

A Sociolinguistic Approach to Linguistic Changes since the COVID-19 Pandemic Outbreak

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Article Info	Abstract
<p>Article History</p> <p>Received: August 25, 2020</p> <p>Accepted: September 27, 2020</p> <hr/> <p>Keywords COVID-19, Word formation, Neologism, coronavirus, Social Media, Twitter</p> <p>DOI: 10.5281/zenodo.4262696</p>	<p><i>With the current outbreak of COVID-19, our everyday lifestyle has changed thoroughly. Not only had the economy, industry and health services witnessed major alterations, but even our ways of communication. This can be found in the linguistic changes that have occurred to the English language since the pandemic started. The main phenomenon witnessed is the appearance of new terms and expressions, which are analyzed and discussed in this paper. The main aim is to identify these developments, followed by their classification using Krishnamurthy's framework of Neologism (2010). The dataset consists of over 3 million tweets collected between January and May, 2020, which is analyzed both qualitatively and quantitatively. The results show that these changes functioned as tools of coping with the major changes that happened to people's lifestyles globally, and that social media has a significant impact on its spreading.</i></p>

1. Introduction

At the present time, the pandemic outbreak of the novel coronavirus (COVID-19) has changed the fabric of society worldwide, through social distancing measures, travel bans, self-quarantine and business closures. Since people are forced out of public places, much conversation about these phenomena is found on social media platforms like Twitter.

As language is considered to have a dynamic potential rather than being static, the coronavirus has led to an explosion of new words, phrases, and expressions, both in English and other languages. This phenomenon is defined as neologism, and is most likely to be the result of the opening up of new areas of art, science or technology. In this case, a global crisis caused such changes. Language, therefore, merely functions as a bridge, incorporating interpersonal and social phenomena that transport information from one generation to another.

There are two questions worth asking: why are new coronavirus-inspired terms coined in the first place? And why have these terms found purchase in our lives so quickly? This research aims to monitor and analyze the linguistic changes that occurred since the outbreak of COVID-19, mainly focusing on the new vocabulary created and its use in social media. The dataset consists of about 3 million tweets collected between January and May, 2020 through Twitter API. The results are discussed using Krishnamurthy's theoretical framework of neologism (2010).

2-Literature Review

Recently, a new coronavirus disease has emerged as a respiratory infection with significant concern for global public health hazards. The COVID-19 outbreak was declared a Public Health Emergency of International Concern by the WHO on 30 January 2020, being a pandemic affecting many countries globally. As of June 2020, about 6.5 million cases have been diagnosed with COVID-19 all over the world, with a death toll of over 380,000 people (WHO, 2020).

Aside from the economical and health-care sectors, communication also witnessed a remarkable development, merely in terms of different linguistic aspects. Since language is a dynamic concept, it is influenced by a set of variables and factors, resulting in the creation of new words and expressions, as well as shifts in the usage and meaning of typically sociological, psychological or even medical terms, such as *social distancing* and *incubation*. This is accompanied by a growth in vocabulary, as common people tend to be able to distinguish between *epidemic* and *pandemic*, or *quarantine* and *isolation*.

Language incorporates interpersonal and social phenomena that transfer information from one generation to another. Being a blend of ideas and thoughts, it automatically generates and coins new words to accomplish the needs of conversational situations. In this manner, the public is taking ownership of the developing 'national conversations' and coming up with its own set of colorful and creative expressions to fill the gaps in the official narrative, creatively reflecting their own experiences of life under lockdown.

Additionally, as social distancing measures has led to the cancellation of events and conferences, closure of schools and colleges, and has forced many businesses to require their employees to work from home, more and more social interactions move online. The conversation around COVID-19 has continued to expand with growing numbers turning to social media for both information and company. Platforms such as Twitter have become central to the technological and social infrastructure that allows us to stay connected even during crises (Chen and Lerman, 2020).

The most remarkable phenomenon is the appearance of new vocabulary, also known as neologism. According to Jansen (2005), neologism is a linguistic category that signifies the components of language modification. Such expressions are often the result of the opening up of new areas of art, science, or technology, as is the case with the field of computer science (user-friendly, software, floppy disk). Crystal (2001) adds the notion that neologism forms the foundation of new lexical items which become acceptable within a particular speech community at a specific time.

According to Ben Zimmer (2020), brand new circumstances necessitate a brand new vocabulary to talk about it. Whenever there is a momentous event, there needs to be an influx of new terms as people try to find new ways of expressing themselves. Paton (2020) mentioned that it was a rare experience for lexicographers to observe an exponential rise in usage of a single word in a very short period of time, and for that word to come overwhelmingly to dominate the global discourse, even to the exclusion of most other topics. Many medical terms, words and phrases associated with the COVID-19 are come across on a daily basis, through which is has grown to be a dominating global discourse.

3-Methodology

Working with Twitter as the base platform and source of data, the dataset consists of a collection of over 3 million randomly selected tweets gathered between January, 02 and May, 15, 2020 through Twitter's search API, in addition to a set of manually selected tweets. The tweets to be considered should include the hashtag #covid19, #coronavirus, or #covid-19, or the term *coronavirus* itself. The data is further analyzed manually, leaving out any non-English posts or ones that are of no relevance.

The results are discussed in light of Krishnamurthy's theoretical framework of neologism (2010). This process is based on three aspects, namely word formation, borrowing, and lexical deviation. Word formation is the process used in language for the creation of new words, whereas lexical deviation involves the addition of affixes to already existing words. Borrowing, on the other hand, takes place whenever a word or phrase is taken from one language and is used in another (Longman, 2010).

4-Results and Discussion

After performing the quantitative analysis, the following data was obtained. Figure (1) displays the daily rate of COVID-19 mentions, both with and without a hashtag.

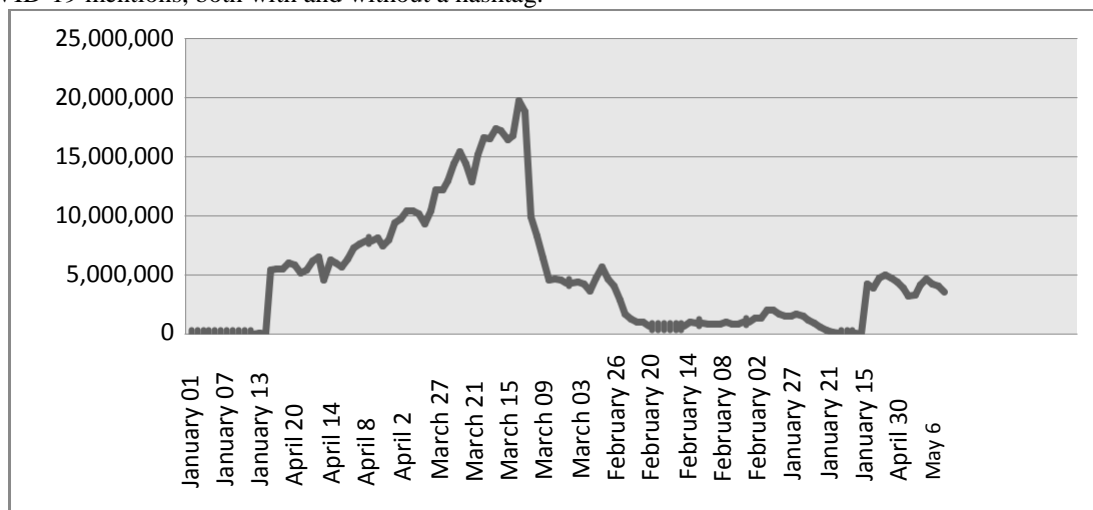


Figure (1): Number of COVID-19 mentions on Twitter between January, 01 and May, 15, 2020.

By measuring the frequency of most repeated terms in tweets that mention COVID-19, a set of trending expressions has been discovered, which occurred either as part of the tweet itself or as a hashtag. These trends could be categorized into three groups: (a) borrowing, (b) word formation, and (c) lexical deviation. The last two sections often contain some form of wordplay (puns, nicknames, clichés), shown in Tables (1-3). Any terms

that are mentioned less than a 1000 times are left out, after which the top 10 trending expressions have been selected for each category.

Table (1): Borrowed COVID-19 expressions and their usage.

	Trending Term	Frequency	Usage and example
1.	Clinical trials	114,647	<p>Clinical trials are research investigations in which people volunteer to test new treatments, interventions or tests as a means to prevent, detect, treat, or manage various diseases or medical conditions.</p> <p><i>"First COVID-19 vaccine to undergo clinical trial in China found to be safe & able to generate an immune response against coronavirus in humans, based on the results of a preliminary trial."</i></p>
2.	Contact tracing	26,159	<p>In public health, contact tracing is the process of identification of persons who may have come into contact with an infected person and subsequent collection of further information about these contacts.</p> <p><i>"NHS contact tracing system not expected to be fully operating until September. Really, you gotta laugh. What a bunch of clowns."</i></p>
3.	Contagious	34,816	<p>A contagious disease is one that spreads from one person or organism to another, typically by direct contact.</p> <p><i>"This is a highly contagious disease! Contracting it may not kill you, but you could infect and kill other more vulnerable people. Selfish!! #StayHomeSaveLives"</i></p>
4.	Epidemic	144,208	<p>An epidemic is a situation where a disease spreads rapidly</p> <p><i>"Lesson- don't gamble with people's lives. Go with trusted core public health principles of epidemic control. Move early & lockdown not needed or is short."</i></p>
5.	Immunity	92,003	<p>The immune system protects the body against disease or other potentially damaging foreign bodies.</p> <p><i>"Early results from Moderna's vaccine trial suggest the vaccine has the potential to give people immunity against covid-19. But we can't draw conclusions from a Phase I trial, with data from only eight participants so far."</i></p>
6.	Pandemic	1,066,513	<p>A pandemic is an epidemic that has become a worldwide phenomenon.</p> <p><i>"still trying to make sense of the fact that we don't have enough face shields for hospitals dealing with a pandemic but we do have enough for police?? make it make sense"</i></p>
7.	Quarantine	785,961	<p>A quarantine is a restriction on the movement of people and goods which is intended to prevent the spread of disease or pests.</p> <p><i>"Mom says I can't come out and play because I'm still in quarantine. #BurrowingOwls"</i></p>
8.	Self-isolation	122,563	<p>Self-isolation is when one stays at home because they have or might have the coronavirus, as this helps stop the virus spreading to other people.</p>

			<i>"Looking at the news and wondering if putting ourselves into self-isolation for the next twenty years isn't such a bad idea."</i>
9.	Social distancing	287,422	In public health, social distancing, also called "physical distancing," means keeping space between yourself and other people outside of your home. <i>"Thousands of Americans, like my mom, were unable to attend the funerals of friends who died from COVID-19 out of respect for social distancing guidelines."</i>
10.	Vaccine	427,554	A vaccine is a biological preparation that provides active acquired immunity to a particular infectious disease. <i>"There is no medicine, no vaccine for the pandemic but CARDIO and RESPIRATORY physical therapy techniques hvgd results in even critical patients where medicine and ventilators can't work."</i>

Table (1) presents the ten most frequently occurring terms which have been borrowed either from another language or from a jargon. These words seemed to be used properly by common people, as they became more aware of the distinction between such technical terms, as *isolation* and *quarantine*, or *epidemic* and *pandemic*. This is not a new phenomenon in language development, as such cases were observed earlier with the outbreak of SARS in 2002 and the Swine-Flu in 2009 (Chew and Eysenbach, 2010).

Table (2): Clipped COVID-19 expressions and their usage.

	Trending Term	Frequency	Usage and example
1.	Coronacation	7,523	Corona + vacation A coronacation is a cessation of study or work due to the social distancing measures of the pandemic, viewed as a holiday. <i>"Day 77 of social distancing: unofficial last day of school for the boys. We have enjoyed school time together. It was far more pleasant than we expected in March when #coronacation began."</i>
2.	Covexit	6,368	COVID + exit A covexit is a strategy to escape the lockdown. <i>"I can't wait to COVEXIT the Rona lockdown!!"</i>
3.	Covidient	13,904	COVID + obedient A covidient is a person who follows the public health guidelines to limit the spreads of COVID-19. <i>"Be a Covidient, follow the rules, stay in & stay safe! Sending love to all Covidients out in there!"</i>
4.	Covidiot	85,724	COVID + idiot A covidiot is a person who behaves irresponsibly in conditions of containment. <i>"BREAKING Police break up huge London street party as of 100s of covidiots ignore lockdown #Brent"</i>
5.	Covidivorce	62,010	COVID + divorce Covidivorce is a way of explaining that a relationship has strained due to sustained and close quarters during the lockdown. <i>"How many couple now spending seven days a week together will discover they're not really compatible, and end in CoviDivorce?"</i>
6.	Morona	10,026	Moron + corona The state of a person behaving stupidly because of or during the coronavirus outbreak

			<i>"I am searching for suitable land to build a detention center for the RSS guys as I feel Morona is more dangerous than Corona"</i>
7.	Pandumbic	4,881	<p>Pandemic + dumb</p> <p>A covedient is a person who follows the public health guidelines to limit the spreads of COVID-19.</p> <p><i>"Couldn't possibly have predicted that! If only they had real facts & data to help make an educated decision.#Pandumbic"</i></p>
8.	Quaranteens, coronials, coronababies	12,717	<p>Quarantine + teenagers</p> <p>Corona + millennials</p> <p>Coronials or Coronababies are the babies conceived during the corona outbreak, growing up to become Quaranteens</p> <p><i>"So will all the babies born 9 months after these quarantines be called coronababies? #coronapocolypse"</i></p> <p><i>"According to three tests today, my wife's pregnant.....they WARNED us this would happen, America! #quaranteens"</i></p>
9.	Quaranteams	3,615	<p>Quarantine + teams</p> <p>Quaranteams are online gaming teams created during lockdown.</p> <p><i>"if we're all gonna form Quaranteams, we need Quaranteam names"</i></p>
10.	Trumpdemic	2,251	<p>Trump + pandemic</p> <p>Criticizing Trumps late decision-making concerning the COVID-19 outbreak, many users blame Trump for the spread of pandemic in the US.</p> <p><i>"When was the last time you talked about the #trumpdemic? 115,000 dead Americans and now you just ignore it? That's not going to get you re-elected. I promise you that."</i></p>

As shown in Table (2), language users have been creative in forming new words to describe new situations. The term *COVID-19* assigned by the WHO to this novel form of coronavirus is, in itself, a case of word formation, namely a clipped compound: *CO* is a clipping of *corona*, *VI* of *virus* and *D* of *disease*. The *19* identifies the year the outbreak began.

Table (3): Novel COVID-19 expressions through lexical deviation.

	Trending Term	Frequency	Usage and example
1.	Cornteen	8,541	<p>As quarantine sounds rather serious, millennials have created the term corn-teen which seems less threatening, being originated as a misspelling.</p> <p><i>"My household was exposed to someone who tested positive for covid-19 & we've been cornteen & y'all still want me to go out with y'all talking bout "but you're not sick" #jeeez #covidiot"</i></p>
2.	Corona break	6,221	<p>Similar to a coronacation, a corona break is a cessation of study or work due to the social distancing measures of the pandemic, viewed as a holiday.</p> <p><i>"After this corona break, I'm taking a whole month off kitchen duties."</i></p>
3.	Corona cuts	94,873	<p>Corona-cuts is used to describe the urge or act of cutting one's own hair due to the closure of hair salons, or the act of taking on the role of a hair dresser for family members during quarantine.</p> <p><i>"New clippers - new haircuts. We both still look a</i></p>

			<i>bit rough around the edges. #Coronacuts"</i>
4.	Covid-19 (lbs)	25,764	This is a humorous expression used to describe the extra body weight gained during quarantine. <i>"Has anyone else gained the Covid 19 lbs staying at home doing nothing all day every day for the last 2 months!?"</i>
5.	Doom scrolling	42,181	It is the inability to peel one's eyes away from phones and computers, constantly refreshing our news feed for the latest posts about the pandemic. <i>"So, when you finally force yourself to accomplish something after hours of doom scrolling, remember that you're actually doing a revolutionary act."</i>
6.	Elbow Bump	19,577	The elbow bump is an informal greeting where two people touch elbows. Interest in this greeting was renewed during the COVID-19 outbreak. <i>"Something that I'm finding very strange at the moment is not shaking hands with people. I don't like the new "elbow bump" at all. I like to shake peoples' hands and it seems strange not to do it."</i>
7.	Kung Flu	58,321	This term was initially used by an unnamed White House official to refer to the deadly coronavirus as the "Kung-Flu". Being intended as a mere joke, it was heavily criticized for several reasons. <i>"Trump tried to stoke hate against Asians saying Wuhan Virus, Chinese Virus, and Kung Flu."</i>
8.	Miley Cyrus	2,859	The name of the pop-artist has been used as a Cockney rhyming slang expression to replace the coronavirus. <i>"After much debate with qualified academics (i.e. my mates in the pub) it has been decided that the correct Cockney rhyming slang for Corona Virus is Miley Cyrus."</i>
9.	Miss Rona	81,682	Miss Rona is a personification of the virus as a villain who does not play around. <i>"A lot of things wouldn't have happened this year if miss rona wasn't around"</i>
10.	Quarantine and Chill	102,358	As a variation of the expression Netflix and Chill, families who are quarantined together are doing a lot of leisure activities together. This phrase is used to make it sound more like a choice and less like a government mandate. <i>"On today's episode of quarantine and chill...I cleaned all of my shoes Athletic shoes"</i>

Table (3) includes the novel expressions that were the result of lexical deviation, and mostly include some form of word play. The latter two categories identified were mostly found in common discourse rather than in tweets from official healthcare organizations and institutes or medical and scientific conferences. Social media and blogs played a vital role in the adoption of new words and expressions. In his widely cited article on linguistic creativity, Ronald Carter (1999) states that verbal play is often undertaken for humorous purposes, serving in part to bring people closer together, as well as challenging the "normal" view of things. He goes on to argue that inventive language is not just ornamental, but practical.

5-Conclusion

In a mere three months, coronavirus has fundamentally changed our ways of living. It has closed businesses and transformed our working patterns. This new vocabulary has come to be a utilitarian shorthand for talking about coronavirus-related issues – from the impact the virus has had on our working lives, to the influence of the lockdown measures – or even just a way to poke fun and laugh at the world around us. The outpouring of metaphors, neologisms and lexical innovations we have seen in the past few months points to the fact that linguistic creativity is a key part of language, reshaping our ways of engaging with the world.

This new vocabulary also helps people articulate their worries about the biggest health crisis we have seen in generations. It brings people together around a set of collective cultural reference points – a kind of lexical “social glue”. In the absence of the regular social contact, shared talk is an important part of helping people feel connected to one another.

Perhaps one of the biggest factors in the spread of coronavirus terminology is the fact that we are more digitally connected than before. Instant access social media is now an integral part of our. The scale of our online connections means that there are now far more opportunities for individuals to coin a new term and share it beyond their immediate local communities.

In times of significant social or civic change, linguistic creativity not only reflects the major preoccupations of the time, but also shows how people gather to talk about new challenges and contexts. As coronavirus rages on, understanding the language surrounding it will be ever more important.

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