

Original Research

Language and the pandemic: The construction of semantic frames in Greek-German comparison

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This paper aims to provide an insight into the way native speakers of different first languages (L1) who live in the same country and are therefore influenced to the same degree by the current Covid-19 pandemic (e.g. share the same everyday experiences and are confronted with the same linguistic input in the same context) frame Covid-19 related events. More specifically, a comparison between the framework of L1 speakers of German and L1 speakers of Greek, all residing in Greece during the pandemic. Our goal is to unveil commonalities and differences in the structuring of concepts using a frame-semantic approach. In order to investigate the frames that are indexed when talking about experiences, topics, and concepts newly introduced by the Covid-19 pandemic, we chose to build a small bilingual corpus based on participants' answers in surveys in the respective languages. We use preliminary data to evaluate the feasibility of the theoretical as well as the methodological approach. This paper presents the pilot phase of a broader project whose final conclusions will be available in 2021.

KEYWORDS: *frame semantics, corpora, cross-linguistic analysis, Covid-19, pandemic*



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1. INTRODUCTION

The Covid-19 pandemic has posed a plethora of challenges, social and otherwise. These challenges are also expressed in the introduction of new experience in our everyday lives as well as the introduction of new vocabulary in our everyday talk. Newly introduced vocabulary and the concepts it represents in the context of the Covid-19 situation has spurred the need for more research in the field. Some sociolinguistic studies

(Piller et al., 2020) as well as the construction of relative corpora (Davies, 2020) are already underway.

In light of this, and considering that cross-linguistic differences in conceptual representation have not yet been sufficiently explored (Pavlenko, 2009), or better yet, not sufficiently explored outside the field of bilingualism, we aimed for a project that would combine the above parameters. We have hence chosen to research how speakers

of different L1s, who experience the pandemic in the same broad social context, frame Covid-19 related concepts and situations. In other words, one of our main questions is: can words in different languages index the same frame, as long as the speakers experience the same environment?

To approach this matter, we employed Frame Semantics as a tool of investigating the representation of concepts in different languages, as they are constructed by speakers who have common lived experiences. The study focuses on L1 speakers of German as the experimental group (see 5.1.) and attempts to answer some of the key questions regarding the framing of Covid-19 related events, situations, objects, etc.: (a) do the semantic roles assigned in the phrasing of Covid-19 related events differ between speakers of different L1s residing in the same linguistic environment?; (b) in which linguistic context are Covid-19 related concepts represented in the everyday discourse of native and non-native speakers?; (c) how Covid-19 related concepts and their wordings are incorporated in everyday experience of native and non-native speakers and which semantic frames they activate regarding specific experiences?

Since the field of research as well as the above questions are broad and require careful study, we opted for a pilot phase. This paper gives a brief insight into the theoretical background and the methodology of the pilot phase.

2. THEORETICAL BACKGROUND

As this study intends to investigate the relation between language and the pandemic and specifically the construction of related semantic frames, we should firstly see what frames are.

In cognitive psychology, the basic units of knowledge are concepts. Linguists approach the meaning behind the use of natural languages with the aim of discovering the logic and structure behind the relations that interact in a given system. The study of the mind is interested in the thought process and the cognitive mechanisms behind specific phenomena, such as categorisation, memory, learning, and decision making. The link between intentional thought, understanding of

content and theoretical integrated knowledge constitutes one of the main philosophical challenges, and especially the relationship established between the reality of the human being and what is referred to as context of its reference, broadening in the process the notion of the context. In Minsky's (1975) and Barsalou's (1992a) theory of frames there is a collaboration between linguists, cognitive scientists and philosophers in order to create a unified understanding of the categorisation of concepts.

Frame semantics, usually ascribed to Fillmore (1975, 1977, 1982, 1985), describes the conceptual meaning of language and content not as a phenomenon in isolation to its environment, but as part of a system of knowledge. Fillmore (1982) defines frames as knowledge developed in a consistent structure, exercised on a daily basis. This perspective allows us to view that knowledge of word semantics as, in part, knowledge of the individual structures and linguistic environments in which the word is developed.

Thus, semantic frames give us the opportunity to understand the lexical meaning of the word through the pre-existing system of beliefs and ideas. Therefore, a holistic knowledge of the way a word is used is absolutely necessary in order to understand its meaning. A semantic frame consists of a structure of related meanings in a coherent way: without the knowledge of the whole structure, it is impossible to understand its entity on its own. A frame is produced from each word, particular to each usage. For example, the frame Commercial Transaction forms an immediate connection with words such as *buy*, *sell*, *goods*, and *money*.

The feature list approach (Fillmore, 1975) is viewed as a common systemic way of modelling knowledge representation. This includes creating a list of the range of features or attributes associated with a particular meaning or use. Adopting this perspective, there is a hypothesis that e.g. the concept of car has a range of features or attributes associated with it, that relate to its parts (wheel, tire, windscreen, bonnet, boot, steering wheel, engine and so on), as well as the requirement of pet-

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rol and gas for its functionality, the necessity of a license in order to drive it and so on. However, one of the problems of modelling knowledge solely in terms of feature lists is the fact that most of human knowledge is established through the formation of relative structures. For example, we view the engine as the part that puts the car in motion. We also associate the turning of the wheels with the usage of the engine and the consumption of gas. Moreover, we know that the vehicle won't start unless a driver starts the ignition and drives it. Thus, a serious problem with viewing a concept as a straightforward list of features is the omission of a way to integrate the components of the list. A way of overcoming this shortcoming is through the theory of frames. Since Bartlett's (1932) theory of schemata, representation in terms of frames is, in cognitive psychology, the traditional way for modelling knowledge. A recent version of this theory proposed by Barsalou (1992a, 1992b) defines frames as complex conceptual structures that are used to 'represent all types of categories, including categories for animates, objects, locations, physical events, mental events and so forth' (Barsalou, 1992a, p. 29). According to this view, the basis for representing knowledge can be found in frames, in their ability of continually updating and modifying the ever-changing human experience, and their usefulness in reasoning and generating new inferences.

The semantic frame is a structure of knowledge playing a required role in understanding a specific word or a lexical composition. For example, Fill-

more (1982) argues that in order to understand the related group of words *buy, sell, pay, spend, cost, charge, tender, change*, and so on, access to a Commercial Event frame is needed to provide 'the background and motivation for the categories which these words represent' (Fillmore, 1982, p. 116-117). The Commercial Event frame includes participant roles, attributes including the word structures of *buyer, seller, goods* and *money*. In comparison, *pay* is considered 'trivalent', which means that it requires three participants: the buyer, the seller and the goods.

While semantic frames like the Commercial Event frame describe knowledge as independent from the speech event, Evans and Green (2006) add a second layer to frames which gives us the opportunity of framing the use of word meaning in an appropriate context. This type of frame is called Speech Event frame. This way of framing knowledge allows the schematisation of context in an interactive way, contributing to the interpretation and understanding of particular word structures and lexical constructions.

For example, we have Speech Event frames for fairy tales, academic lectures, conversations, obituaries, official reports, horoscopes and business letters, among others. The schematic knowledge of styles and language use is contained in these Speech Event frames. It is necessary to point out that while these frames are described as 'Speech Event frames', they don't exclusively relate to forms of speech, but also to events of written language. Each one of these forms provides a way of creating a frame for each type of interaction (written or spoken), without disregarding the choices that dictate the interaction, such as language, vocabulary, grammatical constructions and style of expression.

Indeed, many lexical items indicate a specific Speech Event frame, such as the well-known English expression *once upon a time*, which precludes the generic Fairy Tale frame, creating a frame of certain expectations. Speech Event frames are then considered as organised knowledge structures that are embedded in the cultural environment of the communication process.

3. THE PANDEMIC AS SCENE

The Covid-19 pandemic has taken the world by surprise. This unprecedented situation has exposed humans around the globe to new experiences and set new chronotopic boundaries (in the Bakhtinian sense), in which these experiences are lived, shaped into and expressed through language.

In order to closely investigate how the different elements of these pandemic-defined experiences are framed in language, we first needed to define the nature and topoi of these experiences. With regards to the nature of pandemic-related experiences we must first ask what the conditions for such experiences are. As mentioned above, the Covid-19 pandemic can be viewed as a quasi-universal experience, since the macro-conditions set by this natural as well as social phenomenon are the same for all affected people: fear, sickness and death. Meso-conditions, from policies to collective knowledge and attitudes, are situated in the respective societies, embedded in the respective cultures and can thus differ, while micro-conditions are relative to the individual. In addition to the above categorisation we need to locate pandemic-related experiences. Where do they lie and what triggers them? To answer this question, we adapted an ontological approach to the notions of scene and situation. Such an approach complies with the frame semantic methodology that we implemented for the purposes of this research, in the sense that situations are semantic nets: the words used for describing a situation are contextually limited and so are the indexed semantic roles and frames.

Drawing upon Devlin's (2006) situation semantics and adopting the notion of scene as superordinate to situation (Almeida et al., 2018), we categorised the pandemic and the resulting macro-, meso- and micro-conditions based on the following relation: the Covid-19 pandemic as a social phenomenon (a health crisis) formed a specific dynamic environment for all affected humans and processes alike that in our research is described as a scene. The pandemic as a scene has the following characteristics: it extends in time, yet 'remains the same, even when constituent entities change' (Almeida et al., 2018, p. 29). The term

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'constituent entities' reflects the aforementioned meso- and micro-conditions and can be interpreted as the different situations within the scene: 'Each situation in a scene is a [...] part of the scene, forming a unified whole in time. [...] a scene [...] involves a (temporal) succession of situations [...] involving the objects in the scene' (Almeida et al., 2018, p. 29). Since situations represent qualitative changes within the scene, the scene has proportionally the same properties with the situations that constitute it. Hence, the situations that constitute the Covid-19 pandemic scene and the frames we use to index them may reveal the properties of the scene. Such an analogy could prove to be helpful for revealing relations between scene and situations and between the corresponding frames and for drawing generalisable conclusions about meaning and language use for the frames that we are researching.

The described categorical cognitive modelling served as a basis for designing the survey, especially the part that we obtained the data for frame analysis. Section 3 *Covid-19 topics and discourses* presents the participants with different situations in the sense described above (Questions 1-10). The reasoning behind this was to examine (a) if certain situations evoke certain frames; (b) if evoked frames correspond to one or more situations; and (c) if relations between frames correspond to relations between situations. Answers to the above questions are expected to be available upon completion of the project as a whole. From a methodological point of view, the distinction between situations and the handling of one situation per question by the participant made both meaning retrieval and context boundaries easier to pinpoint, which in turn made frame analysis easier.

4. WHAT DOES A CROSS-LINGUISTIC ANALYSIS HAVE TO OFFER?

As discussed above, the Covid-19 pandemic has had a severe impact upon human existence, behaviour and policies at a global level. But to assume that every country and everyone is affected the same would be an overstatement. This means that while the conditions of the pandemic at a macro-level produce the same effect on every party and every aspect, the conditions of the phenomenon at a meso-level may differ from country to country. One could therefore easily hypothesise that the Covid-19 pandemic discourses differ from society to society and that they are shaped by local parameters, such as (a) local (standard) language; (b) common input of information about the subject (and thus common knowledge of the subject); (c) common experiences regarding the implemented policy responses, the societal, economic and psychological aftermath, etc.

One of the main goals of the project is to examine if and to what extent language alone plays a role in shaping the Covid-19 pandemic discourses. For this reason, the methodology described below is structured in such a way that all aforementioned parameters do not differ, except for the language. We have therefore obtained data from native speakers of different first languages (L1), for whom all other parameters are the same. In that respect, a cross-linguistic frame semantic analysis could produce fruitful results, since frames are structured representations of concepts and concepts are verbalised by words, phrases or sentences in a specific linguistic system. Another question that can be addressed while using a cross-linguistic frame semantic analysis is if and to what extent words, phrases or sentences in a specific language are anchored in culture. A comparison of frames that relate to the same semantic situation but are expressed in different languages and thus anchored in different cultures may provide new insights on the meaning of culture-specific words. The means of the described cross-linguistic frame semantic analysis and the following comparison between 'universal' and culture-specific frames will be discussed as follows.

5. DATA AND METHODOLOGY

5.1. Obtaining the data set

The project consists of a series of phases. This paper discusses the pilot phase as an evaluative stage mainly of the means of data collection. Due to the nature of the data that we aimed for (written responses to opinion questions) and the implementation of both qualitative and quantitative methods, a pilot phase was needed in order to evaluate the relevance of a small specialised corpus with regard to frame semantics.

In order to examine the emergence of Covid-19 related frames in the discourse of native speakers with different L1s that experience the pandemic in the same environment, we chose the following profile of participants: Greek and German native speakers that reside in Greece during the pandemic and thus experience the same conditions regarding the force of the pandemic, preventative measures, media input, etc. An important participation restriction that should be mentioned here is that all German and Greek participants should not be bilingual. The group of German participants serves as the experimental group, while the group of Greek participants, who reside in an environment where their L1 is spoken, is the control group. The variable to be examined is thus language usage and the framing of concepts.

German participants were required to reside in Greece during the pandemic and their knowledge of Greek will be taken into account in the analysis but was not required. Greek participants were not required to have any knowledge of German. German and Greek participants received the same survey with only minor differences regarding the knowledge of Greek by German participants.

Apart from the aforementioned reasons for a cross-linguistic approach, we considered the working languages of both annotators upon choosing Greek and German, in order to provide reliable results from the frame analysis.

5.2. Design and distribution of the surveys

As already discussed, the survey was the chosen method of data collection. A semi-structured survey was distributed in both Greek and

German to the respective native speakers/participants in electronic form. Simple random sampling (SRS) was the method of choice regarding the distribution of both surveys, although the number of the Greek frame population was expected to be higher than the number of the German frame population. The surveys collected are fully anonymised. Since this paper presents the pilot phase of the project, the distribution of both surveys is still ongoing and is expected to be until October 2020.

Both surveys consist of three sections. Section 1 contains demographic questions about e.g. gender, age group, education, etc. Section 2 contains questions about the languages spoken by the participants as well as the language(s) in which the participants inform themselves about the pandemic. Section 3 contains 10 open-ended tasks in the form of a question. The produced genre is opinion writing/opinion statement. This genre was selected, because semantic frames are experience-based schematisations, which means there is a correlation between genre and semantic roles (Paltridge, 1997; Roth & Lapata, 2015). Apart from that, presenting a genre-specific writing outcome for analysis ensures that all sentences will have similar organisational/syntactic properties. The tasks are controlled and so the participants are asked to answer each question with at least one complete sentence. Since each question addresses a specific situation, as part of the Covid-19 scene, setting the limit to one sentence per answer serves to compare the indexed semantic roles and/or frames between the two languages/cultures.

5.3. Cross-linguistic frame semantic analysis as method

The pilot phase has rendered a bilingual corpus (Greek/German) consisting of 600 sentences. After evaluating the preliminary results, the corpus is expected to reach a minimum of 2000 sentences. The research is based on a small-scale specialised corpus, since a variation between genres that would require a much larger corpus is not relevant to the study. Another reason for choosing to build and work on a small-scale specialised corpus is

that, unlike FrameNet, which is based on the analysis of lexical units (LU) in one or the other language, the analysis of our context-specific corpus is oriented less on identifying lexical items (and their organisation in the lexicon) and more on semantic features, i.e. on frame elements (FE). Since semantic features often *'provide a generalisation over [...] specific lexical items'* (Fisher & Riloff, 1992, p. 47), the frequency of FE can be tested even by means of a smaller corpus – a hypothesis that remains to be tested.

Having discussed the appropriateness of a small corpus, we need to describe the methodological steps of the project. Since this is still an ongoing process, the steps taken thus far are part of the pilot phase.

1. Dependency-parsing of both the Greek and the German corpus, in order to obtain distributional information. For this, we used the Greek Dependency Treebank and the ILSP Dependency Parser for Greek texts (Prokopidis et al., 2011). For the German corpus we used the dependency version of the TüBa-D/Z treebank (Telljohann et al., 2005) in combination with the Zurich Dependency Parser for German (ParZu) (Sennrich et al., 2009).

2. Based on the obtained distributional information we are in the process of drawing out distributional preferences (syntactic patterns, fillers, etc.) for LUs that we investigate as part of a frame.

The above steps were implemented to all sentences that were extracted from the surveys in the pilot phase. Sentence sampling will be implemented in later phases. Examples of specific LUs that were drawn out from the corpus in the pilot phase are shown below.

The methodological steps, based on which the encoding, annotation and frame analysis will take place in the upcoming phases, are described as follows.

1. Steps 1 and 2 of the pilot phase will take place for the whole corpus.

2. Sentence sampling. Here, the pilot phase will serve as preliminary scanning for the semantic-syntactic combinations of specific LUs, in relation to specific (at that point speculated) frames. The

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frequency of patterns as well as the typical and atypical meaning of LUs will also be taken into account for the analysis at a later stage. A verification and expansion of the combinations is expected based on the extension of the corpus in this phase.

3. Encoding and annotation of sample sentences. After studying the semantic-syntactic combinations of the sampled LUs, we will select the possible FE configurations for those combinations.

4. Analysis of frames. Each LU will be assigned a frame based on the possible FE configurations.

5. Investigation of analogy or correspondence of frames between Greek and German.

6. PRELIMINARY FINDINGS

After implementing steps 1 and 2 to all gathered data of the bilingual corpus we isolated dominant lexemes for every situation. Here, we present a sample of sentences from the Greek corpus regarding the LU φθίνω [to decrease] and look for corresponding frames in the German corpus. The sample sentences are answers to Question 10, where participants are asked about the future of the pandemic (examples from the Greek and German corpus):

(a) [...] [μακροπρόθεσμα] θα φθίνει η έξαρση [της πανδημίας] / [...] [in the long run] the outbreak [of the pandemic] will decrease;

(b) [...] [σιγά σιγά] θα φθίνει ο ιός / [...] [slowly] the virus will decrease;

(c) [...], (dann) wird die Pandemie eingedämmt / [...] the pandemic will be contained.

(d) [...], dass man die Pandemie bald eindämmen wird / [...] that the pandemic will soon be controlled.

In examples (a) and (b) the verb φθίνω indicates two different framesets, since the syntactic-semantic properties in (b) trigger a distinction. There is only one semantic role in (b), while (a) is realised in two. This leads to the creation of two framesets:

(1) φθίνω (a) ‘μειώνομαι’ [to lessen] / s.r.1: οντότητα σε ύφεση [entity in decline] / s.r.2: φαινόμενο [phenomenon];

(2) φθίνω (b) ‘αποδυναμώνομαι’ [to become weaker] / s.r.1: φαινόμενο [phenomenon].

In examples (c) and (d) the verb eindämmen [to curb] also indicates two different frames:

(1) eindämmen (c) ‘dämpfen’ [to downscale/μετριάζω] / s.r.1: Phänomen [phenomenon];

(2) eindämmen (d) ‘kontrollieren’ [to control/ελέγχω] / s.r.1: der Verantwortliche [the one in charge] / s.r.2: Phänomen [phenomenon].

Although in those particular examples there is no sufficient prima facie evidence of semantic analogy between the two languages, the need for a deeper cultural approach should be stressed.

7. LIMITATIONS AND FUTURE WORK

A considerable limitation that was already visible in the pilot phase of the project is that the lexical choices that participants – even participants with the same L1 – employ to express their opinion on specific domains (e.g. Covid-19 related situations) differ between participants. Furthermore, the difficulty to ensure that the sentences chosen for annotation are representative of the language is greater, when the data derives from survey participants that might not use the standard form of a language. The above result in a minimisation of the usefulness of the corpus at hand.

In order to overcome this obstacle, we need to envisage a Covid-19 corpus, both in German and Greek, that could be used to cross-examine the relevance, grammaticality, etc. of the participants’

responses. Some projects for the English language are already underway (Covid-19 Open Research Dataset CORD-19 and the Coronavirus Corpus) but there is still more to be done regarding the German and the Greek language. As far as the cultural aspect is concerned, a limitation that derives from working with and comparing multilingual data with regards to framework is that the comparison is often based on the linguistic intuition of the researcher, since translation and cultural equivalents undergo contextual restrictions, as well as differences in connotations and collocations, etc.

and are not easy to pinpoint. Since meaning is often – or always one could argue – anchored in culture, there is a need to re-evaluate emerging frames under the scope of culture. For this, we propose the incorporation of Natural Semantic Metalanguage cultural scripts (Wierzbicka, 1996) as part of the methodology. There is a growing interest in analysing the framework behind culture-specific words (Wierzbicka, 2010; Goddard, 2012; Jiang et al., 2016; VanNoy, 2017) and examining the universalities of human experience, without disregarding the differences between L1s and C1s.

APPENDIX

Survey. Language and the Pandemic: The construction of semantic frames in Greek-German comparison

You will need approximately 15-20 minutes to complete this survey.

Research aims. The main aim of this research is to examine the way native speakers of different first languages (L1) who live in the same country and are thus influenced to the same degree by the Covid-19 pandemic, share the same everyday experiences and are confronted with the same linguistic input in the same context, frame Covid-19 related events.

Who is running the project? The study is led by researchers at the Aristotle University of Thessaloniki and the National and Kapodistrian University of Athens (for further information contact the lead researcher at katsaounis@del.auth.gr).

Participation requirements. Participants should be native speakers of German who are born in Germany and currently reside in Greece. Years and status of residence as well as knowledge of Greek will be asked but are not as such a reason for not participating. Participants should have experienced Covid-19 preventive lockdowns and/or social distancing measures from the time these were imposed up and onwards.

Participation restrictions. Participants should not be bilinguals (either German-Greek or German-other language). Both parents of the participant should be German.

Data management. In accordance with the Code of Ethics in Research of the Aristotle University of Thessaloniki (AUTH) and the Code of Ethics and Good Practice of the National and Kapodistrian University of Athens (UoA), collected data are anonymised. Participants will not be asked their names. Each answered survey will be assigned a code, so that the data can be assessed comprehensively. The code will not be related to an identifiable natural person.

Survey deadline. The survey will be open until August 28th, 2020.

Consent form

- I have read the information provided about the study.
- I understand that the project is compliant with the Code of Ethics in Research of the Aristotle University of Thessaloniki (AUTH) and the Code of Ethics and Good Practice of the National and Kapodistrian University of Athens (UoA).
- I understand why this study is being done.
- I understand what it means for my results to be used in this study.
- I understand that there will be a code assigned to my answers without making me identifiable.
- I understand that my participation in this project is entirely voluntary and that I have the right to withdraw from the study at any time.
- I understand that my personal details will not be used in the study.

I have read the above and consent to taking part in this study.

- yes
- no

Section 1. Personal information

You will be asked questions about yourself.

- | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. What is your gender?
– female
– male
– different identity</p> | <p>2. In which age group do you belong?
– 18-30
– 31-45
– 46-65
– 65 and above</p> | <p>3. Where in Greece do you currently reside?
– inner urban area
– outer urban area
– local centre in rural area
– rural area close to urban area
– sparsely populated rural area</p> |
| <p>4. Where in Germany were you born?
– inner urban area
– outer urban area
– local centre in rural area
– rural area close to urban area
– sparsely populated rural area</p> | <p>4. Where in Greece were you born?
– inner urban area
– outer urban area
– local centre in rural area
– rural area close to urban area
– sparsely populated rural area</p> | |
| <p>5. What is your level of education?
– primary
– secondary
– bachelor degree
– master's degree
– doctoral degree</p> | <p>6. What is your political orientation?
– right wing
– centre
– left wing
– other
– prefer not to say</p> | <p>7. What is your yearly income (approx.)?
– 1.000-5.000E
– 5.000-10.000E
– 10.000-20.000E
– 20.000-40.000E
– 40.000E and above</p> |
| <p>8. How many years are you situated in Greece?
– 0-2
– 2-5
– 5-10
– 10 and above</p> | <p>8. No equivalent question.</p> | |
| <p>9. In your household do you reside together with Greeks (e.g. spouse)?
– yes
– no</p> | <p>9. No equivalent question.</p> | |

Section 2. Language

You will be asked questions about the languages you speak and use in everyday life.

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <p>10. Is German your native language?
– yes
– no</p> | <p>10. Is Greek your native language?
– yes
– no</p> |
| <p>11. How would you assess your knowledge of Greek?
– natively like
– advanced level
– intermediate level
– elementary level</p> | <p>11. No equivalent question.</p> |
| <p>12. How did you learn Greek?
– at an institutional setting (language school, private lessons, etc.)
– by interacting with natives</p> | <p>12. No equivalent question.</p> |
| <p>13. How often do you use Greek in your everyday life?
– always
– most of the time
– sometimes
– rarely
– never</p> | <p>13. No equivalent question.</p> |

14. Do you speak foreign languages (other than Greek)? If so, which one(s)?

15. How often do you use your foreign language(s) (other than Greek) in your everyday life? If you have answered 'no foreign languages' in the above question, you might disregard this question.

- always
- most of the time
- sometimes
- rarely
- never

16. Where do you get the Covid-19 related information?
 – always through German media, never through Greek media
 – mainly through German media, rarely from Greek media
 – sometimes through German media, sometimes through Greek media
 – rarely through German media, mainly through Greek media
 – never through German media, always from Greek media

16. Where do you get the Covid-19 related information?
 – always through Greek media, never through foreign media
 – mainly through Greek media, rarely from foreign media
 – sometimes through Greek media, sometimes through foreign media
 – rarely through Greek media, mainly through foreign media
 – never through Greek media, always from foreign media

Section 3. Covid-19 topics and discourses

You will be asked to answer the following questions about certain Covid-19 related topics by writing at least one COMPLETE sentence.

Question 1: What are your thoughts about the origins of the pandemic?

Question 2: What are your thoughts about managing the pandemic through individual responsibility?

Question 3: What are your thoughts on the role of the government managing the pandemic?

Question 4: What are your thoughts on the opening of schools during the pandemic?

Question 5: What are your thoughts on the role of the media covering the pandemic?

Question 6: What are your thoughts about the production of a vaccine?

Question 7: What are your thoughts about the role of a mask as a preventative measure?

Question 8: What are your thoughts about the post-pandemic economy in Greece?

Question 9: What are your thoughts about the role of medical specialists conveying Covid-19 related information to the public?

Question 10: What are your thoughts about the future of the pandemic?

You are asked to write down 5-10 keywords that you related to the Covid-19 pandemic and the situation you currently experience.

Thank you for participating!

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