# Lars Trap-Jensen/Henrik Lorentzen

# RECENT NEOLOGISMS PROVOKED BY COVID-19 – IN THE DANISH LANGUAGE AND IN THE DANISH DICTIONARY

**Abstract** Inspired by GWLN 3, we take a look at the new words, meanings, and expressions that have been created during or promoted by the COVID-19 pandemic. The pandemic provides a rare opportunity to follow the rise, spread, and integration of words and expressions in a language that may serve as an illustration of how linguistic innovation in general works. Relevant words were selected from various lists, notably monthly and annual lists of prominent words attested in the corpus of The Danish Dictionary. Analysis of these lists gives an insight into the number of words that stand out month by month and what kinds of words are involved, both in terms of morphological type and of semantic category, with special attention given to neologisms. Finally, we discuss the criteria for selecting which words to include in the dictionary. With this study, Danish is added to the list of languages covered in the GWLN series on COVID-19 neologisms.

Keywords COVID-19; detecting neologisms; corpus-based; temporal dimension; The Danish Dictionary

## 1. Background: dictionary and corpus

The Danish Dictionary is a descriptive dictionary that uses its own corpus as the primary source of new lemmas. The dictionary was first published in six printed volumes 2003-2005 and later converted into an internet dictionary. Since 2009, it has been available at the site https://ordnet.dk, with all subsequent additions and revisions being published online only. No new printed edition is foreseen. The publisher is the Society for Danish Language and Literature, an independent research and editing institution sponsored in part by the Danish Ministry of Culture, in part by private foundations.

As a descriptive dictionary, The Danish Dictionary developed its own corpus resources in the 1990s and has continued to collect text material since then. As of 2022, this means that we have a monitor corpus with texts from c. 1983 onwards, containing 1.1 billion words and growing every month so that the editors can monitor linguistic development over time (https://korpus.dsl.dk/documentation). One way of doing this is looking at lists of frequent and prominent words in a particular month or a particular year, a feature that was implemented into the corpus querying tool (CoREST, developed in-house) and has been available to the editors from 2016.<sup>1</sup>

# 2. Methodology: detecting COVID-19 neologisms

To find COVID-19 relevant words, we browsed through the monthly and annual lists of prominent and frequent words from March 2020 until January 2022 and extracted potential

Frequent and prominent words are extracted by comparing texts from a particular period (a month or a year) with a reference corpus (all texts), using the measure Mutual Information. Subsequently, different filters are applied to the annual lists to yield widely used (high-frequency range) and prominent (lower frequency range) words respectively. Both the annual and monthly lists use a lower cut-off point to eliminate nonce occurrences.

neologisms and other COVID-19 related words. The resulting list of candidates then served as input to further (manual) queries in the corpus – obvious examples being compounds and derivations with *COVID* and *corona*. In addition to this, we used various other word lists available to the editors via the corpus query tool: suggestions from the dictionary's users (a database of more than 30,000 posts), the editors' observations, word lists generated by individuals or public institutions (notably the Danish Language Council), etc.

All in all, the corpus material and the word lists collected in this way include an inventory of approx. 900 COVID-19 related words.

It must be borne in mind, among other things, that not all words related to COVID-19 are neologisms and, conversely, not all neologisms are about COVID-19. The two sets partially overlap, and the inventory of the intersection set is not easy (or even possible) to delimit with precision. First, the inventory is probably too short as we have undoubtedly overlooked relevant words in the process, not least because the low-frequency words below a certain threshold were excluded from the monthly list (useful for editors in search for good lemma candidates, less fortunate for this particular task). Second, the inventory is probably too long because there is no objective way of telling what makes a word COVID-19 related. Is an expression like video meeting COVID-19 related? Probably yes, as the pandemic has boosted the use of both the concept and the expression enormously. On the other hand, no it isn't, as both existed before the lockdown of March and April 2020 and could, in principle, end up on the list for different reasons. One should also be careful about what is meant by the term neologism. In this context, we use it to include words and expressions that at a certain point in time could not be substantiated earlier, as well as pre-existing words and expressions that have gained new meaning or new or increased use (following Agazzi 2015, p. 7).2 For practical reasons, a cut-off point of 30 years is used in The Danish Dictionary (somewhat arbitrarily, cf. Trap-Jensen 2020), and words younger than this are regarded as neologisms. Even this definition is not entirely without its problems. For a word to be counted as a neologism, it must be part of the language, and that in turn requires some degree of integration into the language that separates it from nonce occurrences.

However, we still think it is worthwhile using and analysing the list of candidates – with the reservation that the list is neither authoritative nor exhaustive.

#### 3. COVID-19 relatedness

To decide if a word is related to COVID-19 is no easy task – for obvious reasons: the pandemic caused an all-embracing crisis which had at its centre the coronavirus and the COVID-19 disease itself but with far-reaching implications for almost all aspects of society: legislation, economy, politics, business, leisure, education, etc. Of course, this is reflected in the words we use to talk about these topics. The resulting lockdown sent people home to an entirely new virtual experience with Zoom meetings, online classrooms, and regular televised press conferences. New legislation was introduced to regulate social life and compensate shops, bars, and other businesses that suffered from the lockdown.

We mention this simply to stress how complicated it is to judge whether a word is COVID-19 relevant by just looking at it in isolation. It requires world knowledge to tell that words like

Our English translation of the Swedish original: "dels ord och uttryck som vid en viss tidpunkt inte kunnat beläggas tidigare, dels redan existerande 'äldre' ord och uttryck som fått ny användning eller ny betydelse eller ökad användning."

afspritning ('cleaning with alcohol gel'), omsætningsfald ('turnover decline'), and forsamlingsforbud ('ban on public gatherings') are COVID-19 related through the chain of measures that were taken following the health recommendations and political actions. It also implies that COVID-19 related words cannot be extracted automatically by a computer – even two humans may not come up with the same result if asked to select relevant words from a list.

# 4. The temporal dimension: monthly lists

In themselves, the lists of "words of the month" are interesting to study (cf. Salazar/Wild 2021). The sheer number of words that appears on a monthly list tells a story of its own. Each word is there because it is either (a) a new word of a certain frequency, or (b) an established word that is used with above-normal frequency for that month. In other words, an uneventful month will result in a list with fewer words than a more eventful one, and vice versa.<sup>3</sup> With that in mind, it is significant that the lists for the first two months of the pandemic in Denmark, March and April 2020, stand out as displaying by far the highest number of words: where the average number of words for a month during the period considered here (March 2020 until January 2022) is 51, March shows 185 and April 174.

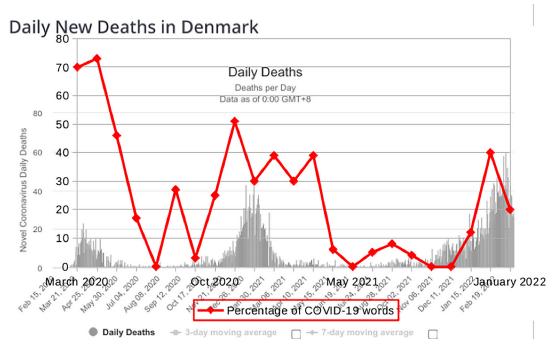


Fig. 1: The percentage of COVID-19 relevant words on monthly lists compared with COVID-19 deaths as provided by Johns Hopkins (https://www.worldometers.info/coronavirus/country/denmark/)

Moreover, the proportion of words that are COVID-19 relevant is also the highest in the period: 70 and 73 per cent respectively (bearing in mind the somewhat subjective nature of judging relevance).

<sup>&</sup>lt;sup>3</sup> Apart from the COVID-19 words, other significant events can also be traced: the Tokyo Olympics in July and August 2021 with words like *medaljehåb* ('medal hope'), *holdforfølgelsesløb* ('team pursuit') and *skeetskytte* ('skeet shooter'), and the local elections in Denmark November 2021 promoting *borgmesterpost* ('mayor's office'), *spidskandidat* ('front runner') and *vælgerlussing* ('electoral defeat').

For what it is worth, the quantitative peaks of the monthly lists coincide neatly with the pattern of the pandemic itself as demonstrated in Figure 1. Here we have used the proportion of COVID-19 relevant words but the picture remains unchanged even if absolute numbers are used.

If we zoom in to take a closer look at the contents of the lists, we can follow the development of the pandemic. In March and April 2020 the top of the lists reflects the societal crisis with lockdown, pressure on hospitals etc. through words like: respirator ('ventilator'), værnemiddel ('personal protective equipment, PPE'), smittekæde ('infection chain'); hjemme-karantæne ('home quarantine'), fjernundervisning ('distance teaching'); hamstre ('stockpile'), toiletpapir ('toilet paper'), hjælpepakke ('aid package'), likviditet ('liquidity, cashflow'). The highest scoring of the 185 words on the list for March 2020 are shown in Figure 2.





Fig. 2: Words of the month: most frequent from March 2020 (English translations right)

The picture changes gradually in May 2020 when the most prominent word was *genåbning* ('reopening'). Corona words are still frequent, but now also in compounds like *coronapause*, reminding us that the lockdown is temporary and that a slow return to more normal conditions is beginning. Throughout June and July 2020, COVID-19 related words are not particularly salient in the lists, only to return to the news media again in October and November when a virus variant was detected first in mink and shortly after in humans. Fearing a resurgence of the pandemic the Danish government decided to order all the country's mink culled and buried, a decision that caused a lot of public debate as the legal basis of the decision was not in place. As a consequence, words related to the mink industry dominate the monthly lists, and words more narrowly connected with COVID-19 return (e.g. *mutere* 'mutate' and *mutation*) as well as words related to the development of vaccines, e.g. *coronavac*-

cine, vaccinedosis, vaccinationsplan, vaccinationscenter. During this second wave of the epidemic in Denmark, new words were introduced: lyntest ('immediate test'), hurtigtest ('speedy test'), kviktest ('quick test'), coronapas ('corona pass'), and the general feeling of 2020 as a special year marked by COVID-19 is expressed by words like coronaår ('corona year'), annus horribilis and coronatræthed ('corona fatigue'). After a long and relatively strict lockdown in the first months of 2021, the virus returned in December and could be observed in the monthly lists through words such as omikron, omikronvariant, boosterstik ('booster shot'), revaccination, and a change in official testing policy towards fewer PCR tests can be observed in the occurrence of the words and concept of hjemmetest ('home test') and selvtest ('self-test').

## 5. Lexical types of COVID-19 words and neologisms

If we look at the total amount of words from all the lists available, they may be divided into different general groups based on the linguistic type or their status in relation to the pandemic.

#### 5.1 New coinages

First, we have genuinely new coinages that have never been used in the language before; most obvious is the term *COVID-19* itself (named by WHO in February 2020), but also *coronatest, coronaprøve* ('corona test'). The terms *corona* and *coronavirus* had existed in specialised language before 2020, but entered and dominated the general language, and they were included alongside *COVID-19* in the dictionary updates of June and November 2020. Another example of this came with the vaccines, i. e. the word *coronapas* ('corona pass'), which did not exist until 2021, and it was included in the dictionary update of June this year together with *vaccinepas* ('vaccine pass'), a word that was attested first in 2014 but was boosted immensely in the recent two years.

# 5.2 Pre-existing 'pandemic' words

Second, we have seen pre-existing words revive and spread from a dormant state, e.g. words that were used in connection with previous pandemics: *selvisolering* ('self-isolation'), *hjem-mekarantæne* ('home quarantine'), and *pandemisk* ('pandemic', adjective). Several words of this type were included in the updates of 2020.

# **5.3** Specialised words

Third, a large number of words that otherwise belong to specialist domains like virology and medicine, have extended their use into the common language as these have become the subject of our news feeds and everyday discussions, e.g. asymptomatisk ('asymptomatic'), samfundssmitte ('community spread'), flokimmunitet ('herd immunity'), PCR-test, and superspreder ('super spreader'). We have added around 30 words of this type, including also terms that are slightly less connected to specialised language but have nevertheless become common in everyday language during the different phases of the pandemic. Examples of this are podepind ('swab'), boostervaccine, smittetal ('infection rate'), testkit, udrulning ('roll-out' of vaccines). It can be argued that a general-language dictionary is not obliged to cover spe-

cialist language, but the boundaries between those domains are not fixed, and the corona crisis is an excellent example of a situation where the general public all of a sudden need information about specialist subjects.

### 5.4 Words related to the crisis in general

A fourth group consists of words related to the corona crisis in a broader sense. Some of them pertain to the society being locked down, e.g. *videomøde* ('video meeting'), *forsigtighedsprincip* ('precautionary principle'), and *rejserestriktion* ('travel restriction'). Another group of new words is promoted by the political life and all the political measures and appearances we have witnessed. Prominent new words that found their way into the dictionary from this group include *doorstep* ('short press conference') and *hastelov* ('law passed in a hurry'). The word *landsmoder* ('mother of the country') is quite notable in a Danish context. It can be attested sporadically over the last decades, but it goes sky-high in 2020 and later, the obvious reason being the dominant role and position of Danish Prime Minister Mette Frederiksen, who has become very popular – and also widely criticised during all of the corona crisis. A third group of general crisis words that have been added to the dictionary shows that the crisis is also of an economic nature: *helikopterpenge* ('helicopter money', distributed to boost consumer spending), *forsyningsproblem* ('supply problem').

# 6. COVID-19 words in the dictionary

The pandemic has generated far more neologisms than are reflected in the dictionary. Most likely, many of the new words will not stay in the language after the crisis. Highly professional words will again be confined to the professional domains and return to their dormant state in the general language. Nevertheless, it is interesting to watch how easily these words spread into everyday language when the need arises. Likewise, the wealth of nonce and slang words on the lists pay testimony to the way we cope with the COVID-19 crisis: krammerat, a blend of kramme 'hug' and kammerat 'friend, buddy', maskne, a blend of maske '(face) mask' and akne 'acne', and corontæne, a blend of corona and karantæne 'quarantine', are in all likelihood not going to stay very long in the language, and the same is true of the large number of corona compounds created over the last two years: coronahår ('corona hair' that you develop because hairdressers are closed), coronakilo ('corona kilo', referring to weight gain due to a lack of exercise when working from home) and coronaturist ('corona tourist' referring to city dwellers that flee to the countryside in an attempt to avoid the virus). They are probably just momentary occasionalisms that will be forgotten again after the crisis but they are important to note as evidence of how humour can be used as a strategy to deal with the crisis. But it does not mean that they should be included in a dictionary of the common language.

Until now, we have added 81 COVID-19 related entries to The Danish Dictionary. The editors try to assess the long-term durability of candidate words, a task that is not easy when you witness history in the making. As swift decisions must be made, it follows that some of the entries are exempted from the period of three years that under normal circumstances is used as a qualifying period before a neologism is included.

#### 7. Discussion and conclusions

There are several lessons to learn from the account of COVID-19 related words: We saw that the tumultuous events of March and April 2020 produced an unusually high number of words, new words, or words used with above-normal frequency. We may interpret this as a sign of language's ability to adapt quickly to new circumstances: we use or create the vocabulary that is necessary to cope with and communicate about the new situation in which we suddenly find ourselves. It is also reasonable to see the high percentage of COVID-19 related words as an expression of the all-embracing nature of the pandemic as experienced in the period.

We have not checked each word on the inventory (mentioned in section 2) separately to find the first recorded instance, but a qualified guess is that at most 10 per cent of the words are neologisms in the strict sense,<sup>4</sup> and even among these, the first recorded instance is likely to refer to events before the pandemic. But what is more striking, is how fast we adapt and become familiar with the technical vocabulary of immunology, social medicine, and neighbouring disciplines. One of the true neologisms on the list, *mandagsvirolog* ('Monday virologist'), is itself a nice – and witty – example of this inclination. It was created in analogy with the existing concept of *mandagstræner* ('Monday coach'), referring to football supporters who know everything their favourite team should have done – the day after they played. During the pandemic, we have all become experts in medicine and confidently drop words like *antigentest*, *incidensrate* ('incidence rate'), *komorbiditet* ('comorbidity'), and *kontakttal* ('reproduction rate, R rate'), words that most of us probably never had heard before the pandemic.

That is a reminder that to the individual it does not matter if a word has been used in a special field before. If he or she hears the word for the first time, it is as much a neologism to them as the true neologisms that nobody has heard before.

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By this definition and with the cut-off point of 30 years mentioned earlier, only 14 of the COVID-19 related words included in the dictionary are true neologisms: boostervaccine, coronapas, coronaprøve ('corona test'), covid-19, flokimmunitet ('herd immunity'), helikopterpenge ('helicopter money'), onlineundervisning ('online teaching'), PCR-test, solnedgangsklausul ('sunset clause'), stofmundbind ('cloth facemask'), superspreder ('super spreader'), testkit, vaccinationspas, vaccinepas.

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#### **Contact information**

#### Lars Trap-Jensen

Society for Danish Language and Literature ltj@dsl.dk

#### Henrik Lorentzen

Society for Danish Language and Literature hl@dsl.dk