A Coronavirus Corpus-driven Study on the Uses of If-Conditionals in the Pandemic Period

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Abstract

The COVID-19 pandemic, has greatly affected the lives of everyone. One major concern during this period has been that of communication including content dealing with possibilities and ideology concerning freedom. This study aims to analyze the application of if-conditionals expressing options and possibilities during the COVID-19 pandemic using data in the Coronavirus Corpus developed in May 2020 by Mark Davies. The extracted if-conditionals were divided in accordance with Puente-Castelo's (2017) framework of if-typology, and grammatical aspects of all the verb strings were also analyzed in terms of tense and aspect, sentential modality, and voice. It was discovered that speech act conditionals—relevance conditionals—were most commonly applied to provide specific suggestions to deal with the pandemic. The second and third-ranked choices, scope-restricting conditionals and hypothesizing conditionals helped to specify scopes and definitions and to emphasize possibilities and predictions or statistical estimates based on evidence, respectively. The grammatical aspects also corresponded to the COVID situation and helped to convey messages in accordance with the if-conditional functions. The results suggest that the if-construction provides communicative functions fitting various contexts relating to the pandemic. It can facilitate interpersonal communication, allow message receivers freedom to evaluate the proposed option, and provide some safety for the speaker in their choice of phrasing since COVID-19-related circumstances are uncertain. The information can be useful for those seeking linguistic tools for effective communication and for instructors developing material for English for specific purposes.

INTRODUCTION

Amid the outbreak of the new coronavirus—referred to as COVID-19—people have to change how they live to protect themselves and others (Hiscott et al. 2020). Declared as a global pandemic by the World Health Organization (WHO) on March 11, 2020, COVID-19 has impacted lives tremendously in terms of health, the economic crisis, and mental state (Ataguba & Ataguba, 2020; Hiscott et al., 2020; Mertens, Gerritsen, Duijndam, Salemink, & Engelhard, 2020; Mukhtar, 2020; Zenker & Kock, 2020). The pandemic is forcast to have caused approximately 100 million "new poor" affected by job and income losses by the time it will have gone (Hiscott et al., 2020, p. 5). Strict measures including social distancing and quarantine have been adopted

globally for public health protection; many activities (e.g. entertainment relating to how people relax) have been considered unnecessary and, thus, suspended (Ataguba & Ataguba, 2020; Hiscott et al., 2020; Jackson, 2020).

One major issue accompanying the pandemic relates to communication including content dealing with possibilities (Hiscott et al., 2020). In 2020 the public received various and differing information, and some possibilities (e.g. those concerning the original sources of the virus and the number of predicted fatalities) were neither completely accepted nor dismissed (Hiscott et al., 2020; Schraer, 2020). If one makes absolute statements, there is a high chance that they go against others' predictions or even later discoveries. As Warzel (2020) phrases it, "expert opinion is constantly shifting" (para 5). Different assumptions among experts and how they change their opinions over time thus can cause problems of communication (Farr, 2020). As Hiscott et al. (2020) state, some implemented systems were changed when new results were discovered.

Moreover, ideology concerning freedom is another challenging aspect for mass communication. For example, in April 2020, some Americans protested against coronavirus restrictions and insisted on their desire and freedom to have the country reopened (Warzel, 2020). According to Mukhtar (2020), despite their necessity, restrictions can cause both short and long-term hazardous consequences to mental health. For instance, quarantine can lead to stress disorder, frustration, and confusion (Brooks et al., 2020). People have fears regarding not only contamination but also the economic impacts (Mertens et al., 2020). Providing proper guidelines and information to manage people's anxiety during the pandemic is of great importance (Mukhtar, 2020).

Additionally, in terms of mass communication, the common use of war metaphors is viewed as being insidious since it potentially enhances a negative state of mind (Cox, 2020; Semino, 2020). Instead of viewing themselves as citizens, people may feel they are "soldiers in a conflict," and with the sense of being "at war" with no predictable end, battle fatigue can be overwhelming (Ketchell, 2020).

Considering the communicative challenges and metaphorical limitations, what linguistic tools can be considered for effective communication relevant to the uncertainty of COVID-19? If-conditionals, "the majority of conditional sentences in English'' (Dancygier, 1993, p. 403) or a significant communicative tool among members of scientific research community (Puente-Castelo, 2013), could be one answer. Linguists (e.g. Ferguson (2001), Warchal (2010), and Puente-Castelo and Monaco (2013)) assert that challenging concepts can be conveyed effectively with the uses of if-conditionals. They are applied "to consider options, to evaluate the consequences of alternative courses of action, to theorise and to reflect on dependencies between situations" (Ferguson, 2001, p. 61). Using if-conditionals, the speaker does not commit himself but indicates possible conclusions in accordance with related conditions.

Moreover, since if-conditionals relate to the considerations of possible results or the imagination of alternatives (Dancygier & Sweetser, 2005), this linguistic device allows message receivers freedom to consider alternative situations or choices. They do not lead to the feeling of being forced to believe or to behave in any certain way but instead invite listeners to analyze the

possibilities of what may occur or what could have happened in accordance with other incidents (Montkhongtham, 2017).

Currently, the corpus-based approach is accepted as a scientific, objective method to analyze language use and meanings (Baker, 2018). It allows linguists to investigate the frequency of patterns in various textual genres (Jarunwaraphan & Mallikamas, 2020). This study, thus, aims to analyze the application of if-conditionals expressing options and possibilities during the COVID-19 pandemic using data in a coronavirus corpus. Exploring the uses of if-conditionals in the pandemic period may suggest linguistic patterns that can be adopted for effective communication and provide information for language teaching material development.

LITERATURE REVIEW

In terms of language and health sciences, several studies focus on language, illness, and healthcare in particular; several of them deal solely with metaphors (phenomena by means of which people "talk and, potentially, think about something in terms of something else" (Semino, 2008, p. 1)). Semino (2010), for instance, discusses how metaphors can be used to help describe certain types of pain (e.g. pain compared to *swords on fire*). Regarding professional language use, Potts and Semino (2017) explore healthcare professionals' online use of violence metaphors (e.g. some kinds of treatment portrayed as *torture*) for care at the end of life in the US and compare the uses with those in the UK. The corpora of these two countries both contained fight and battle metaphors (e.g. *a valiant battle* with cancer and *fighting for* patient survival), whereas battle metaphors were found to be more frequent in the US corpus, reflecting cultural differences (Potts & Semino, 2017).

Recently, Potts and Semino (2019) conducted a systematic study of the metaphorical uses of cancer-related vocabulary in contemporary English, and Semino (2020a, 2020b) analyzes metaphors and Covid-19. Furthermore, Yasmin (n.d., as cited in Cox, 2020), an instructor of medicine and journalism, warns against the consequences of using violent language, such as war metaphors, during times of fear and anxiety (i.e. the period of the COVID-19 outbreak). As cognitive linguists working in healthcare communication, Keller and Semino (2020, as cited in Lancaster University, 2020) also recommend using alternative metaphors instead of highlighting the concept of war during the pandemic. Semino (2020b) points out how particular words relating to illness and healthcare imply a negative tone which could discourage patients from feeling better. According to Savulescu, Foddy, and Rogers (2006), not being aware of the appropriate thing to say, in spite of the good intention, speakers may end up hurting the feelings of the one receiving the message.

However, besides metaphors, other linguistic devices have also come under consideration. *If*-conditionals have been widely applied in general and in different specific fields for communication (Lastres-Lopez, 2020; Puente-Castelo, 2017; Warchal, 2010). This linguistic device concerns "manifestations of human logical reasoning" and has "unique and pervasive cognitive patterns" (Dancygier & Sweetser, 2005, p. 5). In medical discourse, for example, the subordinator *if* has been used to convey messages not only among experts but also between physicians and

patients (Carter-Thomas & Rowley-Jolivet, 2008; Ferguson, 2001). The conditionals assist doctors to successfully make their arguments and simultaneously express politeness (Ferguson, 2001).

Scientific writers also apply if-conditionals to obtain credibility as message receivers are believed not to appreciate a didactic tone but to more likely be convinced when the speaker shows humility and respect allowing listeners the freedom to analyze the provided information (Jensen, 2008; Puente-Castelo, 2013, 2017; Warchal, 2010). Using if-conditionals, according to Warchal (2010), is a method of hedging which molds the speaker-audience relationship in many ways and which is intended to "open the dialogue with the discourse community by making a bid for acceptance as a well-informed partner in communication" (p. 141). In linguistics, if-conditionals are also used to indicate an interpersonal role (Warchal, 2010).

Although other terms (e.g. *provided that* and *on condition that*) can be used to generate conditional meanings, corpus-based studies demonstrate *if* is the most commonly used conditional connector, which can introduce all types of conditional meanings (Gabrielatos, 2010; Puente-Castelo, 2017). Thus, for decades, several linguists have conducted research on if-conditionals (e.g. Horsella and Sindermann (1992), Ferguson (2001), Carter-Thomas and Rowley-Jolivet (2008), Warchal (2010), Hesabi, Dehaghi, and Shahnazari (2013), Puente-Castelo (2013), Lampropoulou (2014), Montkhongtham (2017), Puente-Castelo (2017), Gabrielatos (2007, 2010, 2019), and Lastres-Lopez (2020)). Although if-conditionals have been categorized in many different ways (Declerk & Reed, 2001; Gabrielatos, 2019; Lastres-Lopez, 2020), all these researchers categorize if-conditionals based on functions.

Traditional types of if-conditionals based on tense patterns taught in general English classes, which Ferguson (2001) refers to as EFL pedagogic grammars, are inadequate to deal with the analysis of functions of conditionals used in naturally occurring texts and specific texts (Carter-Thomas & Cowley-Jolivet, 2008; Ferguson, 2001; Montkhongtham, 2017; Puente-Castelo, 2017). For example, should the traditional types be taken for consideration, the following two examples from the corpus will be categorized into the same group despite their different functions.

(1) ***If*** *hospital ICU beds are full, the hospital may choose to pause elective procedures to open up more space and convert temporary areas to a more critical unit.*
(2) ***If*** *an event is not canceled, organizers should have screening measures in place to prevent those infected from entering.*

Present simple is used in the protases (the if-clauses) of (1) and (2), and their apodoses (the main clauses) contain a modal verb plus an infinitive (*may choose* and *should have*). With the traditional framework, (1) and (2) would be categorized into the same group labelled as "possible future." However, these if-conditionals actually differ in terms of function. (1) expresses hypothetical meaning emphasizing that the realization of the event mentioned in the protasis (*the beds are occupied*) is a sufficient condition for the realization of the event stated in the apodosis (*elective procedures may be paused and some areas may be converted*) and indicating the speaker's assumption whereas (2) suggests what organizers should do when they face the

situation stated in the protasis.

Furthermore, let us consider the following examples.

(3) ***If*** *people had put on masks in the early periods of the outbreak, the infection rate could have been lower.*
(4) ***If*** *people do not wear masks, we could be online next semester.*

Despite having the same function, providing hypothetical meaning or showing a sufficient condition for the realization of the event mentioned in the main clause, with the traditional if-framework, (3) and (4) can be placed in different groups. The traditional framework does not focus on *function* but on *time*. In typical EFL classrooms, looking at (3) and (4) students may pay great attention on 'past' and 'future,' respectively, and could overlook the various functions associated with the uses of if-conditionals.

Additionally, Carter-Thomas and Rowley-Jolivet (2008) analyzing the uses of if-conditionals in various genres of medical discourses point out that "the so-called conditional '0' sequence of "*if* present + present," relating to the indication of timeless scientific laws is not effective for studying the function of if-conditionals in medical contexts due to the possibilities of different interpretations and inconclusiveness of findings.

In medical discourse, research studies show that if-conditionals are applied in particular ways with specific purposes in different disciplinary genres. In medical research articles, for instance, the pattern of "*if* past + past" is commonly used to show facts in the Methods section and to discuss specific cases, rather than to emphasize any timeless truths (Carter-Thomas & Rowley-Jolivet, 2008; Ferguson, 2001). Unlike their uses in research articles, if-conditionals adopted in medical conference presentations are typically associated with present simple because of the real-time message delivery, and most if-conditionals used at medical conferences indicate the purposes of managing discourse, helping the presenter to redirect the audience politely (Carter-Thomas & Rowley-Jolivet, 2008). Furthermore, rather than to indicate facts or to redirect the audience, if-conditionals in medical editorials concern hypothesizing since the editorial genre relates to expressing opinions, predictions, and speculations (Carter-Thomas & Rowley-Jolivet, 2008).

Besides medical fields mainly focusing on physical conditions and pain, several contemporary Buddhist writers (i.e. Thich Nhat Hanh (2007, 2013), Ajahn Brahm (2006, 2016), and Chodron (2009, 2013)) discussing mental states and suffering and offering healing practices also apply if-conditionals to communicate spiritual, abstract messages to 21st-century readers (Montkhongtham, 2017). In terms of grammatical patterns, Montkhongtham (2017) points out some differences among the medical and religious genres. To illustrate, while the majority of if-conditionals in medical research articles deal with the use of past simple, present simple is the most dominant in the verb strings of if-conditionals used by Thich Nhat Hanh (2007, 2013) conveying causal relationships and generic meanings concerning the nature of human beings and the world (Montkhongtham, 2017). Additionally, when the three Buddhist writers provide suggestions as to what their readers can do when experiencing particular circumstances,

they adopt if-conditionals with the function of speech-act and with the predominant use of present simple in both the protases and apodoses. This type of speech-act conditionals encouraging particular actions are applied less in academic texts in which theoretical discussion and the process of reasoning dominate (Montkhongtham, 2017).

With the differences among contexts, in the field of applied linguistics, many researchers have therefore proposed various frameworks of if-typology in accordance with different functions. An influential framework of if-typology proposed by Sweetser (1990) consists of (1) content-conditionals (CCs), (2) epistemic conditionals (ECs), and (3) speech-act conditionals (SCs). This framework is used, for instance, in Hesabi et al. (2013) and Warchal (2010) adding sub-types for SCs and separating concessive conditionals (CONs) as another category. Agreeing with Sweetser (1990), Warchal (2010), and Dancygier and Sweetser (2005) elaborating on if-conditionals and mental spaces, Lastres-Lopez (2020) emphasizes the use of if-conditionals to deliver messages not relevant to hypothesis or pattern of contingency but to interpersonal communication. For example, the statement "***If*** *you see comments in violation of our community guidelines, please report them*" (the Coronavirus Corpus, 2020) does not indicate any hypothetical pattern or causal relationship but concerns pragmatic aspects.

Furthermore, exploring medical discourse, Ferguson (2001) and Carter-Thomas and Rowley-Jolivet (2008), despite labelling if-conditionals using different terms, focus on similar types. Their first two categories—referred to as (1) course of events conditionals and (2) hypothetical conditionals in the work of Ferguson (2001); as (1) factuals and (2) refocusing conditionals in that of Carter-Thomas and Rowley-Jolivet (2008)—resemble the type Sweetser (1990) defines as CCs. The final category of Ferguson (2001)—pragmatic category—and that of Carter-Thomas and Rowley-Jolivet (2008)—discourse management category—are similar to Sweetser's (1990) SCs.

Studying conditional structures in late modern scientific texts, Puente-Castelo (2017) discusses two main functions of conditionals—content-related and interpersonal functions—and proposes a new framework, which was selected for the present research study, combining the concepts of many researchers including Sweetser (1990) and Warchal (2010). Puente-Castelo's (2017) framework comprises eleven groups of conditionals according to function. The characteristics of the eleven groups of if-conditionals are provided below (see Table 1 for samples from the studied material):

1. *Known fact conditionals (KFCs)* used to express commonly accepted facts
2. *Hypothesizing conditionals* (HCs) indicating the likelihood of an apodosis holding, given a protasis
3. *Scope-restricting conditionals (SRCs)* applied to restrict the scope of an assertion or to show a definition
4. *Method conditionals (METHs)* dealing with methodological procedures
5. *Rhetorical conditionals (RCs)* containing an absurd apodosis to emphasize the protasis is false or giving the audience the sense that the speaker is simply making an assertion
6. *Concessive conditionals (CONs)* expressing a meaning of concession
7. *Directive conditionals (DCs)* used to mark or shift a topic or to to provide a suggestion

(in the protasis) concerning an action that should be taken on the part of the message receiver

8. *Speech act conditionals: Politeness conditionals (SCPs)* applied to express politeness
9. *Speech act conditionals: Relevance conditionals (SCRs)* used to indicate the circumstances under which the message in the apodosis is relevant or to provide a suggestion (in the apodosis) concerning an action that can be taken on the part of the message receiver
10. *Metalinguistic conditionals (MCs)* adopted to comment on wording
11. *Non-committal conditionals (NCs)* used to distance the speaker from the presented claim or argument

Importantly, the selected framework (Puente-Castelo, 2017) manages ambiguities concerning Ferguson's (2001) and Carter-Thomas and Rowley-Jolivet's (2008) first two types (course of events/factuals and hypothetical/refocusing conditionals) and provides detailed categories fitting various aspects of if-constructions. For instance, Sweetser's (1990) ECs include both hypothetical conditionals and if-constructions used to discuss definitions or meanings (Montkhongtham, 2017). However, Puente-Castelo (2017) separates these two concepts into the categories of hypothesizing conditionals and scope-restricting conditionals, respectively.

The discussed linguistic device offers facts that could be viewed from different perspectives (Warchal, 2010), which fits the unique circumstances caused by COVID-19. Additionally, the device is widely used not only in medical discourse but also in other contexts, which is appropriate for the analysis of coronavirus discourse dealing with not only medical messages but also other aspects including economics and emotion.

In terms of grammatical patterns within the structure of if-conditionals, the verb string of each if-conditional can be examined in terms of tense and aspect, sentential modality, and voice. Radden and Dirven (2007) discuss tense and aspect elaborating on the following groups: (1) simple tenses (present, past, and future), (2) complex tenses with anterior times (present perfect, past perfect, and future perfect), and (3) complex tenses with posterior times (present prospective, past prospective, and future prospective).

Apart from the dissimilarities among the tenses associated with if-conditionals in different contexts, writers can choose various types of sentential modality to form if-conditionals for different meanings. Modality allows speakers to discuss aspects relating to circumstances which may not be real (Portner, 2009). Various linguistic devices (e.g. nouns, verbs, modals, adjectives, and adverbs) can be selected to depict modality (Portner, 2009; Yang et al., 2015). Portner (2009) demonstrates that modality can be divided into (1) epistemic modality (EM), (2) priority modality (PM), and (3) dynamic modality (DM).

EM concerns the speaker's judgement which relates to the degree of possibility of the event (e.g. *Warmer weather and increasing vaccinations will possibly lead to more business reopenings*) whereas PM deals with goal-oriented modals, subdivided into (2.1) deontic PM, (2.2) bouletic PM, and (2.3) teleological PM. While deontic PM concerns social obligation (e.g. *They should keep social-distancing guidelines in place to curb the spread of the virus*), bouletic PM involves

one's desire (e.g. *He thinks the government should cancel the coronavirus restrictions and let them go out for entertainment*) As for teleological PM, one's goal is prioritized (e.g. the statement "*You should exercise every day*" implying that the goal of being strong is more important than the action itself).

Unlike the first two main types of modality, DM relates to potential changes of environment. It is subcategorized into (3.1) volitional dynamic modality (VDM) and (3.2) quantificational dynamic modality (QDM). VDM is further classified into (3.1.1) ability VDM, (3.1.2) opportunity VDM, and (3.1.3) dispositional VDM whereas QDM is subdivided into (3.2.1) existential QDM, and (3.2.2) universal QDM.

Ability VDM indicates one's ability whereas opportunity VDM emphasizes potentiality, and dispositional VDM relates to someone's character. Next, QDM emphasizes universal or existential quantification. While universal QDM expresses meanings which concern *all* in a particular category (e.g. *Everyone in the province will be affected*), existential QDM involves merely *some* (e.g. *Some people in the province will be affected*).

Finally, besides tense and aspect and modality, voice is another grammatical element that can be related to communicative purposes. For example, when scientific writers apply if-conditionals portraying causal relationships with the form of passive voice, the messages are depicted in an objective manner (Montkhongtham, 2017). As for voice analysis, it can be classified into (1) active-direct, (2) passive, (3) antipassives, and (4) inverse, according to Maldonado's (2007) framework of grammatical voice in cognitive grammar.

Research questions

1. What are the types, functions, and grammatical patterns of if-conditionals applied during the studied COVID-19 pandemic period?
2. How do the types and grammatical patterns of if-conditionals used during the studied pandemic period relate to the COVID-19 situation in terms of meaning?

METHODOLOGY

Materials and data collection

Data were manually collected from a coronavirus corpus released in May 2020. The corpus was developed by Professor of Linguistics Mark Davies, who designed widely-used corpora including the Corpus of Contemporary American English (COCA). At the beginning of August 2020, the Coronavirus Corpus was approximately 496 million words in size and continued to grow by 3-4 million words each day. It was compiled from online magazines and newspapers in 20 different English-speaking countries. Besides frequency of words, nearby words and the patterns in which a word is used can be examined with the corpus. According to Davies (2020), the corpus is "designed to be the definitive record of the social, cultural, and economic impact of the coronavirus (COVID-19) in 2020 and beyond."

The researcher looked for the word *if* in the corpus (n = 529155) and randomly selected if-conditionals starting from the date 11 March 2020 when WHO declared COVID-19 a pandemic (n = 567). Statements containing *if* which did not indicate conditional meanings (e.g. the meaning of whether) were excluded. A total of 495 if-conditionals were analyzed in this study. The analysis was based on Puente-Castelo's (2017) framework of if-conditional typology.

After the data were collected, the 495 if-conditionals were divided according to the framework of Puente-Castelo (2017), which was chosen as it covered the details of the if-constructions in the material in terms of function.

Data analysis

The if-conditionals extracted from the coronavirus corpus were categorized based on Puente-Castelo's (2017) suggested framework, the eleven groups of which are elaborated on in the literature review sections, and some categorized samples are illustrated in Table 1.

Table 1

Samples of the eleven types of if-conditionals found in the Coronavirus Corpus (2020)

Conditional Types	***Characteristics***	***Samples from the Coronavirus Corpus***
Known fact conditionals (KFCs)	*Expressing commonly accepted facts*	*…you are at heightened risk **if** you are within six feet of an infected person for 10 minutes or more*
Hypothesizing conditionals (HCs)	*Indicating "the likelihood of an apodosis holding, given a protasis" (Puente-Castelo, 2017, p. 102)*	*The reality is that **if** the community doesn't go out of their way to support small businesses like these, then people will lose their jobs*
Scope-restricting conditionals (SRCs)	*Restricting the scope of an assertion or showing a definition*	*The government's actions -- such as trying to force people into isolation or impose quarantine -- would be more likely found constitutional **if** it focuses on isolating individuals or groups who have tested positive or which it has good reason to suspect are exposed to coronavirus*
Method conditionals (METHs)	*Concerning methodological procedures*	*Children in this study were classified as having clinical SARS **if** they satisfied the following diagnostic criteria…*
Rhetorical conditionals (RCs)	*(1) Containing an absurd apodosis to emphasize the protasis is false OR (2) giving the audience the sense that the speaker is simply making an assertion*	*(1) None (2) **If** you keep the schools open you're only ensuring that 100% of hospital staff won't be enough, sick or otherwise.*

Concessive conditionals (CONs)	*Showing a meaning of concession*	*The point is it can still be spread **even if** you don't know.*
Directive conditionals (DCs)	*(1) Marking or shifting a topic OR (2) providing a suggestion (in the protasis) concerning an action that should be taken on the part of the message receiver*	*(1) **If** you look at the curves of outbreaks historically that are similar to this, the curve looks like this and then it goes up exponentially.* *(2) **If** we prevent ourselves from becoming sick by mostly staying home, we can keep others healthy, too.*
Speech act conditionals: Politeness conditionals (SCPs)	*Expressing politeness*	*This weekend, **if** you can, stay home.*
Speech act conditionals: Relevance conditionals (SCRs)	*Showing the circumstances under which the message in the apodosis is relevant OR providing a suggestion (in the apodosis) concerning an action that can be taken on the part of the message receiver*	***If** you are elderly, or have a compromised immune system, the Centers for Disease Control and Prevention recommends that you don't travel, particularly on cruise ships.*
Metalinguistic conditionals (MCs)	*Commenting on wording*	*The challenge of the virus "is one of the most significant, **if** not the most significant" issues the industry has ever faced, he said.*
Non-commitment conditionals (NCs)	*Distancing the speaker from the presented claim or argument*	*Schools are free to close sooner **if** they want.*

The if-conditionals in the COVID-19 context are fairly straightforward and possible overlaps could be judged or decided on very clearly from the contexts. Following the categorization step, all the verb strings of each if-conditional were examined to see whether grammatical aspects correlate with the way meanings are created. Radden and Dirven's (2007) categorization of tense and aspect, Maldonado's (2007) framework of grammatical voice in cognitive grammar, and Portner's (2009) framework of sentential modality were applied for analysis.

RESULTS AND DISCUSSION

1. The types and functions of the if-conditionals in the Coronavirus Corpus

As shown, the extracted if-conditionals in the Coronavirus Corpus (2020) can be divided into 11 categories (Table 1). The percentage and number of each type used in the corpus texts are presented in Figure 1. The if-conditionals most commonly used were SCRs, accounting for 34.48% (n = 171). This was followed by SRCs, at 21.57% (n = 107). Next, HCs and RCs were very

close in frequency of use, contributing 12.9% (n = 64) and 12.5% (n = 62), respectively. Ranked fifth in the corpus was CONs, making up 5.44% (n = 27) of all the if-conditionals.

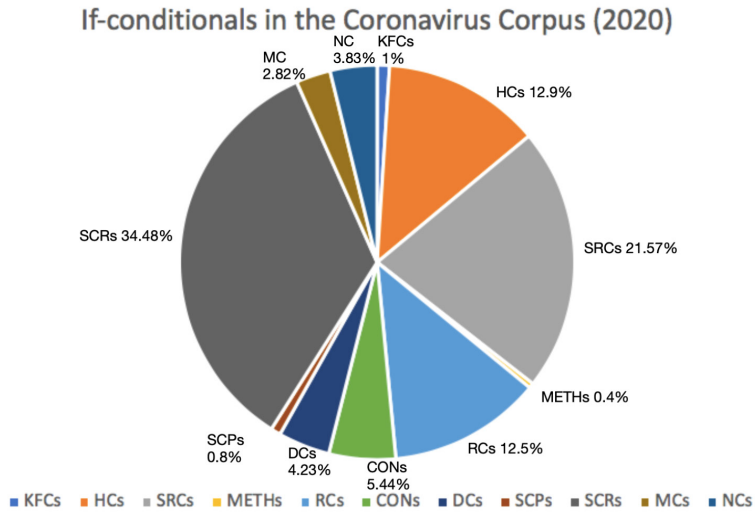

Figure1 The numbers and percentages of all types of if-conditionals applied in the Coronavirus Corpus (2020)

The results reflect the functions correlating with the meanings emphasized in the new coronavirus-related context. The details concerning the types of if-conditionals used in the corpus are provided below.

The first ranked: Speech act conditionals: Relevance conditionals (SCRs)

Since people require specific guidance during the pandemic period, the function of SCRs fits the context appropriately. Typically, the speaker states a particular situation in the protasis and provides a suggestion concerning what action should be taken in the apodosis. For example, the following if-conditionals taken from the corpus focus on the steps that should be followed.

(c) ***If*** you are near people, try to keep your distance by staying within six feet or more from others.
(d) Stay home ***if*** you're sick.

In (c) and (d), particular circumstances are mentioned in the protases (being near people and being sick), and practical steps are provided in the apodoses (trying to keep distance and staying home). This pattern is appropriate for communication during the pandemic period when message receivers need to know what they should do in particular circumstances. Most importantly, if-conditionals can "perform an interpersonal function" encouraging a better reception for the arguments (Puente-Castelo, 2017, p. 225). Message receivers may not feel that they are forced to believe what is said but are provided a chance to consider the proposed option.

Furthermore, SCRs were also applied to discuss situations under which the message in the apodosis is relevant. (e.g. "***If*** *a course cannot be taught online, instructors will reach out to students with other options*" ensuring that educational aspects are not overlooked and that the instructors will choose appropriate teaching mediums). Besides affirmative statements, sometimes, people expressed a relevant question in the apodosis (e.g. "*Will I lose money* ***if*** *I cancel my flight?*" used to acquire the necessary information for consumers and "*What should residents do* ***if*** *they suspect they have the virus?*" to acquire knowledge on the steps that people must follow). If-conditionals can be used as one type of hedge building the speaker-audience relationship (Warchal, 2010). Putting a specific situation in the protasis before asking a question relating to the situation may help to make the question less blunt and to mitigate any emotional effects caused by a more direct question, such as "*Will I lose money for a cancelled flight?*" or "*What should residents who suspect they have the virus do?*" If-constructions can give a more indirect sense as the word *if* implies that what is being said may not happen and that the speaker simply requires information in case it does. In the pandemic period, should we need hedges for questions and suggestions, if-conditionals are one effective choice.

The second ranked: Scope-restricting conditionals (SRCs)

The second most commonly used if-conditionals were SRCs applied for restricting the scope of an assertion or providing a definition. This indicates the need of people to understand particular scopes concerning different circumstances during the pandemic. A number of SRCs were adopted to explain or define circumstances while many other SRCs were used for pointing out issues relating to management and rules. Let us take a look at the following examples of SRCs from the corpus, which specify particular aspects for the discussed concept.

(e) it is a challenge ***if*** *you are a doctor wanting to get somebody tested.*
(f) But since the virus is now spreading through American communities, it is harder to say who should stay home -- for instance, ***if*** *they were at a school, conference or event that someone with COVID-19 also attended.*
(g) The first exception allows colleges to disclose students' personal information without their consent ***if*** *that information is necessary to protect the health and safety of others.*
(h) ***If*** *kids spread COVID-19, then it stands to reason that where they go and whom they spend time with will have important implications for the spread of COVID-19.*

To demonstrate what the challenge means, the if-construction in (e) was used to specify that this is the scope of doctors' experience. The if-construction in (f) provides examples of circumstances that make it difficult to determine who should be quarantined. In (g), the SRC pattern was applied to specify a condition that makes the information disclosure possible, and in (h), the if-construction focuses on the condition related to the significance of the details of the places and people associated with the children. The next examples are SRCs used for indicating potential problems:

(i) It is a word that, ***if*** *misused, can cause unreasonable fear, or unjustified acceptance that the fight is over, leading to unnecessary suffering and death.*
(j) But the response is less about what the novel coronavirus can do to any one person,

*and more about what **it** can do to a population if it is underestimated.*

*(k) **If** we have 20 people who need assistance, I'm not sure we would have enough of the right things to protect our EMS people…*

*(l) International students said they were in an even more difficult position: **If** they return home it could be to a country in an opposite time zone, which could lead to problems with when online classes will be held and when to turn in coursework.*

The if-construction in (i) was used to restrict the scope of potential problems, showing that this word is not problematic per se but can bring about negative consequences due to misuse. Similarly, the if-construction in (j) was applied to elaborate on a particular scenario as the reason why the issue can be worrying. The if-constructions in both (i) and (j) can help to lessen the weight relating to the claim that people are going to make mistakes but emphasize potential consequences that they should be aware of. As for (k) and (l), the SRCs demonstrate management problems. While the (k) speaker expressed his/her concern about protecting employees, the (l) speaker focused on issues dealing with class management. Using the if-construction, the speakers of (k) and (l) did not appear to blame anyone in particular but to raise people's awareness concerning the issues.

Moreover, as indicated above, COVID-19 circumstances relate to not only medical messages but also other disciplines, such as communicative arts and management. Some other disciplines concern engineering and politics. For instance, SRCs defining technologies (e.g. "*They're machines designed to help patients breathe **if** they're having trouble or can't on their own*" and "*An app to notify users **if** they have been in proximity of an infected patient…*") and indicating beliefs concerning government (e.g. "*The government's actions -- such as trying to force people into isolation or impose quarantine -- would be more likely found constitutional **if** it focuses on isolating individuals or groups who have tested positive or which it has good reason to suspect are exposed to coronavirus*" and "*The less individualized that determination, the more constitutionally questionable, especially **if** it is done... without good reason linking the members of that group, individually, to exposure or risk*") were also applied.

The third-ranked: Hypothesizing conditionals (HCs)

Next, the third most commonly used type was HCs showing "the likelihood of an apodosis holding, given a protasis" (Puente-Castelo, 2017, p. 102). In the corpus, both positive and negative aspects were portrayed through the use of HCs:

*(m) …**if** the coronavirus doesn't last more than a month or two, parks can reopen.*

*(n) **If** there are 1,000 people infected today, in seven to eight weeks there could be 64,000 people infected in the state of Washington **if** we don't somehow slow down this epidemic…*

*(o) And **if** the epidemic gets worse, more extreme emergency measures could be put in place, potentially threatening far more than just one basketball tournament.*

*(p) But **if** that is not improved between March and May, it will bring relatively greater challenges to our sales goals.*

The if-construction in (m) indicates a pragmatic evaluation leading to a positive conclusion which focuses on the possibility of reopening the park. The speaker, however, did not insist reopening was likely but presented the possibility through the if-pattern. According to Warchal (2010), we need to treat new claims as "proposals put forward for evaluation" (p. 141). The if-conditional emphasizes that the same message can be considered from various perspectives, and the claim made by the speaker is one of the possibilities (Warchal, 2010). This can also provide some safety for the speaker in their choice of phrasing since COVID-19-related circumstances may change. The if-construction indicates that the speaker is well aware of the changing environment. The audience is also allowed the freedom to decide whether they will receive the claim considering the provided information in the protasis. Similarly, the other three HCs propose a worse-case scenario without making a commitment and also give specific information in the protasis. HCs in the corpus, such as (n), can be applied to statistical estimates which may influence the audience in accepting the claim. Additionally, as HCs can convey what negative consequences may arise, they can also pave the way for further suggestions.

The fourth-ranked: Rhetorical conditionals (RCs)

The fourth-ranked if-conditional type in the corpus material was RCs through which the message receiver is given the sense that the communicator is simply making an assertion. Some examples include:

(q) …and ***if*** it comes down that I overreacted—or we overreacted—I'm comfortable with that.
(r) Yet ***if*** history is any judge, we can't simply take Donald Trump's word for it.

Although the statements in (q) and (r) indicate that the speakers simply asserted their beliefs, the if-construction could prepare the audience for the topic about to be discussed. Instead of saying something like "I'm comfortable doing whatever I'm doing now," using the if-construction, the speaker showed that he had considered the counterargument concerning overreaction. As for the if-construction in (r), the speaker did not simply state Trump's word cannot be taken as reliable but asked listeners to consider history before reaching a conclusion.

The fifth-ranked: Concessive conditionals (CONs)

Next, the fifth-ranked type was CONs through which "a state of events expressed in the apodosis will take place despite the situation expressed in the protasis being the case" (Warchal, 2010, pp. 145-146). Should we consider the CONs selected from the Coronavirus Corpus, it can be seen that they were used as a linguistic tool assisting the speaker to make a suggestion or assertion. The examples taken from the corpus include:

*(s) First things first: Don't panic. **Even if** you are infected, which is still unlikely, most people make a full recovery and do not get seriously ill.*
*(t) In the end, **even if** the federal government can provide some supplies from the stockpile, it will be up to state and local workers to fight the virus.*
*(u) And **if** you're sick AT ALL, **even if** you don't think it's COVID-19, you should definitely stay home.*

*(v) Yet **even if** you insist it's an overreaction, what's the real harm?*

CONs are not the same as other predictive conditionals because, according to Dancygier and Sweetser (2005), they permit the audience to consider predictions in the space *in spite of* rather than the typical space of causal connections. The if-constructions in (s) and (t) showed the audience that the speaker proposed the claims after considering the possible event stated in the protasis. If the audience were reluctant to accept the claim because of the likelihood of the event mentioned in the protasis, here the speaker reassured that it was not necessary. (s) was used to calm audience fears that they might get infected, using the relevant space *in spite of*, and the adjective *unlikely* was also applied to persuade the listener to remain calm. As for (t), the relevant space *in spite of* was used to raise awareness concerning the significant roles of state and local workers. In short, CONs are useful for communication when people are not certain about the circumstances; they allow communicators to make a proposal, contemplating different scenarios.

In addition, (u) and (v) may function similarly to SCRs being used to give a suggestion relating to the situation stated in the protasis or to post a relevant question. However, despite the similarity, (u) and (v) allow consideration of the messages in the space *in spite of*. The speakers may have chosen the CON pattern to mitigate the confrontation since the messages in both (u) and (v) concern what the listener might think or believe. Using the *even if* construction, the speaker did not assert that the listener was thinking or believing so, while offering a suggestion or raising a question persuading the listener to reconsider the disadvantages.

The sixth-ranked: Directive conditionals (DCs)

Furthermore, the number of CONs in the corpus was almost equal to that of DCs, at 4.23% (n = 21) of all the if-conditionals. DCs found in the corpus comprised DCs which mark or shift a topic and those which give advice in the protasis. Some examples from the corpus are provided below:

*(w) **If** you look at the curves of outbreaks historically that are similar to this, the curve looks like this and then it goes up exponentially.*
*(x) …**if** you just leave it alone and let the virus to its own devices, it'll go way up and come down naturally over a period of several weeks…*

The if-construction in (w) prepared the audience for the topic about to be discussed. When visual elements are also used, speakers need to notify message receivers when the visual channel should be looked at. According to Carter-Thomas and Rowley-Jolivet (2008) discussing how doctors apply if-conditionals, this linguistic device can provide an appropriately polite directive.

As for (x), the speaker provided a suggestion concerning action on the part of the message receiver. Despite indicating the outcome caused by the realization of the event in the protasis, (x) is unlike HCs, as it focuses on the suggestion proposed in the protasis, which is different from HCs highlighting causal relationships. Using the if-construction, the speaker proposed a

suggestion that people should not intervene in the COVID-19 circumstances. Puente-Castelo (2017) states that DCs allow speakers to present a recommendation as one option for the audience to evaluate.

The seventh-ranked: Non-commitment conditionals (NCs)

Another interesting type adopted in the Coronavirus Corpus was NCs, 3.83% (n = 19). As circumstances related to COVID-19 keep changing and involve people finding themselves in various situations, NCs allow speakers to avoid commitments or to guard themselves from criticism.

> *(z) Other preventive activities might include wiping down the handle on your grocery cart **if** that is available, wash your hands when you get home.*
> *(a1) These are difficult circumstances not just for football but in the whole society so we have to do what we're told and get on with the game **if** that's what the authorities think…*

(z) and (a1) illustrate the distance created between the speaker and the claim. In other words, these claims are "presented but not asserted" (Puente Castelo, 2017, p. 106). (z) exemplifies the speaker encouraging the addressees to clean the handle of a grocery cart before using it and the speaker can avoid criticism from anyone who considers it as impractical action or from anyone who experiences difficulties doing so, by saying *if* the cleaning item is available. The other example, (a1), deals with the situation when sports events were affected by the spread of the new coronavirus. The speaker proposed a way to look at the situation saying *if that's what the authorities think*, which implied that the concept did not require him being responsible for it.

The eighth-ranked: Metalinguistic conditionals (MCs)

In addition, sometimes speakers are not certain about the word choices they use to describe circumstances relating to COVID-19. MCs, are, therefore, one pattern that can be applied to comment on particular terms. To illustrate, in the statement "*But the numbers, examined more granularly, reinforce what has seemed increasingly clear in recent years: that while many **if** not most colleges will be "fine" in the coming years, there is a set of institutions -- be it a tenth, a quarter or more -- that faces serious, **if** not existential, financial challenges*," the speaker uses the *if*-construction ("many *if* not most" and "serious *if* not existential") to comment on possible meanings and degrees. In the Coronavirus Corpus, MCs include comments on quantity (e.g. "most *if* not all'' and ''rarely *if* ever''. However, commenting on one's word choices is not typically done. MCs accounted for only 2.82% (n = 14) of all the if-conditionals in the material.

The ninth-ranked: Known fact conditionals (KFCs)

Moreover, although an understanding of COVID-19 involves the application of science and facts, during the period when it was announced a pandemic, the world did not seem to fully comprehend the new disease and the circumstances surrounding it. KFCs expressing commonly

accepted facts, thus, were not commonly picked as communicative choices. However, despite the scarcity—1% of all the if-conditionals (n = 5)—some were used for clear reasoning (e.g. "*it's impossible to collect blood serum from survivors* ***if*** *public health officials don't know who's been infected*") and confirmed information (e.g. "*People over 60 are at higher risk* ***if*** *they contract COVID-19, the highly contagious respiratory disease caused by the new coronavirus*").

The tenth and eleventh ranked: Speech act conditionals: Politeness conditionals (SCPs) and Method conditionals (METHs)

Other if-conditional types rarely discovered in the corpus were SCPs and METHs contributing 0.8% and 0.4% to the overall if-conditionals (n = 4 and 2), respectively. As for SCPs expressing politeness, the message in their apodosis is "conditional on obtaining the receiver's permission" (Warchal, 2010, p. 144) (e.g. *if I may be quite frank with you and if I may say so*) (Quirk et al., 1985, as cited in Puente-Castelo, 2017; Warchal, 2010). They seem to be used in interpersonal conversations showing the speaker's confidence about the message and their care for the listener's feelings. Nevertheless, in the Coronavirus Corpus, SCPs are expressed with an imperative form (e.g. "***If*** *possible, cough or sneeze into a disposable tissue and discard" and "This weekend,* ***if*** *you can, stay home*"). The protases *if possible* and *if you can* were addressed directly to the message receiver together with the form of imperatives and, thus, suggested a polite request for cooperation. The if-conditional could lessen the weight of the instruction. In other words, using SCPs, the speaker may be able to present what needs to be practiced while not going against anyone's belief in freedom. Finally, only 2 METHs were found in the research material. This could be explained by the fact that METHs are typically used to elaborate on the methods of a research study, whereas the Coronavirus Corpus does not focus on research texts but communication in general.

Communicative functions of if-conditionals in different contexts

The results suggest that if-conditionals provide communicative functions that communicators can choose for their particular context. The predominant use of SCRs, as discussed above, corresponds to the need to provide specific steps or suggestions to deal with COVID-19 circumstances. In contrast, the type most commonly used in scientific texts during the nineteenth and twentieth centuries was HCs, followed by KFCs (Puente-Castelo, 2017). However, according to Puente-Castelo (2017), despite being most commonly used, the numbers of HCs and KFCs decreased significantly in between the nineteenth and twentieth centuries whereas the numbers of SRCs and CONs rose, and that of SCRs remained constant.

The considerable drop in usage of KFCs during the nineteenth and twentieth centuries probably shows that the science community may have started to treat knowledge less as *known facts* or established concepts but as assumptions or theories based on evidence which needs to be constantly tested, especially when circumstances change. This is consistent with the small number of KFCs discovered in the present study. Since COVID-19 situations are mostly unpredictable or can change anytime, the if-constructions during this period are not typically treated as KFCs.

The rise of SRCs—increasing "fivefold from 29.92 uses per million words in the eighteenth

century to 162.22 in the nineteenth century" (Puente-Castelo, 2017, p. 176) indicated that people began to need specific scopes when dealing with science, possibly because technology and changing circumstances led to a number of new concepts people were not familiar with. This corresponds with the number of SRCs found in the present study. SRCs were the second popular choice during the studied pandemic period. Since COVID-19 relates to a lot of enigmatic events and various assumptions, people need scope in order to understand specific ideas and different phenomena.

2. The grammatical aspects of the if-conditionals in the Coronavirus Corpus

The grammatical aspects of the if-conditionals were examined in terms of tense and aspect, sentential modality, and voice. The details of the top three grammatical elements used in the protases and apodoses of the five if-conditional types most commonly used in the Coronavirus Corpus are presented in Table 2.

Table 2

The top three grammatical elements used in the protases and apodoses of the five if-conditional types most commonly used in the Coronavirus Corpus

	Tense and Aspect (protasis)	*Tense and Aspect (apodosis)*	*Sentential Modality*	*Voice (protasis)*	*Voice (apodosis)*
SCRs 1	***present simple 81.55%***	***present simple 75.1%***	***deontic PM 61.99%***	***active direct 87.98%***	***active direct 92.12%***
SCRs 2	*present prospective 6.87%*	*future simple 15.77%*	*teleological PM 24.56%*	*passive 12.02%*	*passive 7.88%*
SCRs 3	*past simple 6.44%*	*present prospective 3.32%*	*epistemic modality 4.68%*	-	-
SRCs 1	***present simple 81.82%***	***present simple 65.79%***	***deontic PM 42.06%***	***active direct 85.6%***	***active direct 93.42%***
SRCs 2	*present prospective 9.09%*	*future simple 14.47%*	*epistemic modality 19.63%*	*passive 14.39%*	*passive 6.58%*
SRCs 3	*present perfect 5.3%*	*past simple 9.21%*	*existential QDM 14.95%*	-	-
HCs 1	***present simple 75.95%***	***present simple 57.5%***	***epistemic modality 59.38%***	***active direct 92.4%***	***active direct 90%***
HCs 2	*past simple 18.99%*	*future simple 35%*	*opportunity VDM 14.06%*	*passive 7.59%*	*passive 10%*
HCs 3	*present prospective 2.53%*	*future continuous 5%*	*existential QDM / universal QDM 9.38% each*	-	-
RCs 1	***present simple 67.53%***	***present simple 59.57%***	***deontic PM 25.8%***	***active direct 90.9%***	***active direct 95.74%***

RCs 2	*past simple 16.88%*	*past simple 6.38%*	*epistemic modality 25.8%*	*passive 9.09%*	*passive 4.26%*
RCs 3	*future simple 2.6%*	*present continuous 5.32%*	*dispositional VDM 14.5%*	-	-
CONs 1	***present simple 81.08%***	***present simple 65.71%***	***deontic PM 40.74%***	***active direct 86.49%***	***active direct 85.71%***
CONs 2	*present continuous 8.11%*	*future simple 25.71%*	*epistemic modality 18.52%*	*passive 13.51%*	*passive 14.29%*
CONs 3	*future simple / past simple 5.41% each*	*present perfect 8.57%*	*opportunity VDM 14.81%*	-	-

Tense and aspect

As illustrated in Table 2, present simple ranked first in terms of the tense and aspect of all the verb strings of all the five types most commonly used in the corpus. This can be explained by the relevance of COVID-19 in the present. For example, when the speaker talks about a specific situation and provides a piece of advice, present simple is used in both the protasis and the apodosis of an SCR (e.g. "*Cancel* or *move* events *if* you'*re* the organizer*"* and *"If* you *begin* to show symptoms such as fever, cough, or difficulty breathing*, contact* your healthcare provider"). Sometimes present prospective was chosen to portray the sense of being in progress or something temporary that could be improved (e.g. "*if* you're *feeling* ill, especially with something contagious, it's always better to stay home and take care of yourself").

Moreover, it is interesting to see the modal *will* in the apodosis of many SCRs. Typically, people may think of other modals, such as *should, can, could,* and *might* when offering suggestions. However, COVID-19 situations relate to immediate and serious actions that need to be taken, so the use of *will* also seems appropriate (e.g. "*if* A or B happens, that's what we'*ll* have to do" and "Even patients with a mild case *will* need places to self-isolate *if* they live with others who have not yet been infected"). This can be one reason why the use of future simple ranked second in SCR apodoses.

Furthermore, the tense choices of KFCs related to COVID-19 differed from those of the factuals found in Carter-Thomas and Rowley-Jolivet's (2008) study. While KFCs in the present material deal with the ongoing pandemic situation described with present simple and 'be going to,' the 2008 material contained research articles in which most factuals were described with past simple in both the protases and apodoses (e.g. "The dose of paclitaxel *was reduced* by 20% *if* the patient *had* Grade 4 neutropenia that lasted >5 days," which deals with the research methodology and would be categorized as a METH in the present study).

In the present corpus, it was found that past simple was also selected when the speaker discussed past events relating to the present actions or concepts (e.g. "*If* we find that there *was* misconduct in the workplace, we will take appropriate corrective action," an SCR suggesting

what will be done after someone misbehaved, and "But since the virus is now spreading through American communities, it is harder to say who should stay home -- for instance, *if* they *were* at a school, conference or event that someone with COVID-19 also *attended*," an SRC providing examples of past events that may cause difficulties for a present decision). However, in the cases of HCs, past simple used in the protasis was typically associated with hypothetical situations and epistemic modality (e.g. "*if* they *were* to contract it, they might spread it to someone who could be severely affected by it, or even die" and "*If* it *were* to be a severe event, we would need 3.5 billion N95 respirator masks"). Many speakers used past tense in the protasis of an HC for statistical estimates (e.g. "For instance, *if* there *were* 400 deaths in Seattle by early April, a 25 percent reduction in social interaction could bring those deaths down to 160").

Sentential modality

In terms of modality portrayed in the five types of if-conditionals most commonly found in the corpus material, deontic priority modality was the most commonly expressed except for HCs, among which epistemic modality dominated. Deontic modality concerns social obligation (Evans & Green, 2006; Portner, 2009), a significant topic during the COVID-19 pandemic; therefore, its dominance among if-conditionals used during the studied pandemic period seems to correspond with social needs. According to Portner (2009), priority modality (PM) concerns the portrayal of something that is more significant than the action. Besides deontic PM, teleological PM deals with the means necessary or possible to achieve a particular goal.

The difference between deontic PM and teleological PM is that while deontic PM depicts social responsibilities or something that must or should be done for the sake of others or the wellbeing of society, teleological PM does not concern that level of obligation. For example, consider the difference among the following if-conditionals in terms of sentential modality.

*(b1) …**if** you care about someone in a nursing home, the last thing you want is to endanger that person.*
*(c1) …**if** educational services are provided to any students, then they need to be provided to all students equitably.*
*(d1) **If** you want to rebook, be sure to check the price of the new flight first.*
*(e1) **If** the customer chooses not to use the credit, they will receive a cash refund at the end of that 12 month period.*

While (b1), (c1), and (e1) portray deontic PM, (d1) demonstrates teleological PM. (b1) was said to warn people against visiting loved ones and subsequently causing them to be infected, and in (c1) the speaker emphasizes social obligation regarding education and equality. On the contrary, (d1) is connected to the finance-related goal of a customer. However, finance-related goals depict not only teleological PM but also deontic PM in case it portrays social responsibility, such as the case of (e1) through which the airline communicates their social obligation to offer a refund despite their difficulties during the COVID-19 pandemic.

Deontic PM portrayed through if-conditionals, or SCRs in particular, can be helpful for

management, to show customers or students why a particular action is required (e.g. "*they will need to complete certain forms **if** they are deemed to be at risk of carrying the COVID-19 virus"* and *"**If** a student or employee in Hillsborough meets any of these three conditions, they must complete a "Return to School Report"…*"). Furthermore, another interesting aspect concerning modality portrayed in if-conditionals during the COVID-19 pandemic is that a statement typically showing teleological PM turns out to depict deontic PM in the studied pandemic period. For example, "***If** you're sick, stay home and call your doctor*" not only concerns the wellness of the sick person but also emphasizes social cooperation relating to stopping the spread of the virus. Additionally, sometimes epistemic modality can be expressed in an SCR (e.g. "*What percent of what would be needed by medical professionals **if** we were to have a full-blown pandemic?*" Which was expressed to ask a relevant question regarding percentage estimation).

In the corpus, epistemic modality was typically associated with HCs dealing with assumptions or hypothesis regarding the causal relationship between the events stated in the protasis and the apodosis or concerning the speaker's evaluation of potentiality based on his judgement of the reality (Sweetser, 1990; Evans & Green, 2006; Radden & Dirven, 2007; Portner, 2009). HCs relating to statistical estimates typically portray epistemic modality as in, for instance, "***If** there are 1,000 people infected today, in seven to eight weeks there could be 64,000 people infected in the state of Washington…*" Some HCs depict opportunity volitional dynamic modality (opportunity VDM) concerning the intrinsic nature of somebody or something which has the chance to be realized depending on the circumstances. To illustrate, "*You could be at risk of having COVID-19 **if** you've recently traveled to…*" demonstrates the chance a person can be infected when travelling to affected areas. Opportunity VDM was also expressed in other types of if-conditionals (e.g. "*But the response is less about what the novel coronavirus can do to any one person and more about what it can do to a population **if** it is underestimated,*" an SRC underlining the negative potential of the virus that can be triggered by human action).

Although messages concerning COVID-19 circumstances generally relate to public health, dispositional volitional dynamic modality (dispositional VDM), showing the likelihood of what will be based on the character of a particular person (Portner, 2009), was also discovered in some if-conditionals in the material. For instance, when an if-conditional concerns a public figure, such as the president of the United States as in, "*Yet **if** history is any judge, we can't simply take Donald Trump's word for it*," an RC depicting the character of Donald Trump in particular. This type of modality was third most commonly expressed among RCs, if-conditionals used for assertion, as shown in Table 2.

Moreover, as previously mentioned, only a minority of the if-conditionals during the COVID-19 pandemic were KFCs. Since not many statements were widely accepted as known facts, universal quantificational dynamic modality was portrayed in not many if-conditionals. Quantificational dynamic modality (QDM) concerns existential or universal quantification over individuals (Portner, 2009). While universal QDM relates to *all* or *everyone* (e.g. "*you are at heightened risk **if** you are within six feet of an infected person for 10 minutes or more*," a KFC showing a risk for everyone), existential QDM relates to merely some cases (e.g. "*Whatever you call it, the current crisis has caught many **if** not most of the world's governments, policymakers,*

economists and investors by surprise," an MC depicting a situation relating to some parts of the world but not universally).

Voice

In terms of voice, the majority of the if-conditional verb strings were composed with active voice, accounting for 90.67% (n = 1,195) of all the verb strings (n = 1,318), whereas passive voice contributed 9.33% (n = 123). There were not any fixed patterns found; however, passive voice expressed in some if-conditionals concerns unpredictable circumstances or eliminating particular agents supposed to be responsible for the action (e.g. "*If* they *are suspected of* carrying coronavirus, the doctors on the base will send samples to a testing facility at…" showing no suspectors but highlighting the action of being suspected and "You may be eligible for a refund *if* your flight *was cancelled*…" focusing on unpredictable cancellation not in anyone's control). Additionally, no passive voice was expressed in SCPs focusing on politely asking the audience to perform a particular action. In short, both active and passive voice can be chosen; the choice probably depends on whether the speaker would like to not include the agents.

The findings support the claim that if-conditionals are a hedging device facilitating interpersonal communication and convincing others to accept one's argument or assertion by showing respect and offering relevant evidence or information and allowing the freedom for message receivers to evaluate the conclusion (Ferguson, 2001; Carter-Thomas and Rowley-Jolivet, 2008; Puente-Castelo & Monaco, 2013; Warchal, 2010). Using if-conditionals to provide necessary information during the pandemic period corresponds to Mukhtar's (2020) suggestion that to deal with people's anxieties and fears at this time, it is important to give appropriate guidelines. Moreover, implying that conclusions depend on possible options and alternative circumstances, if-conditionals can effectively convey tentative messages in accordance with the uncertain circumstances related to COVID-19.

The discussed benefits of this linguistic device are consistent with the findings of Okuhara, Okada, and Kiuchi's (2020) study analyzing the persuasive message type to encourage people to stay home during the COVID-19 pandemic and social lockdown in Japan. Okuhara et al. (2020) discovered that a physician's message significantly enhanced people's intention to self-quarantine. The physician's message related to specific information depicting critical circumstances (i.e. hospitals being overwhelmed) and indicated causal relationships between such situations and the risk that people would not be able to receive treatment. The physician's technique of providing relevant premises and allowing message receivers to evaluate the causal relationships, which is similar to a characteristic of if-conditionals, seems to be an effective communicative strategy during the crisis.

CONCLUSION

During the COVID-19 pandemic, effective communication is vital for recommending practical steps for people to follow and for lessening potential psychological harm. If-conditionals can be one linguistic tool helping communicators clearly specify scope or provide the audience

particular information in order to build a speaker-audience relationship and to not make the audience feel they are obliged to receive the message. In the studied pandemic period, the functions of types of the if-conditionals most commonly used correspond to the significant messages people probably need. SCRs, the most popular choice, were used for clarifying what steps should be taken for particular circumstances, while SRCs, the second-ranked type, were applied to show specific scopes and elaborate on meanings. The third-ranked choice or HCs were used for expressing the possibilities of causal relationships between the events in the protasis and apodosis. Other choices included RCs, CONs, DCs, NCs, MCs, KFCs, SCPs, and METHs, which were chosen based on whether their function corresponded with the message.

In terms of the grammatical aspects chosen for the if-conditionals, the top choice of each category indicates the correlation with the COVID-19 situations. Present simple was the most popular choice among all the verb strings, emphasizing the relevance of COVID-19 to the present. Deontic PM relating to social obligation, was the most commonly expressed among most if-conditional types. Moreover, speakers were more likely to choose active voice over passive except for when they needed to omit the agents (e.g. those who should be responsible for an uncontrollable situation). In short, grammar is not just a set of forms but an aid in conveying messages in accordance with the if-conditional communicative functions.

Further research could explore the if-conditionals applied during a different time of the pandemic period, probably after the world has learned more about COVID-19 and adapted to living with the pandemic, while a vaccine remains as yet unavailable, or even after the virus has lessened greatly in severity to study any similarities or differences in terms of language use, and may include a greater number of if-conditionals for further analysis. Moreover, more corpus-driven approaches could be attempted in further studies. Corpus techniques of keyword extraction or concordance analysis could be applied to explore the keywords, collocation, and connotation to further discuss the findings. Another possible research idea is to analyze aspects concerning the agents or speakers. Linguists might explore whether the speaker's role affects the outcome. In addition, particular grammatical aspects (e.g. modality) applied in if-conditionals could be explored more specifically. The information in the present study can be useful for those seeking linguistic devices for effective communication and for language instructors developing material for communication classrooms.

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