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COVID-19 and language barriers

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Abstract

The COVID-19 pandemic took most governments around the world by surprise and pushed them to address many issues that had long been neglected. Among them, communication proved to be a particularly challenging matter. While it was clear that accurate and pervasive communication was crucial to contain the spread of the disease, many campaigns failed to address effectively the extra challenges posed by multilingualism when it came to communicating both with autochthonous allophone communities and with newly-arrived migrants. In this paper I make a general discussion about the difficulties of multilingual communication usually encountered during emergency situations. As a case study, I propose an in-depth review of the various strategies adopted around the world to address the difficulties due to multilingualism during the COVID-19 pandemic and the vaccination campaign. I discuss both failures and virtuous practices. On the basis of the findings of this review, I propose a number of conclusions about the causes and consequences of the difficulties related to multilingualism in emergency situations, as well as some considerations about the ways to put in place effective communication strategies.

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Introduction

The COVID-19 pandemic that broke out between the end of 2019 and the beginning of 2020 took everyone by surprise. What started out as a severe yet seemingly localized disease, quickly developed into a global pandemic that affected virtually every country in the world. The coronavirus pandemic, considered one of the deadliest pandemics of all time, had a massive impact on global healthcare, but it also had far-reaching consequences for society and the economy worldwide. The pandemic put in evidence numerous inefficiencies in the healthcare systems of many countries. However, problems were (and are) far from being strictly confined to the health sphere. Many of the inconveniences caused by the pandemic are related to poor communication, misinformation, or complete lack of information. The lack of "inclusive multilingual communication" in emergency situations can lead to severe inequalities. People with limited knowledge of the local dominant language may be excluded from information campaigns about measures to contain the spread of Coronavirus and vaccines, and also about the related financial instruments to support businesses. These communication issues were diverse in terms of origin and consequences, such as:

- misinformation or lack of information *about* the crisis due to language barriers;
- misinformation or lack of general information *due to* the crisis and language barriers;
- overall reduction in the provision of general services (including language services) due to the crisis.

Obviously, this typology can be made more fine-grained. For example, the first category can be further refined to distinguish between specific information about the health care situation (e.g., about the vaccines, social distancing rules) and other collateral information (e.g., information about travel restrictions, financial subsidy measures). In this paper we make a literature review with a view to estimating the effectiveness and fairness of language policies and practices related to communication between the public administration and linguistic minorities/ethnic groups residing in a country in a situation of emergency, with particular reference to the COVID-19 pandemic. We performed an extensive multilingual review of documents about inequalities arising in situations of crisis in which the public sector must communicate with a linguistically diverse public, including ethnic and linguistic minorities. We focused on national policy documents and on publications in journals in public administration, public policy studies, health care policy, and language policy and planning in various languages.

The rest of this paper is organized as follows: in Section 2 we review publications (both scientific papers and technical reports) specifically addressing the issue of poor communication due to language barriers in situations of emergency; in Section 3 we provide a short overview of the context of the COVID-19 pandemic, which we will use as the main case study to discuss communication during emergency situations; in Section 4 we present a collection of measures implemented in various countries around the world, in order to provide the reader with a general understanding of how governments reacted to the emergency; finally, in Section 5 we discuss our findings, in order to sketch out the overall situations in terms of addressing language barriers in emergency situations through policy, and we provide some general conclusions and recommendations.

This review should not be considered an exhaustive examination of the topic. As said, the socioeconomic consequences of the COVID-19 pandemic are numerous. Even though we

restricted our focus exclusively on communication inefficiencies, a comprehensive description of the issue at stake remains largely beyond the scope of a single paper. Besides, as the pandemic is still ongoing, it is not possible to accurately pin down all of its consequences at the moment. Our objective is to draft a basis on which the scholarly community can build a wider conversation that addresses all various aspects of this phenomenon individually and in greater detail.

Communication during emergency situations

Much of the literature on communication with ethnic minorities concerns the language needs of migrant communities, especially long-term ones who have settled permanently on the territory of a country. However, the outbreak of the COVID-19 pandemic sparked interested in language barriers during emergencies. For example, the journal *Multilingua* published a special issue (volume 39, issue 5) titled "Linguistic diversity in a time of crisis: Language challenges of the COVID-19 pandemic". Li (2020) even calls for the establishment of a specific sub-discipline of linguistics, which he names "emergency linguistics", that should focus on the contributions of linguistics during emergency situations, while Teng (2020) includes emergency language services within the larger category of the national emergency management system. Surprisingly, however, scientific publications concerning specifically the management of multilingualism in emergency situations dating before 2020 are less numerous than one would expect. Moreover, it should be noted that most of these studies were published in journals of medical sciences, rather than language sciences or public policy, and authored by medical doctors, rather than linguists or policy experts. While ethnic background is usually recognized as a barrier to care, language, which is generally considered one of the main manifestations of ethnic diversity (Moser-Mercer, Kherbiche, and Class, 2014), is often barely mentioned among the causes, notwithstanding the fact that racial disparities in health not due to socioeconomic differences have long been acknowledged (Pamuk et al., 1998; Betancourt et al., 2005). Knuesel et al. (2020) point to the fact that institutions being caught unprepared by the COVID-19 pandemic and by how it hit ethnic minority communities is not justified, as the precariousness of such communities had already been highlighted by previous cases. Although many have stressed the importance and even the legal imperative for some institutions of implementing reliable communication mechanisms (by resorting, for example, to interpreters) (Crowley, 2010), reliance on the limited language skills of medical staff or even on family members to communicate with patients is still a widespread practice. Knuesel et al. (2020) suggest that healthcare institutions should value more the skills of multilingual medical staff able to attend to patients in their language in a competent way. This recommendation is supported by several studies that demonstrated that communicating with patients in their own language leads to increased adherence to treatment plans. In particular, Manson (1988) found that patients cared for by a physician who spoke a different language were more likely to omit medication, miss office appointments, and make an emergency room visit. Besides, attending patients in their language has long been found to be associated with deeper understanding of the patient's conditions (Solis et al., 1990) and improved health education (Shapiro and Saltzer, 1981). In general, patients have been found to experience higher levels of satisfaction and are less prone to commit clinical mistakes when they are supported by medically trained interpreters, rather than family members or other people who speak their language (Flores, 2005).

Emergency situations that need to rely extensively on communication are obviously not limited to healthcare crises, such as the COVID-19 pandemic. They include other events, which can be man-made, such as wars, or natural, such as earthquakes or floods. In other words, emergency situations can be of radically different natures and, therefore, can call for very different types of intervention. Indeed, it is one thing to accommodate the language needs of a long-time settled community, and another thing to set up reliable channels to communicate with newly arrived people during, for example, a migrant crisis. The problem with the latter case is the unpredictability of extreme events and the weight of their consequences. Translation and interpretation services for individuals involved in criminal proceedings,[1] for example, are relatively easy to provide, as long as the linguistic demographics of the population remain stable or change in a "predictable way" (Civico, 2020). However, hard-to-predict events such as wars, terrorist attacks, and natural disasters may lead to migrant crises that can easily catch institutions unprepared. As a consequence, measures traditionally aiming at managing multilingualism might fail to address satisfactorily the problems raised by emergency situations. Alternatively, it might simply be impossible to implement them in good time due to a lack of resources.

Li et al. (2020) speak of National Emergency Language Competence (NELC) as "the capacity to use language to cope with domestic and international public emergencies", such as the COVID-19 pandemic, and note that China is still lagging behind in this aspect. They observe that most of the measures implemented to address multilingualism during the COVID-19 crisis were not "conscious actions", as they were not part of a previously developed long-standing emergency plan, but rather hasty measures adopted to face an unexpected crisis. They argue that a well-thought-out emergency language plan requires more than just linguistic resources, such as translators and interpreters. They should include a legal framework able to ensure the immediate implementation of the emergency language services according to precise norms and standards, and the development of technological infrastructures to be deployed quickly during an emergency. New technologies play indeed a vital role in assisting communication during emergency situations. However, it was observed that significant improvement in accuracy and usability are needed before they can be used safely (Turner et al., 2019). The debate around translation-enabling technologies has been ongoing for a long time, but it certainly gained a lot of momentum in the aftermath of the Haiti earthquake of 2010 (Hester, Shaw, and Biewald, 2010; Harvard Humanitarian Initiative, 2011; Lewis, Munro, and Vogel, 2011; Sutherlin, 2013; O'Brien, 2016).

Difficulties in communication are exacerbated by the fact that such issues are often neglected or underestimated by relevant studies and reports (Moser-Mercer, Kherbiche, and Class, 2014; Rubio Blanes, 2020), resulting in the widespread assumption that some knowledge of another language is sufficient to implement communication between two parties speaking different languages. Furthermore, there seems to be a generalized lack of understanding of how languages and multilingualism work and that language differences usually come with a series of cultural differences. Ghandour-Demiri (2017), for example, discusses, among many other, the case of Kurdish speakers in Greek refugee camps during the migration crisis that originated in 2015. Interviews with humanitarian aid workers revealed that there was a general

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[1] Article 14 of the International Covenant on Civil and Political Rights ensures, among other things, the right of an individual involved in a proceeding "[t]o have the free assistance of an interpreter if he cannot understand or speak the language used in court" (International Covenant on Civil and Political Rights, 1976, art. 14.3).

misconception among them that there exists only one Kurdish language and that all Kurds are able to communicate with each other. However, Kurdish is actually a collection of dialects, with Kurmanji and Sorani being the main ones. Mutual intelligibility between these two dialects is only limited, as they use different scripts (Kurmanji using the Latin alphabet and Sorani using a modified version of the Persian alphabet), different vocabulary, and have different grammar rules. Investigating into this matter further allowed to elucidate a seemingly paradoxical finding, which would have otherwise gone unexplained. While it was clear that the vast majority of migrants interviewed by Ghandour-Demiri (2017) preferred to receive information in their native tongue, some declared that they preferred to receive information in a language other than their own. It was precisely the case of Kurds living in Iran and Syria, who preferred Farsi and Arabic, respectively, even though they considered a Kurdish dialect to be their native language. This seemingly paradoxical request can only be understood if one factors in the history of Kurdish in these countries, where it was proscribed from schools and public life for long periods. Consequently, speakers of a Kurdish dialect are often unable to read it and have greater familiarity with the scripts of the local official language.

Defining the context: Communication during the COVID-19 pandemic

As mentioned in the introduction, the consequences of the COVID-19 pandemic were far-reaching and extended largely beyond the healthcare domain. Socioeconomic consequences included, to mention only a few, the imposition of curfews, extended periods of lockdown, quarantines, large-scale testing, and reduced opening hours for businesses. Through these measures, the pandemic had the indirect effect of virtually blocking the economy, triggering the worst global economic crisis since the Great Depression. It caused unemployment rates to rise significantly in most countries and this trend could hardly be hedged by government subsidies. It led to the almost total closure of education institutions, from primary schools to universities, which were obliged to reorient their study plans towards distance learning.

The coronavirus pandemic highlighted many social and economic issues, such as social inequality of various forms. For example, it was observed that individuals with lower income were more likely to contract the disease and die from it (Jung et al., 2021). This is hardly surprising, as lower socioeconomic status people are more likely to live in crowded housing or to rely on shared transportation services, all of which increases their risk to contract the disease. Paton et al. (2020) found evidence that people from ethnic minority backgrounds are more likely to be involved in working activities that imply a higher risk of infection. Furthermore, as is commonly known, income distribution is not equal across ethnic groups,[2] which makes it that certain communities have suffered disproportionately from the consequences of COVID-19. However, susceptibility to the coronavirus (as well as to other diseases) is further exacerbated by other issues that are not strictly related to socioeconomic status, such as ineffective communication and language barriers. In this regard, the impact of poor communication strategies is at least twofold: on the one side, it can hinder communication and generate misunderstandings between patients and the medical staff within the hospitals; on the other, it keeps crucial information from reaching those parts of the population that have limited proficiency in the local language(s).

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[2] For the case of the UK, see for example "Income distribution" (2020)

It should be noted that most of these issues were pre-existing and have already been the object of much scientific and political debate. The extent and severity of the coronavirus pandemic only made them much more evident than ever before. It is easy to see how the higher than usual contagiousness of COVID-19 makes it so that the careless behavior of a few people, whether they are in good faith or not, can determine the contagion of many. For this reason, ineffective communication became (quite literally) a vital matter during the coronavirus pandemic. Even in the simplest case of a context where a message is passed on to other people through word of mouth, it is easy to see that a limited (or utter lack of) understanding of the language in which the message is first conveyed can significantly delay the moment when the whole population is reached by the message.

Governments and organizations communicate with the citizens through many different channels. For example, they often publish policy documents that provide a summary of the motivations, purpose and scope of a set of policy measures and the specific ways in which such measures are going to be implemented. Policy documents can concern virtually all the domains that fall within the competence or interest of an institution. Depending on the type of content, these documents may be addressed to different recipients, which can go from all citizens to the specific institutions formally charged with the implementation of the measures. Concerning the specific case of the COVID-19 pandemic, many policy documents were addressed to hospitals and other health facilities, but also to the general public. In particular, much of the information aimed at a wider audience concerned recommendations and rules of conduct to follow during specific situations and in different contexts with a view to limiting the diffusion of the virus. In general, during an emergency situation it is essential that information be made accessible and understandable to the general population as well as to highly varied subgroups in society (Kreps et al., 2005).

Obviously, information from the government to the citizens does not only flow through official documents. It can also rely on other means, such as television, internet, or the press. Arguably, these alternative means are the most common source of information for most people, regardless of their level of education and language proficiency. But regardless of the channel, there is one key element that all acts of communication share: the language in which they are transmitted. In this regard, the obvious choice for an information campaign is to use the (*de facto* or *de iure*) official language of the context (geographical, such as a region or a country, or institutional, such as an organization) in which it is launched. Assuming that this language is spoken or at least understood by the majority of people (which is not necessarily the case), it makes sense to use it to draft all the communication material, as it has the highest chances of reaching the widest audience possible. While it is certainly true that widely spoken languages can reach a wider audience than other languages, it is equally true that they do not reach everyone. The more diverse the linguistic background of the target population, the higher the chances that a sizeable amount of people will be left out from the information flow. One may still consider the use of one majority language a reasonable choice, if one compares the financial investment with the return in terms of people reached by the campaign and dismisses the remaining amount of people as a negligible quantity.[3] This is one way of looking at it from a so-called "80/20 rule" or "Pareto principle" perspective. In the specific context of policy measures, one could argue

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[3] In this paper we will not make considerations about fairness and equality, which would call for a publication of its own. We will limit ourselves to discussing and comparing the effective measures adopted by various governments.

(and often practically observe) that the greatest benefits come from the initial investments, while investments beyond a certain threshold only lead to marginal benefits. In other words, while marginal costs tend to increase, marginal benefits tend to decrease.

However, pandemics, as well as epidemics in general, are complex non-linear phenomena. A discussion on the non-linearity of complex phenomena is beyond the scope of this paper, but in short it refers to the fact that there is no proportionality between input and output variables. In other words, seemingly small changes in one variable can lead to great changes in the other, or the opposite. Various authors have pointed out the logistic nature of the spread of epidemics/pandemics (Consolini and Materassi, 2020). Indeed, when the infected population is plotted against time, the resulting function does not look linear but S-shaped, like the so-called logistic function. This means that, at least in a theoretical scenario, the infection spreads very slowly in the initial phases, then accelerates dramatically and eventually slows down again until the entire population is reached by the virus.[4] This means that one would largely underestimate the consequences of a small increase in the number of infected people, should one expect a linear spread.

In the light of these considerations, it is easy to see that a principle such as the "80/20 rule" cannot be applied to the specific case of the measures aimed at preventing the spread of COVID-19. On the one side, it is undeniable that greater investments are necessary to provide multiple versions of the communication material in various languages. On the other side, as we have pointed out, an apparently negligible amount of new infections can quickly turn into an overwhelming number of new cases. Therefore, neglecting even a few individuals can have dramatic consequences in cases such as the COVID-19 pandemic.

COVID-19 and language barriers in the international press

Although COVID-19 was by far the most frequent topic the general press all over the world dealt with for over a year since the beginning of the pandemic, communication problems due to language barriers did not receive much attention from the major newspapers worldwide. Articles on this topic mostly focused on the higher-than-average impact of COVID-19 on ethnic minorities and only mentioned language-related issues as one of the causes, along with socio-economic factors and technological barriers. It is the case, for example, of articles published in the Italian "Il Sole 24 Ore" (Zannier, 2020), the British "The Telegraph" (Abdulkadir Ali, 2020; Ehsan, 2020), the American "New York Times" (Mays and Newman, 2020), and the French "France24" (Seibt, 2020), to mention a few. More recently general press articles concerned the challenges encountered by ethnic minorities during the vaccination campaign. For example, articles about this were published in the French "Le Monde" (Ducourtieux, 2021) and the American "New York Times" (Morales, 2021; Walker et al., 2021; Walker, Leatherby and Avila, 2021). Once again, these articles barely mentioned language barriers as one among a number of causes.

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[4] Obviously, this is only a simplified discussion. For a deeper analysis we would need to include other elements, such the presence of individuals who are not susceptible to the infection or who have acquired immunization either through a vaccine or by recovering from the disease. However, as simple as it is, this discussion provides a rather accurate intuition of the phenomenon.

Policies on communication and language barriers

United States

A quick look at the website of the U.S. Food and Drug Administration (FDA)[5] is enough to prove this point. The FDA website, as well as many official US federal websites, is bilingual English-Spanish, to accommodate a wide majority of US residents.[6] However, some resources are available in several more languages.[7] In particular, the information fact sheets about the three vaccines (Pfizer-BioNTech, Moderna and Janssen) are available in 24 to 27 languages in addition to English, including American indigenous languages such as Cherokee and Navajo. More detailed information is also available in Mandarin Chinese, Korean, Vietnamese and Tagalog, and some of this material is also available in Portuguese, Somali and Hmong, a minority language spoken in China and South-East Asia. Interestingly, the information available in the last two languages concerns specifically "best practices for retail food stores, restaurants, and food pick-up/delivery services during the COVID-19 pandemic."

Other agencies have adopted a similar approach. It is the case, for example, of the Centers for Disease Control and Prevention (CDC), the national public health agency of the United States. The website is completely available in two languages, English and Spanish. However, it has a specific section on information in other languages.[8] Many documents are available mostly in Chinese, Vietnamese and Korean, although some essential ones are also available in a large number of languages, including major European languages, such as French, German, Italian and Portuguese, and several African and Asian languages, such as Wolof, Malinke, Swahili, Hindi and Farsi. The documents cover several topics, including emergency response, diseases and conditions, data and statistics, environmental health, violence and safety, and workplace safety.

Many US states have created specialized sections on their institutional websites to provide information about the pandemic. However, the availability of information in languages other than English is patchy. For example, in the section on COVID-19 of the website of the state of New York[9] there is a link to a section labeled "Language Assistance" that lists six languages other than English.[10] However, when one clicks on one of such languages, one lands on a page that explains how to use the browser to get a machine translation of the page.[11] This is supposedly done in compliance with New York Governor's Executive Order 26 of October 2011, subsequently amended by Executive Order 26.1 of March 2021 in response to the COVID-19 crisis. The order provides that State agencies "shall translate vital documents" and that "[t]he translation shall be in the *ten* most common non-English languages spoken by individuals with limited-English proficiency" (emphasis added). It is interesting to note that the Order initially indicated six languages, which were then increased to ten. The amendment to

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[5] https://www.fda.gov

[6] It should be noted, however, that the Spanish version of the website is not a page-by-page translation of the English version. Only a selection of pages are translated.

[7] https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/multilingual-covid-19-resources

[8] https://wwwn.cdc.gov/Pubs/other-languages/ (note, however, that this page is itself in English, therefore it might prove hard to navigate on it for individuals with limited or no skills in English).

[9] https://coronavirus.health.ny.gov/home

[10] Spanish, (Mandarin) Chinese, Russian, Bengali, Haitian Creole and Korean.

[11] https://health.ny.gov/contact/translate.htm

the Order further provides that agencies "shall publish a language access plan that will reflect how the agency will comply with this Order and all progress since it last submitted a language access plan." and that "[s]uch plan shall be [...] updated bi-annually [...]." The same machine translation approach was taken by the institutional websites of other states, such as California.[12] Other states provide actually translated pages, but only in a limited number of languages. Florida,[13] for example, has a trilingual website in English, Spanish and Haitian Creole, while Texas[14] is only bilingual English and Spanish. Finally, other states opted for a more open-ended policy. The Health Department of the state of Wisconsin, for example, released a statement in which it declares that free interpreting services can be granted to people whose primary language is not English (Wisconsin Department of Health Services, 2019).

In general, although it is clear that many agencies across the United States have opted for machine translation-based solutions and, hence, prioritized quick compliance with the law over effective outcome, the COVID-19 crisis does seem to have raised awareness about the weight of multilingualism in information campaigns, in line with the considerations made in Section 3. Nevertheless, several issues related to poor communication arose across the United States. A notable example is that of the Hmong community, an ethnic group of South-East Asia (mostly China, Vietnam and Laos) that is also present in the United States, especially in the Upper Midwest (Wisconsin and Minnesota). Although, as said, some information material published by the FDA is available in the Hmong language, the Hmong community has faced additional difficulties during the COVID-19 pandemic due to language barriers. According to a 2015 study by the University of Wisconsin, while the vast majority of Hmong people residing in the US and speaking a language other than English in their household can speak English well or very well, 68% of the US Hmong population aged 65 or older could not speak English at all (UW Applied Population Laboratory and University of Wisconsin Extension, 2015). This demographic group also happens to be among the parts of the population most susceptible of suffering from severe consequences of COVID-19. Against this backdrop, it is easy to see how poor communication can end up leaving some specific parts of the overall population more exposed to the risk of contracting the disease. Other institutions and associations felt the need to step in to solve, at least in part, this issue. With the financial support of the Wisconsin Department of Health Services, in Spring 2020 the Wisconsin Institute for Public Policy and Service (WIPPS) launched a program named H2N, also known as the COVID-19 Hmong and Hispanic Communications Network (Davies, 2020). Among other things, the project allowed the Hmong Medical Association to address the lack of literacy by creating videos about COVID featuring Hmong physicians (Wisconsin Institute for Public Policy and Service, 2020). The project helped overcome not only the language barrier, but also the cultural one. According to the project coordinator, in the Hmong community there is a high level of superstition, and many things are stigmatized. As a consequence, health issues tend to be kept very private. Needless to say that consequences can be catastrophic in the case of a highly contagious disease such as COVID-19.

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[12] https://covid19.ca.gov/

[13] https://floridahealthcovid19.gov/

[14] https://dshs.texas.gov/

Europe and the European Union

At the time of writing, the institutional website of the European Commission has information about COVID-19 in all 24 official languages of the European Union.[15] However, it was noted that in the early days of the pandemic the Commission published an official document on the disease in English only (Di Stefano, 2020).[16] Although translations were published in the following days and weeks, the fact that these documents were initially available exclusively in a language that, at the moment of publishing, was the native language of roughly 2% of the EU population and spoken fluently by another 10% is quite telling of the attention to multilingualism. This is all the more alarming and unexpected if one thinks that the EU possesses one of the most advanced translation and interpreting apparatuses of the world.[17] However, while the EU addressed the lack of information in the official EU languages, issues remained concerning communication with ethnic minorities, as well as other direct or indirect difficulties related specifically to migrant communities. Examples of strategies addressing the difficulties encountered by migrant communities across the EU include information leaflets in 15 languages published the Portuguese Government[18] and online information available in 29 languages provided by the Belgian Government.[19] On the contrary, an example of lack of measures addressing such difficulties was the campaign aimed at reducing skepticism towards the vaccination launched by the Ministry of Healthcare of Slovakia. The campaign was harshly criticized for providing information in Slovak only, completely disregarding ethnic minorities (Szalay, 2021). The website of the campaign was subsequently updated to include an English and Hungarian version. In general, the lack of information in languages other than the country's official language(s) was noted to not only cause a non-homogeneous spread of information, but also to pass on the idea that minority languages are less important than official ones (Crnić-Grotić).

As mentioned in the introduction, the COVID-19 pandemic did not only cause disruption among minority communities because of language barriers only, but also on a general level. Member of the European Parliament Andor Deli addressed a parliamentary question to the Commission on April 21, 2020 on the subject "Difficult challenges faced by minority language media outlets during the pandemic."[20] In particular, the question concerned the consequences suffered by the already struggling minority language media, with particular reference to national minority languages. Noting that media outlets are crucial for the maintenance and promotion of minority languages, he argues that the current funding from the EU is not enough to support the industry in this critical moment. The Commission replied by pointing out that it is aware of the unprecedented difficulties due to the pandemic and that it will keep encouraging financial institutions to lend more money to news media.[21] Furthermore, the Commission said that it will continue co-funding specific internship opportunities in minority language media with a budget of 700,000 euros (European Commission, 2021).

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[15] https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response

[16] The EU document in question is available here:
https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_307.

[17] The EU itself declares that "[t]he translation services of the Union institutions are the largest in the world in terms of size and variety of languages and themes covered" (European Commission, 2016).

[18] https://www.acm.gov.pt/-/covid-19-medidas-orientacoes-e-recomendacoes

[19] https://integratie-inburgering.be/corona-meertalige-info

[20] https://www.europarl.europa.eu/doceo/document/E-9-2020-002385_EN.html

[21] https://www.europarl.europa.eu/doceo/document/E-9-2020-002385-ASW_EN.html

The European Web Site On Integration (EWSI) reported that in the year 2020 the number of newly issued residence and work permits had plummeted like never before ("COVID-19's impact on migrant communities"). In order to counter the bureaucratic difficulties caused by the reduction in service provision, many countries have implemented measures relaxing renewal procedures. Spain and Italy, for example, relaxed many conditions pertaining the issuance of permits for foreign agricultural workers, who are crucial for the agricultural sector. Portugal and Sweden granted automatic temporary residence to asylum seekers whose applications could not be processed on time.

Denmark

During March 2021, two interest associations organized a webinar to discuss the situation of ethnic minorities in Denmark with respect to the COVID-19 pandemic, which saw the participation, among others, of the Danish Patient Safety Authority ("Denmark: COVID-19 and ethnic minorities - what works?"). Indeed, there was much preoccupation around the sudden rises in the number of COVID-19 cases in social housing projects throughout the country. According to BL Danish Social Housing, an association of Danish social housing organizations and one of the organizers of the webinar, social housing residents in Denmark are characterized by lower income and higher unemployment rate. At the same time, a large proportion of residents with an ethnic minority background live in social housing projects.[22] Noting the overrepresentation of people with non-Western backgrounds in the infected population, with some politicians, including the Prime Minister Mette Frederiksen, blaming it on cultural differences and accusing ethnic minority groups of not taking precautions seriously enough and undermining the efforts of the majority to stop the spread of the disease (Karkov, 2021). Although such positions were quickly dismissed by representatives of the migrant communities of Denmark (Nilsson, 2021), as well as by official statements by the United Nations on a global level (United Nations Human Rights, 2020), communication issues remained, but several good local-level practices were identified, such using young people to explain and spread accessible and multilingual information on digital platforms.[23] Some NGOs took the initiative to step in and provide multilingual information in minority languages. It is the case, for example, of the NGO Danish Refugee Council, that launched a website and a hotline providing information about COVID-19 in 12 different languages.[24]

United Kingdom

A quick look at the website of the UK National Healthcare System (NHS)[25] reveals that the provision of general health information in languages other than English is somewhat wanting. The only reference to sources in other languages can be find on the page "Health information in other languages"[26], which is not directly accessible through the home page, but only through the "about us" page that is linked at the bottom of the home page. This page consists mostly of a list of external links redirecting to websites from other countries or organizations that deal with health issues. However, none of these links reports information specifically on COVID-

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[22] According to a 2008 report, about 60% of ethnic minority residents of Denmark lived in social housing (Vacher, 2008).

[23] See for example: https://www.youtube.com/watch?v=e-oojIT76XE

[24] https://coronadenmark.dk/

[25] https://www.nhs.uk/

[26] https://www.nhs.uk/about-us/health-information-in-other-languages/

19. Other than that, the page suggests using an online translator, while recognizing at the same time that "they may not always be able to interpret the meaning of larger or more complex pieces of information." I shall point out that a collection of multilingual videos about the COVID-19 vaccination campaign is indeed available on the NHS website, but the page is relatively hard to reach, even for a proficient user of English.[27]

The NHS website links to the versions of the websites of the four constituent nations of the UK. The website of NHS England [28] and Northern Ireland[29] do not seem to provide any multilingual information at all, while the Welsh version[30] is bilingual English and Welsh. On the contrary, the Scottish website[31] provides information 12 different languages other than English, including British Sign Language. The amount of information varies from language to language, but information on COVID-19 is available in all of them.

As an example of virtuous measure, in order to address the issue of reaching people speaking a minority language during the vaccination campaign, Public Health Scotland (the Scottish national health education and promotion agency, part of the publicly funded healthcare system of Scotland)[32] started publishing a series of videos addressing vaccination in a number of different languages.[33]

According to a study published by Public Health England Public Health England (2020), there was a higher-than-average incidence of severe adverse outcomes within Black and minority ethnicities (BAME). Although the study does not address language issues, it does acknowledge that BAME groups "may face additional barriers in accessing services that are created by [...] language differences." This is confirmed the British Office of National Statistics (Office for National Statistics, 2020). It should be noted that this might be the consequence not only of a lack of multilingual information, but also of a deficiency in the provision of easy-to-read information. Khan, Asif, and Jaffery (2020) use various indexes of readability to evaluate different websites offering information about COVID-19. They find that the lack of easily readable information and of translated material may be one of the major causes of the uneven incidence of COVID-19 with severe symptoms.

Finland

According to a report[34] drafted by Skogberg et al. (2021), the Finnish institute for health and welfare formed a Multilingual and Multichannel Coronavirus Communications Task Force in collaboration with the Finnish Ministry for Social Affairs and Health in response to the need for multilingual information. The main objective of the report was "to examine access to information, adherence to preventive measures and working conditions among persons who have migrated to Finland." In general, perceived sufficiency of information tended to be very

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[27]   https://www.england.nhs.uk/london/our-work/covid-19-vaccination-programme-2/covid-19-vaccine-communication-materials/

[28] https://www.england.nhs.uk/

[29] http://online.hscni.net/

[30] https://111.wales.nhs.uk/

[31] https://www.nhsinform.scot/

[32] https://www.publichealthscotland.scot/

[33] https://www.youtube.com/playlist?list=PLdtTilZi8S7-n4__p7z5IdVJBzBRIfxSx

[34] Interestingly, the abstract of this report is available in 16 different languages in addition to Finnish and English, including a version in "Easy Finnish".

high among respondents and in line with the general population. Nevertheless, migrants with only intermediate and basic skills in Finnish and/or Swedish reported lower levels of perceived sufficiency of information with respects to migrants proficient in those languages, pointing to the need to use simple language. In general, according to the report, Finland went a long way to providing multilingual information about the pandemic. Strategies were discussed together with representatives non-governmental and religious associations of the various migrant communities of Finland, and included the provision of textual, audiovisual and infographic material translated in up to 24 different languages and disseminated through various channels, such as television, web pages and social media. Interestingly, Skogberg et al. (2021) find several differences across migrants coming from different countries. While they found that perceived sufficiency of information was lowest among migrants from Latin America and highest among those coming from Estonia, they found that adherence to the recommended behavior were lowest in the latter group. Indeed, as rightly pointed out by the authors, knowledge does not necessarily translate into practice.

China

In February 2020, during the very first phases of the outbreak of the COVID-19 pandemic in the People's Republic of China (PRC), Chinese linguists from various universities, such as Beijing Language and Culture University, Wuhan University, Huazhong Normal University, formed a 40-member group named "Epidemic Language Service Corps" ("战疫语言服务团", in Chinese)[35] (Li, Zhao, and He, 2020). Among other things, this group developed the "Hubei Dialects Glossary for Fighting Epidemic" ("抗击疫情湖北方言通"), and the "Concise Chinese for Fighting Epidemic" ("疫情防控简明汉语"). Furthermore, with the support of and in collaboration with the Ministry of Education and the State Language Commission, linguists from the Beijing Language and Culture University developed the "Foreign Language Glossary for Fighting Epidemic" ("疫情防控外语通") to provide language services for international students and other foreigners in China (Cao, 2020).

Chinese provinces and municipalities started offering multilingual services early on during the pandemic. An example is Beijing Municipality, which activated a hotline providing services in eight languages in addition to Chinese (Zhu, 2020). Operators are able to address questions in Chinese or English but are also trained to distinguish other languages. In the case of a call other than in English or Chinese, the operator can activate a three-way call with an interpreter Beijing Foreign Studies University (Hua, 2021). Besides, upon arrival at an airport or railway station in Beijing, travelers using a Chinese phone number receive an automatic message reminding them of the hotline (China Daily, 2021). Some healthcare institutions took the initiative of addressing language barriers due to local dialects. For example, a medical team from China's Shandong Province compiled a Wuhan dialect phrasebook to help health workers that came from all over the country to communicate with local people (Xu, 2020).

As a testimony to the importance gained by language issues during emergencies during the pandemic, the 13th Five-Year Plan for the Development of the State Language and Writing Industry of 2020 explicitly calls for "providing language services for large-scale international events and disaster relief, and improving language emergency and assistance services capabilities" (Liu, 2020). Starting from the acknowledgement that more than 80 different

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[35] More literally, "language service corps for fighting the epidemic".

languages are spoken on the Chinese territory, in addition to dialects and other vernaculars, and that not everyone is accustomed to using Mandarin to communicate in their daily life, the document states that strengthening language services to accommodate the need of all Chinese people relying on the most advanced technological infrastructure will be crucial in the future. This idea fits perfectly in PRC President Xi's view of the "two communities" ("两个共同体", in Chinese), which is rooted in the idea that there exists an inseparable Chinese national community composed of all Chinese people with a shared common future (Zhou, 2020). [36]

The Deaf community

It is interesting to notice that during the COVID-19 crisis a lot of attention was paid to the needs of the Deaf community throughout the world. Indeed, many people became accustomed to seeing interpreters of various sign languages during televised institutional briefings held by the governments (Stine, 2021). United Nation Secretary-General António Guterres expressed an overarching feeling of inclusion for people with disabilities by saying that "[w]e have a unique opportunity to design and implement more inclusive and accessible societies" (Guterres, 2020). This is another sign not only of the increased awareness of the long-neglected needs of the Deaf community, but also of the need to reach as many people as possible to hedge the spread of the pandemic.[37] To do this, as is the case for spoken languages, it is crucial that information is provided also in sign languages. However, there are needs that are peculiar to the Deaf community. Many users of sign languages (though not all of them) rely on lip reading when communicating with hearing people. However, the obligation to wear a mask has made this impossible, creating stress and discomfort in many deaf individuals (Stine, 2020). McKee et al. (2020) propose a number of measures to address the difficulties specifically encountered by the Deaf community. They recommend that hospitals should rely on sign language interpreters specialized in medical communication, whether on place or remotely. In addition to this, they suggest using transparent masks and communication boards to ease communication with deaf or hard of hearing patients. Alternatively, they recommend the use of so-called captioning apps, that is, speech-to-text converters that the medical staff can use to quickly transcribe their words for the patients to read. These measures are in line with the recommendations of various associations in support of the rights of Deaf people, such as the World Federation of the Deaf. In addition to the measures mentioned above, they also recommend that information be made available in text format in public spaces and that it be accompanied by a QR giving access to the same information in the national sign language (World Federation of the Deaf et al., 2020).

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[36] The concept of "Two communities" put forward by China's Communist Party refers to 1) the national community of people in China and 2) the cultural community of Chinese people living in China and abroad. The idea is that, while there is a Chinese national interest, there is also an idea of "Chinese" as a culture. While not all culturally Chinese people speak Mandarin or belong to the Han ethnicity (the largest ethnic group in China), they all share a common future and therefore should be thought of as a community acting in their own best common interest.

[37] It should be noted, however, that resorting to sign language interpreters was not always a voluntary act of inclusion. In the case of the United States, for example, the National Association of the Deaf needed to take the matter to the federal court against the Trump administration. Thanks to this landmark lawsuit, that ended in favor of the National Association of the Deaf, American Sign Language interpreters need now to be included in every televised briefing of the federal administration (for more details on this case, see https://clearinghouse.net/detail.php?id=17798)

Discussion and conclusion

It is easy to see that the interventions across the various countries discussed in Section 4 were mostly developed with a view to accommodating the needs of settled minority communities. Indeed, the selection of languages for the information campaign was mostly based on national demographics. As we said, this is seemingly a good strategy to maximize the amount of people reached by the information campaign, as long as there are no particular changes in the demolinguistic profile of a country. However, this practice proves way more ineffective when the linguistic background of the population changes significantly.

In general, there seems to be an overall recognition that acknowledging and addressing the issues related to multilingualism is essential during emergency crisis. However, this is hardly systematic. Olofsson (2011), for example, discusses the example of a Swedish municipality taking on a much more pragmatic approach that partly disregarded multilingualism (quoting one of the interviews reported by the author, "you can't save them all, and if you manage to save 84% you've done a good job"). Furthermore, there seems to be a general tendency to evaluate the efficacy of measures to address multilingualism from a top-down perspective (Sellnow et al., 2015). In other words, communication is considered successful if the sender of the message could transmit the message accurately. This view is based on the potentially wrong assumption that, in this way, the receiver of the message will automatically respond effectively. However, this approach disregards the emotional and psychological impact of communication on the receiver, potentially compromising its effectiveness.

The development of increasingly accurate translation-enabling technologies is going to be crucial in the management of multilingualism during emergency crises. However, exclusive reliance on technologies might lead to other problems. Moser-Mercer, Kherbiche, and Class (2014) discuss the example of crowd translation, the practice where a large number of translators work on the same translation project through an online platform. While this practice speeds up the translation process, it might lead to poorly translated texts and could prove very challenging in terms of management. Zhang and Wu (2020) present the case of the WeChat[38] group "疫区翻译服务义工小组" ("volunteer translation services for epidemic areas"), in which volunteer translators provided translation in nine languages, namely English, French, Japanese, Korean, Portuguese, Russian, Spanish, Thai, and Vietnamese. It should be noted that many translators were not formally trained as such and many of those who were, had not been working as translators for many years. Zhang and Wu (2020) note that this type of bottom-up approach rooted in people's initiative proved much faster than the traditional top-down approach, as it could tiptoe many of the bureaucratic barriers usually encountered by government measures during the implementation process. Besides, this approach allows to access directly a very wide base of multilingual resources scattered all over the world. However, the authors also discuss several critical issues related to this approach. First, there were quality issues. While China counts many foreign language programs across the country (Zhao, 2016), the extreme bias in favor of English language programs (as well as other programs taught through the medium of English) created a huge imbalance in terms of competences of translation providers, with translators of "smaller" languages being on average less skilled. Therefore, it was not possible to provide revision precisely for those languages that needed it the most. Obviously, mistakes or even small inaccuracies can have serious consequences in emergency situations. The second main critical issue discussed by Zhang and Wu (2020) was

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[38] WeChat, or 微信 (*Wēixìn*) in Chinese, is a messaging and social media platform widely used in China.

the lack of resource management. Due to the absence of an effective central mechanism for the division of labor, many translation tasks were done multiple times, resulting in a massive waste of resources. Furthermore, one should not forget that language services are only useful if they are able to reach the people who are in need of them. Developing online platforms for the spread of information is certainly a valuable strategy, but it risks being ineffective if people who need this information are unable to access them. Besides, within communities that are left out of the information flow, there might be other factors that exacerbates the isolation for some specific sub-groups. For example, in a 2018 report, the OECD noted that there exists a significant digital gender divide that disfavors women and that this divide is partly due to socio-cultural norms (OECD, 2018).

In light of all the considerations made in the previous pages, we can now try to provide some recommendations or, rather, some orientations to handle language-related issues during emergency situations.

We reviewed many examples of measures that were implemented around the world during emergency situations, especially the COVID-19 pandemic. We can conclude that, while many potential solutions. Ideally, before developing and implementing policies to address language needs during emergency situations, one should classify the intervention by assessing two aspects, namely:

1. the type event that caused the emergency, and
2. the demolinguistic setting in which the emergency is unfolding.

This distinction is crucial to understand better how the institutions should act. Assessing the first dimension is essential to figure out the type of linguistic resources that need to be deployed, while the second dimension allows relevant institutions to understand better the linguistic background of intervention addressees and their specific language needs. This idea is maybe better explained through an example. Let us consider two emergency situations, a global pandemic and a natural disaster, such as an earthquake. Both these events will cause people to have similar needs in terms of type of information, i.e. mostly medical, as opposed to, say, information on the prevention of terrorism, which may be mostly related to safety measures. Therefore, they will both call for the deployment of language resources specifically addressing medical needs, such as medically trained interpreters and machine translation devices specifically trained with medical corpora. However, the specific languages to be addressed may differ substantially, which leads us to the second dimension. In the case of a global pandemic, it is reasonable to base the selection of languages for communication on the linguistic demographics of each country. On the contrary, a natural disaster might trigger massive population displacement to neighboring countries. In that case, it will be essential to select languages not based on the local population, but of the population that was hit by the disaster. However, this distinction is not clear-cut. There are also hybrid cases that fall somewhat in the middle. For many countries, it was specifically the case of the COVID-19 pandemic, that happened in the middle of a migrant crisis. In Italy, for example, the Government had to take measures that would address the needs of African migrants coming from Libya, not just as migrants in search of refuge and/or better economic opportunities, but also as people particularly at risk of contracting the disease.[39]

Concerning the increasing reliance on technologies in the provision of language services during emergency situations, it is clear that it is an absolutely necessary step. However, this should be

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[39] https://temi.camera.it/leg18/temi/emergenza-da-covid-19-le-misure-in-materia-di-immigrazione.html

done under some form of supervision from the government to avoid wasting resources, as we saw in the previous section. Therefore, institutions can learn from all the bottom-up initiatives started during the COVID-19 pandemic and adopt them for the future with the due improvements.

Finally, we noted that language-related issues are not just language-related. Preparing effectively to address potential language barriers during emergency situations cannot and should not be limited to setting up quick and reliable translation and interpreting services. It should also include at least some basic training for all workers involved in the management of the crisis about the general situation of a language minority community. In Section 2 we mentioned the case of Kurds in Greek refugee camps, who were wrongly assumed to speak all the same language and to have a seemingly paradoxical preference to receive information in languages other than their own. It is not surprising that humanitarian aid workers were unaware of issues surrounding the Kurdish dialects and the reasons why many Kurds are actually unable to read them, but some fundamental cultural training would have been of great support and would have most likely avoided some inefficiencies and difficulties during communication. As language is among the main manifestation of ethnic diversity (if not *the* main one), it is deeply intertwined with the culture of its speakers. Therefore, an appreciation of the cultural background of the people involved in the emergency situation is crucial for the smooth flow of information. Mikolič Južnič and Pokorn (2021) discuss the difference between "intercultural mediators" and "community interpreters", who are, respectively, more focused on the cultural aspects and the purely linguistic tasks. Both figures play a vital role in emergency contexts, but as it is not always possible to involve specialized cultural mediators, smooth communication only be achieved through the implementation of courses specifically aiming at getting aid workers familiar with the culture. In order to achieve this level of organization it is necessary to develop a form of "language intelligence service". This could be thought of as a standing commission entrusted with the task of assessing the language resources needed to face potential emergency situations, for example by keeping continuous track of the changes in the linguistic demographics of all the surrounding countries. This commission could also provide recommendations in terms of language education, in order to avoid imbalances that cause an excess of resources for certain languages and a lack thereof for other languages.

Acknowledgements

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