despite the fact that CT's are not professionally qualified to do so), etc. The media coverage arguably took communication for granted and was principally interested in the institutional task of "contact tracing" as narrowly understood, not really its accomplishment through conversational practice and interaction.

In sum, we can conclude that, above all, the media communicated a rather distorted image of telephone contact tracing to the public. This can be considered problematic, as most citizens had no knowledge of or experience with this complex type of conversation prior to the COVID-19 pandemic and had only media coverage to rely on. Even though the

role of the media in a functioning democracy is arguably to hold governments accountable for their policies and actions, we do not see this manifested sufficiently in our data for the dimension that the contact tracing telephone conversation as an institutional act was expected to be a care-centered conversation as much as an information-exchange type of interaction. More research is needed into the specific consequences and effects of media construal on the relative success of the contact tracing strategy, but from our analysis it is possible to conclude that the prevailing media image may have influenced citizens' responses to contact tracing and thus affected the efficacy of contact tracing *via* telephone in Flanders during the COVID-19 pandemic.

Data availability statement

The datasets presented in this article are not readily available because requests to access the datasets should be directed to Stef.Slembrouck@UGent.be.

Ethics statement

The studies involving human participants were reviewed and approved by the Ethics Committee of the Faculty of Arts and Philosophy of Ghent University and the Ethics Committee for the Social Sciences and Humanities of the University of Antwerp. All data was gathered with informed consent for participation.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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"Everything will be all right (?)": Discourses on COVID-19 in the Italian linguistic landscape

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The study of the linguistic landscape (LL) focuses on the representations of languages on signs placed in the public space and on the ways in which individuals interact with these elements. Regulatory, infrastructural, commercial, and transgressive discourses, among others, emerge in these spaces, overlapping, complementing, or opposing each other, reflecting changes taking place and, in turn, influencing them. The COVID-19 pandemic has affected all aspects of life, including cities, neighborhoods, and spaces in general. Against this background, the study of the LL is fundamental not only to better understand the ways in which places have changed and how people are interpreting and experiencing them but also to analyze the evolution of COVID-19 discourses since the pandemic broke out. This contribution aims to investigate how and in what terms the COVID-19 pandemic has had an impact on the Italian LL, considered both in its entirety, as a single body that, regardless of local specificities, responded to and jointly reflected on the shared shock, and specifically, assuming the city of Florence as a case study. The data collected in the three main phases of the pandemic include photographs of virtual and urban LL signs and interviews, which were analyzed through qualitative content analysis with the aim of exploring citizens' perceptions and awareness of changes in the LL of their city. The results obtained offer a photograph of complex landscapes and ecologies, which are multimodal, multi-layered, and interactive, with public and private discourses that are strongly intertwined and often complementary. Furthermore, the diachronic analysis made it possible to identify, on the one hand, points in common with the communication strategies in the different phases, both at a commercial and regulatory level. On the other hand, strong differences emerged in the bottom-up representations, characterized in the first phase by discourses of resilience, tolerance, hope, solidarity, and patriotism, and in the second and third phases by disillusionment, despair, and protest.

KEYWORDS

linguistic landscape, language contact, COVID-19, discourses, multimodality

1. Introduction

The COVID-19 pandemic has led to a disruption in sociolinguistic research models, as regards the collection, analysis, and interpretation of data, including data collected through the linguistic landscape approach (henceforth, LL). The processes of internationalization, urban conformation, and their management have had to deal with the dynamics linked to the mobility of people, dynamics which have radically changed in the 2-year period of 2020–2021. There is no sector of linguistic research (and not only) that is not considering the effects that the pandemic has had on verbal and non-verbal interactions, on attitudes and perceptions, and on the management of the communicative space and the discourses that can, or cannot, also appear visually in the streets of the cities (Adami et al., 2020).

It is at this juncture that this contribution is inserted, as it aims to provide a synthesis of extensive research, started in the spring of 2020 and completed at the beginning of 2022. The general purpose of the study is to verify the impact of the COVID-19 pandemic on the Italian LL and, in particular, on the Florentine LL (cf. Bagna et al., forthcoming). It was decided to take the city of Florence as a case study as the administrative center of the Tuscany region has been subject for years to touristification processes (Gotham, 2005), i.e., the transformation of both residential and commercial spaces into tourist destinations or places of consumption. According to the data processed by the Florence Tourist Studies Center, in fact, in 2018, the general flows reached 5.3 million arrivals and just under 15.5 million presences. These massive flows have led to the transformation of several neighborhoods of the city, especially in the historic center.

This research is highly interdisciplinary, multisensory, and multi-temporal, as it is not limited to a synchronic analysis of the visual data displayed in urban LLs. Moreover, it explores the variation in diachronic terms, while expanding the LL approach to the so-called cyberscapes (Ivkovic and Lotherington, 2009) and soundscapes (Scarvaglieri et al., 2013).

Since the scope of this research is extensive and multifaceted, the discussion will be limited to some of the results obtained, reconstructing the stages of the pandemic in Italy through a qualitative analysis of the data collected, which consist of signs in the urban and virtual LL, interviews, and observations (cf. Section 3). Central to this perspective is the integrated analysis of top-down and bottom-up discourses (and signs), explored as different sides of the same coin. To understand how perceptions and representations of the pandemic have changed over time, in fact, it seems essential to consider both institutional and private actors and sign makers, their discourses, and how the latter intersect with each other. Accordingly, the research questions to be answered here are:

- What discourses on COVID-19 materialized in the Italian LL in the different phases of the pandemic?
- Which actors and how did they convey these discourses?
- What was the perception and awareness of citizens at the emergence of these discourses?

The need to consider the temporal component is linked to the fact that the evolution of the pandemic has involved the adoption of different measures and rules, as well as heterogeneous reactions on the part of the population. Initially, it was assumed that these issues would have been reflected precisely in the LL, carnival mirror (Gorter, 2012, p. 11) of the roles played by languages and ideologies in society.

In Italy, the first wave of the pandemic officially began on 20 February 2020, when the first Italian case of a patient suffering from COVID-19 was discovered. From that moment on, there was a rapid succession of decrees and regulations, with which increasingly restrictive measures were introduced to control the spread of the pandemic, which resulted in a national lockdown from 9 March 2020. Until the beginning of May 2020, schools and universities were closed, moving to teach online, shops deemed non-essential were closed, and gatherings were banned.

The arrival of the summer of 2020 gave a false feeling of normality and freedom, which clashed with an increase in infections and the consequent restrictive measures starting from September 2020, when Italy entered the second wave of COVID-19. In October 2020, a new system was, therefore, introduced, through which the Italian regions were distinguished by color, from white to red, passing through yellow and orange. Each color included increasingly restrictive measures. Only from the end of April 2021, due to the results of the measures themselves and the vaccination campaign, people were able to start moving around and repopulating the city streets.

In all these months, the LL evolved rapidly: the overview that will emerge from this study aims to offer an unprecedented reconstruction of what has been experienced and conveyed in the Italian LL in the past 2 years, opening to further and heterogeneous perspectives of analyses.

2. Immune cities: Discourses about COVID-19 pandemic in the linguistic landscape

The need to investigate the changes taking place in the LL arises from the awareness of how the "linguistic landscape, with its longstanding focus on the role of language and other semiotic resources in the construction of public spaces [...] is a crucial nexus of meaning-making in the COVID-19 pandemic" (Lou et al., 2021). This evidence has prompted numerous scholars to explore, for example, translation choices and accessibility issues to information related to the pandemic (Hopkyns and Van den Hoven, 2021; Lees, 2021), linguistic, and semiotic strategies adopted for commercial or regulatory purposes (Ahmad and Hillman, 2021; Strandberg, 2021), as well as the emergence of new discourses in different linguistic and semiotic landscapes.

Scollon and Scollon (2003, p. 210) define the discourse "in the narrow sense, language in use; in the broader sense, a body of language use and other factors that form a "social language"" (Scollon and Scollon, 2003, p. 210). Therefore, discourse is seen not only as a *theory*, as a way of representing and communicating social practices, but also as a *social practice* itself. By adopting this perspective, discourses are interpreted at the same time as tools for the social construction of reality and as action, i.e., as instruments of control and power (Van Leeuwen, 1993, 2008).

In a geosemiotic analysis of the urban space, signs can be part of some discursive categories (which influence each other). These include *regulatory* discourses, which tend to mediate mobility and traffic and also serve to "inform the public either about conditions or regulations that are present in that place" (Scollon and Scollon, 2003, p. 184); *infrastructural* discourses, which work in support of urban resources, such as roads, electricity, gas, and water; *commercial* discourses, which clearly indicate the presence of activities or their products; and *transgressive* discourses, which are those "out of place," often placed in marginalized places or, on the contrary, overexposed. The signs that constitute the LL convey these (and other) discourses, intersecting and overlapping each other, combining to form a semiotic aggregate, and making

sure that "discourse(s) shapes and is shaped by the linguistic landscape(s)" (Seargeant and Giaxoglou, 2020, p. 311).

Taking into consideration the emergence of pandemic-related discourses, Panagiotatou (2021) explores the Berlin LL during the so-called second wave. Her aim is to identify the complex relationships between LL and COVID-19, considering the local specificities in terms of superdiversity and the subcultures present. From her analysis, it emerges how public signs and signs of protest coexist, reflecting and in turn reproducing different ideologies. She also notes how, in the face of a top-down effort to create a homogeneous identity and a sense of collectivity, a plurality of voices, often contradictory, emerge from the bottom. Together these voices transform "the LL of Berlin into an arena of contestation and presents [sic] the city as a site of conflict and exclusion" (Panagiotatou, 2021, p. 173). A plurality of voices also emerges from Marshall (2021), who examines the change in the Vancouver LL during the "first wave" of the pandemic. Although this polyphony of voices manifests itself in very different ways, the scholar observes a discursive convergence between top-down and bottom-up signs. The latter, in particular, is made up of grassroots semiotic artifacts, that is, colored stones that promote messages of solidarity and kindness, in line with the dominant political discourse. It is, therefore, affective-discursive practices that can be defined as forms of linguistic "recruitment, articulation, or enlistment... [when] bodies, subjectivities, relations, histories, and contexts entangle and intertwine together to form just this affective moment, episode, or atmosphere" (Wetherell, 2015, p. 160). The increasing attention paid to the exploration of discursive-affective practices in the LL has led Milani and Richardson (2021) to talk about the "affective turn" in the field of study. The importance of this perspective is linked to the fact that the LL can be seen as "structuring the affective affordances and positions of individuals and groups" (Wee and Goh, 2020, p. 8). In this sense, the creation of signs is not always aimed at reflecting individual emotions, but at bringing into being a certain type of emotional atmosphere, to instill hope, spread love, and create a sense of *togetherness*. Since the early days of the LL field, researchers from all over the world have sought "to understand the motives, uses, ideologies, language varieties and contestations of multiple forms of "languages" as they are displayed in public spaces"[1] and the pandemic has involved a distortion in all these factors, including the discursive-affective practices. In the following pages, who contributed to these changes in the Italian LL, when, and in what way will be explored.

3. Research methodology

This study adopts a mixed methods approach (Creswell, 2003, 2008): heterogeneous research tools, such as LL signs, observations, and interviews were used to answer the research questions, with collections of data stratified over time and plural analysis conducted on different levels. As anticipated, the comparison between top-down and bottom-up discourses, i.e., between the different linguistic and semiotic ways in which social actors have tried, at the same time, to represent and control the social reality, is central. In particular, three phases of the research can be distinguished.

Proceeding in chronological order, in the first wave of the pandemic, from February to April 2020, data were collected in the cyberscape. The data consisted of newspaper articles, blogs, memes, and images that had gone viral, and advertising flyers in which the COVID-19 discourse assumed relevance. The choice to focus on the virtual environment was dictated by pragmatic reasons, as the lockdown imposed at the national level prevented the researchers from engaging in linguistic walks and from collecting data in the urban LL. At the same time, however, the same limitations to which the researchers were subjected were experienced by the rest of the Italian population; regulatory, advertising, affective, and interrelation discourses had moved to the virtual environment for everyone, thus making the cyberscape not only "the only" but also the most relevant source of data related to the pandemic discourse.

The corpus of data collected in this first phase was subjected to a multimodal discourse analysis, "which extends the study of language per se to the study of language in combination with other resources" (O'Halloran, 2011, p. 120). This was considered appropriate to identify the discourses themselves linked to COVID-19, and the linguistic and multimodal strategies adopted by institutional and private citizens to convey them.

In the second and third waves of the pandemic, from September 2020 to May 2021, the research moved to the urban LL, in particular, in the city of Florence. In this phase of the research, the study was carried out on several fronts. First of all, a mapping of the historic city center was carried out, specifically, of the COVID-19 related signs, i.e., signs that, regardless of the author, materiality, or emplacement, conveyed discourses (of various types) related to the pandemic. The survey was conducted according to what has been done in other studies in the field (cf. Gorter, 2019), thus personally engaging in repeated linguistic walks and photographing the signs of interest. The corpus of images subsequently cataloged and analyzed through multimodal discourse analysis amounts to 123 signs. Second, attention was kept on the online dimension, especially in relation to the link with the physical space investigated (Maly and Blommaert, 2019). In fact, the cyberscape, in addition to being an important complement to the physical space itself, can be considered an element of the territory, with its own dynamics. In cyberscapes, linguistic and semiotic choices have relevance; they influence the symbolic dimension of organization and power and must be considered in relation to the emplacement of (digital) texts and signs.

Third, focus groups (Powell et al., 1996; Finch and Lewis, 2003) with citizens of Florence were organized and conducted, in order, among other things, to detect the degree of awareness of changes in the LL due to the pandemic (Stroud and Mpendukana, 2009). These meetings took place in the months of March–April 2021 online on the Google Meet platform (Gaiser, 2008; Stewart and Shamdasani, 2015), as the trend of infections at that time made mobility and face-to-face meetings difficult. In addition to a pilot meeting that involved 5 informants, which was not considered in the analysis phase, 21 people were interviewed, in 7 meetings, for a total of about 216 min of recording. These interviews, subsequently transcribed, were subjected to an analysis based on the principles of qualitative content analysis (Mayring, 2000) through the NVivo 11 Pro software (Bazeley and Jackson, 2013). A total of 346 references

1 Introduction of the International Journal of Linguistic Landscape https://benjamins.com/catalog/ll (26/06/2022).

were thus codified, summarized in 57 nodes, with three tree nodes (called "History and perceptions of the city of Florence," "The subdivision of the city into districts," and "Awareness of the Linguistic Landscape"). One of the child nodes is related to "Discourses in the LL associated to the pandemic"; the discussion in the next pages will focus on this.

Finally, in the months of September–November 2021, in a period following the third wave of the pandemic in which there was a reduction in infections, the third phase of the research took place[2]. It consisted of a mapping of five districts of the city of Florence (Oltrarno, San Lorenzo, Station area, Le Cure, Stadium area); the data collected included all the signs placed in the LL of these areas and not only the signs related to COVID-19. This was done in order to obtain a quantitative and not only qualitative indication of the visibility of discourses on the pandemic in the complex of the semiotic aggregate of the Florentine LL. In total, 871 photographs were collected, relating to 752 units of analysis (Cenoz and Gorter, 2006). The units of analysis that contained one or more signs related to COVID-19 discourses were found to be 151. These were analyzed within the geosemiotic framework (Scollon and Scollon, 2003) while carrying out an analysis of the discourse, and a qualitative-quantitative one, using a complex annotation grid (adapted from Bellinzona, 2021).

4. Results and discussion: The narrating LL

The analysis conducted on the different types of data collected led to the identification of heterogeneous discourses related to the pandemic, different from each other not only regarding the agents who have decided to produce and convey them, but also regarding the emplacement, the impact, and above all for the moment in time in which they materialized in the LL and the collective imagination. Precisely, the temporal criterion will guide the discussion of the results. In the next paragraphs, what emerged from the study will be explored by retracing the various waves of the pandemic in Italy, thus using the LL as if it were a logbook, a kaleidoscope of stories in history.

4.1. The first wave: Silence and hope

Since the dawn of the field of study (Gorter, 2006), research on LL has focused on the description and analysis of (multilingual and multimodal) landscapes in the awareness of the impact that visible signs in urban space can have on citizens, inhabitants, and tourists, on all those who perceive, conceive, and experience these spaces (Lefebvre, 1991; Trumper-Hecht, 2010). The mobility of people, in other words, is one of the central characteristics of the LL, although not always explicitly considered in research: it is a key active element capable of receiving and influencing the very production of space and the LL.

The outbreak of the pandemic caused a disruption of all this: overnight, with the establishment of the national lockdown, the streets, the nightlife and shopping streets, the main squares, the bars, and meeting places emptied, totally losing their functions. The absence of mobility, encounters, and exchanges that normally take place in the public space had an impact above all on the soundscape. No more traffic noise, no more voices, and no more languages—just silence. The silence was broken by the sirens of ambulances and by the loudspeakers of the authorities, who were driving around inviting citizens to stay at home. A silence was reflected in the LL itself, which went from being an open and accessible space, lived and dynamic, to being a space closed and inhibited to the public, static and suspended in time. Once emptied, the city centers were no longer of interest primarily for commercial communication. In fact, photo 1 (Figure 1)[3] shows the spaces reserved for large advertising billboards in Milan that remained empty, white, and silent.

With citizens forced to stay indoors, companies cut investment in signage. Nonetheless, commercial discourses continued to circulate, moving into the online environment. Cyberscape, and in particular the social media message boards, thus became privileged spaces to place one's advertisements, which began to circulate through the sharing of the consumers themselves. In addition, due to the dynamics and characteristics of cyberscape (Ivkovic and Lotherington, 2009), as opposed to the cityscape, we are, therefore, witnessing in this phase a reversal of the very concept of mobility, i.e., it is no longer consumers who move and come into contact with commercial discourses, conveyed by (more or less) static signs, but the exact opposite. Discourses travel, move, and meet (more or less) static consumers in the physical space of their homes.

With people's habits having changed, it is not surprising that, in addition to the means of dissemination, marketing strategies have also changed. Several brands in Italy (but not only there—refer to, e.g., Strandberg, 2021) chose to avoid direct promotion of their products, rather spreading public safety messages, and encouraging consumers to respect the rules, protect themselves, and remain united. Photo 2 (Figure 1), an advertisement for a wellknown brand of snacks, is an example in this regard: in it, there is a man on a video call with a woman who is enjoying a potato chip. At the center of the image, it can be read "Lontani, ma in buona compagnia" ("Far, but in good company"), a sentence that plays on the possible double interpretation of "good company," referable to both the loved ones (distant, but close thanks to technology), as well as the (good) sponsored product. The emphasis on distance from loved ones, in addition to being a fact of that period, can be read as an invitation to respect the rules imposed by the lockdown, stay at home, and observe social distancing. This interpretation leads us to see the company producing the advertising, taken as a prototypical example, as a responsible subject, showing solidarity and a sense of togetherness (Theng et al., 2021). In this way, the advertising itself, being a non-essential product or inherent to the pandemic, obtains legitimacy with the public.

2 Further data were collected until January 2022. These, however, were not considered for the quantitative analysis, as they only concerned signs containing discourses on the pandemic, as was done for the second phase of the research.

3 https://www.infomilano.news/muri-bianchi-a-milano-senza-pubblicita/ (27/07/2022).

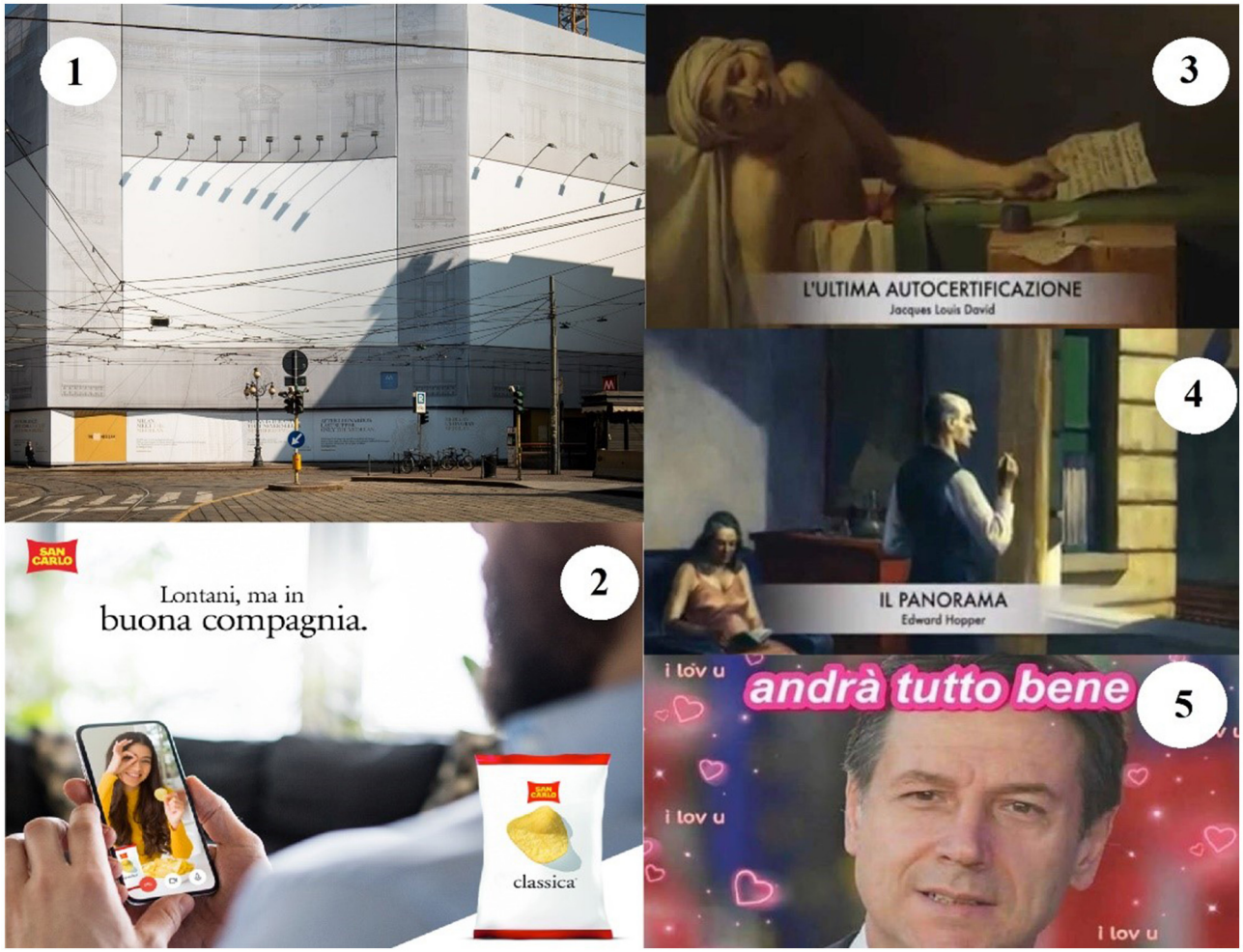

FIGURE 1
Photo 1—white billboards in Milan; Photo 2—San Carlo advertising with a pun; Photo 3—meme related to self-certification; Photo 4—meme linked to the visible panorama during isolation; Photo 5—meme inspired by Prime Minister Giuseppe Conte.

In other similar advertisements, wide use of irony was observed, which was obtained both at a linguistic and semiotic level or through a combination of the two. The use of irony and humorous content was one of the main features observed in the communication on social networks during the first lockdown. During the pandemic, there was an overproduction of memes: in response to a hallucinating, terrible situation, great creativity was unleashed, through which people tried to describe the new condition they were experiencing. Photo 3 and photo 4 (Figure 1) show examples of this, as they are images of famous paintings resemantized to illustrate new phenomena and shared moods. Marat is clearly exasperated in photo 3 (in the painting by Jacques-Louis David) for yet another change in the self-declaration form[4].

In photo 4 (Hotel of a railway—Hopper), there is a reference to the public space, to an unusual panorama, seen from the only possible angle: a window.

Photo 5 (Figure 1) is also ironic, as it shows the meme of a close-up of Giuseppe Conte, the Italian premier at the time, retouched with hearts and surmounted by the words "Andrà tutto bene" ("Everything will be all right"—the reason of this sentence is illustrated below). The image was taken from a Facebook group called "Le bimbe di Conte," a movement born spontaneously on social media in support of the premier and which, in a very short time, reached high numbers of followers. On the page, official communications were shared and the rules to follow were remembered, using the emblematic phrases pronounced by the Prime Minister on live TV and social networks. It is important to underline, in fact, that not only the commercial discourse, but also the information services and the regulatory discourse in general in the first wave of the pandemic had moved online and, again, in particular, on social media. The premier himself made extensive use of social

4 The self-declaration consisted of a pre-set form to be filled in and presented during police checks to justify travel. This form has changed numerous times (five times from 8 March to 26 April 2020) to adapt to the new decrees and changes in the restrictive measures.

FIGURE 2
Photo 1—murals from the Lombardy region to support doctors and nurses; Photo 2—patriotism in the LL; Photo 3, Photo 4, and Photo 5—"Everything will be all right" banners.

networks and of a lexicon of social networks. For example, the decree by which the lockdown was established was called #iorestoacasa (#Istayathome).

The cyberscape, therefore, constituted the privileged space during the first wave of the pandemic within which to spread, and therefore study, discourses related to COVID-19. Nonetheless, urban space was always experienced by citizens, albeit in restricted mobility and in ways different from the past. In line with what was widespread in the virtual landscape, even the urban LL was characterized by a proliferation of signs, created by different subjects, with different purposes and different strategies, which conveyed affection, instilled hope, and conveyed empathy. The atmosphere that emerges from the analysis of the data collected in this phase in the LL conveys a sense of individual, but above all collective, responsibility: the signs observed in Figure 2 make it clear that their creation and location did not serve so much to reflect the emotions of single individuals, but rather to bring into being a collective emotional atmosphere, capable in turn of influencing the attitudes and, consequently, the behaviors of individuals (Van Leeuwen, 1993, 2008). As stated by Rimé (2009), in fact, when people experience strong emotions, they tend to share them with others, exchanging information but above all influencing each other's emotional states. Photo 1 (Figure 2), for example, depicts a large mural, created by the Lombardy Region, in support of the commitment and sacrifice of doctors and nurses. The discourse linked to solidarity emerges clearly on a linguistic level, with the phrase "a tutti voi … grazie!" (transl: to all of you... thank you!) which dominates the sign, and on a semiotic level, in the representation of a nurse who symbolically embraces Italy. In this case, the support to health personnel, engaged in the front line in the fight against the virus, was expressed by the (regional) authorities, but cases of banners and signs produced by private citizens who wanted to convey expressions of affection have been documented throughout the nation, thanking, and defining doctors and nurses as Italian heroes and pride[5]

5 For example, https://www.forlitoday.it/cronaca/striscione-coronavirus-ospedale-forli.html (22/07/2022).

This is linked to another discourse that strongly connoted the (urban and virtual) LL in the first wave of the pandemic, namely the theme of patriotism. In fact, Italian flags were hung on every window and on every balcony (something that usually happens only in conjunction with the Soccer World Cup). The common tragedy that had struck the country served to make everyone feel closer, and more united as Italian citizens, and the LL, the closest one, that is, the *homescape*, was the first and most important space in which this could be made evident. It was in fact important for everyone to think and demonstrate how "Italy [was] stronger than the coronavirus" (as stated on the flag in photo 2—Figure 2).

The homescape, consisting of windows, balconies, and gates of the houses, was also the scene of the emergence of a further discourse, which characterized the first lockdown in the whole peninsula, a discourse of hope and togetherness and a discourse of corporate social responsibility (Hongwei and Lloyd, 2020). Starting from 6 March 2020, some anonymous post-its with the words "Andrà tutto bene" ("Everything will be all right") began to appear in the streets of Lombard cities (Lombardy was the first region to be hit by COVID-19), on the shutters of closed shops, on the subway, and on walls and trees[6]. The initiative was immediately successful, and the message of hope went around the web and quickly ended up involving the entire nation. Colorful rainbows appeared on all balconies, accompanied by the sentence (photos 3 and 5, Figure 2) and by other expressions of affection, solidarity, and hope, such as "be brave," "do not be afraid," and sometimes with the hashtag #iorestoacasa (photo 4—Figure 2).

Therefore, in the first wave of the pandemic, there was a shift both in the spaces and in the landscapes dedicated to the dissemination of discourses of various kinds, as well as in the agents who were personally engaged in conveying them: private citizens, who up to that moment essentially represented the recipients of the signs, were among the most important proponents of the spreading and strengthening of affective-discursive practices. The latter, as well as commercial and regulatory signs, went hand in hand in the first phase of the pandemic, manifesting a convergence between top-down and bottom-up discourses, which were mutually reinforcing.

4.2. The second-third wave: Rules and responsibility

The long period that constituted the second-third wave of the pandemic, from September 2020 to April/May 2021, was characterized by an alternation of opening-closing of commercial establishments, of teaching face to face-online, and of mobility-immobility. The system introduced at the national level provided, as anticipated, for the use of colors from red to white, to be attributed to individual regions. The changes from one color to another, and therefore with more or less restrictive measures, were made on a weekly basis with centralized evaluations (based on the number of infections and other parameters). This constant alternation had important consequences on the LL which was characterized by the invasive presence of regulatory discourses, which were necessary to disseminate the rules to be respected to avoid the spread of the virus and to allow the regular conduct of commercial activities. As C., one of the participants in the focus groups conducted with citizens of Florence stated:

> C: *There has been an inversion of signs that address the new status, or new rules, outside the shops; so there is a change due to the needs of the pandemic.* (08/03/2021—our translation from Italian).

Although not mandatory by law, most of the commercial establishments in the center of Florence decided, at this stage, to post signs in the window to regulate the use of spaces and prevent infections. This choice can be interpreted by referring to the concept of responsibility (Siragusa and Ferguson, 2020)—the shopkeepers, by modifying the LL, acted as mediators, promoting compliance with the rules from the bottom, legitimizing them, and thus strengthening the sense of community, put at risk by the pandemic itself. Some traders decided to use the LL in a creative way, reminding them to "use the mask," "keep the distance," and "disinfect hands" using semiotic elements that can refer to the type of activity itself. An example in this sense is shown in photo 1 (Figure 3), relating to a shop with pet products, in which to reinforce the indications relating to the behaviors to be followed (wear a mask and enter one at a time), some tender characters are depicted (a dog with a mask covering its muzzle and a lone hedgehog).

Other traders resorted to irony. In this regard, photo 2 and photo 3 in Figure 3 are prototypical. Photo 2 shows a sheet, hanging on the window of a clothing store, in which the shopkeeper sarcastically reports presumed reopening dates of the shop, barred from time to time in compliance with the decrees. In photo 3, in turn, one can see the outside of a restaurant festively decorated with yellow balloons and flags, symbolically signaling Tuscany's entry into the yellow zone, the one subject to fewer restrictions.

Most of the documented regulatory signs, however, consist of standardized signs (for example, photo 4 in Figure 2), made available online by local, regional, or national authorities and downloadable for free. These are prints, in color or black and white, of signs with a limited amount of written text, mainly in Italian or at most duplicated in English, in which the efficiency and accessibility of communication are (only partially) guaranteed by the presence of semiotic elements such as symbols and icons. The pandemic has resulted in emptying and impoverishment of the multilingualism exposed, also and above all in cities like Florence, which welcomed thousands of tourists from all over the world every day before the spread of COVID-19.

It is interesting to observe how, during the focus groups, few informants mentioned the regulatory discourses present in the LL, although the latter, as mentioned, were strongly present in the Florentine LL. This can be interpreted in at least two ways. First of all, as observed elsewhere (Bellinzona, 2021), the degree of awareness both of the linguistic diversity exhibited and of the semiotic (and therefore ideological) scope of signs in space appears limited, especially for regulatory signs, which are omnipresent, duplicated, and somehow taken for granted. Second, it is worth

6 https://milano.repubblica.it/cronaca/2020/03/06/foto/coronavirus_post_it_tutto_andra_bene_lombardia-250317657/1/ (24/07/2022).

FIGURE 3
Photo 1—regulatory sign personalized based on commercial activity; Photo 2—irony in the LL; Photo 3—LL semiotically connoted; Photo 4 and Photo 5—standardized regulatory signs.

observing how these new signs coexist alongside others already present on the shop windows: opening hours, accepted credit cards, admission allowed (or not) to dogs, etc. They are also very often in the lower part of the showcases, near the ground, in a position far away from the one toward which one usually looks (photo 5 in Figure 3). All this leads to questioning the degree of usefulness of these signs and how much they have actually influenced behaviors and attitudes.

Conversely, other issues emerged from the analysis of the focus groups that, in many cases, aroused strong reactions in the attitudes of the interviewees. Consider in this sense what was observed by R., who drew attention to another central characteristic of this phase, which can be defined as the "Pompeii effect" (Mourlhon-Dallies, 2021). Discussing with the other focus group participants, R. stated:

> R: *Much fewer signs around. I don't know, but I noticed, as I passed Piazza Francia, there were areas where there were a lot of advertising signs, and there is [now] much less stuff. Another thing was the ATAF [*the bus company in Florence*], which had 4/5 months old advertisements: the other day an ATAF bus drove by that had an advertisement with a deadline of 31 December, 2020, so it means that no one has bought the space and they do not even take it off. It was quite shocking.* (25/03/2021—our translation from Italian).

The LL, in other words, remained frozen and suspended, giving a snapshot of time and life prior to the outbreak of the pandemic. It is the moment in which the most tangible signs of the past were observed, and it is the moment in which infrastructural discourses linked to COVID-19 began to emerge with more force. Interesting was what F. stated:

> F: *COVID-19 has really caused a major change that still makes me very upset. Maybe in Florence, you notice it less. But when you arrive at a big city like Milan, along the external ring road, and you read in the luminous panels that normally indicate the queue or the traffic, you read "drive- through COVID-19 [tests] exit so and so". Or when you find these enormous panels indicating the vaccination hub, it is something that still makes you think and takes you into a reality that is truly unusual for us and to which it is really hard to get used to.* (02/04/2021—our translation from Italian).

Among the most discussed issues identifiable within the node "Discourses in the LL related to the pandemic," there is also a reference to the economic crisis, a direct consequence of the health crisis. Several informants, in fact, mentioned changes in the LL due to this, referring to the linguistic and more generally semiotic impoverishment of the urban landscape as a reflection of the closure of numerous shops or the absence of tourists. There are those who, like T., reported having noticed a proliferation of signs bearing the indication "for sale" and "rent," and who, like D. (within the same group), stated that:

> D: *It was difficult, not being able to go out... mostly the classic tourist places, many have gone bankrupt, restaurants that have shut down, so... As there are no more tourists, there are no more menus in two languages.* (08/03/2021—our translation from Italian).

In turn, A., joining the discussion, shifted the focus to transgressive discourses and street art which, in his opinion, can be a representative domain of trends, including ideological ones, within society.

> A: *Maybe Street art, which talks about everyday life, problems, may have been affected by the economic crisis, so there may be more references to issues of social justice, direct or indirect consequences of the economic crisis, layoffs, etc.* (08/03/2021—our translation from Italian).

This reference to street art turned out to be in some way prophetic of what was observed in the last phase of the research. While the survey carried out during the second and third waves of the pandemic did not lead to the identification of a significant number of transgressive signs carrying discourses about the pandemic, in the following period, this was not the case. In the next section, we will explore this specific aspect.

4.3. The quiet (before the storm): Stratification and contradictions

The months from May to November 2021 granted a truce regarding the circulation of the virus in Italy[7]. This truce was partially obtained due to the measures of social distancing, isolation, and individual protection, as well as the mass vaccination campaign. Despite this, during those months, the discontent of a part of the population grew, exasperated by the restrictive measures, the economic crisis, and the obligation of the Green Pass and vaccine[8]. This discontent resulted in protests and demonstrations both online and in the streets of the cities and was immediately reflected in the LL. As anticipated, in this phase of the pandemic, data from the LL in five districts of Florence were systematically collected. In total, 151 units of analysis (20% of the total) containing various types of discourses relating to the pandemic were documented. Among these, there was, first of all, a transgressive discourse, which clearly shows the atmosphere of dissatisfaction and protest. Consider, for example, photos 1, 2, and 3 in Figure 4. Photo 1 shows the tag "COVID 1984", made with a stencil on a wall in the center of Florence. It is a reference to Orwell's dystopian novel "1984," to the control over the population that is exercised in it, and to conspiracy and totalitarian ideologies. It was used by supporters attributable to No Vax area groups for the campaign to contest government measures. Similarly, in photo 2, one can read "siamo più di un assembramento" ("we are more than a gathering"), sprayed on the wall. The pandemic, as already mentioned in this contribution and as observed elsewhere (Spina, 2020; Papp, 2021; *inter alia*), had also affected the language, which evolved and changed, first of all on the lexical level, leading to a "terminological pandemic." The term "assembramento" (gathering) is one of those that entered the family lexicon of the pandemic following its use in the Prime Minister's decrees and speeches during the first wave of COVID-19. In the graffiti in the photo, the terminological choice is not accidental, nor is the textual formulation itself, which hides a conversational implicature (Grice, 1975). Claiming to be more than a gathering, the anonymous writer suggests that there is someone (presumably the media and the government, those who use the term "gathering") who sees sociality, being in a group, only as a means of disseminating the virus. By prohibiting it, people's freedoms are limited and they are prevented from exercising their rights.

The text in photo 3, in contrast, is explicit, as it reports graffiti with "No Green pass," the document required to access certain services and, in some cases, to work. The image appears to be interesting as it allows us to reflect, among other things, on stratification and dialogue, two key characteristics of the LL (Blommaert, 2013). As can be seen, in fact, the wording "No," part of the original text, was later crossed out by another person, evidently in favor of the Green Pass obligation.

In favor of the vaccine is also Laben, a Tuscan street artist and author of the work in photo 4 (Figure 4). It is a work in stencil art (attached with vinyl glue to the service booths, with a "paste up" technique, respecting the buildings and the city), in which Elle Driver by Tarantino is represented with a syringe and the writing "Vax? No doubt!." The artist, with this and other works documented in the different mapped neighborhoods, wants to raise awareness of the importance of the vaccine and to reflect on the doubts that exist in society about its efficacy and safety.

The debate on the Green Pass and vaccination obligation was so intense that in some cases, it was no longer tolerated. In photo 5 (Figure 4), there is a blackboard, placed outside a pub in the center, in which a famous meme has been reproduced. There are two people, Jack and Bill, one pro-vax and the other no-vax: the sign maker's comment, however, distorts the very dynamics of the meme, making clear what was stated above. It reads, in fact, "Loro sono Jack e Bill—Jack è novax—Bill è pro vax—Jack e Bill hanno frantumato i coglioni! Non-siate come Jack e Bill" (transl: They are Jack and Bill—Jack is no-vax—Bill is pro-vax—Jack and Bill have busted our balls! Do not be like Jack and Bill").

This transformation in the debate, and the perception of the debate, offers us the opportunity to briefly discuss the evolution of social discourses related to the pandemic and how these have changed the LL itself in the last period taken into consideration. The discourses observed during the first wave of the pandemic, in fact, continued to manifest themselves in the virtual and urban LL, but changing connotations. Consider, for example, the discourse linked to solidarity which, in the first wave, was directed above all to doctors and nurses. The analysis of the data collected in Florence shows how solidarity in the LL continues to find space but with a different meaning. This is a smaller range of solidarity, as it is expressed in favor of neighbors and neighborhood members. There are no more *heroes*, but *victims* of the system. Photo 6 (Figure 4) is an example of this: in it, one can see a poster promoting mutual aid among the inhabitants of the neighborhood for food support, a service activated in March 2020 and never interrupted.

One of the dominant discourses in the first wave of the pandemic was also linked to patriotism and trust in institutions (think of the "le Bimbe di Giuseppe Conte" or the Italian flag hanging on the windows). During the survey conducted in the Florentine neighborhoods, no Italian flags were hanging on the windows, and the transitional LL of a demonstration against the

7 In December 2021, the numbers of infections started to rise again, hence the title given to the paragraph.

8 The Green Pass is a digital certification created following a proposal from the European Commission to facilitate a free (safe) movement of EU citizens during the pandemic. It certifies the vaccination, the negative result of a COVID test or the successful recovery from the virus.

FIGURE 4
Photo 1—tag "COVID 1984"; Photo 2—graffiti "we are more than a gathering"; Photo 3—protest, dialogue, and stratification in the LL; Photo 4—stencil art "Vax? No doubt¡'; Photo 5—meme reworked on blackboard; Photo 6—leaflet for food support; Photo 7—protest signs of a demonstration in the square; Photo 8—graffiti "everything will be all right my ass".

obligation of the Green Pass (photo 7—Figure 4)[9] offers an insight into diametrically opposite discourses. Mario Draghi, the new Prime Minister, does not enjoy the success of his predecessor among the demonstrators and his government is defined as "del ricatto" ("blackmail"). The patriotic discourse persists, but Italy itself is no longer seen as *strong* and *united*. It is a Country in *danger*, not due to the spread of a lethal virus, but because, according to the demonstrators, the measures adopted by the government threaten our freedom.

Finally, one of the most immediately recognizable consequences of the protracted health emergency was the gradual disappearance of messages of hope. Banners with rainbows and "everything will be all right" messages were removed, to make room for messages of despair and disillusionment. In some cases, they refer directly to the iconic phrases of the first wave, as in the graffiti in photo 8 (Figure 4), which reads "andrà tutto bene una sega" ("everything will be all right my ass"). Hence, the question mark added to the title of this article at the end of the sentence that most of all characterized the discourse on COVID-19 in Italy.

5. Concluding remarks

In this chapter, we have tried to offer an overview of the impact that the COVID-19 pandemic has had on the Italian LL in general and specifically in the city of Florence. The different data collections, stratified over time, have made it possible to reconstruct the mosaic of discourses that have characterized written communication in the public, urban, and virtual space, restoring an unprecedented image of the 2-year period 2020–2021 in Italy. The analysis and the proposed discussion, in turn, made it possible to answer the research questions formulated, leading, first of all, to the identification of the discourses on the pandemic that emerged in its various phases. Second, they led to a reflection on the actors of the LL, being these sign-makers and issuers who have conveyed those discourses. Moreover, they provided feedback on the perceptions and awareness of the readers of the signs when such discourses emerge.

9 https://www.firenzetoday.it/video/no-green-pass-firenze-15-ottobre.html (22/07/2022).

Collecting data in the different phases of the pandemic was a winning choice, which gave us the opportunity to use the LL as a narrative site to observe the unfolding of stories (and history). The rapid evolution that the LL has undergone reminds us once more of how important it is to always frame and base studies on a historical and diachronic level (Blommaert, 2013), contextualizing the data we collect and the analyses we do at the precise historical moment in which we act, with all the consequences that derive from this.

Similar to others before us (Lees, 2021; Marshall, 2021), we have observed the appearance of a new kind of signs in the urban LL, i.e., signs that explain the new rules to be followed and provide information to the public in order to prevent the spread of the virus. This is a new regulatory discourse, which includes traits of the political and juridical discourse, of the medical-health one, but also of the emotional (and sometimes of the commercial) one. Taking into consideration commercial establishments, the decision to display signs of this type in the window could be read in two possible ways. On the one hand, since it was not required by law, it is an indication of the responsibility of the shopkeepers (Siragusa and Ferguson, 2020). On the other hand, it can be defined as a new way of offering oneself to the public, no longer and not so much as *tourist-friendly*, rather as *COVID-free* shops. At the same time, however, the very location of these signs, often in black and white, hidden away and inserted in larger semiotic aggregates, as emerged from the second and above all from the third phase of the research, calls into question the importance of these discourses both for issues of prevention and promotion. This aspect is confirmed by the data related to the awareness of the presence of this new textual genre, an awareness that, from the analysis of the focus groups, appeared extremely limited.

Conversely, the perception of the changes in the linguistic and semiotic urban landscape as a consequence of the pandemic was varied and shed light on some characteristic elements of the period, from the temporal suspension of the LL (the so-called Pompeii effect, Mourlhon-Dallies, 2021) to the emotional shock brought about by the appearance of new infrastructural and medical discourses, passing through transgressive, protest, and social justice discourses.

To conclude, the results of this study offer a photograph of complex landscapes and ecologies, which are multilingual, multimodal, multi-layered, and interactive, demonstrating once again the usefulness of an analysis of the LL, even and especially in periods of crisis, to reflect on heterogeneous linguistic and social facts.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding authors.

Ethics statement

Ethical review and approval was not required for the study involving human participants in accordance with the local legislation and institutional requirements. Written informed consent to participate in this study was not required from the participants in accordance with the national legislation and the institutional requirements.

Author contributions

CB takes responsibility for Section 1. MB for Sections 2–4. Concluding remarks are shared. All authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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"We are at war": The military rhetoric of COVID-19 in cross-cultural perspective of discourses

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At the outburst of the COVID-19 pandemic and all throughout its continuation in 2020 and 2021, the metaphor of 'war' has been one of the most pervasive and recurrent globally. As an international, cross-cultural group of scholars and practitioners, we will analyze critically the communicative strategies enacted and the political agenda that they have meant to serve in Italy, Bulgaria, and Ukraine discussing both the cultural differences and the cross-cultural similarities of such a discourse that has been shaping the perception of our factual reality during the pandemic. Expressions like 'We are at war', 'Our heroes are fighting at the forefront', 'We will win this war' and the like contributed to create symbolical cross-cultural responses that, by playing on emotions such as fear, uncertainty and, in some cases, national pride, contributed to the creation of a new state of reality, that of the "new normality", calling for specific actions and behaviors. However, the war metaphor assumed different hues according to the country in which it was disseminated, up to the actual appointment of generals as governmental spoke-persons or organizers of the vaccine logistics, often combined with the construction and the mediatization of the archetypical hero fighting against the virus/enemy. To analyze how, all throughout 2020 and 2021, the military rhetoric was implemented and disseminated as the dominant discourse, we draw on Media Representations of the Real, on Rhetoric Studies on Manipulation, on Political Discourse, on Critical Discourse Studies, and on Susan Sontag's fundamental essay Illness as Metaphor. We discuss such rhetorical strategies as they originated from a discussion within our collective project in other words, an online dictionary that, besides critically analyzing contextualized keywords that (re)produce different forms of Otherness, offers creative proposals to reverse such narratives, and can be used as a free resource in different social and educational contexts (www.iowdictionary.org).

KEYWORDS

COVID-19 and military rhetoric, online dictionary in other words, communicative strategies, political agendas, cross-cultural analysis, the media

1. Introduction

This contribution discusses how the word "war" and the war-like metaphors were mobilized in public and political discourses to define the COVID-19 pandemic in Italy, Bulgaria, and Ukraine, also analyzing critically and from a cross-cultural perspective the different agendas they were meant to serve.

The Cambridge Dictionary defines the word "war" as follows: (1) armed fighting between two or more countries or groups, or a particular example of this; (2) any situation in which there is strong competition between opposing sides or a great fight against something harmful.[1]

After Putin's invasion of Ukraine, the first (literal) meaning of the word became active for Europeans again. However, the war rhetoric has continued to be used even at times of peace, and, in different situations, the metaphoric meaning of the word "war" has been activated. Metaphorical uses are so popular because they are a result of people's capacity to see the similarities between different domains and express them linguistically. They are very frequent in language as they occur "between 3 and 18 times per 100 words" (Semino, 2021, p. 50). Metaphors are both means of linguistic economy and more importantly, a means of human creativity. At the same time, they shape our thinking as "using different metaphors can lead people to reason differently about notions like time, emotion, or electricity" (Thibodeau and Boroditsky, 2011).

The influence of metaphorical use and its capacity to "shape the goals we seek, the plans we make, the way we act, and what counts as a good or bad outcome of our actions" (Lakoff, 2004, p. XV) is used broadly by politicians, PR specialists, journalists, and other professionals who rely on language not only as a means of communication but also as an opportunity to influence public opinion, as it empowers them to achieve their goals.

Indeed, metaphors help us make sense of complex events and have the capability to shape, orientate, and modify our actions and behaviors (Lakoff and Johnson, 1980/2003). The use of military vocabulary is a rhetorical device that relies on specific metaphors to convey determinate messages and meanings. In the case of COVID-19, the rhetorical use of the war metaphor functions at several communicative levels and serves several purposes. According to Thibodeau and Boroditsky's (2011) research findings, "metaphors exert their influence, by instantiating frame-consistent knowledge structures, and inviting structurally-consistent inferences," and therefore the frame "Disease is a War" may influence people's perception of the pandemic. Narrating the pandemic as a state of war would, for example, make people accept more easily censorship, the military presence in the streets, the restriction of individual liberties, the silencing of dissent, and the enactment of social control. Some analysts, though, are cautious to take a resolute stance against the use of the war metaphor, since it could also inspire a sort of positive effect (e.g., fear can motivate people to pay more attention; Piazza, 2020, p. 91), prepare the public for hard times or inspire a renovated sense of unity and solidarity (Castro-Seixas, 2020)—yet: why promoting solidarity through a word that, by definition, is divisive? Words such as "care," "community," "aid," would move representations and energies toward something *for* and not *against,* pointing to mutual collaboration between individuals rather than to the confrontation against an invisible enemy.

Yet, there is another point that has to be made. If we reverse the metaphor, other meanings appear. If a pandemic is a war, that means that also war is a pandemic. Implying that disease is like war, it also suggests that war is like disease, that is something which is not chosen but that rather happens as one of the natural incidents of the human condition. This is where the military rhetoric makes another point: culturalize disease and naturalize war.[2] Such a naturalization also allowed us to assign "to the virus (COVID-19) the problems or crisis that were not generated by it" (Dias and Deluchey, 2020, p. 7) such as unemployement, the working poor, the cuts to social and health systems, and social inequalities, "transferring to the pandemic (a "natural phenomenon") the responsibilities for the problems created by neoliberal, necropolitical governmentalities" (*ib*., p. 8).

But the constant appeal to military rhetoric also showed that another naturalization was in act—though, for once, with positive outcomes. Many studies (e.g., Williams, 2020; Esanu, 2021; Waylen, 2021) have highlighted the hypermasculinity/toxic masculinity that was exhibited in the war-like rhetoric connected to COVID-19, and how precisely such an attitude failed to address efficaciously the pandemic. The enactment of health measures was associated with "stereotypically feminine characteristics like weakness and vulnerability" (Esanu, 2021), while not wearing a mask, being proud of not respecting interpersonal distance, performing a profusion of handshakes, delaying the lockdown, ridiculing mitigating measures, became the visual and symbolic representations of a macho attitude that dare to challenge the enemy with bare hands. Among others, champions of this attitude were Trump, Johnson, and Bolsonaro—who, incidentally, all got infected. Conversely, the most effective leadership styles in managing the COVID-19 pandemic were those based on empathy, a community-focused approach, resilience, adaptability, the ability to collaborate as those enacted by several women leaders as New Zealand's Prime Minister Jacinda Ardern, Taiwanese President Tsai Ing-Wen and Norwegian Prime Minister Erna Solberg. "For once, women leaders have the advantage of gender expectations that are more suited to dealing with crises such as pandemics" (Williams, 2020, p. 24). Such evidence further indicates the urgent necessity of a more general change in the global styles of leadership, one that contrasts traditional, patriarchal and authoritarian leadership style, and moves toward "one that prioritizes communication, empathy, decisiveness and community" (*ib*., p. 25). After analyzing the different types of hypermasculinity displayed by Johnson, Trump, Putin, and Bolsonaro, from a feminist institutionalist (FI) approach Waylen (2021) rather speaks of "hypermasculine leadership traits" not confining them to man-only: female leaders can adopt hypermasculine leadership styles, while male leaders can opt for more caring and community-oriented leadership styles.

Another fundamental aspect of the war rhetoric, no matter if the word is used metaphorically or not, is its connection with power since it directly points to a "state of exception" where fundamental rights can be repealed and control can be exercised. It is indeed in and through language that unequal relations of power are constructed

1 https://dictionary.cambridge.org/dictionary/english/war. It is not only in English—such meanings are described in French Le Robert (https://dictionnaire.lerobert.com/definition/guerre); Bulgarian RBE https://tinyurl.com/59p6xdtr and many others.

2 During the invasion of Ukraine by the Russian troops in late February 2022, there were three words that, at the risk of jail or worse, could not appear in the Russian media: "war," "invasion," "attack" (The Guardian, 2022). The expression to be used was 'special military operation'. We can thus see that while the pandemic has been narrated as "war," "invasion," "attack," a *real* war was narrated as an "special military operation" https://www.theguardian.com/news/audio/2022/mar/04/what-russians-are-being-told-about-the-war-in-ukraine (accessed March 4, 2022).

and reproduced, and discriminatory practices are exerted. Studies in Critical Discourse Analysis (CDA) have uncovered the power dynamics connected to language, analyzing how power is enacted, reproduced and resisted, through text or speech (Van Dijk, 2001, p. 43).

Therefore, referring to Lakoff and Johnson's CMT and the CDA approach we decided to investigate the role and the function of war metaphors in the conceptualization of COVID-19 pandemic in the countries where we live.

There is plenty of research concerning war metaphors during the COVID-19 pandemic (Castro-Seixas, 2020; Panzeri et al., 2021; Semino, 2021; Todorova, 2021a; Benzi and Novarese, 2022, etc). This contribution originates from discussions within our collective project *In Other Words—A Contextualized Dictionary to Problematize Otherness*, an online dictionary that can be used as a free resource in different social and educational contexts (www.iowdictionary.org). The dictionary critically analyzes contextualized keywords which have been shaping different forms of Otherness, juxtaposing some creative proposals to problematize and reverse such narratives. The dictionary pursues an integrated interrelation between theoretical reflections, societal issues, and the application of research in different real-life contexts. The dictionary has also a special section dedicated to the language of COVID-19 to show how, in different contexts and different countries, it has contributed to creating or reinforcing different forms of Otherness.

The following argumentation will analyze critically and cross-culturally the communicative strategies enacted and the political agenda that they have meant to serve in Italy, Bulgaria, and Ukraine, and how they have contributed to shaping the perception of our factual reality during the pandemic. Apart from the differences between the political, social, and healthcare situations of different countries, we also investigate the similarities in the speeches of public figures and in the actions of the governments. Political leaders of many counties used war rhetoric when talking about COVID-19 (Dada et al., 2021), i.e., it is a widespread phenomenon that needs more investigation and it has to be analyzed critically and comparatively to show both the common features and the peculiar ones. Moreover, as Semino (2021) states: "the establishment of martial law and or warlike powers for the executive in different countries reveals the potentially fuzzy boundary between the literal and metaphorical status of military references during the pandemic." That is the reason why we will discuss the spread and the prominence of the military language used both metaphorically and how it will be shown—in some cases literally—in three different contexts.

2. Methodology/theoretical background

As it was mentioned, according to us the CMA and the CDA are the most appropriate perspectives for achieving the goals we have set. We are interested in war-like rhetoric uses connected to COVID-19 in public speech in our countries and military language is a means of expressing brute force and immense power. What is more important, power is crucial when we are talking about war no matter if the word is used metaphorically, or not. That is the reason why power is a central topic of Critical Discourse Analysis (CDA). CDA is an approach which uncovers *power* dynamics. Its main goal is to analyze how power is enacted, reproduced, and resisted, through text or speech (Van Dijk, 2001, p. 43). Critical discourse studies are specialized by their constitutive problem-oriented, interdisciplinary approach (Wodak and Meyer, 2015, p. 2) in research which not only describes the linguistic facts, but also contextualizes and problematizes them.

CMA (Cognitive Metaphor Analysis) is based on already mentioned Lakoff and Johnson's Conceptual Metaphor Theory and as Schröder (2021, p. 485) recalls, "shortly after its first success and diffusion, CMT has been adopted for critical discourse analysis". Therefore CMT may be seen as a "fusion" of metaphor studies, cognitive linguistics, and critical discourse studies (Dirven et al., 2007; Schröder, 2021, etc.). As is well-known, CMT states that conceptual metaphors shape our thinking because of the mappings of the information between "source" and "target" domains in conceptual structure (Lakoff and Johnson, 1980/2003, p. 246). They shouldn't be underestimated and have to be critically analyzed because of their capacity to shape our thinking as a consequence of the existing interaction between the thoughts from the two domains (Charteris-Black, 2004, p. 27). The ability of metaphors to influence is mentioned by Mon et al. (2021) as they are reported as more engaging than their literal paraphrases. Metaphors are used deliberately in speech—"speakers use metaphor to persuade by combining the cognitive and linguistic resources at their disposal" (Charteris-Black, 2004, p. 11), and beyond the fact that they are a means of persuasion, they are inaccurate and misleading as "a metaphorical concept can keep us from focusing on other aspects of the concept that are inconsistent with that metaphor" (Lakoff and Johnson, 1980/2003, p. 10). In our contribution, we also take into consideration some theoretical observations made by scholars in the field of Rhetoric and Manipulation (Maillat and Oswald, 2009) and in the analysis of political discourse (Ilie, 2016; Mavrodieva, 2020).

3. Data

The data we use is collected and excerpted from media texts and political speeches as we are interested in public discourse and the representation of military language in the official communication during the COVID-19 crisis.

For which regards Italy, the analysis runs along three lines: reports of the titles from the main newspapers and from national radio and TV announcements; President Sergio Mattarella's speeches; and the opposition to the military rhetoric by some Italian associations and NGOs. On a descending grade, these three lines represent the different levels of the modulation of the military rhetoric in Italy, from the fullest embrace of the war-like rhetoric, to the Presidential speeches that directed the military discourse toward the necessity of a renewed unity and solidarity, to the clear stance of peace associations and NGOs that, from the very start of the pandemic, denounced the substantial and symbolical risks of the dissemination of such rhetoric. The first level is only reported here since there are many studies that, from different methodological and theoretical approaches, have collected a huge corpus of data on the war-like rhetoric in Italy (see e.g., Busso and Tordini, 2021; Elia, 2022), while the second and the third level are analyzed in detail to offer a more nuanced picture of the different ways in which the military rhetoric was mobilized—or opposed—in Italy.

Bulgarian corpus is taken from the biggest private national TV channels—bTV and NOVA as well as from another private TV channel—Bulgaria on air. Some collected written texts are published on the site of the Bulgarian National Radio, others are excerpted

from popular news sites like DW, Focus, etc. They contain the Prime Minister's speeches, speeches from some other authorities, journalist materials about politicians' words and deeds, and some news about the spread of the pandemic in Bulgaria and abroad.

The Ukrainian official discourse on the problems of combating COVID-19 is analyzed on materials of public speeches presented on the official website "President of Ukraine Volodymyr Zelensky. Official online representation," as well as interviews of the President with leading Ukrainian and foreign media during 2020–2021. For analysis, we also include publications of Ukrainian popular news sites, radio and and TV channels, posts by representatives of the Ukrainian authorities on the Facebook social network.

4. Analysis

4.1. Italy (Paola Giorgis)

In late February 2020, Italy was the first European country to be struck by the COVID-19 pandemic. We had heard some rumors in early/mid-February about a new virus that was circulating in China, but the general mood was that it was China, it was far away, and it would not affect us. Then, suddenly and ferociously, literally from 1 day to another, we were in.

COVID-19 was soon spreading fast in Italy—particularly in the North, with an appalling number of deaths. Strict measures were immediately taken, but they seemed of no use. Nobody knew what it should be done. There were no known procedures, and no protective devices—face masks, sanitizing gel, etc. To add to the overall chaos and uncertainty there came the titles of the headlines: "We are at war" [*Siamo in guerra*], "We are fighting at the forefront" [*Stiamo combattendo in prima linea*], "The enemy has invaded a defenseless country" [*Il nemico ha invaso un paese indifeso*]. Hospitals were trenches, the daily count of deaths and infected appeared every night in prime time as a war bulletin, doctors and nurses were celebrated as the "new heroes." (Vovou, 2021).

A "pandemic" is defined by the World's Health Organization as "the worldwide spread of a new disease." On the Oxford University Dictionary, "war" is defined as "an armed conflict between two different countries or different groups within the same country." So, why was a disease narrated as an armed conflict?

There are some cognitive elements and socio-economic effects that can be pertinent both to a pandemic and a war, as I widely discuss in the entry "war" of the online dictionary *In Other Words* (Giorgis, 2020–2021). One of the most prominent connections is related to the randomness and the number of deaths. In Italy, the shocking evidence was the photograph shot at nighttime on March 18th, 2020. The photo showed a long column of military lorries carrying dozens of coffins from Bergamo to other cities in Italy: the number of deaths had been so high that the funeral homes could no longer deal with the burials. On the other hand, one of the most relevant structural differences between a war and a pandemic is that war is always the result of a deliberate political decision, while getting sick is not a matter of choice—here resounds Susan Sontag's critique on the use of war-like metaphors to define an illness (since, to begin with, "illness is *not* a metaphor"—1979, p. 3—and ultimately makes the sick victim both of the illness *and* the metaphor).

As in most countries, the use of military language in public and political discourse was pervasive in Italy, with a notable exception. The majority of President Sergio Mattarella's speeches did not mention war but, alluding to other difficult periods lived by the Italians in their history, sustained that precisely in those hard times the Italians showed their best qualities, building up a long story of solidarity and the creation of a community through and beyond the different crisis. All the speeches then retrace and appeal to those qualities, such as community-building, a spirit of unity, renovated solidarity and hope, resilience, and reconstruction toward a new beginning (e.g., March, 27th, 2020; June, 2nd 2020; May 1st, 2020; April, 25th, 2021; May, 1st 2021; June, 2nd 2021)[3].

The presidential speech that directly mentioned war—and COVID-19 as the enemy—was that of June 1st, 2020[4]. President Mattarella said that June 2nd 1946 had marked the birth of the Republic as a new beginning after the divisions, the sufferings, and the destruction of war, tracing the path for a common destiny of democracy. Sustaining that the Italians have the quality and the strength to rebuild the country as they had done 70 years before, he was certain that the same communal spirit would pave the way to the rebirth of the nation after the pandemic.[5]

While Mattarella's speeches contained references to social and mutual responsibility and care, the military rhetoric continued to characterize the public and political discourse (as quoted above, see e.g., Busso and Tordini, 2021; Elia, 2022) to reach its momentum on March 1st, 2021, when the new Italian Prime Minister, Mario Draghi, appointed a general, Francesco Paolo Figliuolo, as Extraordinary COVID-19 Emergency Commissioner with the special task of managing the vaccine logistics. The general, who appeared on the public scene with his uniform vastly decorated with medals and insignia, thus became the visual embodiment of the war metaphor connected to the pandemic: to fight a war, it takes a general.

Since the early insurgence of the pandemic several anti-war movements, associations, NGOs, journalists, citizens, intellectuals[6] publicly demanded with petitions and articles to stop using the

3 Besides the dedicated speech on COVID-19 on March 27th, 2020, the other presidential speeches analyzed were chosen for their national-symbolical relevance as they were pronounced on three major national days: April 25th marks the liberation from the Nazi-Fascist regime (1945), May 1st is Labour's Day, and June 2nd marks the birth of the Italian Republic (1946) (Presidenza Della Repubblica, 2015).

4 Mattarella anticipated on June 1st his presidential speech of June 2nd since the day after he visited Codogno, the town in Lombardy where there had been the first Italian case of COVID-19, and that had paid a high tribute of deaths.

5 In the same spirit was Queen Elizabeth's speech to the nation on April 5th, 2020 (https://www.youtube.com/watch?v=2klmuggOElE). She recalled her first speech to the nation in 1940 when many families were separated, while the use of the sentence 'We'll meet again' pointed directly to the title of Vera Lynn's famous song of 1939 that, during World War Two, symbolized the resilience of the British. After the Queen's speech, the song enjoyed a renovated fame, was used for charity funding events for the NHS, and reached a high position in the UK charts.

6 The list of reactions is too long to be reported here. For the Italian context, please refer to Milesi (2020) "The virality of the military language" [*La viralità del linguaggio bellico*] published on the online magazine *Vita*, where linguists, journalists and writers discuss about the reasons and the dangers related to the use of the war metaphor to speak about a pandemic. In the UK, in April 2020, the University of Lancaster launched a collaborative initiative to ask linguist experts and anyone who wished to engage in proposing "examples of inspirational non-war-related metaphors" (https://www.lancaster.ac.uk/linguistics/news/beyond-the-battle-far-from-the-frontline-a-call-for-~lternative-ways-of-talking-about-covid-19). Such a joint endeavor then

military vocabulary to define the COVID-19 pandemic. Critical analysis and concerns sustained that not only militarizing language meant militarizing society, but also diverging the attention to what was mostly needed to contrast the pandemic—the implementation of efficient and local health and care systems. Anti-war movements, such as The Italian Network of Peace and Disarmament [*La rete italiana di pace e disarmo* (Rete Italiana Pace e Disarmo, n.d.)] and the Italian NGO Emergency (Emergency, n.d.) denounced that instead of investing more in health care, during the pandemic there had been an increase in the military expenses and investments.

Notwithstanding all debates, counterarguments, articles and petitions, the war metaphor remained a constant in Italian political and public discourse throughout 2020 and 2021. In April 2021, a further piece of war-like rhetoric was added to the public discourse: the war against the virus will be won only if the war of the vaccines is won. And to denounce the shortage of the vaccine supplying, vaccines were defined as "munitions" in several media—"we are running out of munitions" ["*stiamo esaurendo le munizioni*"], was the general cry. Underneath the surface of this metaphor, we can see the vaccine as a bullet inside our body, which becomes the battlefield of an invisible fight against an invisible enemy. Here, we can hear again Sontag's resolute warning against the use of war metaphors in health discourse.

Metaphors construe the meanings we give to experiences. In the final sentence of her essay *Illness as Metaphor*, Sontag (1979) sustains that "imposed" metaphors reveal our incapability to deal with the structural problems of our societies as well as with our fears and frailties, while it is our responsibility to be aware of the substantial moral and ethical weight of the words and metaphors that we use. A warning that, I would add, is particularly relevant at times of crisis.

4.2. Bulgaria (Bilyana Todorova)

The war-connected language use in Bulgaria started at the very beginning of the COVID-19 pandemic (March 2020–May 2020), but it was not necessarily metaphorical as there were government actions that were used as if there is a military threat.

The situation during these first days and months has been described in detail by BBB (Todorova, 2021a,b). In short, at the very beginning, before even the first COVID-19 case was confirmed, on February 26th, 2020 the National Operational Headquarters was announced (the date of the first confirmed cases was March 08, 2020). The word for "headquarters" in Bulgarian is "щаб." It comes from German and its literal meanings are "Management of a military unit; A building housing such management" (RBE, 2021). The third, additional meaning is broader and may be translated as "A governing body of a party, organization, etc." Moreover, the members of the National Operational Headquarters—the structure, mentioned above—were two military doctors, between them the Chair Prof. Mutafchiyski (who became publicly popular as "The General"). In most of the public appearances of "The General," he wore his military uniform. Prof. Mutafchiyski became the "symbol" of the measures and he was the "face" of the COVID-19 government strategy as he gave briefings in his uniform every morning until May 2nd, 2020.

The militarization scenario was not presented only by the military uniforms and the morning briefings. Like many other authorities, the Bulgarian government enacted several measures and on March 13th, 2020 declared a "state of emergency" (*извънредно положение*). The measures were seen as controversial as people were forbidden to leave the district centers without special permission and there were checkpoints at the exits, they were not allowed to walk in parks, benches were dismantled to prevent people gatherings, and police cars were going around checking if there were rules violations.

The term "state of emergency" [*извънредно положение*] itself "is highly unclear although it is mentioned in the Bulgarian Constitution where the expression "military or another state of emergency" [*военно или друго извънредно положение*] was used without a clear definition of what it exactly means (Todorova, 2021a, p. 102). The opaqueness of the regulations and the suggestion that the Government actions are stricter than needed results in distrust of the Prime Minister as well as in a long-term skepticism of the seriousness of the COVID-19 pandemic.

The similarities between the presentation of the war-like situation and the COVID-19 crisis are not only in the above mentioned examples. As in many other countries, the Bulgarian politicians used war-like rhetoric in their speeches.

Prime Minister Boyko Borissov states during the Parliament debates as follows: "This is a bacteriological war[7]." [*Това е бактериологична война*] (Debates, 2020) Some days later, on 17.03.2020 in the unplanned briefing, he also used a war metaphor: "We are in a war with an invisible enemy" [*Ние сме във война с невидим враг*] (Briefing, 2020). He is not the only one who preferred such a language: Ivan Geshev, the Prosecutor General, announced: "We should go[…]into a state of almost martial law"[*Трябва да се мине […] в режим на почти военно положение*] (Ivan, 2020).

A study by Osenova (2021), who inspected a corpus of Parliamentary speeches for metaphoric uses connected to COVID-19 for the pandemic period (Nov. 2019–July 2020), reveals that the most frequent metaphor frames in the data are these of CONTROL (*recovery from COVID, dealing with COVID, overcoming / limiting COVID, controlling the epidemic, measures against the pandemic, prevention of the pandemic*) and WAR (*fight against COVID, protect citizens from COVID, summer will destroy the pandemic, the first line in the fight against the pandemic*, etc.).

What is important to be mentioned is the fact that some sports metaphors, control metaphors, and war metaphors are interrelated because they share not only the same vocabulary but they also represent a similar ideology: the relations of authority, power, distance, and pressure.

The war rhetoric includes the image of the Enemy. However, the Enemy is not only the virus, although this metaphor persists in the language of medical authorities, journalists, and politicians during all periods of the COVID-19 pandemic. At the same time, the image of another enemy has been consistently mentioned since

resulted in a comprehensive publication (Olza et al., 2021) that discusses critically the pervasiveness of the war metaphor in different countries. Another collective initiative is that of #ReframeCovid that was launched on Twitter among linguists and citizens from all over the world to promote non-war-related language on COVID-19.

7 Boyko Borissov made a mistake: COVID-19 is a virus, not a bacterial infection. However, his words are cited here as an example of the representation of the pandemics as a war.

the beginning of the crisis: irresponsible people. At the beginning of 2020, Prime Minister Borissov said that strong measures were necessary because of the "undisciplined people who spread the infection". Later, after the beginning of the vaccination programme, because of the unwillingness of many people to vaccinate because of the mixed messages coming *via* social media and the so-called hybrid war, the enemy label is often put into them. For example, Dr Spiridonova said on November 18th 2021: "We should limit our tolerance to unvaccinated people… Everything that happens to us is a test how we are prepared as society for extreme measures in conditions of war, because we are in a biological war" ["Трябва да ограничим толерирането на неваксинираните хора…Всичко, което ни се случва, е тест за обществото ни как сме подготвени и на екстремни мерки в условията на война, защото ние сме в биологична война." (D-r Spiridonova, 2021)].

In 2021 there was a decrease in the use of military metaphors by politicians as the political situation was unstable and Bulgarians had to vote several times—in Parliamentary elections on April 4th, on July 11th, and on November 14th, in elections for a President on November 14th and November 21st. Moreover, there were also partial local elections in some district towns. The insecurity and the lack of trust in politics as a whole made politicians more conscious of their language, so they avoided blaming ordinary citizens. However, according to Worldmeter, due to the reluctant measures of the caretaker governments, at the end of 2021 Bulgaria has the second-highest COVID-19 mortality rate in the world (Bulgaria has the Second, 2021).

War metaphor researchers agree that war metaphors are very useful for a short term mobilization of people, as they are a tool for increasing the consciousness about the importance of taking measures (Flusberg et al., 2017; Semino, 2021, etc.). However, when the measures are disproportionate and the danger seems not so imminently frightening, these metaphors and excessively strict restrictions lead to skepticism, distrust in the actions of the authorities, and a refusal to comply with any restrictions.

What about media texts? In the beginning, a large number of metaphoric uses have been found, for example:"Coronavirus death toll continues to rise" [*Продължава да расте броят на жертвите на коронавируса*] (bTV, Feb. 09, 2020); "Bulgaria is at war with COVID-19" [*България е във война с Ковид-19*] (DW, Nov. 13, 2020), etc. Later some of them remain popular, for example, "he/she lose the battle with COVID-19," but they become less frequent as a whole.

The situation in other countries is seen as very important to journalists and the articles, which are concerned with the measures abroad, have been regularly published, as follows: Slovenia defeated the coronavirus (May 15, 2020) [*Словения победи*[8] *коронавируса*] (Slovenia, 2020), How Taiwan beat the coronavirus (Nov. 11, 2020) [*Как Тайван победи коронавируса*] (Kak Taivan, 2020), Coronavirus: how Portugal defeated the British variant (April 02, 2021) [*Коронавирус: как Португалия победи британския щам*] (Koronavirus, 2021), Denmark defeated COVID-19, they remove all restrictions. Sweden will repeal its measures at the end of September (Sept. 10, 2021) [*Дания победи Ковид-19, премахват всички ограничения. Швеция ще отмени мерките си в края на септември* (Daniya, 2021)], Iceland defeated COVID-19, it plans to return to normal life (Oct. 19, 2021) [*Исландия победи Ковид-19, планира връщане към нормалния живот*] (Islandiya, 2021), etc. However, all of these metaphorical titles have been seen as problematic as the pandemic, in fact, has not been overcome anywhere, although there were some countries which has governed the crisis better.

In the second part of 2021, war metaphors have been used when talking about measures and restrictions. As noted above, Bulgaria is the European country with the fewest vaccinated people, because of the popularity of disinformation and conspirative theories, and many people and some branches do not support any measures. For example, Richard Alibegov, the President of the Chamber of Restaurateurs, used the war metaphor in September when some measures are planned because of the increase of the COVID-19 positive tests numbers: "We are boycotting the order… If they want a war, they will have one." (Sept 02, 2021) [*Бойкотираме заповедта… Щом искат война, ще я имат* (Alibegov, 2021)].

Some organizations who don't believe that the COVID-19 crisis is a real pandemic find the measures dangerous, and they also use war metaphors, The use of military rhetoric by anti-vaccine activists in different countries, including Bulgaria, is discussed in some media texts (Antivaksarite se radikalizirat: Nyama koronavirus, 2021), for example, "This is a chemical war against our children (i.e., the use of disinfectants at schools) [*Това е химическа война срещу нашите деца*, Sept 19, 2021)], etc.

Conspiracy theories that deny measures against the virus, that present it as a "just virus," or as a deliberately created in a laboratory to limit the rights and freedoms of citizens, that deny the effectiveness of vaccines and even proclaim their outright harmfulness, find a particularly good reception on social networks, where they have been spread uncritically. There are suspicions that the so-called troll factories (Mavrodieva, 2022), which began to publish anti-Ukrainian and pro-Russian content en masse after the outbreak of the war in Ukraine, are also to blame for their spread.

To sum up, the war rhetoric in Bulgaria is common when the topic is COVID-19. What is important is the fact that the boundary between literal and metaphorical uses is not always clear. Moreover, the war rhetoric at the beginning of the spread of the virus is one of the reasons for the subsequent skepticism. Mistrust in the motivation of institutions to take action has led to many casualties and to extremely low vaccination rates. As the crisis is a long journey, not a short battle, the war metaphor's popularity decreases over time and the frame used by authorities changes. More interestingly, military metaphors continue to be used by the opponents of the measures.

4.3. Ukraine (Olena Semenets)

Since 2014, Ukraine had been forced to restrain the military aggression of the Russian Federation in the east of the country. Therefore, during 2020–2021, Ukraine was experiencing two protracted crises at the same time: the long-drawn-out military conflict in the Donetsk and Luhansk regions and the COVID-19 pandemic.

In 2019, the new President Volodymyr Zelensky was elected in Ukraine. The rhetoric of his public speeches at first was largely based on show business technologies, in particular the

8 In all these cases the verb 'победя' is used—it means 'win' and it is used primarily in military context, and later in sport and in everyday situations, including in medicine.

techniques of humorous and satirical discourses (as Volodymyr Zelensky had considerable previous professional experience in the entertainment industry).

After the end of the first wave of the epidemic, at a press conference dedicated to the results of the first year of his presidential term (May 20th, 2020), Volodymyr Zelensky expressed confidence that the country had coped with a serious crisis related to COVID-19. He praised the work in this area, his own and of the Prime Minister Denis Shmygal: "... we are masters of sports in the fight against coronavirus. I'm sure of it. Take the statistics" [*… ми майстри спорту по боротьбі з коронавірусом. Я в цьому впевнений. Візьміть статистику*] (Pres-konferentsiia, 2020).

However, such "sports" rhetoric contrasted too much with the seriousness of the epidemic situation in Ukraine. This statement of the President was considered as a sign of an inexperienced politician's overconfidence and was severely criticized precisely on the basis of statistical indicators, to which Volodymyr Zelensky himself appealed (My—maistry sportu, 2020; Khozhainova, 2021; Komarova, 2021).

Later on, President Zelensky's anti-epidemic discourse became much more serious. This is manifested, in particular, in the use of "military" rhetoric in that discourse. Several stages of the development of such metaphorical rhetoric in the President's speeches can be distinguished.

August 2020. In his speech on the occasion of the Independence Day of Ukraine, Volodymyr Zelensky builds on a "military" metaphor, drawing a parallel between the spheres of reality: war—pandemic—economic crisis: "We are building just such a country! A country that is always ready to fight back. And it doesn't matter who attacks: the aggressor, the virus, the global crisis" [*Ми будуємо саме таку країну! Країну, яка завжди готова дати відсіч. І байдуже, хто атакує: агресор, вірус, світова криза*] (Promova Prezydenta, 2020).

November 2020. The metaphor deepens, covering specific areas of social and professional relations in Ukrainian society. In the greeting on the occasion of the Day of the social worker: "The coronavirus pandemic has significantly changed our lives. At the forefront of COVID-19's social consequences, social workers are at significant risk" [*Пандемія коронавірусу суттєво змінила наше життя. Перебуваючи на передовій боротьби із соціальними наслідками COVID-19, працівники соціальної сфери піддаються значній небезпеці*] (Vitannia Prezydenta, 2020).

December 2020. In the President's interview for the publication in Focus, the metaphor develops and branches out. Starting from the direct statement according to the model "*S is P*": "Coronavirus is war" [*Коронавірус—це війна*]—to the defining in the subsequent story the directions of hard work as a struggle. The President explains the change of the three health ministers by "the psychological killing force" of the virus: "I consider that the virus killed the ministers psychologically. They couldn't do the job very quickly, not because they were bad, but because they were ministers at the time" [*Я вважаю, що вірус психологічно вбивав міністрів. Вони не могли дуже швидко виконувати завдання не тому, що погані, а тому що були міністрами в такий час*] (Shashkova, 2020). Then, in the full interview, the President's discourse of the struggle for a vaccine further develops.

The metaphor of war was completely legitimate, first of all, in the discourse of the physicians themselves, in their professional assessment of the situation: "… we are here just like at war. Doctors, nurses, paramedics—all work for the good to help people" [*… ми тут просто як на війні. Лікарі, медсестри, санітарочки—всі працюють на благо, щоб допомогти людям*], March 2021 (Sadovyi, 2021); "You have to gather strength even in spite of tears: you came out crying—and you go to the sick again. We now have two frontlines—at the battle line and in medicine" [*Доводиться набиратися сил навіть через сльози: вийшов поплакав—і знову йдеш до хворих. У нас зараз дві передові—на фронті й у медицині*], September 2021 (Chyrytsia, 2021).

In general, the metaphor "war against the coronavirus" has not become as widespread in Ukrainian official, political, and media discursive practices during 2020–2021 as in other Western countries (Semenets, 2022). The word "war" in the public and personal discourses of Ukrainians was used primarily not in the metaphorical, but in the direct, denotative sense: "war" as "the armed conflict in eastern Ukraine, the resistance to external Russian aggression."

An indicator of this state of public consciousness could be seen in the awarding of the national prize "Global Teacher Prize Ukraine" in 2021 which for the first time referred to the nomination category "Teacher Working in the Combat Zone." The writer Serhiy Zhadan, who presented the award to a teacher from the combat zone, stressed: "Teachers of Donetsk and Luhansk regions hold an equally important line of defense" [*Вчителі Донеччини та Луганщини тримають не менш важливу лінію оборони*]. The winning teacher herself noted: "This is the first of such nominations. And my most cherished dream is for it to be the last. That we never had teachers working in the combat zone. And we were just teachers of Ukraine" [*Це перша така номінація. А моя найзаповітніша мрія, щоб вона була останньою. Щоб ніколи у нас не було вчителів прифронтової зони. А ми просто були вчителі України*] (Global Teacher Prize: naikrashchym stav vchytel ukrainskoi Artur Prodaikov, 2021).

Speaking at the debate of the 75th session of the UN General Assembly on September 23rd, 2020, President of Ukraine Volodymyr Zelensky focused on the growing challenges to modern world security and the situation of war that Ukraine has been experiencing since 2014: "I speak of this as the Head of State in which the Russian Federation annexed the Crimean Peninsula in the 21st century. A state that has been deterring its military aggression in Donbas for 7 years. How would the founders of the United Nations feel if they learned that 75 years later there would be a war in central Europe?" (Vystup Prezydenta, 2020).

The Russian aggression against Ukraine since 2014 has the character of a hybrid war. The armed confrontation is accompanied by hard Russian propaganda and constant information attacks. The concept of "war" in the minds of modern Ukrainians is primarily associated with countering Russian aggression in eastern Ukraine and information warfare.

One of the important aspects of the information struggle in the Ukrainian media environment in 2020–2021 was represented by the metaphorical field of "battle of vaccines" and "battle for the vaccine".

The metaphor "battle of vaccines" ["*битва вакцин*"] means "tough competition, fierce struggle between vaccines." The word "vaccine" in this phrase means not the drug itself, but—based on metonymic connection and personification, i.e., on the basis of metonymic metaphor—it means those collective subjects that own

or dispose of this drug: pharmaceutical companies, certain countries, authorities in those countries.

In the metaphor "battle for the vaccine" ["*битва за вакцину*"] the dependent noun has the meaning of the object being fought for. During 2020, that metaphorical phrase was used mainly in the meanings:

- Invention, testing, and production of vaccines.
- Purchase, receiving the vaccine.

However, in January 2021, in Ukrainian media discourses, the semantic volume of the metaphor was supplemented with new components. Characteristics of the quality of information in media space had also become the constituents of the "battle for the vaccine". At this time, there were demands that the government's actions to purchase vaccines must be transparent as well as claims that a high-quality information campaign on the need for vaccination and the promulgation of a clear vaccination mechanism throughout the country were needed. All of this together was also part of the "battle for the vaccine" (Semenets, 2022). Another important meaning of the phrase "battle for the vaccine" was the fight for the fair distribution of vaccines between countries, including free access to the global initiative COVAX (Skandal u Yevropi, 2021).

The information environment of discussions on vaccination during the pandemic was a battleground for geopolitical, economic, informational influence, i.e., the sphere of information warfare. The discrediting of Pfizer, Moderna, AstraZeneca vaccines and, in contrast, the positive coverage of the Russian "Sputnik V" vaccine was carried out primarily by Russian media and Ukrainian media with strong pro-Russian rhetoric, as well as pro-Russian deputies and popular bloggers.

The very name of the vaccine "Sputnik V" contains direct reference for the Cold War. The vaccine is named after the first orbital satellite launched by the Soviet Union in 1957 and started the global space race. Kirill Dmitriev, head of the Russian Direct Investment Fund, which is financing Russian vaccine research, suggested the name. Referring to the world's first spacecraft launched by the USSR, in late July 2020 he said to CNN: "Americans were surprised when they heard Sputnik's beeping. It's the same with this vaccine. Russia will have got there first" (Chance, 2020). The Russian authorities considered this vaccine as a powerful weapon of information warfare and saw a military content potential in it. In 2021, on the eve of Victory Day on May 9th, Vladimir Putin compared "Sputnik V" to Soviet-era weapons, arguing that the Russian vaccine was "as reliable as a Kalashnikov assault rifle" (Putin Porivniav, 2021).

In his interview with The New York Times on December 16th, 2020, the President of Ukraine Volodymyr Zelensky identified quality as the main criterion for choosing a vaccine for Ukrainians, emphasizing that the promotion of "Sputnik V" is "ones more strongest information war by Russia" [*ще одна найсильніша інформаційна війна з боку Росії*]. The issue of vaccine quality was key: "… we must not allow Ukraine to take the Russian vaccine that has not passed all the tests. We have no real evidence that that vaccine has a hundred-per-cent positive effect. … Ukraine primarily bases its decision on choosing a safe vaccine" (Interviu Volodymyra Zelenskoho, 2020).

Thus, "battle of vaccines" and "battle for the vaccine" as a metaphorical field of information struggle demonstrates fundamentally different approaches from the Russian Federation and Ukraine, highlighting different values and semantic dominants in official, political, and media discursive practices.

5. Discussion

Discourse analysis on the rhetoric of COVID-19 pandemic has produced such a wide range of studies that it has become a genre in itself. And being the "war metaphor" the most widely used across the world, it has occupied a large place of its own within such a genre, with comments ranging from the most neutral or moderate to the most critical, as we have presented in this contribution.

In the pages above, we have discussed how the war metaphor has been mobilized in political and media discourses in the three countries where we live—Italy, Bulgaria, and Ukraine. From a cross-cultural perspective, this complies to one of the possible research methods and culture sampling (van de Vijver, 2001, p. 3002). Cross-cultural studies "involve persons from different countries and/or ethnic groups; a defining characteristic is their comparative nature" (*ib.,* p. 2999). These studies sustain that "groups with a different cultural background tend to differ on a variety of outcome-relevant characteristcs" (*id.*).

From a cross-cultural perspective, in our contribution we can notice that though the military discourse propagated in our countries presents some common threads—an appeal to unity, the mobilization against a common threat, the rhetoric construction (or reconstruction) of a specific national identity, the legitimization of security measures—the historical, cultural, and political context of each country framed and signified the war metaphor in different ways, following different strategies and enacting different argumentative functions.

In Italy, due to the historical past of the country marked by Fascism, the national and public rhetoric mobilized the war metaphor directing it toward what is culturally perceived as "the good war" that is the war of Liberation from Nazi and Fascist regimes, a sort of "national redemption" after the fall into Fascism. References to war thus mainly played on the sense of a renewed national solidarity and unity to be attained during and after the COVID-19 pandemic as it was attained during the war of Liberation and after the destructions and internal divisions created by Fascism. The military presence though became blatantly visible during the first, strictest, lockdown (March, 9th-May, 18th 2020), when military forces in uniforms or camouflage patrolled the streets, and with the appointment of a general to manage the vaccine logistics (March 1st, 2021). While the first generated an overall great impression in a public opinion unaccustomed to see militaries in the streets, reviving bad memories in older generations and dismay in those born after World War II, the latter was received with rather opposite sentiments, with the institutions and the traditional media saluting and celebrating the military efficiency, while the social media displayed a wide array of ironic and sarcastic comments.

From the very start of the pandemic, in Bulgaria the use of the military rhetoric was less a rhetorical move and more a clear political stance—e.g., through the presence of military doctors on TV and the daily 8 am briefings televised by a general in uniform. Again, it is interesting to notice how the war metaphor was filled in

by specific cultural and historical elements. A consolidated lack of trust in politics and politicians combined with distrust in authorities, created a rather peculiar occurrence. As the war rhetoric implies the construction of an enemy, in Bulgarian political discourse the enemy doubled, being not solely the virus itself, but also those who performed irresponsible behaviors: those who refused to comply with restrictions first, and to vaccinate then.

In Ukraine, where a military conflict had been a constant presence since 2014, at the beginning of COVID-19 pandemic two different phenomena could be observed. On the one hand, the use of the war metaphor was not so active since, to paraphrase Sontag, "war" was *not* a metaphor but a real armed conflict in eastern Ukraine. At the start of the pandemic, the Ukrainian president preferred to use sports metaphors to define COVID-19 in his discourse. On the other hand, when the war metaphor emerged in political speeches, the enemy tripled—the aggressor, the virus, and the economical crises. A further—and highly contextualized—step in the Ukrainian war rhetoric was the information warfare on the vaccines, which saw a sort of reproposal of the Cold War, here engaged between Western vaccines and the Russian Sputnik V, multiplied by the violence of Russia's informational aggression against Ukraine.

As we have seen, a relevant factor in the war metaphor is the construction of a specific enemy (or enemies), a major actor that is evoked and mobilized for specific political purposes that manipulate and bend to their own interest specific cultural and historical factors. Another element that lies at the core of the war metaphor, and actually nurtures its deepest roots, is the emotional appeal to fear that, as Wodak (2015) has discussed, is a major player in political rhetoric. In the discourses of the three countries taken into consideration, fear occupies a central role though, in this case, with some recurrent similarities, such as for example the progressive shift from the "fear of the virus" to the "fear of the vaccine" caused by a general scorn or mistrust in the authorities, or by the concern of being "invaded" by the enemy vaccine. Another main actor of the war metaphor is the figure of the "hero" who bravely fights at the frontline. While in most countries doctors and nurses were those saluted as the "new heroes," it is interesting to notice that in Ukraine health professionals (as well as teachers working in the combat zones of the Donetsk and Luhansk regions) when using such a metaphor were compared not with legendary archetypal "heroes," but with quite real Ukrainian soldiers who protected the country from Russian armed aggression in the east of Ukraine.

As we can notice from these considerations, though a most globally used metaphor, the "war metaphor" both evoked and responded to specific national issues, concerns, cultural and social situation, historical memories, ideologies, knowledge about the dominant forms of discourse in society (Kövecses, 2015, pp. 181–186). If "using metaphorical language is joint action that requires a common ground" (*ib.*, p. 179), such common ground is highly influenced by diverse contextual factors, including that of extending and reapplying metaphors previously used. In the last decades, the neoliberal governments have applied the war metaphor to various domains—e.g., war on crime, war on drugs, war on AIDS, war on terrorism—creating a logic of perennial war that has justified measures of securitazion and control of the bodies, disseminating "a discourse on the normalization and naturalization of ongoing violence" (Dias and Deluchey, 2020, p. 3) where:

- War and peace become synonymous, as well as exception and rule, coup d'état and governance, politics,
- And police, neoliberalism and civil war. This is why, first and foremost, this war is communicational and,
- Involves the corrosion and misrepresentation of language, the perversion of enunciation and a systematic,
- Inversion of the value of the words and the meaning of discourse itself (*id.*).

6. A final note

In late February-early March 2022, while we were finalizing this contribution on the war metaphor, a *real* full scale war, caused by the invasion of Ukraine by Russian troops, broke out in the heart of Europe. As for many other contemporary wars and conflicts (Yemen, Somalia, Myanmar, Syria, Sudan, only to name a few), civilians are those who pay the highest price in terms of casualties, suffering, and displacements. Divisive narrations highly contribute to fueling the flames of hate and constructing the Enemy. As linguists, it is our responsibility to raise awareness on the mechanisms of such rhetorical strategies to deflame such narratives, exposing and deconstructing the textual and visual mechanisms that disseminate discriminatory language, but also imagining creative proposals to subvert polarized discourses.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding authors.

Author contributions

This contribution, fully shared by the three authors, was drawn up as follows: 1. Introduction, 2. Methodology/theoretical background, 3. Data, and 5. Discussion were co-written by the three authors. 4.1. Italy was written by PG. 4.2. Bulgaria was written by BT. 4.3. Ukraine was written by OS. All authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

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Introducing the keyconcept approach to the analysis of language: the case of REGULATION in COVID-19 diaries

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Using the Mass Observation corpus of 12th of May Diaries, we investigate concepts that are characteristic of the first coronavirus lockdown in the UK. More specifically, we extract and analyse concepts which are distinctive of the discourses produced in May 2020 in relation to concepts used in the 10 previous years, 2010–2019. In the current paper we focus on the concept of REGULATION, which we identify through a novel approach to querying semantic content in large datasets. Typically, linguists look at keywords to understand differences between two datasets. We demonstrate that taking the perspective of a *keyconcept* rather than the *keyword* in linguistic analysis is a beneficial way of identifying trends in broader patterns of thoughts and behaviours which reflect lived-experiences that are particularly prominent of a given dataset, which, in this current paper, is the COVID-19 era dataset. In order to contextualise the keyconcept analysis, we investigate the discourses surrounding the concept of REGULATION. We find that diarists communicate collective experience of limited individual agency, surrounded by feelings of fear and gratitude. Diarists' reporting on events is often fragmented, focused on new information, and firmly placed in a temporal frame.

KEYWORDS

keyconcept, semantic variation, corpus, discourse analysis, COVID-19, regulation

1. Introduction

In 2020, with COVID-19 spreading across the world population, individuals were forced to adapt to a new reality quickly and dramatically. Changes in social practises included new behaviours such as social-distancing, face-mask wearing, home-working, and many others. These behavioural and often concomitant attitudinal changes happened in real time (see Barber and Kim, 2021; Naughton et al., 2021; Schnell et al., 2021; Woodrow and Moore, 2021). For example, Kleitman et al. (2021) found that perceptions of the severity of the threat of COVID-19, vulnerability to infection, and the efficacy of protective behaviours were highly predictive of the uptake of behaviours relating to the prevention, avoidance, and management of illness. The language used during the COVID-19 era can provide insight into these profound and far-reaching changes that resulted from the pandemic directly or indirectly. Linguistic research has explored public health messaging from the government and related agencies (e.g., Kalocsányiová et al., 2021; Strange, 2022) and the media (Jaworska, 2021; Müller et al., 2021; Semino, 2021; Yu et al., 2021; Kania, 2022; Bafort et al., 2023; Giorgis et al., 2023).

A number of studies analyse COVID-19 signage communication, such as Tragel and Pikksaar (2022) and Bagna and Bellinzona (2023). The current paper contributes to the developing body of work that is concerned with the language used during the pandemic by the general public rather than institutions (see also Cowie et al., 2022; Wilding et al., 2023).

In the current paper we explore lockdown language through lexis as it is the layer of language most sensitive to social changes (Minkova and Stockwell, 2009). In previous work we have demonstrated the benefits of investigating changes in society through the lens of lexical variation (e.g., Robinson, 2010, 2012; Sandow and Robinson, 2018; Sandow, 2022, 2023). We did this through exploring different words expressing the same meaning (formal onomasiological perspective), and different meanings expressed by the same word (semasiological perspective). In the current work we complement these approaches by building on conceptual onomasiology (Geeraerts, 2009, p. 822) and taking a concept-led approach. At a basic level, we operationalize *concept* as a semantic category represented by a cluster of synonyms and hyponyms. In the current work, the categorisation of words into concepts, conceptual hierarchy, and concept labels derive from WordNet (Fellbaum, 1998, more discussion in Section 3).

Previous research in conceptual variation (e.g., Mehl, 2021; Fitzmaurice, 2022; Fitzmaurice and Mehl, 2022; Robinson and Weeds, 2022) has attested the value of using concepts to explore patterns of cultures, thoughts, and behaviours. For example, Fitzmaurice et al. (2017, p. 21) showcase the ways in which "key cultural concepts" provide insight into the diachronic trends in the shaping of thought, culture, and society by analysing the concept of VALOR. Robinson and Weeds (2022) explore gendered speech in the Old Bailey Corpus to discover the phenomenon of *socio-conceptual polysemy,* which indicates that different people may use the same concept with the same probability but develop different meaning components for that concept.

The key research question that drives the present endeavour asks which concepts are distinctive of the COVID-19 era in relation to the previous decade. We address this question by analysing longitudinal data from a corpus of day diaries collected by Mass Observation Archive and written on the 12th of May on each of the years from 2010 to 2020 (Massobs, 2010). The diary writers respond by email or letter to the same instruction to account for everything they did on the 12th of May of the given year. Because the data is consistent in terms of the context of language use and topic, the data yields itself well to the comparative analysis across time.

In order to find similarities and differences between two texts, corpus linguists typically employ the keywords approach (e.g., Baker, 2004; Love and Baker, 2015; Hansen, 2016). A *keyword* is a word which occurs in a text more often than we would expect to occur by chance alone. Keywords are calculated by statistical tests which compare the word frequencies in a text against their expected frequencies in a reference corpus. In the current research we propose taking the perspective of a *keyconcept* as a beneficial way of identifying trends in broader patterns of cognition. A *keyconcept* is similar to a *keyword* in terms of it extracting a topic that is typical of a given text against the idea in a reference text. A *keyconcept* differs from a *keyword* in that it captures that idea not through an individual word but as a concept, i.e., a group of semantically similar words. While we employ this approach and showcase its efficacy in this article, it is important to note that we also acknowledge that concepts are represented by more complex structures of language and cognition, but this broad view of concepts is beyond the remit of the current paper (see Murphy, 2004).

The focus on concepts in language enables us to explore broader patterns of thinking from a given text. We identify concepts which reflect lived-experiences that are particularly prominent in the COVID-19 era. We do so by conducting quantitative and qualitative analysis of a longitudinal corpus. Firstly, we conduct quantitative analysis in order to identify which concepts are most distinctive of the COVID-19 era. We then analyse the data qualitatively, in order to establish how these distinctive concepts are being used and how they relate to the ontology of COVID-19 in the United Kingdom.

In Section 2, we present details of the data used in the current study, alongside an overview of Britain on the 12th of May 2020, the day in which the target dataset was collected. In Section 3 we provide an overview of the method, before introducing the case-study of the keyconcept REGULATION. In Section 4 we interpret the sentences containing the concept of REGULATION in a discourse analytic framework (cf. Van Leeuwen, 2008). The discourse analysis yields themes of agency, emotions, stance, hearer-new information, and temporal framing of the concept of REGULATION. In the final remarks, we comment on the key findings of the discourse analysis and usefulness of the keyconcept approach taken in the study.

2. Data

2.1. May diaries and the Mass Observation Archive

The Mass Observation Archive (MOA) "specialises in material about everyday life in Britain. It contains papers generated by the original Mass Observation social research organisation (1937 to early 1950s), and newer material collected continuously since 1981 (Mass Observation Project)" (http://www.massobs.org.uk/). Since 2010, the MOA has made an annual call for day diaries written on the 12th of May by self-selected members of public. The diarists are instructed to record everything they did from the moment they woke up in the morning to the time when they went to sleep on the 12th of May and add "any reflections on the day [12th May] and how you [they] felt while keeping the diary". Guidance for respondents is also provided relating to the submission of biographical information as well as confidentiality and anonymity. This means that there is minimal top-down interference in the content of these diary entries. Thus, the responses can be considered to be reflective of the lived-experiences and concerns of the diarists on the day of writing. While press releases relating to the 12th of May diaries have differed since 2010, the core guidance for diarists has remained stable (http://www.massobs.org.uk/write-for-us/12th-may).

While diarists are free to handwrite their responses and to include additional materials such as photographs or drawings, the scope of the current analysis is limited to digitally-submitted

written responses. As almost identical instructions have been provided to diarists each year for the 12th May project, we assume that differences across each year's responses reveal information regarding the distinctive lived-experiences of each particular year. This homogenous structure of the data enables us to query distinctive concepts of the diaries from the 12th of May 2020, during COVID-19 lockdown, against the baseline of the pre-COVID-19 diaries from 2010 to 2019.

Little research has made use of the 12th of May diaries so far. An exception to this is Langhamer (2020) who investigates the May 2020 diaries and identifies a number of key themes such as a sense of living through history. To the best of our knowledge, no diachronic comparative analysis has previously been conducted on the 12th of May diaries. We next describe the data and research methods, before contextualising Britain on the 12th of May 2020 and then analysing the results of the keyconcept approach to the 12th of May diaries.

2.2. 12th of May diaries: Corpus characteristics

In this section we present the properties of the 12th of May Diary Corpus used in the current research project including socio-demographic characteristics of diarists based on the information available regarding their age, gender, location, and occupation.[1] The 2010–2019 diaries include 3,070 diary entries and 4,101,605 words, with an average length of 1,336 words per entry. Between 2010 and 2019 the average number of responses to a 12th of May diary was 307, with the highest response rate being 582 in 2016 and the lowest being 142 in 2019. In the 2010–2019 diaries, excluding some cases, such as those where the gender was not provided, 82.2% of the diarists identified as female and 17.7% identified as male. The 1950s–1980s are the most common decades of birth for these diarists, with minor differences between males and females (see Figure 1).

The 2020 dataset includes 4,478 diary entries and 4,921,831 words, with an average length of 1,099 words per entry. A comparison of the quantities of data across the datasets reveals the unprecedented response rate to the May 2020 diaries. There were almost one and a half thousand more responses in 2020 alone than in the previous 10 years combined. In the May 2020 diaries, 75.9% of May 2020 diarists identify as female, and 23.7% of diarists identify as male. While there is no clear skew towards female respondents in May 2020 (Figure 2) this skew is smaller than in the 2010–2019 diaries (see Figure 1). The mean age of diarists in May 2020 is 45 which is slightly younger than the average ages from the previous decade of diaries, which range from 45 in 2013 to 55 in the 2019 diaries. The downward skew on diarists ages in May 2020, particularly among males (see Figure 2), can largely be attributed to the fact that a number of school classes that participated in the 12th of May diaries was much higher in 2020 than in previous years. There is also a slightly different age-profile between male and female diarists, with males born in the decades 2000s and 2010s making up a much larger proportion of the male diarists in relation to the female diarists. While all major geographical areas in the UK are represented in the data, there is also a skew towards those diarists from London and the South-East, as well as from higher socioeconomic backgrounds.

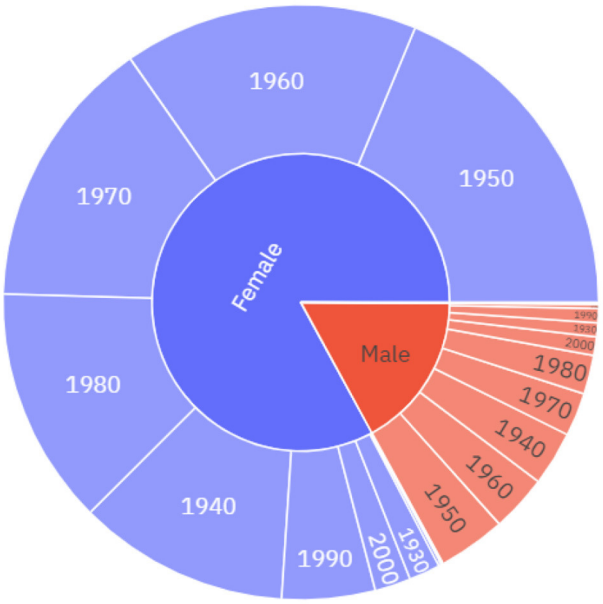

FIGURE 1
The socio-demographic distribution of the diarists, 2010–2019, by gender and decade of birth.

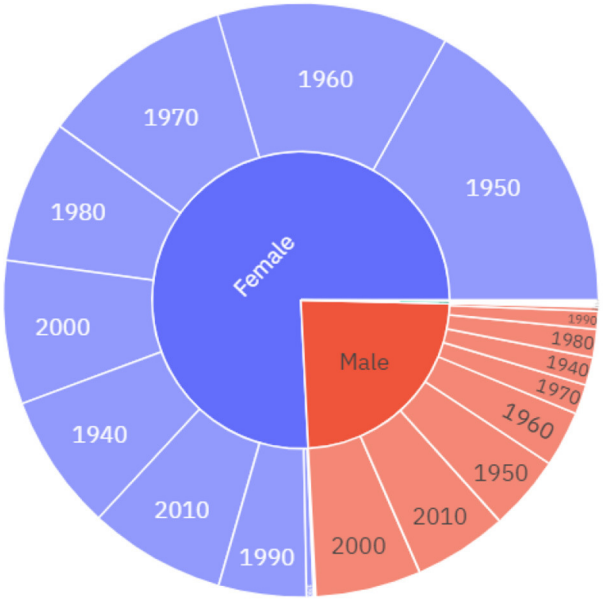

FIGURE 2
The socio-demographic distribution of the diarists, 2020, by gender and decade of birth.

The diaries represent the universe of thoughts, behaviours, and cognition of the writers contributing to the data (cf. Hubble,

1 Note that this biographical information is shared at the respondents' discretion and, as a result, some elect to withhold part or all of it.

2006; Savage, 2007). Admittedly, these contributors are disproportionately skewed towards middle-aged women from the South East of England. However, these demographic skews are not specific to the 2020 dataset analysed here, but are consistent across the entire MOA. Thus, the conclusions related to salient themes across the 2010–2019 and 2020 datasets can be considered representative to the same degree that any other analysis that uses the MOA can be. While the rich biographical information regarding the diarists means that the data yields itself to an analysis of differences in the diaries according to socio-demographic profile, such an analysis is beyond the scope of the current paper.

2.3. Context: Britain on the 12th of May 2020

According to the Office for National Statistics (2021), the first wave of Coronavirus in the UK began in March 2020 and ended at the end of May 2020 (WordNet, 2010). Britain reported its first case of Sars 2 COVID-19 on the 29th of January 2020. After a period of time when the government tried to control the spread of the virus with behavioural guidelines, such as recommendations to replace handshakes with elbow bumps and to wash hands for the duration of two iterations of the happy birthday song, the UK entered a lockdown on the March 26th, 2020. This meant that all those who could were ordered to work from home and leaving the home was permitted in only very specific circumstances such as for daily exercise or to buy essential goods such as food (House of Commons Library, 2021). In England, the relaxation to lockdown restrictions was announced by Boris Johnson on the May 10th, 2020 (it was announced in Parliament the following day), while in Scotland and Wales the lockdown dates and guidance differed slightly. The UK government permitted two people from different households to meet outdoors from the May 13th, 2020, the day after the 12th of May diaries were written. The 12th of May 2020 predates the availability of COVID-19 vaccines for the public, with the first coronavirus vaccine outside of clinical trials being administered in December of 2020.

3. Methods

In order to discover which concepts are distinctive of the COVID-19 era in relation to the previous decade we analyse data from day diaries written on the 12th of May 2020 and compare with the same data produced in 2010–2019. We refer to these two corpora as May 2020 and May 2010–2019 corpora, respectively. The current analysis is based on a distant and close reading of the data. First, we identify concepts which are distinctive of the target dataset, which is May 2020, in relation to baseline data of the May 2010–2019 diaries. Once the keyconcepts are identified, we apply traditional corpus and discourse analytic techniques to the analysis of a sentence containing the lexeme representing the keyconcept and, occasionally, the immediate context of that sentence.

3.1. Computational approach

We have developed a pipelined approach to keyconcept extraction which follows the four steps, i.e.:

1. Corpora creation
2. Word sense disambiguation
3. Automatic concept annotation
4. Keyconcept extraction

In Step 1 we create the target corpus for May 2020 and a reference corpus for May 2010–2019. The diary responses submitted to MOA in digital formats were converted into .docx files. The files were cleaned, anonymised, and tagged for meta-data such as gender, age, region, and occupation. Ethical and legal approvals to work with the MOA data have been obtained by Authors. In Step 2, each word in the corpora is tagged for part-of-speech and sense using Supervised Word Sense Disambiguation (SupWSD) (see Papandrea et al., 2017). In Step 3, we use WordNet 3.0 (www.wordnet.princeton.edu) to position each sense in a hierarchy consisting of semantically more general and more specific senses. Thus, words which share meaning are grouped by means of conceptual-semantic and lexical relations, such as synonymy or hyponymy. The resulting network of semantically-related words creates a concept. In Step 4, we extract the keyconcepts that are distinctive of the target dataset.

We acknowledge the principles on the basis of which WordNet reifies concepts (cf. Fellbaum, 2005; Jezek and Hanks, 2010). Certain nuances of language use are missed when lexis is aggregated into conceptual entities proposed by WordNet or other knowledge-based ontologies. In this paper we show the value of aggregation of words into concepts, such as the one that emerges from the point of view of computational handling of data. We also zoom in on nuances of language use by carrying out discourse analysis of a statistically meaningful dataset. Thus, we reconcile distant and close reading of the texts. In order to do so, first, it is necessary to clarify a key terminological distinction between *senses* and *concepts*. As a result of steps 2 and 3 each word gets assigned a particular sense, labelled by a word form which represents its meaning, a letter signifying part of speech category (e.g., n = noun, v = verb), and a number referring to distinct polysemous meanings of the word form. For example, the noun *state* "the territory occupied by one of the constituent administrative districts of a nation" is represented as state.n.01, while state.n.02 is defined as "the way something is with respect to its main attributes". The sense state.n.01 consists not just of the noun *state*, but also its (near) synonym, the noun *province*. state.n.01 can also be seen as a concept, that is, an abstraction which includes state.n.01 as well as hyponyms of state.n.01, including american_state.n.01, kosovo.n.01, and friesland.n.02. A concept also includes senses further down in the semantic hierarchy. Thus, the hyponyms of the hyponyms of state.n.01[2] are also included in

2 Such as alabama.n.01 and florida.n.01 which are hyponyms of american_state.n.01.

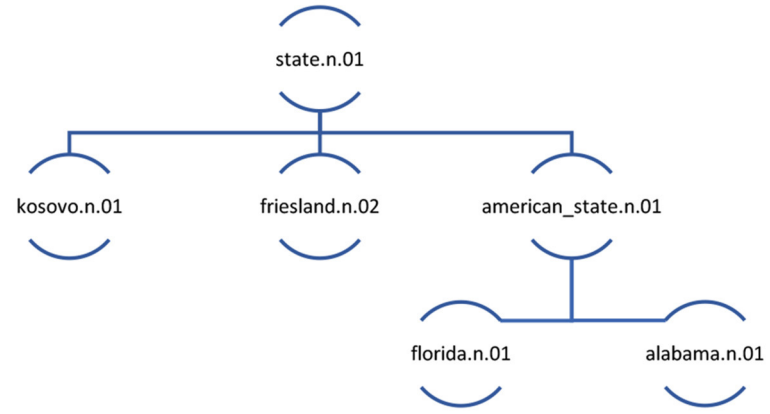

FIGURE 3
The abbreviated representation of the concept of state.n.01.

the concept state.n.01 (Figure 3). The main benefit of focusing the analysis on the concept is due to its capacity to capture themes in texts represented by a whole group of semantically-related words.

WordNet structures concepts into a taxonomic hierarchy, which is defined by hyponymous or *is-a* relationships. All nouns begin with the "beginner synset" entity.n.01 at level 0 which has a range of hyponyms, which themselves have hyponyms and so on, recursively, until very specific results such as lefteye_flounder.n.01 appear at the 15th level in the taxonomy. The example of the concept of STATE in Figure 3 illustrates the hierarchy and sample levels, where STATE is at level seven in WordNet's conceptual hierarchy.

In Step 4, we identify keyconcepts through the use of Pointwise Mutual Information (PMI). Specifically, we use PMI to determine which concepts are distinctive of the target corpus (May 2020 diaries) in relation to the reference corpus (May 2010–2019 diaries). PMI is a commonly used metric which measures strength of association (e.g., Hoang et al., 2009; Evert, 2008). While PMI is often used to determine the likelihood of two words occurring next to or within a specified window of each other (e.g., Lai, 2019; Hilpert and Flach, 2021), PMI can also be used to investigate how much more likely a word or a concept is to occur in one dataset in relative to another dataset. The relative frequency (tokens of the concept measured against total tokens in the dataset) of a given concept in the target corpus is measured against its relative frequency in the baseline. In the current study the PMI measures the strength of association between a concept and May 2020 diaries against the expected association of the that concept with May 2010–2019 diaries.

We use the following equation to determine PMI:

$$\mathrm{PMI}(A, B) = log \frac{P(A|B)}{Pref(A)}$$

where A is a concept, B is a directive, P(A|B) is the probability of encountering concept A given a directive B, and Pref(A) is the probability of concept A in the reference corpus.

4. Results

4.1. Diarists on May 12th, 2020

The lived-experiences of this first UK lockdown are preserved in the form of the MOA's 12th of May diaries from 2020. The diarists were asked to record everything they did from the moment they woke up in the morning to the time when they went to sleep on the 12th of May. These diaries contain detailed descriptions of lockdown life on the day as well as narratives relating to differences between their routines pre/during lockdown. When compared to the diaries in the previous decade, we expect to discover concepts that are distinctive of 2020. We expect many of those concepts to correspond to the salient memories of pandemic life. We also expect to find concepts statistically distinctive of 2020 but less salient to the memory of pandemic life.

The computational analysis of May 2020 allows us to query the dataset and identify areas of distinctiveness that we operationalize through the idea of the keyconcept. The concepts that are most distinctive of May 2020, compared with May 2010–2019 include the first ranked most distinctive concept of lockdown.n.01 ($n = 11{,}511$; PMI = 13.22), the forth ranked concept soar.n.01 ($n = 1{,}875$; PMI = 10.60), the fifth ranked concept pandemic.n.01 ($n = 2{,}486$; PMI = 9.43), the seventh ranked concept furlough.n.01 ($n = 570$; PMI = 8.89), and the ninth ranked concept distance.v.01 ($n = 517$; PMI = 8.75). Many of the most distinctive concepts are largely intuitive considering the memory of the pandemic life. Most concepts have a high-degree of name agreement (see Snodgrass and Vanderwart, 1980), that is, there is one word or a small set of words used to lexicalize that concept. For example, the 570 times the concept furlough.n.01 was used, it was realised exclusively by the lexical item *furlough*. In such cases, the results from the keyconcept analysis do not differ greatly from more traditional keyword analysis using corpus methods (e.g., Love and Baker,

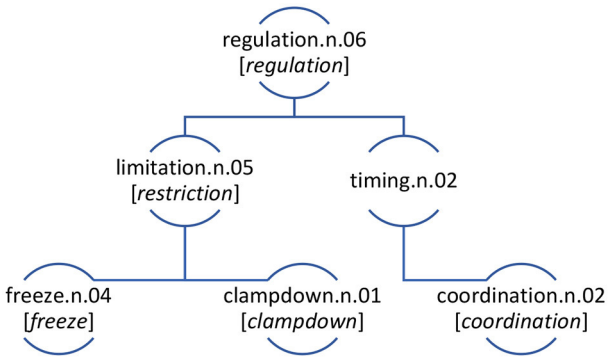

FIGURE 4
The concept of REGULATION in the 12th of May 2020 Diaries with the lexemes used to express the concept at different levels in brackets.

2015; Hansen, 2016). However, other highly distinctive concepts of May 2020 diaries are represented by a range of lexemes and, therefore, showcase the value of focusing the current analysis at the level of the concept. For example, the concept regulation.n.06 (henceforth REGULATION), which WordNet defines as "the act of controlling or directing according to rule", is comprised of a range of different lexical items. Specifically, REGULATION, which has a PMI of 6.85 was used 49 times in the May 2020 diaries[3] of which there were 29 uses of *restriction*, 11 uses of *freeze*, seven uses of *coordination*, one use of *clampdown* and one of *regulation*.[4] The keyconcept of REGULATION presented in Figure 4 is the focus of remaining part of the current paper. The concept of REGULATION (regulation.n.06) is 54th top nominal keyconcept across all data as ranked by PMI. Although it is not the top ranked most distinctive concept in the data its structure and usage provide a useful case study to illustrate the method proposed in the current paper.

The WordNet at levels in the concept hierarchy are as follows, i.e., regulation.n.06 is at level 8, with limitation.n.05 and timing.n.02 being at level 9, and clampdown.n.01, freeze.n.04, and coordination.n.02 being at level 10. While it is clear how most of the lexical items within the concept of REGULATION map onto the senses in Figure 4, it is worth noting that *restriction* is tagged as the sense limitation.n.05.

3 The concept REGULATION is distinctive of May 2020 diaries, not unique to them. This means that there are a small number of uses of this concept that appear, seemingly irrespective of COVID-19, such as "[c]oordination whilst looking in a mirror is very challenging". There are also examples of regulation.n.06 in the baseline corpus, such as "[a]t the end of last year though, we had a 40% reduction in staff (following the coalition government's marketing freeze and cuts)".

4 49 instances of regulation.n.06 do not encompass all examples of the given lemmas that comprise this concept REGULATION. Many of these lexical items are polysemous and so are also tagged as constituents of other concepts. For example, other uses of *regulation* were tagged as regulation.n.01, "an authoritative rule", and regulation.n.03 "the state of being controlled or governed".

The social distribution of REGULATION in the dataset broadly reflects the socio-demographic profile of the May 2020 diarists (Figure 2). For example, the gender distribution, excluding unknowns, was approximately equal to that of the dataset as a whole, with 22.22% of those who used REGULATION identifying as male and 74.07% as female. However, the users of the 49 instances of the concept of REGULATION have an average age of 59, which is older than the May 2020 diarist average age of 45.

While the computational methods serve to identify keyconcepts, close reading of the data enables a more nuanced understanding of the identified concepts. In order to explore the usage of the concept of REGULATION, we move to the corpus-assisted discourse analysis of data.[5] We extract and discuss themes common across all the terms of REGULATION rather than presenting the semantics of each term separately. The analysis focuses on the sentences that contain the terms of the concept of REGULATION, sometimes using surrounding sentences to provide necessary context.

4.2. Discourse of the concept of REGULATION

Following the computational analysis, in this section we take a discursive perspective based on Van Leeuwen's (2008) analytical framework to investigate the immediate context in which the keyconcept REGULATION is used in the 12th of May 2020 diaries. Van Leeuwen's (2008) approach considers discourse as a representation of reality. Thus, different narratives may capture the same facets of reality in different linguistic ways and to different purposes. Such analysis makes it possible to discover implicit or explicit ideas and stances associated with REGULATION.

In what follows we highlight features of the language used in the contexts of words of REGULATION and illustrate them with excerpts from the diaries. The entries which we discuss reflect the writers' stances associated with the pandemic and the "unprecedented" (as the buzz qualifier used in many media reports) state of affairs. The diarists note down the major social event responsibly and diligently. We organise the current section along the key discursive characteristics present in the context of the concept REGULATION which include themes of agency, emotive language, the particular use of pronouns, use of existential constructions, temporal deixis and narrativization of experience. Together these themes provide the sense of how the diarists felt when dealing with COVID-19 regulations.

4.2.1. Agency of REGULATION

The construct of agency is ubiquitous as is controversial and difficult to define. In the "skeletal" definition by Ahearn (2001,

5 While the concept analysis demonstrates that REGULATION was used quantitatively differently between the May 2020 and May 2010–2019 datasets, we do not engage in a comparative analysis of the discourses in which regulation occurs between these two datasets. We focus specifically on the discourses of REGULATION in May 2020, without a parallel analysis of the 2010–2019 data, which is beyond the scope of this paper.

p. 112), "[a]gency refers to the socioculturally mediated capacity to act". While such a basic definition leaves many questions open, we understand *agency* as intrinsically historical and situated, and the reference to the ability to act as the capacity to choose social practises of a particular kind and/or discern the type of discourses one wants to use (Bacchi, 2005). In the diaries, the first notable strategy that reduces the agency of the writers is their tendency to transform social actions into objects according to the processes that Van Leeuwen (2008, p. 63–66) terms *objectivation* and *descriptivation*. Actions can be objectified, if represented statically as nouns and they can be descriptivised, if represented as permanent qualities. Together with nominalization, i.e., the reduction of a verb phrase to an abstract noun, these strategies are ways to hide or disguise the underlying processes indicating who does what and reduce the subject's authority/responsibility (Hart and Fuoli, 2020).

A prominent instance of objectivation in the context of the concept of REGULATION is the metaphor of *freeze* in the occupational field. This metaphor summarises the experience of lives being suspended and very differently regulated during the pandemic, as in Examples 1–4. Writers comment on remuneration at work being at a stall, changes to responsibilities and work tasks. These excerpts suggest that freezes in the occupational domain are an integral composite of the broader salient theme of REGULATION of the first lockdown.

1) "We're working at half capacity due to a recruitment freeze so it is just me and my news editor producing three to four storeys a day about the insurance industry".
2) "Work is also difficult because of the financial crisis that universities find themselves in—restructuring and redundancies loom, supporting tutors (especially PhD students) are on a hiring freeze, along with research time, sabbaticals, promotions".
3) "I was recently promoted at my current job (no pay rise though as there is a pay freeze)".
4) "I wouldn't usually oversee this function but with a recruitment freeze across the university, I have volunteered to line manage this team as the team head's recruitment has been paused".

In Example 5, the verbal nominalization of *easing of restrictions* hides the Government decision to relax COVID-19 rules. This grammatical construction contains no explicit reference to any actor or agent (Van Leeuwen, 2008, p. 30). It represents the restrictions, even if they are relaxed, as an overhauling entity that still regulates people's lives. Similarly, in Example 6 the descriptivised action of *demands of considering three or four different ways of delivering learning* reduced to a nominal phrase is something that hovers over the locked-down citizens depriving them of any agency. Other expressions in Example 6 confirm and support the sense of general incapacity to reappropriate control that the diaries convey. Examples range from the use of prepositional construction suggesting imposition as in *demands are (…) upon us*, to proper nominalizations such as *hiring freeze*, and the use of noun phrases as in *complete uncertainty*, which all remove reference to a particular agent or actor. Also, the use of the passive voice in *the teaching would be delivered* (Example 6) and in *this role has now been suspended* (Example 7) suggests the reduction of choices and de-agentivation of people (Van Leeuwen, 2008, p. 23–74) under COVID-19. The entity who carried out the action is not specified.

5) "Current easing of restrictions which state that members of different households can meet up one on one means that only one of us could meet one of our little grandchildren on their own if we could get to London without using public transport and not stay overnight—a non-starter".
6) "The end of March was filled with panic for students and staff, this eased a bit in April but then the demands of considering three or four different ways of delivering learning in September is upon us with a hiring freeze and complete uncertainty regarding whether students would return to study next year if teaching would be delivered only remotely due to the need to social distance for safety".
7) "This role has now been suspended due to the Coronavirus pandemic, associated health risks and travel/quarantine restrictions".

The deagentivation of COVID-19 social actors as in the use of nouns *availability* and *delivery slots* is exemplified in Example 8. However, in this example, the nominalization of *coordination* is presented as regulation among neighbours over themselves or each other, which differs from the regulations presented in the previous examples whereby an unnamed authority is responsible for the regulation. Thus, the phrase of *coordination between neighbours* could be an example of grassroots agency.[6]

8) "It has sometimes been difficult obtaining fresh fruit and vegetables in recent weeks but a combination of better availability at the local Tesco Express, greater choice of grocery delivery slots and friendly cooperation and coordination between neighbours over shopping has improved the situation greatly".

A greater agency behind regulations is visible in Examples 9–11. It is *Boris Johnson*, *Wales*, and *the UK* that are the subjects in active constructions, and they have agency over the restrictions. Other examples of agents in the example of REGULATION include mainly institutional agents such as *ministers, collective political, large grocery suppliers, universities, The National Trust.*

9) "Boris Johnson has announced slight lessening of the restrictions"
10) "Wales have extended the restrictions"
11) "The UK has imposed the restrictions"

Within a context in which people depend upon the development of the pandemic and the decisions made by others in the name of safety, individuals' perceived freedom seems curtailed, especially in the sphere of employment. Active and identified agency used in the context of REGULATION is mainly assigned to institutional actors.

6 We thank Reviewer 2 for this suggestion.

4.2.2. Emotions of REGULATION

Another aspect of the language surrounding the concept of REGULATION in the diaries is the reference to affect (Martin and White, 2003). Uses of REGULATION contain socially-constructed feelings that convey the diarists' limitation or loss of agency. In the phrase *I am grateful* In Example 12, the writer as "emoter" thanks someone who is the agent who carried out an action while in Example 13 the emoter is scared of the decision to lift the restrictions.

12) "I am grateful for the coordination between the government and large grocery suppliers that has enabled this to be the case".
13) "I fear that [lockdown restrictions] may have gone too early and England would have done better to keep the restrictions unchanged for another 3 weeks as have the other home nations".

In Examples 14 and 15, the direct reference to emotions points to the situation haphazardness and/or the dissatisfaction associated with the writers' abandonment to the uncontrollable forces dictating their lives as in the phrases *I feel very lucky/I felt almost guilty/I feel this is dangerous*. In all these cases, the feelings are "construed as directed at or reacting to" (Martin and White, 2003, p. 47) the COVID-19 regulations, and the limitation of choices that the unprecedented situation brings.

14) "This last weekend, prime minister Boris Johnson has announced slight lessening of restrictions on movement, but I feel this is dangerous, muddled and confusing thinking".
15) "The loosening of restrictions has created so much confusion and a breaking of the 4 nations approach and it feels like people are once again being thrown to the wolves".

Even in the very different situation when people do not critique regulations, but in fact welcome them, diarists' language encodes the uneasiness associated with safety decisions being made by others. In Example 16 one diarist discusses their fears at the easing of restrictions and states that they are going to self-impose an extension of the lockdown restrictions. In Example 17 the diarist reflects that their access to space relieved them of the pandemic limitation. In both cases, the writers decide not to bow to the government decisions that "allows" them to put an end to the "stay at home" regulation. On the contrary, fearing the virus, they prefer to continue in lockdown.

16) "tomorrow [. . .] the government are allowing some people to go back to work and encouraging longer outings for exercise. It doesn't feel safe yet as I'm 69 (70 later this year) I'm going to carry on with the first lock down restrictions until I feel comfortable with going out and going further afield".
17) "I have been spared many of the difficulties of the restrictions. I even have a garden to enjoy. I do feel very fortunate"'.

Incidentally, the diaries express an expected socioeconomic disparity through the writers' different access to space (see also Howlett and Turner, 2022) as a consequence of the pandemic regulations. Diarists reflect on their relative privilege of having access to a range of spaces, particularly outside spaces and spaces which are conducive to working from home as in Example 17. There are also comments judging the restrictions as not very strict as in Example 18.

18) "The restrictions of the pandemic have not seemed too harsh".

Feelings can also be expressed through adverbs that can function as "interpersonal theme" (Halliday, 1994). They encode the writers' dependency on fortuitous events as in *[t]hankfully restrictions have slowly eased up* in Example 19. The diarist's gratitude reflects their feeling of dependency on somebody or, rather, something that accidentally produces a positive result they are incapable of achieving. Both the predicative adjective *fortunate* in Example 18 and the adverb *thankfully* in Example 19 encode the haphazardness of the situation in which people have a limited agency.

19) "From mid March, countries across the world including where I live [the United Kingdom] went into strict lockdown, thankfully restrictions have slowly eased up".

The analysis of the immediate contexts surrounding concept of REGULATION indicate emotional reactions to regulations, whether imposed externally or self-imposed. These reactions mainly encoder fear, but also gratitude for being spared inconveniences of imposed regulations.

4.2.3. Stance and novelty of REGULATION

When talking about REGULATION, the diarists often take a collective stance through the use of the plural pronoun *we*. The analysis of the pronoun *we* requires going beyond "a grammatical point of view to engage with the semantic and pragmatic levels" (Goddard, 1995, p. 99). Therefore, it is through a close consideration of the context that one can establish the extent to which the plural pronoun is the equivalent of to the pronoun *I* (Ige, 2010) or truly reflects a community as in the case of Parliamentary communities, see (Íñigo-Mora, 2004) or in political movements (Lee et al., 2020). In the diaries, the pronoun *we* underlines the sense of a community of individuals sharing the experience of regulations in the same time and space. The extracts in Examples 20–22 show the switch from a typical-diary style use of *I* to the collective *we*. The diarists' use the pronoun *we* encodes an individual experience which is shared with the other people. Diarists resort to taking on the task of reporting for the nation/community.

20) "Taxes, wage freezes and pension adjustments will most likely be the route back to financial stability—we accepted

that repayment must be made but are worried about the force of the hit on the population, young and old".

21) "Difficult to see how things will look once we all emerge from restrictions".
22) "Wales have extended the lockdown, but we know that day trippers will start to arrive in the country shortly, and the new restrictions are impossible to enforce".

Reporting on new information while talking about the concept of REGULATION is also evident in the analysis of the existential *there* construction. The discourse-pragmatic function of existential *there* sentences is "to introduce the NP [noun phrase] referent into the discourse world of the interlocutors by asserting its PRESENCE in a given location" (Lambrecht, 1994, p. 179). That referent must be hearer-new, and this requirement has been expressed by an explicit "Novelty Condition" on the entity introduced by the existential construction (cf. McNally, 1992; cf. also Abbott, 1993, 1997; Ward and Birner, 1995; Cruschina et al., 2012). In the context of the concept of REGULATION there are numerous examples of new information introduced by the existential *there* constructions. Some include such phrases as *fear and anxiety*, *pay freeze*, *queries about lockdown measures*, *parallels to be drawn in terms of restrictions on personal freedom*, *no evidence of any proper coordination* as in Examples 23–27.

23) "there's clearly fear and anxiety about the (slight) easing of restrictions"
24) "there are parallels to be drawn in terms of restrictions on personal freedom"
25) "no pay rise though as there is a pay freeze"
26) "There are numerous queries about lockdown measures, especially in the wake of Boris Johnson's announcement at the weekend easing (slightly) restrictions in England".
27) "There has been no evidence of any proper coordination of action for this global crisis".

The use of collective *we* and existential *there* constructions in the context of the concept of REGULATION reinforces the collective experience of the pandemic, the novelty of the situation, and the need of diarists to capture the observable reality of regulations.

4.2.4. Narrativising the REGULATION

At times diarists "narrativise" (Gee, 1985) their experience of REGULATION whether by presenting their storey in isolation or in relation to experiences of other people. In most cases these texts present their own experience, whether partial or full, as organised, logical and sharable. Rather than being approached as perfectly organised structures with a beginning, a climatic middle and an end (Labov, 2010), these small storeys are appreciated in their being fragmented, essential, even incomplete narratives (Bamberg, 2006; Georgakopoulou, 2006) that share a number of features. Besides the canonical use of past tense to report on actions and event that took place and that the diarists witnessed or experienced these small narratives show other chronological realisations.

In some extracts of REGULATION the chronological dimension is realised through the construction of hypothetical narratives, e.g., *I'd go and stay with my family* in Example 28 or production of accounts of attempted actions, *my husband has arranged to play golf* in Example 29. Alternatively, the narrative experience is reduced to a list of habitual essential events, such as *dressed (. . .) washed the pots and then there was a delivery* in Example 30. In the last clause of Example 30 is worth noting the switch from an implied "I" to a less personalised form with *there* (cf. Section 4.3.3).

28) "I also said that when restrictions were relaxed, I'd go and stay with my family as soon as possible".
29) "My husband has arranged to play golf on Thursday with 1 other person and masses of restrictions".
30) "Up, dressed and breakfast of toast and more tea, watched the news (still mostly about the Corona virus and changes to restrictions which kick in tomorrow) on BBC Breakfast, washed the breakfast pots and then there was a delivery from the post office".

Because of COVID-19 regulations, time becomes difficult to manage. Individuals declare their inability to act as in phrases *I will not be able to be on the rota* (Example 31) or *It has sometimes been difficult obtaining fresh fruit and veggies* (Example 32).

31) "I will not be able to be on the rota to babysit any more due to restrictions on meeting".
32) "It has sometimes been difficult obtaining fresh fruit and vegetables in recent weeks but a combination of better availability at the local Tesco Express, greater choice of grocery delivery slots and friendly cooperation and coordination between neighbours over shopping has improved the situation greatly".

In other storeys, regulations become the new measure of time. A striking number of examples of temporal deixis accompanies the concept of REGULATION (see Example 33). While references to immediate time (hours and days) in diary writing are expected, references to larger time frames are striking as the diarists were asked to record what they did on 1 day, i.e., the 12th of May. Diarists frame the concept of REGULATION in relation to weeks *(next few weeks, recent weeks, last two, three, six, seven weeks),* months *(two months, March, 23 March, mid-March, April, June, July, September),* year *(next year),* the future *(future travel, immediate future).*

33) "I also said that when restrictions were relaxed, I'd go and stay with my family as soon as possible—at one point we thought maybe in June, now it's looking like July at the earliest—but now I'd be concerned about staying with them while my brother is going out to work".

The events that co-occur with the concept of REGULATION and a wider time frame include the length of lockdown, as well as seeing family, and staying with family. Diarists also talk about the new reality of working from home delivering learning, hiring freeze. They occasionally mention travel for leisure.

As for the use of *yesterday* and *tomorrow*, diarists take the reader through the historical events of that time by noting Johnson's announcements of lockdown restrictions "yesterday" (11th May) as in Example 34 or changes in in lockdown restrictions from "tomorrow" (that is, 13th May) in Examples 35–38.

34) "We usually chat about our plans for the day but yesterday's announcement by the PM about lockdown restrictions being relaxed in England means that both my husband and I are distracted and looking at our phones whilst necking coffee in the kitchen".
35) "from *tomorrow* we'll no longer be able to enjoy walking on the local golf course as the golfers will be back with the ease up in restriction"
36) "there's clearly fear and anxiety about the (slight) easing of restrictions due to start *tomorrow*"
37) "restrictions are being eased from *tomorrow*"
38) "changes to restrictions which kick in *tomorrow*"

The use of temporal references in the context of the REGULATION and diary writing reflects how people organised rationally their experience of regulations to share with others. The analysis also shows that the concept of REGULATION becomes a frame for experiencing and talking about time.

5. Conclusion

In this paper, we discuss the 12th of May diaries from 2010 to 2019 with the 12th of May diaries from 2020, reflecting the differences between life before COVID-19 and life in the midst of the first wave of COVID-19 in the UK. We use computational methods to identify keyconcepts and the particular responses in which they occur before investigating the usage of these concepts. We focus on one of the most distinctive concepts in the 12th of May 2020 diaries, namely, REGULATION, which was realised in texts by five lexical items, i.e. restriction, *regulation*, *clampdown*, *coordination*, and *freeze*. Following the computational analysis of this keyconcept, we engage in the contextualisation of REGULATION by offering a discourse analytical reading of a number of excerpts from the diaries and highlighting their linguistic features. The analysis shows that the keyconcept REGULATION is accompanied by the sense of limited individual agency and a dependence on abstract and uncontrollable factors or institutional actors. This is accompanied by tendency to refer to a language indicating feelings of fear and gratitude. These emotions are not solely triggered by the pandemic, but also by the novelty of the situation. The diarists record as much as they can perceive, conceptualise, and make sense of the lockdown. A lot of this reality is reported with gaps as to the agents and actors of REGULATION which is supported by impersonal constructions, fragmented narratives, or hearer-new information framing. Diarists make effort to report on the collective experience, for example, through the use of the pronoun *we* and make sense of the experience by a frequent reference to a temporal frame. At times, the responsibility of reporting on history takes precedent over reporting on their day. The diary task asked them to record everything they did from when they woke up in the morning to when they went to sleep at night on 12th May, instead diarists often do not follow the brief, and use the diary writing as a tool for capturing the historical moment. In this context, diarists can be thought of as reporters or "citizen journalists" (Purcell, 2022) who provide a window on their world, the world of a contemporary society in real time. Their accounts of the concept of REGULATION demonstrate the sense of living through history consistent with Langhamer (2020) reading of the 12th of May 2020 diary data.

The current study showcases the value of using keyconcepts to identify trends which represent salient lived-experiences. The traditional keyword approach does not flag up any of the lexical items analysed here as salient because individually they are not distinctive enough to meet required statistical thresholds (e.g., a "keyness" score). However, by broadening the focus from a word to a concept, we are able to demonstrate the salience of the entire semantically-related group of words that comprises the keyconcept of REGULATION. The keyconcept approach allows us to extract the concepts characteristic of the discourses as opposed to the words that are individually used to express those concepts. Additionally, through using conceptual hierarchies, we tap into the ontology of knowledge encapsulated, and reified by WordNet (cf. Fellbaum, 2005; Jezek and Hanks, 2010). Also, by engaging with discourse analysis, we demonstrate an appreciation and acknowledgment of textual nuances and, in doing so, reconcile the distant and close readings of texts. By considering the discursive contexts of use in which the concept of REGULATION appears in the May 2020 diaries, we show that a researcher remains critical in deciphering nuances from large datasets. Ultimately, the approach presented in the current paper successfully enables us to capture and explore diarists' thoughts and behaviours.

In addition to showcasing the value of concept analysis, we highlight the value of the MOA for social research. While the cross-disciplinary potentials of the MOA have been demonstrated by the diverse ways in which its data has been approached, we provide the first use of computational linguistic methods on the data. These methods and tools, such as PMI, showcase the value of the digital humanities in the context of identifying variation and change in attitudes and behaviours of the public.

Data availability statement

The data used in the current research paper is available through the Mass Observation Archive http://www.massobs.org.uk/. Details of the data source and availability are also included in the article though data citations outlined in Section 2. Further inquiries can be directed to the corresponding author.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Commentary: How to have agency in a pandemic

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A Commentary on

Introducing the keyconcept approach to the analysis of language: the case of REGULATION in COVID-19 diaries

by Robinson, J. A., Sandow, R. J., and Piazza, R. (2023). *Front. Artif. Intell.* 6:1176283. doi: 10.3389/frai.2023.1176283

A metaphor analysis of older adults' lived experience of household isolation during COVID-19

by Wilding, E., Bartl, S., Littlemore, J., Clark, M., and Brooke, J. (2023). *Front. Commun.* 7:1015562. doi: 10.3389/fcomm.2022.1015562

COVID-19 telephone contact tracing in Flanders as a "contested" new genre of conversation: discrepancies between interactional practice and media image

by Bafort, A.-S., De Timmerman, R., Van de Geuchte, S., Slembrouck, S., and Vandenbroucke, M. (2023). *Front. Commun.* doi: 10.3389/fcomm.2022.965226

"We are at war": the military rhetoric of COVID-19 in cross-cultural perspective of discourses

by Giorgis, P., Semenets, O., and Todorova, B. (2023). *Front. Artif. Intell.* doi: 10.3389/frai.2023.978096

"Everything will be all right (?)": discourses on COVID-19 in the Italian linguistic landscape

by Bagna, C., and Bellinzona, M. (2023). *Front. Commun.* doi: 10.3389/fcomm.2023.1085455

"Snake flu," "killer bug," and "Chinese virus": a corpus-assisted critical discourse analysis of lexical choices in early UK press coverage of the COVID-19 pandemic

by Kania, U. (2022). *Front. Artif. Intell.* doi: 10.3389/frai.2022.970972

Imagining the city in lockdown: place in the COVID-19 self-recordings of the Lothian Diary Project

by Cowie, C., Hall-Lew, L., Elliott, Z., Klingler, A., Markl, N., and McNulty, S. J. (2022). *Front. Artif. Intell.* doi: 10.3389/frai.2022.945643

Authority and solidarity on the Estonian COVID-19 signs: in line with the government's guidelines, we ask you to wear a mask

by Trage, I., and Pikksaar, A. (2023). *Front. Artif. Intell.* doi: 10.3389/frai.2022.1000188

Introduction

The eight articles in this Research Topic touch upon the many disruptions to people's lives caused the COVID-19 pandemic, from the ways mandated lockdowns constrained their mobility and forced them to formulate new ways of interacting with friends and loved ones, to the new practices that they had to incorporate into their daily lives such as mask wearing and contract reporting, to the altered relations of power and (dis)trust that developed between citizens and their governments. They talk about how the very space they inhabited changed around them—cities becoming silent, the spaces in which they operated shrinking, and the space between bodies suddenly becoming something to be measured and monitored. They also discuss they ways time became distorted as the routines that people had previously used to order their movements through life were suddenly interrupted, and their ability to plan for the future was curtailed.

All of these social and material disruptions, as these articles illustrate, also involved disruptions in *discourse*: new terminology had to be learned, new conversational routines had to be mastered, new regulations had to be communicated and complied with, and new forms of storytelling had to be called upon to help people explain to themselves and to one another what they were going through. Closely related to these discursive disruptions, however, were more fundamental disruptions to *agency*. On the one hand, the new discursive regimes that developed around the pandemic, with their terminology and regulations and routines, played a major part in robbing people of their sense of agency. On the other hand, as their ability to control what was happening in their environments seemed to dwindle with each new media report and each new government policy—the words they used, the conversations they had, the ways they responded to official discourses, and the stories they told become even more central in helping them to maintain some sense of autonomy and authority over their affairs. The pandemic did not just transform the ways in which people affected and were affected by other people and things around them, but raised more fundamental questions about the very nature of action, autonomy and accountability, as well as questions about the role of discourse in making sense of and navigating a world of shifting power relations and shrinking possibilities. In this brief commentary I would like to explore the different perspectives on the relationship between discourse and agency reflected in these eight articles and what they can teach us as individuals and as societies about how to have (and not to have) agency during a pandemic.

Some of these articles address issues of agency explicitly. Robinson et al. (2023), for example, examine how agency the loss of agency was lexically and grammatically encoded in the way people talked about regulation; Wilding et al. (2023) show how older adults in isolation negotiated their loss of agency through their use of metaphors, and Cowie et al. (2022) describe the ways people coped with the disrupted relationship between structure and agency that came from forced immobility through the production of chronotopic discourse. In others, attention to the issue of agency is more implicit, though no less central, Tragel and Pikksaar (2022), for instance, focusing on how relationships of authority and solidarity were constructed in regulatory discourses about mask wearing, Bafort et al. (2023) addressing mediatized debates about personal freedom and privacy associated with COVID-19 telephone contact tracing, Kania (2022) discussing how practices of naming COVID-19 in media discourse revealed underlying ideological projects to assign responsibility for the pandemic to radicalized others, Giorgis et al. (2023) documenting the ways metaphors of warfare used by the governments functioned both as calls to action and constraints on agency in different countries, and Banga and Bellinzona (2023) exploring how municipal spaces became arenas in which negotiations among regulatory and transgressive discourses played out. In all of these treatments of the pandemic, discourse is presented as the primary means through which agency was claimed and constrained, power was exercised and resisted, and responsibility was assigned and denied. At the same time, across these different treatments of the pandemic, agency is not always conceptualized in exactly the same way. Sometimes the political dimensions of power and resistance are emphasized, sometimes psychological aspects of self- efficacy are the focus, and sometimes the ways agency emerged as an interactional accomplishment are highlighted.

Agency, of course, is itself a highly contested concept within the social sciences, with scholars debating whether it is necessarily "human, individual, collective, intentional, or conscious" (Ahearn, 2001, p. 130), arguing about the factors that amplify and constrain it such as privilege (Maxwell and Aggleton, 2013), material conditions (Kirchhoff, 2009), access to resources and other forms of capital (Bourdieu, 1977; Sewell, 1992), individual competencies (Bandura, 2006), or discursive regimes of knowledge/power (Foucault, 1995; Bleiker, 2003), and the degree to which it aligns with other concepts such as "freedom," "control," "rights," and "responsibilities". I will begin my discussion with Duranti's (2004, p. 453) "working definition", which, although not entirely uncontroversial, covers most of the key dimensions of agency addressed in these papers:

> Agency is here understood as the property of those entities (i) that have some degree of control over their own behavior, (ii) whose actions in the world affect other entities' (and sometimes their own), and (iii) whose actions are the object of evaluation (e.g., in terms of their responsibility for a given outcome).

What is useful about this definition is that it touches on agency as an *individual's* "capacity" to act (tying it to notions such as freedom and autonomy), as a *social* phenomenon whereby individuals affect and are affected by other entities (people, institutions, other organisms), and as the basis for the production of *accounts* regarding who or what is responsible for particular outcomes or states of affairs. Crucially, it is from such accounts that we come to understand how we got to where we are and imagine where we might go in the future. It is also from these accounts that we come to construct our worlds "moral" or "rational" places.

As a linguistic anthropologist, Duranti also provides a good starting point for understanding the relationship between language and agency. Language, he says, is related to agency in two ways. First, it is a tool for the *enactment* of agency. Simply by speaking, Duranti argues, we exercise agency, projecting our intentions out into the world. Agency is also inherent in the way we use language to divide up the word and create relationships between people and

objects in it, the way we name things and frame situations. And, of course, as Austin (1976) has taught us, language is also one of the main tools we have at our disposal to *do* things—from directing others to act through commands and requests, to committing ourselves to action through promises, to actually changing reality through pronouncements of various sorts.

Just as important, though, is language's role in *representing* agency. Indeed, notions about if and how agency can be assigned to different entities in the world is encoded in our language, and, notably, different languages come with different opportunities for encoding agency. Language is also the means by which we make ourselves and others *accountable,* by which we attribute blame, take responsibility, claim rights, and perform all of the other evaluative work associated with agency.

It would, however, as Duranti points out, be a mistake to consider these two relationships between language and agency as separate. They are, in fact, mutually constitutive. "The enacting of agency", he writes (2004, p. 454), "its coming into being—relies on and simultaneously affects the encoding—how human action is depicted through linguistic means", a point that is made abundantly clear in a number of the papers in this collection, from the way the encoding of agency on public signs (see Tragel and Pikksaar, 2022; Banga and Bellinzona, 2023) provides people with the means to manage social relationships and enact or resist regulations, to the ways the encoding of agency in people's everyday talk can sometimes function as a means of reclaiming agency or challenging those who seek to constrain us (see Cowie et al., 2022; Robinson et al., 2023; Wilding et al., 2023).

A focus on language alone, however, is not sufficient to fully appreciate the complex, socially situated negotiations of agency described by the authors of these papers, most of whom align more with discourse analytical approaches in which agency is not just something that is encoded in language, and not just a matter of an *individual's* capacity to act, but rather is an interactional accomplishment that is as "intrinsically historical and situated" (Robinson et al., 2023) deeply embedded in social practices (Bourdieu, 1977; Giddens, 1984) and contingent on relationships of power, which are, in part, produced and reproduced through discourse (Foucault, 1995). This perspective is better captured by Ahearn (2001, p. 112, emphasis mine) more concise definition of agency as "the *socioculturally mediated* capacity to act". It is this sociocultural mediation manifested in things like government policies, genres of interaction, linguistic landscapes, and life histories that these authors are particularly concerned with.

At the same time, there is also a way to read the findings of these studies through more post-human and new materialist perspectives in which agency is not enacted through the neat binary of "structure and agency" but rather through complex "flows of human and non-human vitality" (Gilmore, 2012). Such perspectives urge us to see agency as dynamically distributed among people, objects, technologies, institutions and organisms (such as viruses) (Latour, 2007), and newly emergent in every action and interaction (Barad, 2007). They also invite us to go beyond rational and representational concepts such as intentionality and governmentality and engage with agency more as a matter of *affect*, the immanent, transpersonal capacity for bodies to affect and be affected by one another (Massumi, 2002).

In what follows I will draw on all three of these perspectives on agency to explore what these papers have to teach us about "how to have agency in a pandemic". In the next section I will consider what these papers tell us about how agency is encoded and enacted in language and discourse—through, for example, the grammatical structures and metaphors we use to talk about viruses and diseases. In the section after that I will explore how these papers formulate the relationship between structure and agency though their treatment of concepts such as power, regulation, resistance and responsibility. In the following section I will take up the ways these papers, often more implicitly than explicitly, offer insights into the more distributed and affective dimensions of agency. I will end by arguing that, while each of these perspectives on agency opens a valuable window on how people acted, reacted and were acted upon during the COVID-19 pandemic, they fail to provide a viable roadmap for "how to have agency" in the next pandemic in ways that more effectively address the tensions, conflicts and contradictions described in these papers. For this, I will argue, we need to turn to new conceptualizations of agency that are developing within education studies (see, e.g., Biesta, 2006; Ingold, 2017; Geerts, 2021) in which agency is less a matter of acting and more a matter of expanding the possibilities for action, less a matter of being and more a matter of becoming, and less a matter of "taking responsibility" and more a matter of increasing our capacity to respond moment by moment to situations and to those around us in ways that are open and present.

Naming and framing

The dual role of language in both enacting and representing agency is particularly salient when it comes to talk of health and illness, especially where the forces that are causing illness are often invisible and/or contested. Pandemics are not "biomedical facts" so much as sets of "understandings, relationships, and actions that are shaped by diverse kinds of knowledge, experience, and power relations, and that are constantly in flux" (Brown, 1995, p. 37). This shaping takes place, according to Brown, through discourse—primarily thorough practices of "naming and framing".

Naming is perhaps the most elemental way that humans seek to exercise agency over nature. By giving things names, we distinguish them from other things and make them concrete "objects" that can be analyzed, discussed, debated, and hopefully, controlled. But sometimes naming can create confusion and conflict rather than clarity, especially when the status of what we are trying to name is itself unclear. Often different names come refer to the same thing, or separate names need to be assigned to different dimensions of that thing. New diseases, especially when they reach epidemic proportions, are inevitably accompanied by what Banga and Bellinzona (2023) refer to as "terminological pandemics" or what Treichler (1999), writing about AIDS, called "epidemics of signification", that spread as scientists, politicians, journalist and ordinary people try to make sense of the new malady and develop a language with which to talk about it.

The most important thing about naming, especially as it relates to agency, is that it is never ideologically neutral. Not only does the way we divide up the world and assign labels to the objects in it amplify and constrain possibilities for action, but naming is also

the central process through which we assign *responsibility* (praise or blame) for actions that have occurred. In other words, naming is always to some degree a political act. This is the key point that Kania (2022) makes in her corpus-assisted analysis of the names used to refer to COVID-19 and the virus that causes it (technically SARS-CoV-2) in British newspapers. What is interesting, is first of all, the fact that the names associated with COVID that are considered "inappropriate" by the World Health Organization because they are thought to incite fear or hatred do so primarily though the way they directly or indirectly assign agency—terms such as "killer bug" or "deadly virus" assigning agency to the virus itself, and terms such as Wuhan virus or Chinese virus implying that responsibility lay with a certain group of people. Even more interesting is the way practices of naming can themselves become acts of provocation, the use of "inappropriate" names functioning as ways to attract attention, signal political affiliation, or hail certain kinds of audiences. Kania notes, for instance that "inappropriate" names were particularly prevalent in headlines, as well as in tabloid newspapers. Another obvious example is then President Trump's pointed use of the term "China virus" and attacks on those who called him out on it. Where agency is sometimes most powerfully enacted and encoded, then, is not in practices of naming themselves, but in metapragmatic discourse about naming (on the part of the WHO, politicians, and journalist). In Kania's data this can be seen in the way some journalists attribute "inappropriate" naming practices to others as a way of making them accountable, while others embrace "inappropriate" naming practices as a way to accuse those who negatively evaluate these practices of weakness or "political correctness".

Of course, words do not exist in isolation. It is the way words are grammaticalized—that is, brought into relationships with other words—and the ways they are enmeshed in broader networks of associations, ideas, stories, and discourses, that make them such powerful tools for enacting and encoding agency. This is why Robinson et al. (2023) approach of "concept mapping" turns out to be such a useful way to interrogate the relationship between language and agency in the context of the pandemic. Their analysis of a corpus of 12 May Diaries from the Mass Observation Project reveals, perhaps not surprisingly, that REGULATION was a key concept in people's talk about COVID, manifested in their use of a cluster of interrelated words such as limitation, restriction, clampdown, freeze, timing, and coordination. The important thing, they point out, is not just how much people talked about REGULATION, but how REGULATION was grammaticalized in ways that reveal diarists' feelings of reduced agency. Examples of this include the objectification of actions through nominalizations (such as "recruitment *freeze*"), the use of passive voice (such as "the role *has been suspended*"), the use of agentless existential clauses (e.g., *there has been* no evidence of proper coordination), and the use of phrases (such as "complete uncertainty") which lack reference to any particular agent or actor. When agents were named, they tended to be either politicians (e.g., Boris Johnson) or institutions (such as universities, large grocery suppliers). But even actions that could presumably be attributed to institutional actors such as the Government were often expressed in ways that hid responsibility for the action (e.g., the "easing of restrictions"). It is not so much that people constructed themselves as victims of other people (or entities) that were imposing restrictions on them, but rather that restrictions themselves seemed to take on "a life of their own" (Robinson et al., 2023). The key insight here is how the pandemic, for these particular diarists, and for people more generally, resulted in a pervasive "de-agentivation" of social actors (van Leeuwen, 2008, p. 23–74), a sense that nobody was in control of anything, which engendered a kind of collective gesture of surrender in the way people talked about the situation.

One of the most powerful ways that language (re)frames people's understanding and experience of agency is in the use of metaphor. Metaphorical language was so pervasive during the pandemic that it is touched upon, at least implicitly, in every one of these articles, Bafort et al. (2023), for instance, talking about how journalists discredited government responses to COVID by comparing them to failed responses to terrorist attacks, Kania (2022) discussing how different "inappropriate" names for the virus connected it to different domains of experience (e.g., animals and geography), and Banga and Bellinzona (2023) describing some of the visual metaphors that featured in the linguistic landscape of Italy during lockdowns. It is in the papers by Giorgis et al. and Wilding et al., however, that metaphorical language is taken up most explicitly and directly linked to issues of power, control and agency.

The prevalence of metaphors of war in the public discourse surrounding the pandemic, especially that emanating from official sources, has been widely studied (e.g., Panzeri et al., 2021; Semino, 2021; Benzi and Novarese, 2022), and these studies have found that the relationship between such metaphors and people's sense of agency can be complex. On the one hand, war metaphors can increase people's sense of collective agency by holding up the possibility of victory, while, on the other hand, they can also create feelings of fear and powerlessness and make people more willing to surrender their freedom and autonomy. One of the most problematic aspects of war metaphors is the way they discursively construct an "enemy" (the virus), onto which they impute a kind of malevolent intentionality. So, while talk of war can make people feel more "powerful", it can also make the virus seem more powerful and threatening. Another problem is the inevitable slippage between the virus and people associated with it (such as those thought to be spreading it). Where Giorgis et al. add nuance to this literature is their cross-cultural approach, which shows that the ways war metaphors were used, and the ways they affected the agential landscape of the pandemic, differed in different political and cultural contexts. In Italy, for example, while early use of war metaphors by the government invoked past wars of liberation from Fascism, creating a sense of national unity, when the metaphor was taken to its extreme, with uniformed military patrolling the streets and a general appointed to manage vaccine logistics, memories of militarization during the Fascist period stoked public distrust. In Bulgaria, the politically motivated militarization of the pandemic by the government ended up being co-opted by anti-government forces and conspiracy theorist who mobilized war metaphors to resist restaurant closures and vaccination drives. Interestingly, war metaphors associated with the pandemic were not pervasive in the Ukraine, where an actual war was going on. These examples revel both how the use of war metaphors as a tool to consolidate power or mobilize the population can sometime have unexpected

consequences, and the "potentially fuzzy boundary between the literal and metaphorical status of military references during the pandemic" (Semino, 2021).

While Giorgis et al. focus on the metaphorical language associated with the pandemic in official discourse, Wilding et al. address the way ordinary people in lockdown used metaphors to negotiate their sense of agency and to sometimes counteract the potentially disempowering effects of official metaphors. What is of particular interest here is not just the ways metaphorical language can shape power relations in the social and political spheres, but the way the metaphors we use can reveal something about our states of mind and the profound psychological effects exposure to metaphorical language can have on people feelings of self-efficacy (Bandura, 2006). Wilding et al. draw on the work of Charteris-Black (2021), who argues that container metaphors used to discuss isolation during the pandemic, and invasion metaphors used to characterize the virus, constituted a kind of "moral coercion" designed to engender feelings of resignation and disempowerment in the public. What Wilding et al. are able to show with their more qualitative exploration of the way older people subject to lockdown restrictions used metaphors is that, while much of their language exhibited a similar kind of personal "de-agentification" observed by Robnison et al.—participants portraying themselves at the mercy of agentive forces outside of their control such as the virus, time, and even their own emotions (see below), they also exhibited a resistance to using the metaphors that were prevalent in official discourses at the time and formulated alternate metaphorical frames in an attempt to reassert agency. One of these involved using metaphors associated with patterns and structure as a way to re-introduce feelings of control in their lives. Whereas for the diarists studied by Robinson et al., the concept REGULATION was associated with a loss of individual agency, for the participants in Wilding et al., REGULATION, in the form of *self*-regulation was precisely what allowed them to reassert agency, a finding which resonates with some psychological perspectives on agency which emphasize the ability to self-regulate as an essential ingredient in developing agency over other people and over situations (Bandura, 2006).

Finally, several of these papers note how people used language to frame their experiences of agency and, in some cases, to assert or reclaim agency, through the way they discursively constructed time and space in their talk and writing. Robinson et al., for example, discuss how diarists' narrativization of their experiences of the pandemic often exhibited fragmented portrayals of time, manifested, for instance in disconnected accounts of mundane events, discussions of hypothetical (uncertain) futures, and accounts in which the regulations themselves "became the new measure of time". Similarly, Wilding et al. describe how their participants portrayed time as moving ahead of them and carrying or propelling them into the future rather than as something that they themselves moved through.

In contrast, the study by Cowie et al. (2022), also using diary data, paints a more positive picture, describing how people created different spatio-temporal frames in their narratives of the pandemic and used those frames to position themselves in relation to the situation they found themselves in. Central to their analysis is Bakhtin (1981) notion of the "chronotrope", the way configurations of time and space are represented in discourse and how these representations come to be associated with particular social identities or "figures of personhood" (Agha, 2007). "[T]he most productive aspect of the chronotope concept" argues Blommaert (2015, p. 109, emphasis mine), both for the analysis of literary fiction and of sociolinguistic realities, is "its connection to historical and momentary *agency*" which enables "social and political worlds in which actions become dialogically meaningful, evaluated, and understandable in specific ways". In their analysis of the ways people in the Edinburgh and the Lothian area of Scotland who were living alone represented their experiences of time-space before and after the lockdown, Cowie et al. found that different kinds of people produced different kinds of chronotopes. For international students, who before the lockdown lived rather regimented and restrained lives associated with their status as students and outsiders, the lockdown chronotrope was depicted as a space-time of change and opportunity which allowed them to re-negotiate their status as residents of the city. For retirees, the lockdown chronotope was also associated with increased agency and an enhanced ability to "keep busy", as many social activities were suddenly accessible online. For men living close to the city center, however, the lockdown represented a loss of freedom and autonomy. These findings don't just remind us that the pandemic restrictions were not experienced by everyone as a loss of agency, but also how different ways of discursively framing restrictions can sometimes make available new kinds identities for social actors and, along with them, new possibilities for social action.

Articulating structure

Many of the observations above regarding the encoding and enactment of agency in language paint a rather traditional (Western) picture of agents as autonomous, independent individuals seeking to maintain or increase their independence and autonomy in the face of restrictions placed on them. But that is only a partial picture of the way agency is portrayed in these articles. Along with this individualistic orientation toward agency, the authors, in various ways, also engage with the relational, dialogic emergence of agency in the context of social practices (Bourdieu, 1977). In this more practice oriented approach, agency is always enacted within the constraints of or against the backdrop of "structure" (Giddens, 1984), but the notion of structure is often ill-defined in discussions of structure and agency (Block, 2015), sometimes seen as an agentless, amorphous force, not so different from the way REGULATION is discursively constructed by the diarists in the paper by Robinson et al. In reality, the forces that constrain our agency are not just rules and regulations, but complex configurations of other agentive and non-agentive entities with whom we interact in various direct and indirect ways. Elder-Vass (2008) suggests three different dimensions of structure: *institutional structure*, which is comprised of institutions, organizations, broader "systems" of governing and exchange, along with the normative expectations they impose upon individuals and groups; *relational structure*, which is comprised of social relations with others, friends, family members, authority figures, and the kinds of rights and obligations that adhere to these relationships; and, *embodied structure*, which is comprised of the abilities and habits people

develop that enable them to reproduce or resist institutional and relational structures. Block (2015, p. 20) adds to this list the structure imposed by the physical environment, in particular, "the spaces within which we are confined and within which we move" (which seems a particularly important addition in the context of thinking about structures around the COVID-19 pandemic). The way we discursively enact and encode agency is as much about how we engage in *dialogues* along these different dimensions of structure, and how we put these different dimensions of structure into dialogue with one another, than it is about asserting our individual freedom and autonomy or feeling "empowered".

This interactional dimension of agency is seen in the ways the journalists in Kania's (2022) study formulate their naming practices in dialogue both with the norms established by the WHO and the practices of other journalists and politicians. It can be seen in the way the diarists in the study by Robinson et al. negotiate the limits of their physical environments, the dynamics of their workplaces, and their relationships with friends in order to get things done. And it can be seen in the different ways the different residents of Edinburgh experience and (re)frame institutional and relational structures in the study by Cowie et al.

In the context of these complex interactions, it is often not just the way people discursively construct agency, but the way they discursively construct structure—that is, which dimensions of structure that they choose to orient to—that can determine how they experience their capacity to take action. This was particularly evident during the pandemic when, for many, such as the Bulgarian conspiracy theorists discussed by Giorgis et al., the orientation was almost completely toward institutional structures—the machinations of a power hungry government and the scientific establishment—making *resistance* seem the only form of action available to them to enact agency. This particular orientation toward structure as chiefly institutional (and possibly authoritarian) was no doubt exasperated by the willingness of many governments to use the pandemic to stifle dissent and expand state powers, often under the banner of waging "war" on the virus (Giorgis et al., 2023). Many others, however, oriented more toward relational and environmental dimensions of structure, focusing more on their responsibilities toward friends and family members and the threat of the virus itself, mostly accepting the restrictions imposed by institutions and governments as necessary and reserving their ire for uncooperative fellow citizens who did not follow the rules. This did not necessarily make them less agentive; as Ahearn (2001) notes "agentive acts may also involve complicity with, accommodation to, or reinforcement of the status quo".

Importantly, how people oriented toward structure and the kinds of negotiations they were able to have around agency were often dependent on their positions of privilege (Maxwell and Aggleton, 2013) or marginalization within their societies, determined by things like socioeconomic status, race, gender and age. The ability to "stay at home" or engage in "social distancing", for example, was often as much a barometer of power and privilege as it was of "good citizenship" (Bennett, 2021). At the same time, as Cowie et al. note, sometimes it was those who entered the pandemic already accustomed to navigating restrictions (foreign students, pensioners) who were more able to adapt, whereas those who were accustomed to more freedom and autonomy (Scottish men) had trouble coping when their privileges were curtailed.

In most cases, people's negotiation of agency in the face of institutional restrictions did not take the form of direct negotiations with governments or institutions themselves, but rather were worked out at the level of interactions with individuals or other entities that took the role of mediating between the public and the government. Chief among these were commercial establishments, which were often put in the position of enforcing government regulations around things like mask wearing and social distancing, and the media (including social media platforms), which were often put in the position of explaining and interpreting government policy to the public as well as critiquing it, and of making determinations about what counted as "information" and what counted as "misinformation".

The mediating role of commercial establishments in promulgating and enforcing government regulations can be seen most clearly in the paper by Tragel and Pikksaar, where they examine the ways authors of COVID-19 door signs in Estonia managed their relationships with customers through grammatically encoding markers of power and solidarity. This paper is also a good example of how the institutional dimensions of structure interacted in sometimes complex ways with relational dimensions of structure during the pandemic. As Tragel and Pikksaar observe, commercial establishments were often put in the awkward position of imposing restrictions on their customers' agency by, for instance, requiring them to wear a mask or produce a certificate of vaccination in line with government guidelines. This position was particularly difficult for small business owners who desperately depended for their income on their customers' goodwill. In communicating these restrictions on door signs, certain grammatical constructions, such as the use of the imperative mood and the second-person only (e.g., "Wear a mask and provide a COVID certificate!") ran the risk of alienating customers by positioning them as subordinate and positioning the establishment as the authority who was imposing the restrictions rather than just enforcing them. To mitigate this risk and create more of a sense of solidarity with their customers, shopkeepers employed a range of linguistic strategies such as using self-directed language (first person pronouns) along with imperatives (e.g., "Dear guest, please wear a mask when entering our house"), avoiding imperatives altogether (e.g., "We ask for mask-wearing. Thanks!"), and portraying a party other than themselves (usually the government) as the source of authority (e.g., "Dear customer! Regarding the restrictions imposed by the government wearing a mask in the service station is mandatory"). What Tragel and Pikksaar demonstrate with their detailed analysis is how agency is not a simple matter of power and resistance, but rather something that usually emerges out of complex discursive negotiations among *multiple* parties with different goals. Understanding the mechanics of how these negotiations play out, they rightly point out, is essential for improving crisis communication.

In their mediating role between the public and authorities, commercial establishments also played a part in either promoting the policies of the government and the ideologies underpinning them, or in critiquing and resisting them, a fact that is amply

attested to in Banga and Bellinzona's study of the linguistic landscape of Florence at different stages of the pandemic. In the early stages, they note, many shopkeepers used creative strategies (such as humor) to urge compliance with government guidelines and the make them seem more palatable. In doing so, they argue, commercial establishments also reproduced the ideological frames of unity, solidarity and patriotism that were being promoted by authorities. Later in the pandemic, however, as business struggled with the economic effects of restrictions and the public wearied of them, commercial signs began to adopt strategies such as sarcasm in order to subtly critique government guidelines as they were urging compliance with them.

The media, of course, played the most significant role in communicating government policies to the public and mediating negotiations of agency. In many contexts, of course, media outlets assumed the role of promulgating and legitimating information that came from the government and from mainstream medicine and science, and even alerting audiences to "fake news" and "unreliable sources of information". There were also, of course, media (and social media) outlets that took a more skeptical stance toward official discourses and even provided a platform for conspiracy theorists. Most media outlets in western democracies, however, occupied a kind of uncomfortable middle ground between these two extremes, cognizant of their responsibilities to both disseminate essential information from authorities and to maintain their role as "watchdogs" against government and corporate malfeasance or disinformation. Attempts to achieve the latter goal were often, true to a long tradition in western journalism, framed in terms of debates about government encroachment on individual agency and autonomy and government accountability. These framings are evident in the study by Bafort et al., in which they compare media depictions of COVID-19 contact tracing to the interactions that actually occurred between contact tracers and members of the public. As they point out, contact tracing, in which citizens who have tested positive for SARS-CoV-2 were asked to report to authorities the names of people with whom they had come into contact during the time they were infectious, was a kind of "new genre" that many in the public were not familiar with, as well as a genre where issues of power, control and autonomy were particularly salient. What is interesting about Bafort et al.' analysis of actual contact tracing interactions and the policies and principles that informed the training of contact tracers, is how much attention was paid to mitigating effects on individual agency and to enacting egalitarian and empathetic interactions. In their analysis of media coverage of the program, however, they found that, rather than reporting accurately on what actually occurred in contact tracing interactions, journalists tended to focus on the inherent power imbalance of the enterprise and to invoke abstract, libertarian concerns about privacy and freedom. Not only was this discursive resistance to the policy misinformed, the authors argue, but journalists' readiness to frame contract tracing in terms of a structure-agency binary actually jeopardized public health.

Distributed agency and affect

Above I examined how issues of agency were explored in these contributions through the lens of traditional frameworks like self-efficacy and practice theory. More recent treatments of agency in social science, however, have challenged the idea of agency as a property of human individuals or groups, suggesting instead that agency is distributed across networks of human and non-human entities. Among the most influential versions of this perspective is Latour's (2007) Actor Network Theory (ANT), which proposes that agency is not something that actors possess, but rather something they *perform* though the way they position themselves in relationship to other actors (both human and non-human). Another prominent view of agency that questions the idea of the unitary human agent is Barad's (2007), Agential Realism, which sees agency as something that emerges from the casual relationships between entangled phenomena (human and non-human, material and discursive), none of which have pre-existing ontologies. Agency arises when, through various material-discursive interventions, separations are enacted among these phenomena so they are made to seem distinct—what Barad refers to as "agential cuts". In the more traditional views of agency which we have considered so far, agency is political insofar as it results from uneven distributions of power. But the political ramifications of post-human and new-materialist views of agency are even more profound, since the very act of separating out entities as able to "have" agency is an essentially ontological exercise which determines not just who or what has power, but also who or what "matters" or is excluded from mattering. At the same time, there is also perhaps, more room for hope within these perspectives. Because the capacity to act is not fixed within the structure-agency binary, but rather dynamically performed across agential fields, more possibilities are opened up not just for "reclaiming" agency, but for reconfiguring social worlds (Introna, 2014).

Although none of these articles engage explicitly with this understanding of agency, there are hints of it in for example, the ways the diarists in the study by Robinson et al. portray themselves as navigating and even (re)-configuring assemblages of regulations, objects (such as groceries), people and institutions in order to get things done, the way the diarists in the study by Cowie et al. engage with the material and affective dimensions of their environments, the way the contract tracers in the study by Balfort et al. operate as parts of assemblages of individuals, institutions, discourses (such as scripts) and technologies (telephones), and in the ways the elderly respondents in Wilding et al. attribute agency to the virus and even to their own emotions. Although, in the context of more traditional ideas about human agency, such attributions of agency to non-human entities are seen as disempowering, from the point of view of the approaches described in this section, they might be regarded not only as ontologically more accurate but also as potentially creating space for people to enact agency *in concert* with other entities rather than seeing it as a "zero-sum game"—something that people "have", and so, something that can be taken away from them. Gilmore (2012, p. 91), in her discourse analysis of diaries of people experiencing pain suggests that [p]osthumanism offers a way to rethink agency, enabling a focus on how, through their speech and writing, people are able to "re-craft or re-image their symbolic and material body and its borders" in the context of what she calls "agency without mastery".

One aspect of these papers where these more post-human perspectives on agency might be explored further is the way they

engage with the notion of *affect*. Scholars in the field of affect studies also see agency as emergent and distributed. What they add to this conversation is the assertion that the best way to understand how agency emerges in the (intra)relationship among entities is through the lens of "affect", which they see as "bodily capacities to affect and be affected…to engage, and to connect" (Clough, 2007, p. 2; see also Spinoza, 1985; Deleuze and Guattari, 1987). From this perspective, agency is inseparable from the ways bodies attract and repel each other, inseparable from desire and fear, from anger and joy, and from grief and hope. All of these feelings have the capacity to reconfigure agential fields, bringing us closer to some entities and pushing others away. One thinks, for example, of the dramatic ways the participants in the study by Wilding et al. describe their emotions as seemingly independent entities that seem to "creep up on them" and pull them in different directions, or of the complex and sometimes contradictory emotions the diarists in Robinson et al. express about regulations, or of the way the international students in Cowie et al. "feel" the city of Edinburgh differently during lockdown. One also thinks of the way affect can be deployed by others to undermine agency by generating fear or hatred, such as when metaphors of war or labels such as "China virus" become prominent features of the discursive environment (Kania, 2022; Giorgis et al., 2023).

Without a doubt, the paper that engages most fully with notions of distributed agency and affect is the study of the pandemic landscapes of Florence by Banga and Bellinzona, in which they join in a long tradition of considering the affective dimensions of physical environments, from the "affective turn" in Linguistic Landscape studies which they mention (Milani and Richardson, 2021), to other work using concepts such as "affective atmospheres" (Anderson, 2009) and "affective geographies" (Jones et al., forthcoming; O'Grady, 2018). In their description of the streets of Florence at different stages of the pandemic, Banga and Bellinzona show not just how the physical environment became a canvas upon which the collective "shock" of residents was expressed, but also came to function itself as an agent, "structuring the affective affordances and positions of individuals and groups (Wee and Goh, 2020, p. 139, cited in Banga and Bellinzona, 2023)". Rather than just seeing agency as enabled and constrained by institutional and relational structures, there is a sense in the descriptions they provide of the streets of Florence of agency emerging out of "atmospheres" which are collectively formed from the countless "affective-discursive practices" (Wetherell, 2015 p. 160) of the city's residents, atmospheres that have concrete material consequences on people's behavior and sense of self-efficacy, either creating space for acts of solidarity and charity or of overwhelming people with feelings of rancor and despair. This version of agency as an *ecological* phenomenon contingent on the momentary and dynamic coming together of "bodies, subjectivities, relations, histories, and contexts" (Wetherell, 2015, p. 160) is radically different from the view of agency presented in the other papers in this collection, and in some ways more hopeful, suggesting that it is sometimes in moments when people put aside the drive for individual autonomy and control and orient instead to affectively aligning themselves with others—friends, strangers, enemies—and with their material circumstances, that possibilities for coordinated action, collective responsibility and genuine empathy arise.

Conclusion: agency as response-ability

So, what can we take from these papers that can teach us how to have agency in a pandemic, a question that seems particularly important given that we didn't seem to do a very good job of it last time around? Sadly, much of our inability to take action against the virus—so much of the suffering and death that we witnessed—was not the result of the virus itself, but the result our failure to figure out how to take collective action, a failure seen on the level of nations, institutions and communities. So much of our time and energy seemed to be spent defending borders, assigning blame, and asserting "rights", and many of the policies pursued by governments seemed designed not just to isolate us physically, but to isolate us morally, clothing neoliberal discourses of privatized risk and individual responsibility (Lupton, 2013) in collective gestures of solidarity, like simultaneously clapping for underpaid and overworked healthcare workers. Attempts to critique the restrictions that were being placed upon us by governments often veered between the extremes of unquestioning compliance and radical libertarianism, and the ways individuals responded to these restrictions became more a matter of protecting political or ideological territories than of protecting public health. So much time and energy was spent separating out those who were doing the right thing from those who were not that we forgot to ask what "doing the right thing" really means, and what kinds of material conditions, social relationships, moral codes, medical knowledge and embodied desires are necessary to enable us to know what the right thing to do is.

Perhaps the main thing that these contributions teach us about how to have agency in a pandemic is that language matters, that the way we talk about things—in official discourse, in the media, and in our individual interactions with one another—can have profound effects on our ability take individual and collective action. The ways that we linguistically assign agency and responsibility to different entities through things like metaphors and transitivity, as well as the ways we use language to label different kinds of actions and different kinds of people as right or wrong, friends or enemies, helps to constitute the psychological and social environments in which actual actions are carried out. The way we use language can exasperate feelings of distrust, isolation and disempowerment, but it can also provide opportunities for strengthening connections with others and spaces for reimagining and creativity reconfiguring our realities. This came out particularly strongly in the articles which featured the voices of ordinary people telling stories about their lives in the context of diaries or interviews. As Cowie et al. intimate, just the action of writing a diary entry for an audience of the future is acknowledgment of responsibility and a gesture of hope. They quote De Fina's (2021, p. 60) assertion that "through narratives, participants bring to bear in their present interactions worlds and historical moments that belong to different geographical and temporal scales" and

in so doing "create new understandings of reality and also new patterns of social interaction". In this regard, it seems that the questions we need to be asking about the relationship between language and agency need to go beyond questions about how agency is encoded and enacted in language to questions like those suggested by Pratt (2018, p. 24, emphasis mine) in a discussion of the role of language in socio-cultural creativity: "What gives utterances the ability to generate *courage*? To *move* people from one belief to another, to compel *action*? How does speech *emancipate* and generate new futures? What qualities give speech the world-making, subject-producing, transformative powers we see exhibited every day?"

Another thing I think we can learn from these contributions is how possibilities for action are not static, but arise out of inter (and intra)-actions with other people and with our environments. Agency does not have to be seen as a "zero-sum game" in which individuals and institutions vie for power, and it is not always enacted in terms of resistance to structure. Engaging with more relational and post-human approaches to agency can help us generate new perspectives on how people understand and talk about the different forces (both human and non-human) that come to constitute the agential fields in which they operate. They can also sensitize us to the fact that the course of pandemics are not determined by the autonomous actions of individuals and governments but by the ways individuals and government position themselves in relationship with a host of other actors. As Geerts (2021, p. 158), reminds us, a pandemic is a "multilayered more-than-human crisis that requires a holistic, but non-totalizing, approach".

To really understand how to have agency during a pandemic, however, and to avoid the mistakes we made in the last one, requires that we come to grips not just with how agency intersects with issues of courage, creativity and empowerment, but also how it intersects with notions of collective responsibility and empathy. Here we might take inspiration from work in education studies (e.g., Biesta, 2006; Ingold, 2017; Geerts, 2021) which challenges the idea that agency is prior to and determinative of action. "[J]ust because not everything happens according to one's own volition does not mean that someone else is in charge, or that agency is more widely distributed" writes Ingold (2017, p. 24). Rather, possibilities for action are continually "forming and transforming from within the action itself", so that instead of talking about agency, we should talk about "agencing". In order to see possibilities for action as they emerge moment by moment, however, requires a shift in perspective away from notions of individual "responsibility"—which seek to concentrate power and to situate blame—to notions of "response-ability", the ability to respond to (rather than just react to) the circumstances that arise in our social and material worlds. This applies both to the ability of governments and institutions to flexibly respond to quickly changing health crises, as well as to individuals' ability to respond to the needs, capacities, fears, and desires of others, to search for opportunities for connection even in contexts where our normal ways of connecting are constrained. As Biesta (2006, p. 64) puts it, "what is done, what needs to be done, and what only I can do, is to respond to the stranger, to be responsive and responsible to what the stranger asks from me". Biesta insists that the whole point of education is to help people to cultivate the capacity to respond and be responded to, not just to question and answer, but to also to recognize and be present to others, to identify common ground and articulate possibilities for collective action. One source of inadequacy in most approaches to health education is their focus on *self*-efficacy rather than relational efficacy—their preoccupation with telling people how to *behave* rather than how to respond. Similarly, one source of inadequacy in the approaches to understanding language and agency reviewed here is their focus on speaking rather than listening—their preoccupation with the discursive strategies that people use to claim agency for themselves rather than the discursive strategies they use to take action with others.

By the way it moved among us, the virus revealed the precarity of the human community in which the default for many seemed to be to react rather than respond, to close boarders rather than to open doors, and to seek ways to capitalize on others' suffering rather than to relieve it (Butler, 2020). At the same time, it also revealed—through the countless individual and collective gestures of care and selflessness it provoked—gestures that courageously resisted the default—our capacity to respond, and it reminded us that sometimes true agency is less about freedom and more about generosity, less about mastery over our environment and more about learning from it.

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