



***Language and Cognitive Sciences Research Institute***

***JOURNAL OF YOUNG SCIENTISTS – JY'S***

***VOLUME 5***

**Proceedings**

**of the 5<sup>th</sup> International Scientific Conference**

**Structure / Function Interface**

***Language and Cognitive Sciences Research Institute***

***Multi-Modality Discourse Studies Center***

**LaCoSRI - 2021**

Structure / function, or form / meaning, interface has been transcending cutting edge research and discussions in such varied fields as linguistics, neuroscience, social sciences, computer sciences and information technologies for several decades. The proceedings below present a selection of discussions and research findings in linguistics, language acquisition, discourse studies, media studies and computer science.

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# The Language of Science

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The paper analyzes scientific language through media discourse, discussing grammatical, lexical, visual and audio features of on-line scientific and academic conferences.

It also identifies the metaphors used in the scientific discourse.

The research states that due to the spread of on-line communications, the scientific discourse is becoming increasingly informal.

**Scientific discourse** is the combination of processes and methods used to communicate and debate scientific information. Discourse focuses on how to arrive at and how to present scientific ideas and thoughts, taking into account a diverse range of audiences.

Communication in scientific discourse refers to both written and spoken communication and often involves methods of reasoning, as well as vocabularies used to present information, conclusions and ideas. Due to the specialized nature of scientific information, discourse in science constantly evolves to account for the variation of potential understanding, as well as the objectives intended among various audiences.

What is **media discourse**? Media discourse refers to interactions that take place through a broadcast platform, whether spoken or written, in which the discourse is oriented to a non-present reader, listener or viewer. Though the discourse is oriented towards these recipients, they very often cannot make instant responses to the producer(s) of the discourse, though increasingly this is changing with the advent of new media technology. Crucially, the written or spoken discourse itself is oriented to the readership or listening/viewing audience, respectively. In other words, media discourse is a public, manufactured, on-record, form of interaction. They are crucial to the investigation, description and understanding of media discourse. Because media discourse is manufactured, we need to consider how this has been done – both in a literal sense of what goes into its making and at an ideological level. The fact that media discourse is on record makes it attractive for discourse analysts and increasingly so because of the online availability of newspapers, radio stations, television programs and so on.

Even though **webinars** are short online presentations, they impact the teachers and learners more. Technology has brought drastic changes to various fields in this modern era. With the scientists' new inventions, life of humans has become so comfortable and more convenient. Due to the availability of the internet, there are remarkable changes in communication and people send and receive messages, files, audio-video clippings, etc. using their mobile devices. These activities have made impossible things possible with the new inventions and have changed the world for the better.

The participants of a webinar can participate in it just by sitting at home or office and they can also clarify their doubts regarding the subject or topic of the webinar.

To conduct a scientific conference or webinar online, we need to include 7 essential *Elements of a Webinar - A live event; Online attendees; Interaction and participation; Streamed video of a speaker; Slides; Audio; Webinar software.*

### **Language in scientific publications and webinars**

Like scientific papers, oral presentations at a conference or internal seminar are for sharing your research work with other scientists. They, too, must convince the audience that the research presented is important, valid, and relevant to them. To this end, oral presentations — like papers — must emphasize both the *motivation* for the work and the *outcome* of it, and they must present just enough evidence to establish the validity of this outcome. Also like papers, they must aim to inform, not impress.

In contrast, presentations differ from papers in at least three ways: They are more localized in space and time, they impose a sequence and rhythm on the audience, and they normally include some level of interaction. These three differences affect the selection of a presentation's content.

Unless they are recorded or broadcast, presentations have a more clearly defined audience than papers: They address "the people in the room," here and now. The audience might still be diverse, but less so than for papers. Papers can be forwarded in unpredictable ways and may

be read many years from now, so they should be lasting and largely self-contained. In contrast, presentations can have more specific purposes. For example, a presentation at a conference normally aims to present recent advances, whereas a presentation at a PhD symposium aims to inform other PhD students (in other fields) of one student's line of research.

Whereas papers can be read in any order and at the reader's own pace, presentations impose both the sequence and the rhythm of content on their audience. They are therefore harder to follow and should be much more selective in what they contain. The idea is not to say out loud everything that is already written in the proceedings paper or dissertation. Written documents are for convincing with detailed evidence; oral presentations, on the other hand, are for convincing with delivery — both verbal and nonverbal.

Finally, presentations normally include interaction in the form of questions and answers. This is a great opportunity to provide whatever additional information the audience desires. For fear of omitting something important, most speakers try to say too much in their presentations. A better approach is to be selective in the presentation itself and to allow enough time for questions and answers and, of course, to prepare well by anticipating the questions the audience might have.

As a consequence, and even more strongly than papers, presentations can usefully break the chronology typically used for reporting research. Instead of presenting everything that was done in the order in which it was done, a presentation should focus on getting a main message across in theorem-proof fashion — that is, by stating this message early and then presenting

evidence to support it. Identifying this main message early in the preparation process is the key to being selective in your presentation. For example, when reporting on materials and methods, include only those details you think will help convince the audience of your main message — usually little, and sometimes nothing at all.

In scientific language we have synonymous words with usual and oral communication, for example:

<b>Neutral</b>	<b>scientific</b>	<b>Neutral</b>	<b>scientific</b>
Goal	target	reduce	decrease
Study	research	achieve	accomplish
Results	findings	change	alter, vary
Area	field	examine	evaluate, study

Examples of most *frequently* used:

**Verbs** – Strive; attribute; help; do; be; have; say; get; make; go; know; take; see; come; think; look; want; give; use; find;

**Nouns** – wrangling; culpability; dispute; variability; disruption; person; year; way; day; thing; man; world; life; hand; part; generation; innovation; progress;

**Adjectives** – consistent; fore; cautious; resilient; common; dangerous; good; new; first; last; important; public; urgent; scientific; potential; positive;

**Adverbs** – (Adverbs of degree, place, time, Stance, frequency, certainty, manner adverbs)  
however; often; quite; very; also; not; **Time** – shortly; instantly; simultaneously; recently;  
yesterday; tomorrow; now; later; **Manner** – seriously; urgently; illegally; unintentionally;  
**Certainty** – undoubtedly; undeniably; absolutely; **Adverbs of degree** – totally; extremely;  
completely; **Stance**- truly; naturally; luckily; apparently; **Distancing** – supposedly; apparently;  
surprisingly; **Frequency**- always; usually; normally/generally; often/frequently; occasionally;  
rarely; never; **Place** – here; there; in; between; up; about; away;

**Phrasal Verbs**- Figure out; find out; blow up; call around; count on, end up; get back; give up;  
go against;

**The special scientific terms used (vocabulary)**

**The special scientific terms used (vocabulary):** Bacterium; Contaminant; DNA; Extraction;  
Parasite; Protein; Syndrome; Virus; analysis; Approach; area; aspects; assessment; Authority;  
Data;

**Visual Vocabulary, Visual illustrations/ Representation:**

Constructing meaning from visuals implies that in some way the constructed meaning can be  
"read" by persons who view it. The notion that images can be "read" implies the existence of  
at least a rudimentary visual language made up of vocabulary components.

The study of visual representation has generally fallen into five distinct areas of inquiry:



*Semiotics and film/video conventions; Signs, symbols, and icons; Images and illustration;*

*Multi-image; Graphic representation*

<b>A</b>		
astronomy	astrophysics	atom
<b>B</b>		
beaker	biochemistry	biology
botany	Bunsen burner	burette
<b>C</b>		
cell	chemical	chemistry
climate	climatologist	control
cuvette		



## matter

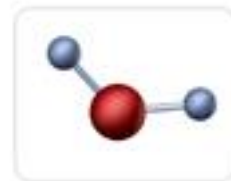
Any substance that has mass, is composed of atoms and occupies space.



atom



neutron



molecule



states of matter



nuclear fission



heat transfer



**Metaphor** is not an easy component of communication, it is like finding a new interpretation of the words we commonly use. Metaphors are not something that we learn easily, we aren't born knowing metaphors: it is like an education that life teaches us. Metaphors end up becoming more concrete and coherent ideas that contain different interpretations. We use metaphors to describe things with feeling, more emphasis or determination.

Types of metaphors:

**Visual; written; verbal**

Visual metaphors:



7 Tips To Use Visual Metaphors In eLearning - By Christopher Pappas; February 2, 2016

<https://elearningindustry.com/7-tips-use-visual-metaphors-in-elearningb>



October 16, 2015; Author username: howcroft27

<https://megusprimus.wordpress.com/2015/10/16/illustration-1-exercise-visual-metaphor/>

*Examples for (verbal and written) Metaphors:*

### ***THE BUTTERFLY EFFECT***

Scientist: Edward Lorenz

Metaphorical Function: The idea that minor changes in original situations result in vastly different outcomes is a valuable metaphor for speculating on the development of various scenarios resulting from the tiniest change in choices. "**The Butterfly Effect**" is not a thing in and of itself. It is just a metaphor for the principle of Chaos Theory.

**Example:** “Does the flap of a butterfly’s wings in Brazil set off a tornado in Texas?”

(What Exactly Is The Butterfly Effect? - By Christopher McFadden;

<https://interestingengineering.com/what-exactly-is-the-butterfly-effect>

Apr 25, 2019

## ***BLACK HOLES***

Scientist: Albert Einstein

Metaphorical Function: The existence of a dense entity from which nothing, not even light, can escape can serve as a helpful, if slashing, metaphor for depression, anxiety, delusion, or other malicious ways of self-absorption.

**Example:** Thousands of people have been plunged into the black hole of unemployment.

(The bright side of black holes - 22 August 2016; Katie Mack)

<https://cosmosmagazine.com/space/the-bright-side-of-black-holes/>

## ***“The Clockwork Universe”***

Scientist: Edward Downtick

An image of the universe as a clock wound up by God and ticking along with its gears governed by the laws of physics. This idea was very important in the Enlightenment, when scientists realized that Newton's laws of motion, including the law of universal gravitation, could

explain the behavior of the solar system. The idea of the *clockwork universe*, many people falsely imagine to have originated with Isaac Newton. In fact, Newton was strongly opposed to the clockwork universe theory: he believed that it was theologically inappropriate, because it ignored God's providential role in sustaining the universe. The metaphor of the universe as a machine was commonly used, back in the 13th century

(The true origin of the clockwork universe metaphor –

<https://www.angelfire.com/linux/vjtorley/feser3.html>

### ***“Gaia hypothesis / Gaia Theory”***

Chemist: James Lovelock

Lovelock named the idea after Gaia, the primordial goddess who personified the Earth in Greek mythology. It posits that Earth and its biological systems behave as a huge single entity. This entity has closely controlled self-regulatory negative feedback loops that keep the conditions on the planet within boundaries that are favorable to life.

**Example: Gaia theory** predicts that the composition of the atmosphere should be tightly regulated by biological processes.

(Geo sapiens; The Earth-Wise Environmental Educator - May 25, 2015; Martin Ogle)

[https://www.youtube.com/watch?v=\\_uK0jSpjvsl](https://www.youtube.com/watch?v=_uK0jSpjvsl)

### ***“Selfish Gene”***

**Example:** Some selfish genetic elements manipulate the genetic transmission process to their own advantage, and so end up being overrepresented in the gametes.

*“Gravity is like a bowling ball sitting on a bed sheet”* - Also brings up the famous Einstein analogy of a bowling ball in a mattress as bending space-time. The analogy, say we put a bowling ball on a mattress and then roll a marble past it. The marble will fall in towards the bowling ball. But what’s causing it to fall in? Gravity!

(“How accurate are scientific metaphors?”, BBC Radio – Word Of Mouth; 21 Jan 2014; the host - Michael Rosen)

<https://www.bbc.co.uk/sounds/play/b03q8z41>

## Cultural Differences in Humor Perception

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Humor is a universal human activity that most people experience many times over the course of a typical day. At the same time, there are important cultural influences on the way humor is used and the situations that are considered appropriate for laughter. Humor is a universal phenomenon, but it also is socially ingrained because it is attached to our nationhood, our views and cultural background. Therefore, in order to be able to understand foreign humor, one has to have a common understanding frame of that particular language and culture.

The research focuses on how culture impacts individual's perception of humor and its usage and why is that what is funny for the representatives of one nationality, may be considered as meaningless or even offensive to others.

Americans may consider Australian humour a bit offensive, as it is dark and often aims at taking 'the micky' out of themselves or a situation. American humour may be considered a bit dull by the Australians: it involves telling jokes about things they consider too safe, too



agreeable: the ones that *everyone* might find funny. The British humour seems to be taken 'the micky' both out of themselves *and* others. This may be considered just a bit too sophisticated for both Australians and Americans. Perhaps the Brits like hinting at the fact that it allows them to show off their intellectual ability and using their famous understatements.

Moreover, in the West being humourous is a desirable, positive trait of an individual: it makes people for example more attractive, more self-aware, and more capable. However, in the East the opposite seems true (possibly a left over from Confucianism). For example, Chinese might reluctantly admit that they are humorous out of fear of jeopardising social status, and that restrictions and seriousness need to be more valued. There seems to be evidence that Westerners hold a positive attitude towards humour, whereas their Eastern counterparts look at it from a different perspective.

When we think about the universality of humour, comedies like Mr. Bean come to mind. Well-loved around the world, Mr. Bean, the title character, is "a child in a grown man's body", constantly causing disruption to the problems he tries to solve. The physical comedy in Mr. Bean is probably the best example of a universal humour that crosses most cultural boundaries.

However, play the buffoon like Mr. Bean in your face-to-face international interactions and you might find yourself in an awkward situation. Acting in an unexpected and silly manner might be a tool commonly used in Britain and America to ease tensions and break the ice but in countries like China and Japan, where humour tends to be reserved, this could be seen as an inability to be serious and might cause confusion. At the same time, when it comes to

Humor in Different Countries, translating a joke from one language to the other is difficult, let alone getting the “feeling” of the joke across.

Differences in word pronunciation can lead to misunderstandings. Imagine two speakers from different cultures, speaking different varieties. One of these speakers pronounces a word in such a way that it sounds like a completely different word in the second speaker’s variety. The likely result? Confusion over what’s being talked about.

A French guest is staying at a fancy hotel in New York City. He calls room service and asks for some “pepper.” On the other end of the line, the concierge asks, “Black pepper or white pepper?” “No,” says the Frenchman, “toilet pepper.”

Similar miscommunications might arise between native speakers who share a language but use different systems of pronunciation.

Even among speakers of the same language, some words may lead to confusion when they (and the things they refer to) are not shared across cultural groups. Coastal varieties of many languages, for instance, have many words relating to fishing, boating, and tides not found among inland varieties. At the same time, inland speakers may have words used in farming, forestry, and hunting not found in coastal varieties. The same can be said about almost any cultural group. There are plenty of differences between the vocabularies of older and younger generations, of African Americans and whites, and of academics and those outside the university. Members of different groups need group-specific words to refer to things, activities, and beliefs that are important to their way of life.

Grammatical differences across varieties, languages, and cultures can also cause confusion. For example, “I spend my evenings at home anymore.” If you’re not from the US Mid-West, and if you are not familiar with their language peculiarities, you are likely to get confused because most of us only use anymore in negative statements, such as “I don’t spend my evenings at home anymore.” But among some English speakers, anymore can be used in positive statements too, where it means something like nowadays or these days. So, “I spend my evenings at home anymore” roughly translates as “I spend my evenings at home nowadays.”

At the other end of the spectrum, are cultures that observe few if any pauses between speaking turns. Among Germans, for instance, and New York Jews, it’s quite common for speakers to interrupt one another or speak at the same time. Within these cultures, interruptions and overlaps are positive features of conversation. They signal enthusiasm, interest, even intimacy. But to many Americans, these conversational strategies come across as rude or aggressive, and as a result, they might regard speakers who use them not as showing interest or enthusiasm, but as being hostile and agonistic. Like interruptions and overlaps, talkativeness can also have different meanings for different cultures.

In Sweden, for instance, people generally value quietness and economy of expression, and they typically regard foreigners from more talkative cultures (such as France and Italy) as rowdy and overbearing. On the other hand, people from more talkative cultures (like France and Italy) may view members from less talkative cultures (like Sweden) as cold and aloof.

Humor from linguistic and pragmatic perspective.

Below is a brief analysis of some devices and features involved in a humoristic act:

**Exaggeration** or **Hyperbole**. Blowing something to comical proportions especially when stereotypically relatable is one of the commonest and most intuitive forms of humour. In mimicry or mockery, a trait's magnitude, frequency or exclusivity is exaggerated.

- *"The city was small.*

- 

*How small?*

*The Entrance and Exit signs were on the same pole."*

- *"His stomach is a bottomless pit. He ate nine burgers in a row!"*
- *"His brain is the size of a pea."*
- *"I would move mountains for (a cup of coffee)."*

**Sarcasm and Irony** involve simple inversions of truth assertion. Irony may also involve a purpose-defeating follow-up or an implementation or consequence that is contrary to the intent or motivation behind performance of the act. Here's a real life incidence –

- *“In 1985, in New Orleans, city lifeguards who threw a pool party to celebrate a summer season with no drownings, discovered a guest drowned in the pool when the party was over.”*
- *Charlie Chaplin once entered a “Charlie Chaplin walk” contest and came in 20<sup>th</sup>.*

### **Mismatch.**

In its essence it takes us aback with sheer mutual incompatibility, as comparing chalk and cheese — things our brain is not conditioned to see as compatible. A discordant combination catches our brain off guard. Other joke types rely or invoke absurdity but its the process of the breakdown to absurdity that evokes humour. However there are jokes that don’t boil down to absurdity but are absurd to begin with. At times, an unseeming yet not unlikely linkage or solution is proposed. Typically a known trend is presented in an unexpected circumstance where it isn’t exactly unapplicable, for instance, adding World War analogies to children’s cartoons. An example goes as follows:

- *“Cannibalism can simultaneously solve both Global Hunger and Overpopulation.”*
- *“Doctor: Did you take weed?”*

- 

*Baby: Guggu-Gagga, the baby starts talking some gibberish.*

- 

*Doctor: Darn, you're high as heck"*

**Fitting Response** or **Comeback**, typically hoisting one on their own petard and tasting one's own medicine, consists of a belittling, downtrodding, humbling or humiliating follow-up response to a set of assertions.

- *"A Texan farmer goes to Australia on vacation. There he meets an Aussie farmer and gets to talking. The Aussie shows off his big wheat field and the Texan says, "Oh! We have wheat fields that are at least twice that size!"*

*They walk around the ranch a little, and the Aussie shows off his herd of cattle. The Texan immediately replies, "We have longhorns that are at least twice as large as your cows."*

*The conversation has died down when the Texan sees a herd of kangaroos hopping through the field. He asks the Aussie, "What are those?"*

*The Aussie replies with an incredulous look, "Don't you have any grasshoppers in Texas?"*

**Denormalisation**, dramatic shift of focus, or **Escalation** is a gradual, progressive reveal or transition to inappropriateness. It begins ordinarily, with nothing out of the blue. As curtains are drawn, a cascade of inappropriateness hidden behind them comes tumbling down, spiralling the seemingly-ordinary situation down to the pit of absurdity. The entire situation goes haywire and the structured guise of normalcy swiftly crumbles as a vast multitude of revelations transpire in quick succession overwhelming the viewer dramatically. The humour lies in what should logically have been the 'precedent or context actually following the consequence, action or foreground, in the narration.

- *"A friend got mad at me for smelling his sister's dress. I don't know if it was because she was still wearing it or because the rest of the family was there. Either way it made the rest of the funeral very awkward."*

## Deixis

Elements of language that are so contextually bound are called deixis. It uses not only special words such as this, that, here, there, I, you, he, she, etc. but also common words and grammar such as noun phrase, tense and voice of verbs, etc. Most importantly, the meaning of deixis depends on the context. Thus the unclear context may lead to ambiguity in deixis, which can create humor. As shown in the following example:

- Nurse: *“Now let’s take off our clothes, and see how much we weigh.”*

*Little boy: “You go ahead, I don’t want to.”*

### **Flouting of the Relevance theory**

According to the Relevance Theory, the speaker always tries to convey something clearly in the utterance to the hearer. A sentence might mean different things in different contexts.

So the hearer should study the relevance between the utterance

and the context. However, sometimes the hearer may misinterpret the real meaning intentionally or unintentionally, that is the flouting of the Relevance Theory. For example:

- Judge: *“Order! Order! Order in the court! ”*

*Prisoner: “I’ll take a ham sandwich on rye with beer.”*

### **Puns and context selection**

The advantage of puns lies in their potential multiplicity of meanings. In other words, thanks to their multiple contexts, puns are superior to plain statements. In this case, a special context selection is necessary and significant.

This context selection will finally influence the process of interpreting puns. Based on Relevance Theory, a pun functions as follows: two or more interpretations are intentionally triggered by the communicator of a pun, but the addressee rejects the most accessible interpretations in search of more acceptable ones. Thus the essence of the pun lies in its access



to multiple interpretations. For a pun to be successful it is necessary that the addressee should access more than

one interpretation of a given utterance based on a special context selection. For example:

- *A: Why are lawyers all uneasy sleepers?*  
*B: Because they lie first on one side, and then on the other, and remain wide awake all the time.*

Here the word “lie” is a pun, it can be interpreted differently in the different contexts, one refers to the sleeping state, and the other refers to the engagement of lawsuit. In the former context, “lie” means a position; while in the latter it means to tell a lie. In this dialogue, speaker B exposes the nature of lawyer in an ironic and humorous way.

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## IDIOMATIC AND CHALLENGING IMPERATIVES IN TURKISH

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In this study, we explore two types of imperatives in Turkish, namely Reduplicative Imperatives (RI) in (1), having an idiomatic taste as well as what we call Challenging Imperatives in (2). 1) [Bırak bırak], gidelim. Drop.IMP.2SG drop.IMP.2SG go ‘Leave it alone, let’s go.’ 2) Yiyor-sa ödev-i yap-ma. If you are brave enough homework-ACC. Do-NEG. ‘Do not do the homework if you are brave enough.’ Literal Meaning: Do your homework. The RI in (1) lacks the directive force and the external argument is not limited to the addressee. Although the 2nd person singular imperative form is used in (1), the main predicate can be of any person as it lacks number/person agreement. Like in Greek RI’s (Oikonomou, 2020), we claim that Turkish RI’s are evidential modifiers and the iterative aspect shows that the event is about to change. The second type of imperatives is what we call challenging imperatives whose semantics is close but not identical to Difficult Imperatives (Demirok & Oikonomou, 2019) as illustrated in (3). 3) Gel de bu gürültüde çalış come.IMP ADD this noise-loc study.IMP.2nd.Sig. Literal Meaning: It is difficult to study with this noise. They propose that the imperative is actually a MOODP, having a special mood feature that restricts the interpretation (Demirok & Oikonomou, 2019). Following the same reasoning,

we also assume that the interpretation of challenging imperatives is via an operator, and the meaning is that “you should do your homework” although the word by word translation of the main clause would be “do not do your homework”.

# Language Structure in Fake News' Headlines

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## Research goals and questions

The research paper investigates the language structure in fake news' headlines, its features and distinctive characteristics.

The research questions are:

1. How to detect fake news through language characteristics?
2. Could language be the key in identifying fake news.
3. What are the specific style and structure of language used by authors while creating fake news' headlines?

## Methods

This research is based on several methods used to give precise answers to the main questions of the research. These methods comprise multimodal discourse analysis, comparative analysis, and corpus analysis.

Multimodal discourse analysis was useful approach to observe multiple models of communications and texts used in the fake news headlines. This method usage revealed the language which is characteristic for fake news.

Comparative analysis is most important method which was used to compare the language of the real and fake news. The implementation of this method revealed the distinction between the language of both types of news (fake/real)

Furthermore, corpus analysis is essential to make comparisons between textual objects and linguistic features which are typical for the language of fake news.

## **Data**

Data was collected from online sources which were helpful to further investigate the language of fake news. Several studies which are already conducted on fake news detection gave another assistance to better understand the already existing materials and analysis. Research related books were selected to conduct a more accurate study of the subject. The study also introduces several fact-checking websites which are crucial to discern fake from real.

## **Empirical research**

From ancient Rome up to the present day, stories that are not true or are meant to be misleading have been used to make money, change people's views and opinions and make us



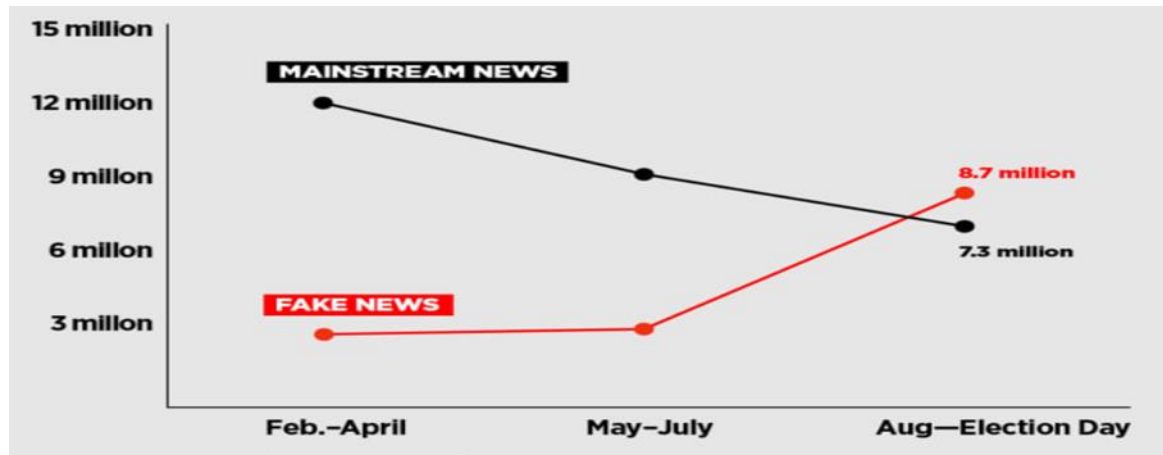
question who we can trust. After the invention of the printing press in the 15th century, news (both real and fake) were able to spread faster than ever before.

Now, with the explosion of the internet and social media, it seems to be everywhere and travels faster than at any other point in history. In 2017, 'fake news' became Collins Dictionary's word of the year and remained in the headlines ever since. (BBC, 2017)

In fake news' history, it is important to note that in the U.S. 2016 elections, fake news became a global subject and was largely introduced to billions as a subject chiefly due to the U.S. 2016 elections. As it is well known to everyone, during the election campaign fake news dissemination is a weapon against political opponent, because it can shape viewers' perceptions of the candidates. So in 2016 fake news was used as a political tool to influence the outcome of the elections. many analysts and commentators have suggested that Donald Trump would not have been elected president were it not for the effect of false news spread through social media.

Buzz Feed published a study which found that top fake news stories generated more engagement than top real news on Facebook in the final three months of the U.S. presidential campaign which confirms that misinformation has some real pull. Here on the slide we see mainstream news 7.3 compared to fake news 8.7 which is clearly visible that fake news is much more influential than mainstream news.

Figure 1: shows the mainstream news compared to fake news and their engagement on Facebook. (Silverman, 2016)



As we see, Fake news are increasingly prevalent in today's world and we are becoming more and more vulnerable to their influence. Therefore, to avoid manipulation we need to be more thoughtful consumers of information. But how? The most important part here is detecting the fake news, but people can't always tell the difference, that is why, linguistic characteristics can be helpful to identify fake news. As we know, language varies systematically depending on its communicative purpose. The grammar of a text, linguistic and stylistic features reflect its purpose. This is why language of fake news could be the key to its detection.

Starting point is always headlines because theoretically, headlines express the major topic of an article. One of the most provocative and manipulative titles that you encounter is clickbait- Eye-catching but misleading headlines, designed to get people to click on links to make money or views for a website. It is used to psychologically compel readers and almost always they have a mix of exaggerations in them. In simple words, it's just a hook.

A recent study compiled frequently shared articles (those with hundreds of thousands of shares) and studied their titles to see what they had in common. The study found that 79% of the articles had an element of shock in them, 17% were “listicles” and 29% had “you,” “I,” or hinted to a personal story in the title.

These are listicles and how they look. It contains some list of tips, or facts or photos that must be helpful but actually they are not, and this is done just to attract and mislead you. Next are titles with the element of shock, here the word shock plays the main role because it evokes curiosity in readers and makes them read it.

Fake news’ headlines have some formulated look that is intentionally done to grab people’s attention. Another thing to consider is how this kind of headlines are created? If you look at some web pages where people create headlines for news feed, they have a couple of guidelines that they have to follow, there this formulated structure is crucial and needs to be considered. Consequently, there is a huge discrepancy between the language of real and fake news and we can discern it by comparing them.

**“X Reasons Why...”** → *“27 Reasons Why Celebrities Love THIS Product”* so why people click this type of a headline is that they want to find out the **“reason”** and then simply they are inclined to read it.

**“X Things You...”** → “10 Things You Need to Do Before Buying a House” the most noteworthy here is the usage of **“you”** that makes headline more relatable and intrigues the readers to find out more about themselves.

**“This Is Why..”** → “This Is Why Business Owners are Investing in Bitcoin”. Here the word **“this”** makes people curious about what they will find out after clicking the title.

**“This Is the...”** → “This Is The Surprising Way Coronavirus Has Changed Travel Insurance” another headline which is also responsible for driving a lot of social media engagement.

**“This Is How...”** → “This is how designers can make more money with fewer clients”

The expectation is as if a secret must be revealed to you to understand **how** to do this or that to get something.

**You Can Now...** → “You Can Now Travel Abroad Without Having to...”

It is quite understandable why this kind of a headline works, it implies that now readers **can** get/achieve/do something they weren’t able to do before.

**“You won’t b believe”** → “Amazing Inventions You Won’t Believe Exist” this kind of headlines are used most of all. They are gripping and compelling that is inevitable for the reader not to read and they are the most prevalent forms of misleading headlines. This kind of headlines are always fake and kind of a trap that is inclined to deceive the reader. (Hennessey, 2020)

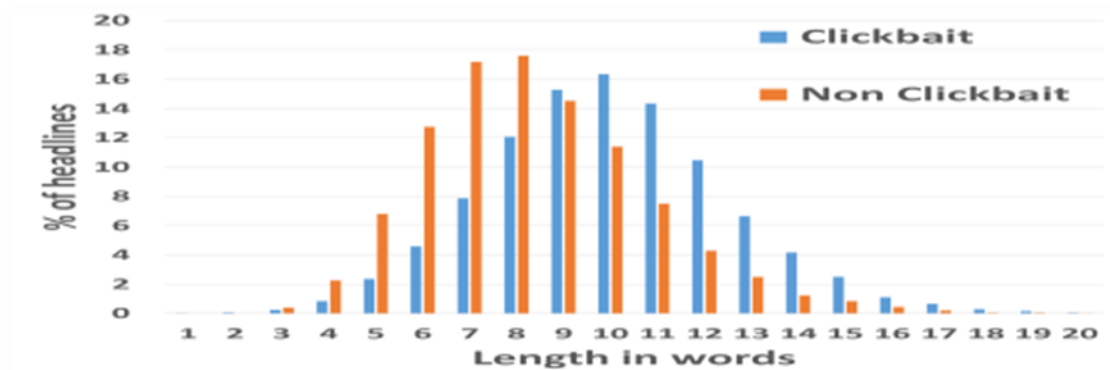
A closer look and observation give some insight about syntactic and semantic nuances that frequently occur in clickbait headlines compared to non-clickbait headlines.

Content and function words are important to note in headlines. While observing the titles It could be said that there are more functional words in the clickbait titles than in non-clickbait. There are also cases when there are no functional words in real news titles at all. For instance, “Eurozone suffers double-dip recession” (news is taken from BBC), as we guess, traditional news headlines contain more content words than function words referring to specific locations, subjects and objects. On the other hand, fake news headlines are longer, well-formed English sentences that include both content and function words. First of all, let’s analyze the structure of the sentences in both clickbait and non-clickbait headlines: (Abhijnan Chakraborty, 2016).

Just to take a quick look, we notice that traditional news headlines are shorter than clickbait headlines. In the non-clickbait headlines the main idea of the topic is discussed more briefly and laconically contrary to the clickbait headlines where the author uses more persuasive words and tries to convince you in something that finally is inclined to confuse you.

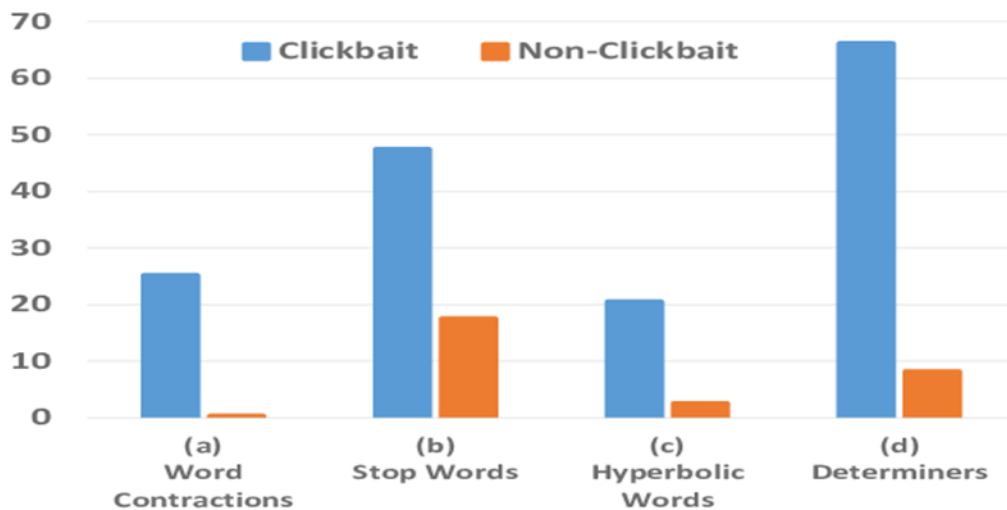
By observing the different types of headlines (clickbait and non-clickbait), it became clear that the average number of words in non-clickbait headlines is 6 or 7, while clickbait titles tend to be quite longer, about 10 or 12 words.

Figure 1: displays number of the words (length of sentences )in clickbait and non-clickbait headlines. (Abhijnan Chakraborty, 2016)



Next, the use of word contractions, stop words, hyperbolic terms and determiners should also be considered. Despite the fact that clickbait headlines tend to be longer, the average word length is shorter. The reason for the shorter word length in clickbait headlines is the persistent use of word shortenings. Word contractions are about twice as more often in clickbait than in non-clickbait headlines. Figure 2 shows the percentage of headlines which include word contractions where 22% of clickbait titles have word shortenings contrary to non-clickbait, where word contractions are almost nonexistent, only 6%.

Figure 2: displays the use of word conjunctions, stop words, hyperbolic words and determiners in clickbait and non –clickbait headlines. (Abhijnan Chakraborty, 2016):



**Stop words** are included in functional words such as prepositions, conjunctions, determiners etc. and they are most commonly used in English language. Figure 2 displays the percentage of words in both types of headlines. (e.g. 45% compared to 18% in non-clickbait). Generally, in clickbait headlines the inference of stop words is left to the reader. The main reason is their considerable contribution to sentence semantics that helps the author to be more persuasive and at the same time, be confusing. Deceiving readers and telling a lie requires a lot of talking which is not typical of conventional news. Consequently, stop words are very helpful and applicable.

**Hyperbolic terms** are one of the distinguishing features of clickbait news which immediately indicate that this or that news is clickbait. According to Van Dijk hyperbole is one of the terms referring to the persuasive function of language (Hesmondhalgh, 2006) terms like “you won’t believe”, “shocking”, “will change your life forever”, “will blow your mind”, “inspiring”, “breathtaking”, “will melt your heart”, “will leave you in tears”, “jaw-dropping” etc., are detectors and before you read the news till the end warn you that it is fake. These kinds of news consist of the words that are very sensational, sentimental and are extremely positive, eye catching. These words altogether represent the hyperbolic terms which are exceedingly common in clickbait. Figure 2 shows the percentages of news headlines in both categories which were clickbait titles, and represent 22% and non-clickbait only 5%.

**Determiners** are part of the functional words that include articles, pronouns, quantifiers, demonstratives and numbers. Clickbait headlines often use determiners such as, your, there, this, which, my etc. to mention specific things or people like (1) “This is how designers can make more money with fewer clients”. The utilization of determiners in clickbait headlines is significantly more than in non-clickbait headlines. The main idea of using determiners is to arouse the curiosity of readers to reveal what it is about and to persuade them to read the article.

### **Conditionals, subjunctive mood, modal verbs**

**Conditionals** or “if clause” sentences are prevalent in clickbait headlines. These kinds of statements give you some tips, or advice like (1) “if your guy ever does these 4 things, don’t



marry him” Sounds very interesting doesn't it? It seems as if the author wants to give some advice that he or she has already experienced. this kind of headlines often contain a listicle like in this case. The main focus is the number that tells you the quantity of tips that author is willing to name

**Subjunctive mood** is also frequently used in clickbait headlines to express some suggestions, desires or wishes that have some sentimental connotation and catch your attention. These kinds of titles arouse curiosity and by clicking on them you immediately become a victim. E.g. “19 Helpful Guides To Simple Life Hacks You'll Wish You Knew Sooner” news like these are more attractive to people. They make you more sentimental because of the form. They are written in regretful tone and you start thinking that it is an experience you should have known before, so you click it and fall into a trap.

**Modal verbs** can be considered as one of the hint that detects fake news, because the usage of the Modal verbs is extremely rare in conventional news' headlines. Could, may and might are modals that express possibility, probability, something that may happen but we aren't sure or certain about it. This is the main reason why modal verbs are widely used in fake news headlines. It's convenient for the author, in view of the fact that, in this way he indirectly provides us with information and tries to deceive readers.

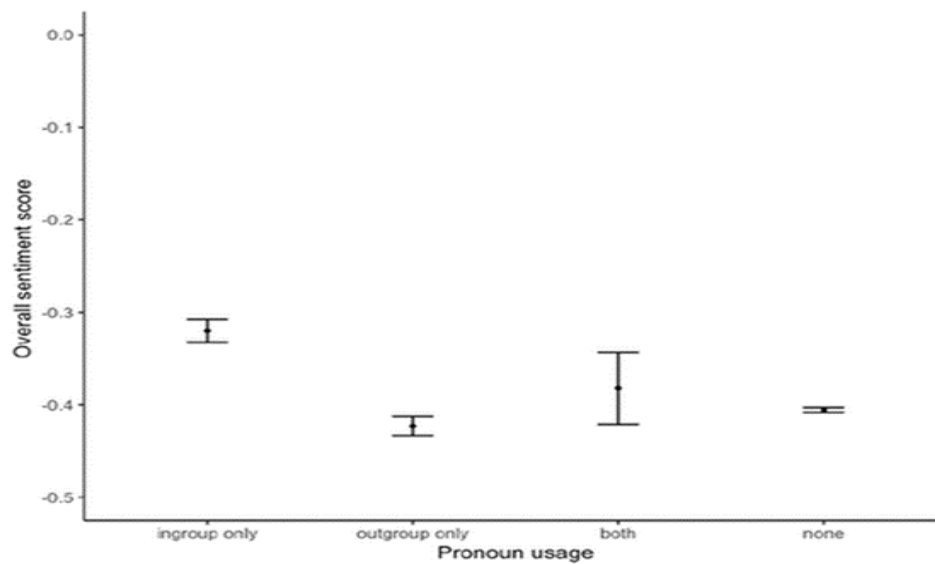
On the other hand, modal verbs are emotionally charged and at the same time, they indicate the author's attitude or feelings toward an object or situation. For instance, (1) “15 reasons why you should never support horse racing” (2) “23 things parents should never apologize for”

(news are taken from [buzzfeed.com](https://www.buzzfeed.com)). Here the usage of *should* expresses author's attitude and how he or she feels about these situations and indicates some list of reasons why you should never do this or that, *should* is also used to give advice or to make suggestions so observation revealed that the use of should is most prevalent in fake news' headlines, because it's a great way to mislead the reader.

## **Pronouns**

Pronouns are widely used in fake news' headlines and researchers have shown that the use of the second-person pronoun "you" has been connected to fake news. Regular use of pronouns displays the author's desire to assert where one belongs to, who are good, bad. Typically, people use "we-pronouns" to invoke in-group solidarity and "they-pronouns" to keep distance with the outgroup (Su, [journals.sagepub.com](https://journals.sagepub.com), 2020). According to Van Dijk, the term in-group designator simply refers to words that indicate membership of some kind of 'us' group, as opposed to 'them' (Toynbee, 2006, p. 133). While talking about the use of pronouns it is essential to mention Donald Trump he used Twitter as a powerful tool to communicate with the public, in his communication in-group pronouns ("we," "our") are often used together with words that imply positive expressions on the other hand, outgroup pronouns ("they," "their") are more related to words with negative connotation. figure shows the use of in-group and out-group pronouns in Trump's communication (Su, [journals.sagepub.com](https://journals.sagepub.com), 2020).

Figure 3: shows pronoun usage in Trump's communication (Su, journals.sagepub.com, 2020):



Fake news is a weaponized lie which could be easily detected if you try to critically read the news and sometimes think more deeply and realize whether it is possible or not. The research indicates some of the main components of language features that eventually warn you about the misleading information. Consequently, the language could be the key to identifying the news whether it is fake or not and to conducting comparative analysis that can detect its main characters.

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## Language Corpora in Teaching ESP and Professional Genres

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Teaching and learning language for special purposes can pose a challenge on multiple levels, beginning with building up familiarity with the relevant lexis, preferred structures and discursive conventions, through selection from the identified material, to its gradation. We will introduce insights from both self-compiled and already available (collections of) texts and concordancing tools in the language classroom. Drawing on concrete examples from two genres, namely legal documents and cookbooks (Author 2018), we shall see how corpus linguistics can reveal a plethora of information about the lexis, grammar, information structure, and cultural associations in the genres investigated, which often differ vastly from the conventions and principles of “general English”. In the domain of legal English, we zoom in on connectors, discourse markers, irregular past participles, pronouns, coordination patterns and synonymic chains, postmodifying participles, emphatic do, peculiarities in conditional clauses, causatives, and several other categories of forms that differ from the English as we know it elsewhere (Bázlik, Ambrus & Bęćławski 2010). In the corpus of recipes, in turn, we identify both intra- and cross-linguistic differences, spanning from

collocations through information positioning, compression, and impersonal constructions to genre-specific ellipsis and information structure patterns.

# On the acquisition of [OBSTRUENT+SONORANT] clusters in Greek: A case study

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## RESEARCH GOALS AND QUESTIONS

This study investigates the phonological acquisitional patterns of the faithfully realized [OBSTRUENT+SONORANT] clusters in the speech of a monolingual typically developing Greek-acquiring child (ages: 2;01.24-3;04.11, intermediate phase of phonological development). We study the acquisition of clusters by focusing on the Manner and Place of Articulation and the supralaryngeal feature [voice] of the realized cluster members. The following research questions are addressed:

- i. Among the [OBSTRUENT+SONORANT] clusters which one(s) are acquired first?
- ii. Are the different cluster types of the [OBSTRUENT+SONORANT] clusters equally well-formed?

## LITERATURE REVIEW

Early in phonological development, children avoid consonant clusters ((C)CCV forms, English: Gnanadesikan 2004; German: Lleó & Prinz 1996; Spanish: Lleó & Prinz 1996; Dutch: van der Pas 2004; European Portuguese: Freitas 2003; Ramalho & Freitas 2018; Greek: Kappa 2002; Ploumidi 2020, among others). The simplification strategies employed by children include



cluster reduction ( $C_1C_2V \rightarrow C_1V/C_2V$ , (1a-b)), the dominant strategy, and epenthesis ( $C_1C_2V \rightarrow C_1VC_2V$ , (1c)), cluster deletion ( $C_1C_2V \rightarrow \emptyset V$ , (1d)) and coalescence ( $C_1C_2V \rightarrow C_{1,2}V$ , (1e)).

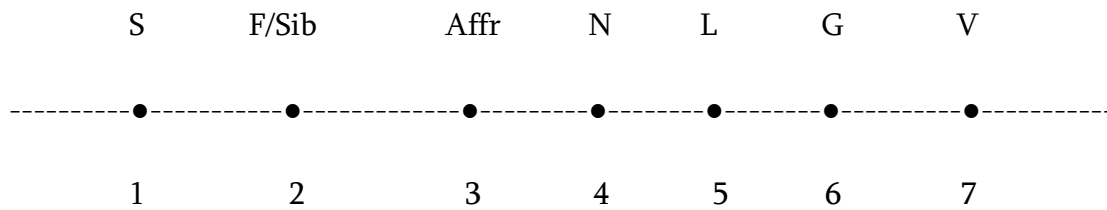
(1)	Target word	Child's output	Gloss	Child	Age
a.		piz	please	G.	2;02
(English, Gnanadesikan 2004:77-78)					
b.	'florif	'loliʃ	flowers	Marta	1;07.17
(European Portuguese, Freitas 2003:35)					
c.	ble	be.'le	blue	Sofia	2;02
(Greek, Kappa 2002:23)					
d.	futugrø'fia	ftuø'fiø	picture	Raquel	2;10.08
(European Portuguese, Freitas 2003:34)					
e.	mi.'kra	mi.'ta	small	SPI.	2;08.30
(Greek, Ploumidi 2020:60)					

Children acquiring Greek as L1 exhibit variation regarding the word-initial clusters which they acquire first. [PLOSIVE+SONORANT] clusters are acquired before [s+PLOSIVE] ones (Kappa 2002, as cited in Kappa 2019). The reverse order was attested in Sanoudaki (2007).

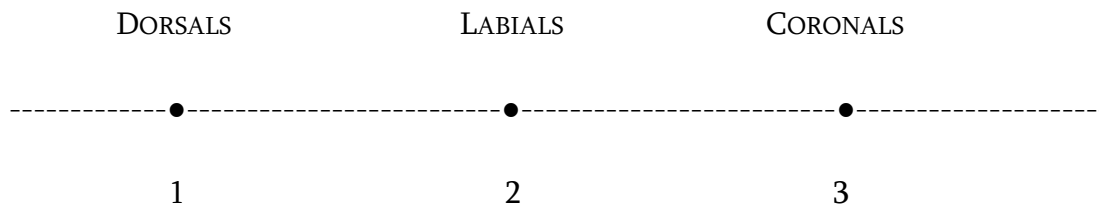
## THEORETICAL FRAMEWORK

The theoretical analysis is couched in the framework of the THREE SCALES MODEL (TSM, Tzakosta 2010) which evaluates cluster formation and acceptability by using the manner (3), the place (4) and the voicing scale (5).

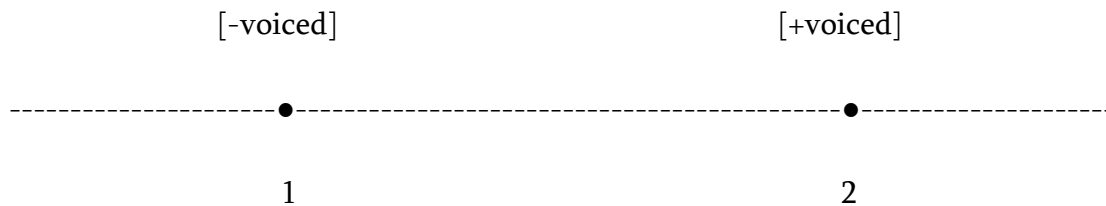
(3) The manner scale



(4) The place scale



(5) The voicing scale



The scales are satisfied in a rightward manner. Each cluster satisfies or violates the scales to a certain extent. The degree of satisfaction of each scale is measured by taking the *distance* (D)

between the cluster members into consideration. TSM evaluates cluster formation by capturing the subtle cluster differentiations. Based on the degree of satisfaction or violation of the scales, clusters fall into distinct categories, namely *perfect*, *acceptable* or *non-acceptable*. Premise of the TSM is that perfect, acceptable and non-acceptable clusters may differ with respect to the degree of their perfection and acceptability since cluster perfection and acceptability are gradient due to D (6).

(6) **Form**

- a. [pr]
- b. [fr]

In (6), both /pr/ and /fr/ are perfect clusters since they satisfy all scales. On the manner level, /pr/ is better than /fr/ since the D between /p/ and /r/ is 4, while it is 3 between /f/ and /r/. On the place and on the voicing level, both clusters are equally well-formed (D=1). A perfect cluster satisfies at least minimally all scales. An acceptable cluster satisfies the manner or the place scale at least vacuously and violates the other and at the same time satisfies at least vacuously the voicing scale. Also, an acceptable satisfies vacuously all scales. Moreover, an acceptable consonant cluster may violate both the manner and the place scale and at least vacuously satisfy the voicing scale. Non-acceptable clusters violate all scales or satisfy the manner and place scale but violate the voicing one.

## METHODS

This research is based on the longitudinal data of a monolingual typically developing child acquiring Greek as L1. The child (ages: 2;01.24-3;04.11) was followed for 1 year 2 months and 18 days (Total recording sessions: 55 of 20-40 minutes each. Duration of recordings: 18 hours. Tokens elicited: 8.667). We recorded the child twice a week until the age of 2;06.08 and, then, once a week until the age of 3;04.11. The Marantz Professional PMD661MKII recorder was used for our recordings.

The study is longitudinal, providing naturalistic data obtained from spontaneous speech and picture/object-naming. The experimenter (the author of this study) had gathered 400 animated pictures which depicted objects familiar to the child (e.g., animals, everyday objects). The animated pictures aroused the child's interest to interact with the experimenter and to participate in the study. The experimenter showed the child a picture and asked him *'What is this?'*. Moreover, the experimenter asked additional questions, e.g., *'What color is it?'*, *'What is he wearing?'*.

## DATA

The child was in the intermediate phase of phonological development. During the early stage of this phase, the child's grammar, prohibiting clusters to surface, employs systematically cluster reduction (e.g., /ble/→[be] *'blue'* age: 2;02.04) and other marginal strategies, namely epenthesis (e.g., /'tri.a/→['ti.ri] *'three'* age: 2;08.30), coalescence (e.g., /mi.'kra/→[mi.'ta]

*'small'* age: 2;08.30) and cluster deletion (e.g., /kli. 'ðja/ → [i. 'ja] *'keys'* age: 2;09.13). Due to space limitations, the repair strategies are not discussed further.

Gradually, faithful cluster realizations occur (age: 2;08,08). We argue that the emergence of clusters in the child's speech coincides with the onset of the medial stage of the intermediate phase. In this stage, not all [OBSTRUENT+SONORANT] clusters are realized. [STOP+LIQUID] (2a-c) and [FRICATIVE+LIQUID] clusters (2d-g) emerge before [STOP+NASAL] (2h) and [FRICATIVE+NASAL] ones (2i). [STOP+LIQUID] emerge before [FRICATIVE+LIQUID] clusters (2a-c *vs* 2d-g). Early cluster realizations demonstrate the child's preference for clusters with i) STOPS as C<sub>1</sub> (2a-c), ii) LABIALS (2a, f-g) or DORSALS (2b, d) but not CORONALS as C<sub>1</sub> (2c, e), iii) mainly voiceless consonants as C<sub>1</sub> (2b-c, e, g). Stress and word-position are irrelevant in cluster production/acquisition in our data.

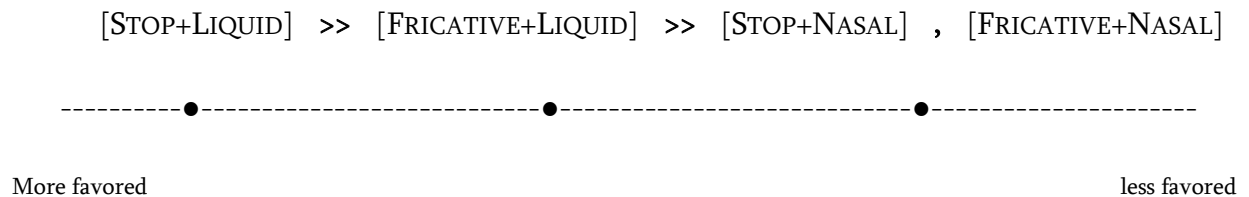
(2)	Adult's form	Child's form	Gloss	Age
a.	ble	ble	blue	2;08,08
b.	'kle.i	kle.i	cry.1PRS.SG	2;08,08
c.	'tri.a	'tli.a	three	3;04,04
d.	'ti.yris	'ti.yris	tiger	3;03,21
e.	je. 'ne.θli.a	e. 'ne.θli.a	birthday	3;03,06
f.	vi. 'vli.o	me. 'vli.o	book	2;09,06
g.	'fra.u.les	'fla.u.e	strawberries	3;03,06

h.	ka.'pnos	ka.'po	smoke	3;01.02
i.	pe.'xni.ðja	pe.'mi.za	toys	2;08.23

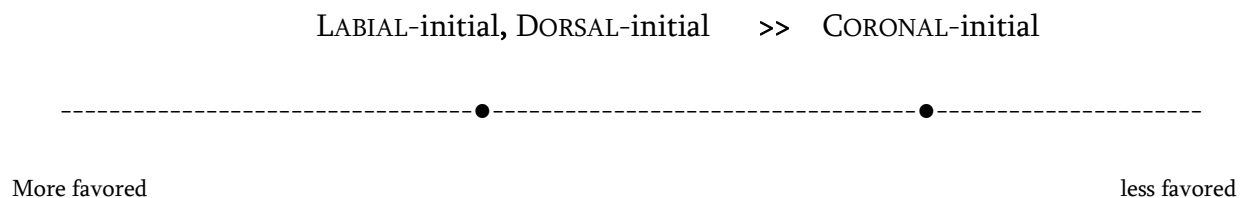
## FINDINGS

The child's grammar does not tolerate all [OBSTRUENT+SONORANT] clusters. The child favors certain cluster categories, namely [STOP+LIQUID] >> [FRICATIVE+LIQUID] and [STOP/FRICATIVE+LIQUID] >> [STOP/FRICATIVE+NASAL] (>:over). LABIAL/DORSAL-initial clusters are favored over CORONAL-initial ones and clusters with a voiceless C<sub>1</sub> over the ones with a voiced C<sub>1</sub>. The hierarchies in (7-9) illustrate these patterns.

### (7) [C<sub>1</sub>+C<sub>2</sub>] clusters



### (8) Place of C<sub>1</sub>



### (9) Voicing of C<sub>1</sub>

[-voiced] >> [+voiced]

-----●-----●-----  
More favored

less favored

## DISCUSSIONS

This case study investigated the acquisition of [OBSTRUENT+SONORANT] clusters in the speech of a monolingual typically developing Greek-acquiring child. Our longitudinal data compose a statistically reliable corpus for the speech of a single child and provide the big picture regarding the process of cluster acquisition by capturing the various developmental patterns displayed in the child's speech.

The analysis couched in the TSM shows that the child realizes perfect and acceptable clusters. The realized [STOP+LIQUID] and [FRICATIVE+LIQUID] clusters are perfect on the manner scale. The child realized earlier and systematically clusters in which the C<sub>1</sub> was a STOP. [STOP+LIQUID] clusters are better-formed than [FRICATIVE+LIQUID] ones on the manner scale. The D between STOPS and LIQUIDS is 4 whereas it is 3 between FRICATIVES and LIQUIDS. It seems that the child's cluster productions are governed by the D which the cluster members display, namely the bigger the D between the members of the cluster, the more likely to emerge earlier.

On the place level, LABIAL- and DORSAL-initial clusters are well-attested in our data. CORONAL-initial clusters emerge later and are sporadically realized. LABIAL- and DORSAL-initial clusters satisfy the place scale minimally (D=1) and maximally (D=2), respectively. CORONAL-initial clusters satisfy the place scale vacuously (D=0) since both cluster members,

being CORONALS, land on the same position. LABIAL-/DORSAL-initial clusters are perfect whereas CORONAL-initial clusters are acceptable. We claim that the child's realizations are governed by the place scale since clusters whose members do not occupy the same position on the scale are favored. Consequently, LABIAL-/DORSAL-initial clusters emerge before CORONAL-initial ones. However, the avoidance of CORONAL-initial clusters may be explained in terms of OCP effects, namely the avoidance of adjacency of identical features (McCarthy 1986)<sup>1</sup>. This issue is left for future research.

Clusters with a voiceless consonant as C<sub>1</sub>, perfect on the voicing scale, are systematically produced whereas ones with a voiced consonant as C<sub>1</sub>, acceptable on the voicing scale, rarely surface. The attested clusters are:

GROUP 1: Voiceless C<sub>1</sub>→[**p**l, **p**r, **k**l, **k**r, **t**r, **f**l, **θ**l]

GROUP 2: Voiced C<sub>1</sub>→[*b*l, *g*r, *v*l, *ɣ*r, *ɣ*r]

Despite that both groups contain approximately the same number of clusters, clusters of the GROUP 1 are systematically realized whereas clusters of the GROUP 2 are sporadically attested. The only exception is /bl/→[bl] which surfaces systematically.

Faithful productions of [STOP/FRICATIVE+NASAL] clusters are avoided (2h-i), namely they are reduced (C<sub>1</sub>C<sub>2</sub>V→C<sub>1</sub>V/C<sub>2</sub>V), e.g. /ka.'pnos/→[ka.'pos], /pe.'xni.δja/→[pe.'mi.za]. Due to the D, [STOP/FRICATIVE+NASAL] clusters are worse-formed than [STOP/FRICATIVE+LIQUID]

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<sup>1</sup> OCP governs children's realizations (Kappa 2002). For further discussion on OCP effects in child Greek the interested reader is referred to Kappa & Papoutsis (2019).



clusters (frequent in the ambient language). [STOP/FRICATIVE+NASAL] clusters may emerge later due to the low frequency in the ambient language (Ploumidi 2020).

#### **FUTURE IMPLICATIONS**

The analysis couched in the TSM (Tzakosta 2010) showed that certain clusters surface due to the child's grammar requirements. In this study, given that we rely on a single child's data, we cannot make any generalization regarding the acquisition of [OBSTRUENT+SONORANT] clusters in Greek. Rather, we provide evidence regarding the process of cluster acquisition. Future research should examine longitudinal data of a large group of children. A statistically reliable data corpus of monolingual and/or bilingual children may shed more light in the principles guiding cluster acquisition and may capture the within-/between-individual variation. Also, the developmental process of clusters may be explained by implementing the TSM scales within the framework of OPTIMALITY THEORY (Prince & Smolensky 1993) and, by means of constraint conjunction, (Smolensky 1993), to be provided a unified account regarding the acquisition of clusters.

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# How Does Social Media Language Impact Current Generation's Linguistic Choices and Communication?

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## RESEARCH GOALS AND QUESTIONS

Generation Z is the first to have smartphones fully integrated into their childhood, therefore, they have been exposed to an extraordinary amount of technology in their upbringing. People of Gen Z or Gen Z-ers are naturally so comfortable with technology and the social medium that it has become a significant portion of their everyday lives.

Informal communication is being increasingly published and facilitated by technologies such as smartphones and social media sites. Emoticons, abbreviations, phonetic spellings, and other neologisms are the result of the adaptation of a language to the new challenges and demands of the new technological era. A question that has captured the attention of many is how language change spreads through online communication so effortlessly, what groups are the most influential in this change and how it affects them.

## **LITERATURE REVIEW**

Since language is such an important component of individual and group identity, understanding the social forces that drive language change will shed new light on society's hidden structures.

According to several researchers, the appropriation of language is one of the most significant consequences of social media on verbal and written English. As the demand for faster communication increases, changes in the language become inevitable. It is now important to pass the message fast, sometimes without worrying about the proper use of language. Consequently, language evolves, and this is no exception to the language used in social media. At the same time, linguists worry that electronic communication, also known as the internet mediated communication, is corrupting the English language and its grammar. Nonetheless, language continues to evolve in social media and by tracking the popularity of words over time and space, we can harness large scale data to uncover the hidden structure of language change.

## **METHODOLOGY**

A mixed-method design is proposed in order to give precise answers to the overall question of the thesis. The mixed-method design includes media discourse analysis, critical discourse analysis, and corpus analysis, which imply both qualitative and quantitative research methods.

Critical discourse analysis views language as a form of social practice. “Viewing language use as social practice implies, first, that it is a mode of action, as linguistic philosophy and the study of pragmatics have recognized” (Fairclough, 1995, p. 54).

According to Fairclough (1995), “It also implies that language is a socially and historically situated mode of action, in a dialectical relationship with other facets of the social and dialectical relationship, and that it is socially shaped, but is also socially shaping - or socially constitutive. Critical discourse analysis explores the tension between these two sides of language use, the socially shaped and socially constitutive, rather than opting one-sidedly for one or the other” (Fairclough, 1995, p. 55).

Media Discourse is a general term which we can use to describe how our reality is portrayed in different types of media, whether that is mass media, social media, or any other kind of media. Media discourse is mainly based on interactions between people, where certain people are interacting and an “audience” is listening, whether it is interview, broadcast or in the present case, interactions between people in different platforms of social media.

Another method used in the present research is corpus analysis that is a collection of linguistic data. Its main purpose is to analyze words and their usage frequencies in different situations and how their syntactic or grammatical constructions vary. Though corpus analysis mostly includes the use of computers to rapidly search and analyze language, we can still integrate it into both CDA and Media Discourse Analysis for the purposes of gaining new insights into discourse that may have otherwise gone unnoticed.

## **DATA**

Empirical research suggests that Twitter's, Instagram's and TikTok's user base is younger, more urban than other social media sites, hence one can come across a plethora of information regarding this issue. The data that got gathered for the thesis was categorized into three major groups and one subgroup. The following groups are: abbreviations (shortened forms of a word or phrase, by any method), words that have adopted new meaning and short phrases that can be used individually. Apart from these, the former group consists of one subgroup that is presented as a collection of relatively new words in the world of social media.

## **FINDINGS AND DISCUSSION**

To begin with, we have to understand that grammar in electronic language is perceived a little bit differently from its usual sense, consequently if standard grammar includes phonology, morphology, and syntax, in "e-grammar" such rules become irrelevant one way or another. Of course, this is just an assumption, since the phenomenon is relatively new and therefore has yet to develop formalized rules and it rather exhibits patterns that vary according to technological and situational contexts.

Nonstandard orthography is widely considered to be an important characteristic of internet mediated communications and they do manifest spelling practices that suggest loosened orthographic norms.

Such examples are abbreviations. An interesting fact about abbreviations is that according to Cannon (1989), abbreviations have in fact a long history dating back to the Roman Empire period. It is interesting how in order to save space on the surfaces where the texts were written, short forms of words, especially personal names, were used. (e.g. CAESAR (Julius Caesar), AVG (Augustus), GER (Germanicus), PM (Pontifex Maximus), TR P (Tribvnicia Potestas), IMP (Emperor), PP (Pater Patriae), NERO CLAVD (Nero Claudius). This style of writing can be found in Hebrew and Latin as well. As a result, the tradition of short forms of words in the language appears to be quite old, and through online interactions, shortenings that never existed before are now more valuable than ever. According to some experts, the intensive development of this particular language system began in the twentieth century, mostly after WWII. However, the majority of abbreviations and acronyms, especially those coined as a result of new technological developments, integrated into the language more rapidly and relatively recently.

- For instance, let us take the abbreviation TBH:

“TBH” is an internet acronym that stands for “To Be Honest”. In some cases, it can also mean “Honest Opinion”, which makes the abbreviation a noun. Consequently, if we understand it in this scenario it means that when one posts a “tbh” about someone they are writing an opinion about them that they honestly feel or have thought about them but haven’t ever said. Such usage of the acronym is especially popular on Instagram. For instance: “Like my post for a tbh.”



However, when it stands for “To Be Honest” then in most cases it can be found at the beginning of the sentence as a phrase, for example: “TBH I did not enjoy the movie”. It is noteworthy that, “TBH” was first used in a conjunction with a blunt or slightly antagonistic phrase to imply that the statement was made with good intentions. To put it another way, TBH was used as a caveat to defend the speaker from an unnecessarily candid comment by stating, “I’m only telling you this because I’m being honest.” TBH, on the other hand, has become so widely used in social media sites and chat rooms that it can be said that its definition has been diluted. Thus, the meaning of the abbreviation can range from “I think...” to “I’m sorry for being straightforward, but...” to a form of agreement. For example: “She’s really rude.” “TBH!”

Another way in which IMC can influence the language is morphological. For instance, semantic shift is a process that is inevitable for almost every language. Of course, semantic shift is not a phenomenon that is unique for IMC but it has been especially productive on the internet, generating many new words that are increasingly making their way into standard English. An assumption is that the intense usage of slangs in social media can accelerate the process of semantic change, albeit being mainly presented as highly informal parts of colloquial speech and having been initially used by specific communities and minor groups of society. As a result of interconnected society thanks to social platforms, the slang terms from subculture groups are adopted by common people, and become common people’s vocabulary. Also young people are quite active in creating slang. They employ slang terms in their conversation to

show their attitude against the society or their own way of thinking. After all, Noam Chomsky pointed out that the spread of language change is influenced by sociopolitical minorities.

For instance, let us take the slang term cap:

- Cap

According to Cambridge dictionary, the word cap means a soft flat hat that has a curved part sticking out at the front, often worn as part of a uniform.

Although the word cap appears to have been used by the black community where it was a synonymus word for exaggeration since the beginning of the last century and has remained in the language as such since then, the term made its first appearance on micro-blogging site Twitter in 2012.

Even though, as shown above, the alternative meaning of the word has existed in spoken language for quite a time, it did not become a part of mainstream culture until 2017. Since then, a rapid usage of word as a synonym of the word *lie* can be seen all over the internet. Since a cap is an item you wear or a bottle cover, both of which are worn at the top of someone/something, it is understood as "peak" or "top" of exaggerating something, hence to "lie." Apart from this, the slang can be used with the help of visual language, in simple words -emojis. For such cases, one may come across the emoji of a blue cap denoting that the statement they encountered seems to be a lie. Since the word cap is a noun itself, by adding

the inflectional suffix “- ing” it can be converted into a verb. For example: “he said you gave him the answers of the test” “he is capping”.

Good news or not, social media’s effect is also prevalent on a societal level too, thus the development of slang cannot be separated from the society. One great example of this is the slang term *clown* and how it became one of the biggest highlights of the 2020 Presidential debates in America.

Probably one of the most remarkable alternations of a word is how *clown* evolved from initially meaning an entertainer who wears funny clothes, has a painted face, and makes people laugh by performing tricks and behaving in a silly way to an insult.

The word appeared in the internet in 2020 and became one of the most used internet slangs of the year. The word became so common that if we look back at the first 2020 Presidential Debates, former Vice President Joe Biden referred to former president Donald Trump as a “clown” twice. As a result of numerous interruptions from Donald Trump, president Joe Biden exclaimed “Well, it’s hard to get any word in with this clown.” On another point, while discussing healthcare policy, Biden turned to the camera and asked, “Folks, do you have any idea what this clown’s doing? Do you?”.

Surely one can argue that such instances might be an example of trying to spread political influence by showing how immediate one is by trying to use language close to the vocabulary of common people. Whatever the reason behind it, it did cause a wave of excitement and for

a week or so one could come across a plethora of tweets, posts, Instagram stories and memes regarding this occasion.

## CONCLUSION

To sum up, have social media changed the way we speak and write English? Yes, undeniably. Just think, ten years ago, if someone you'd just met asked you to "Instagram" a photo of their lunch or post a "tbh" for them you would have definitely scratch your head and think if this person is on their right mind. Nonetheless, there is still debate whether such changes influence the younger generation in a bad or good way. According to Crystal (2011), texting which is the main activity in social media does not erode children's ability to read and write. On the contrary, literacy improves. Strong positive links have been found between the use of textisms and the skills underlying success in standard English in pre-teenage children. Interestingly, the more they used abbreviations, the higher they scored on tests of reading and vocabulary. The children who were better at spelling and writing used the most textisms. And the younger they received their first phone, the higher their scores got. Sample sizes are small, but the results all point in the same direction. These results surprise some people. But why should we be surprised? Children could not be good at texting if they had not already developed considerable literacy awareness. Before you can write and play with abbreviated forms, you need to have a sense of how the sounds of your language relate to the letters. You need to know that there are such things as alternative spellings and alternative meanings. You need to

have a good visual memory and good motor skills. If you are aware that your texting behaviour is different, you must have already intuited that there is such a thing as a standard. If you are using such abbreviations as lol and brb ('be right back'), you must have developed a sensitivity to the communicative needs of your textees, because these forms show you are responding to them.

Language change is significantly more likely to be transmitted between demographically-similar areas, especially with regard to race but thanks to the internet, features such as emoticons and certain acronyms and slangs have found their way into other languages of the world once more pointing out that English is the lingua Franca of IMC.

While the research is limited and many gaps remain, it suggests that language change is being affected and effected by Internet communication and if anything IMC enrich rather than impoverish language users and languages themselves.

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# Artificial Intelligence: The Way to See the World

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This paper approaches how artificial intelligence (AI) can enhance the regular lifetime of visually impaired individuals. Artificial intelligence is the study and creation of computer systems that may perceive reason and act. The goal is to develop an intelligent machine. Intelligence must be represented by learning, thinking, making decisions, and solving problems. AI is a collaborative field that needs knowledge all together in the fields like psychology, engineering, logic, mathematics, ethics, and so on. It is a replacement field that is expanding meteorically. AI can store large amounts of data and can process at high speed.

For representation or duplication of human intelligence, AI systems are presupposed to learn from the previous experience and self-correct through deep learning.

As there's a rise in the growth of technology, these intelligent systems are useful for humans in daily life. They are often our companions, do our daily tasks, understand our emotions and help accordingly. The vision-impaired individual finds it difficult to self-navigate outdoors

within the well-known environment and even simply walk down the crowded street. They are unable to evaluate what's happening around them. Many blind individuals depend on their dogs to induce around from place to position since the dogs have the power to sense danger to act accordingly and guide them too, unfortunately, the dog itself gets attacked brutally. Humans mostly communicate through non-verbal activities like facial expressions, gestures, visual communication, and tone of voice, to communicate their emotions. Likewise, there are many thousands of emotions. To gather these emotions, we use big data, as a normal memory device won't be ready to handle such a lot of data. And when the machines find something new it needs to store those data too.

Emotional intelligence (EI) is the area of cognitive ability that facilitates interpersonal behavior. Five components of emotional intelligence are self-awareness, self-motivation, empathy, and social skills. EI is the capability of individuals to acknowledge their own emotions and those of others. Mostly, people express their emotions through using hands, facial expressions, etc., not many words. Unfortunately, vision-impaired people have a hard time guessing others' emotions. Thanks to AI-powered technologies, they can point the phone to the person and understand how she/he feels.

Statistics show a difficult situation in this regard; globally the number of individuals of all ages visually impaired is estimated to be 285 million, of whom 39 million are blind. People 50 years and older are 82% of all blind. The major causes of disability are uncorrected refractive errors

(43%) and cataracts (33%); the primary reason for blindness is cataract (51%). Prevalence of blindness in Georgia is 0.5%, 0.3% in the USA, 0.2% in Canada, 1.5% in most of Africa's countries. The increasing lifespan and aging population increased the numbers affected by 35%.

The proportion of the population affected decreased by 37% over the 25 years to 2015 thanks to a decline in poverty, a discount of the incidence of certain conditions or later onset, better public health measures, and improved eye health services. Their estimate for the prevalence of vision loss in 2050 assumed the world population would extend from 7.8 billion in 2020 to 9.7 billion in 2050. Whilst it is encouraging to work out a continued decrease within the proportion of these full of disablement, there is still much work to be done to cut back the estimated 1 billion cases of visual defect that would be prevented. Increasing anticipation and a continued rise within the global population, along with poor access to health care in some low-income countries, means the general numbers of blind and visually impaired people continue to increase.

They suffer a lot after they are submitted to unexpected situations which they might not bear in mind. People are anxious about their safety after they walk alone within the town. Sighted people can look out for any signs of danger; imagine the vision-impaired individuals who do not seem to be alert to their surroundings. To overcome this problem, the AI system recognizes what the nearby person is doing. If he is around to attack, the system will detect and warn the



user that somebody nearby is going to attack him and also it gives the instructions to undertake and take the mandatory action.

Artificial Emotional Intelligence is additionally called emotion recognition and emotion detection technology. This technology is employed to detect the emotions of a person. AI technologies like image processing, deep learning, voice output, and voice recognition are conversant in building the system. Even Big data is commonly conversant in-store images and voice files. Companies like Microsoft, Facebook, and Accenture are all intended to help the blind using AI.

Most of the statistics given on the internet were about developed countries. It was hard to find the one about Georgia. So, it was interesting to see if university students in Georgia could access quality education. So, it was necessary to conduct the research.

The research paper shows the survey conducted to study the topic. The survey showed that 100% of vision-impaired students have difficulty reading material, especially, the Portable Document Format (pdf) materials, that are written in Georgia. In school, they do have books written in Braille, but as they grow older and go to university no one provides the relevant material. Students interviewed for the research mentioned that thanks to Artificial Intelligence they can get the assignment done by using AI-powered applications EnvisionAI and NVIDIA. The EnvisionAI reads the text for them and the NVIDIA is a screen reader.

According to the survey conducted by the young motivated computer science students at Georgian American University, action was needed to assist the vision-impaired student in Georgia. Undergraduate students decided to make a move. They started working on a software project to build an online classroom that would be adapted to blind students. So, as the student entered, the application screen reader activated, and read all the buttons and texts for them. At the same time, voice recognition would activate and enable students to submit or delete the homework. This means that students would be able to perform tasks on a web application without even moving the mouse, and would make changes with their voice. Moreover, artificial intelligence-powered technology would read the pdf file uploaded by the teacher for them. There are tons of applications that help blind students. But there is none like this online classroom. All the great features would be placed in this one application.

Artificial Intelligence is not only a beautiful interface, but also a beautiful technology that helps thousands of vision-impaired people to see the world. Yet, it got many things to ameliorate, but still, it is one of the best technologies ever created. Artificial Intelligence has been enhancing the lifetime of the visually impaired. Technology too is vastly growing day by day and improving the opposite aspects of life for those that require somebody to take care of them, like disabled, autism, elderly, blind and others. To assist such people, the machine must understand the sensation by itself and have empathy to resolve the matter. However, computer science experts and researchers are still trying to build a machine to realize it. Definitely,

within a few decades from now, machines are going to be ready to understand the sensation of humans and solve problems accordingly; at that point, diagnosis for psychological treatment and other such mentally chronic problems are often treated by the machine. The machines may act as assistants to the doctors and may help them discover the problem sooner.

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## Expressing Problematic Grammatical Tenses in Georgian and English

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Georgian is a complex language with its characteristics of both lexical and grammatical features. Even when we talk about building a simple sentence, we need to make sure that every component is positioned at the right place having the relevant meaning. Forming a language structure in grammar especially in Georgian is complicated when it comes to interpreting one specific sentence into different language with the same grammatical tense, since Georgian verb is generally based on 3 different series and 11 screeves. When it comes to comparing Georgian Verb forms with the English ones, we need to be careful, for the reason that while forming a sentence in one language, it will have different structure in another language. For instance, most Georgian students face difficulties while doing grammatical exercises based on the forms of Present Perfect and Simple Past, since they find these two tenses to be quite similar when transferring a sentence from English to Georgian. The research raises the problematic issues such as grammatical tenses in both languages.