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Nurturing Collective Knowledge and Intelligence:
Social phenomena and implications for practice

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Editors-in-Chief
Margarita Kefalaki
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Editor's message

The "Journal of Education, Innovation, and Communication (JEICOM)" is a Fully Peer-Reviewed Open Access journal publishing articles from all areas of education, innovation and communication. JEICOM's scope is to provide a free and open platform to academics, researchers, professionals, and postgraduate students to communicate and share knowledge in the form of high quality empirical and theoretical research that is of high interest not only for academic readers but also for practitioners and professionals.

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The numerous papers presented every year during the conferences organized by our Institute, the Communication Institute of Greece, enables us and our editorial board, to have access to a plethora of papers submitted. Following a rigorous peer-reviewed process only a selection of the papers submitted, is published twice a year. The current issue of the "Journal of Education, Innovation, and Communication (JEICOM)", is the first issue of the second volume (June 2020).

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Preface

Nurturing Collective Knowledge and Intelligence: Social phenomena and implications for practice

Nowadays more than ever, during the global health crisis we are currently striving to overcome, we need to learn to adapt, communicate and innovate. We are going through historical times and we learn that we should always strive to understand what influences social phenomena, their factors, constantly changing our everyday reality and us.

Our current issue focuses on four different social phenomena that are in crisis, despite of COVID-19, and in need of our urgent attention; the environmental health issue, the European political landscape, the workplace burnout and the pervasion of social media in our children's everyday lives.

Human beings in times of crisis tend to come together, socially construct and collectively produce knowledge (Halas, 2002). 'An important component of the way humans perceive empirical reality is related to the principles they learn through education and other experiences.' (Prevodnik & Vehovar, 2020). Our individual realities therefore and our experiences, can contribute to a collective construction of knowledge and albeit intelligence. A Collective intelligence, that emerges from collaboration, exchange and collective efforts that can strongly contribute to the spread of knowledge from the individual to the collective' (Wikipedia, 2020). It thus has a direct impact on ourselves and how our perception of the issues surrounding us, changes over time. Our current global reality of living through COVID-19, will inevitably act as a catalyst for change, albeit a positive one (Mujahid, 2020; Vipin, 2020; Nelson, 2020) on a variety of reoccurring social issues.

Additionally, countries whilst sharing local knowledge, they learn to exchange, collaborate, react collectively and intelligently. Sharing allows knowledge to act then as a catalyst for change. Our issue hopes to share local knowledge on four different social phenomena with the view to co-construct a collective one and adapt it in our own different realities.

Sotirios Maipas signs the first paper of this issue with a research paper entitled « *A 15 C's Pathway of Sustainability in Environmental Health Management & The Crucial Role of Higher Education Institutions*». For him, innovation, which may be considered as a function of time, location, and explicit and tacit knowledge acquisition, is essential for the effective and sustainable management of environmental health issues. Then, apart from the emerging teaching and research priorities, the described pathway of 15 C's [(1) Consciousness of the urgency, (2) Comprehension of the complexity, (3) Confidence in our ability to change, (4) Capacity-building for decision-making, (5) Cooperation among stakeholders, (6) Carbon footprint reduction, (7) Circular economy adoption, (8) Corporate sustainability, (9) Creativity (Creative thinking and action), (10) Creation of resilient and adaptive communities, (11) Creation of sustainable living environments for all social groups, (12) Creation of new explicit and tacit knowledge, (13) Communication of the new knowledge, (14) Curriculum updates, and (15) Crisis management], suggests a framework towards sustainability in environmental health management and requires a strategic higher education institutions' contribution for a necessary societal transformation.

Emmanouil Takas, *Gerasimos Prodromitis* and *Stamos Papastamou*, sign the second paper entitled «*Representing Europe in times of crisis. Rhetorical construction of "Europe" in the parliamentary discussions regarding the voting of the three Memoranda in Greece*». The study investigates the Greek political rhetoric on the concept of 'Debt'. It is a detailed mixed methods political discourse analysis on the voting of the first, second and third Memoranda. It also very eloquently reveals the social and political tensions within the European Union.

The third paper by *Kiahni McFadden* and *Dr Michael A. Altamirano*, entitled «*Situational Factors and Increased Workplace Burnout: A Study of Influences Affecting Current Younger Employees*», brings forward a truly hidden issue that it is steadily and worryingly increasing globally. A study with employees from various sectors under the age of 50, reveal the relationship between workplace burnout and situational factors. The article adds to the existing knowledge and aims to understand workplace behavior, as burnout has dramatic consequences in professional efficacy and productivity.

Fancong Wang, *Huayang Zhang* and *Xingyu Shi*, from China, sign the last paper of this issue, entitled «*An Empirical Study on the Influence of Social Media on the Interpersonal Relationship of Middle School Students*». The paper refers to the development interpersonal interaction via social media practices and helps to add to our knowledge on social media interactions specifically with younger students. More specifically, 210 middle school students and 3 teachers from two middle

schools in Guangzhou city of China took part in the research, to study the influence of social media on the development of interpersonal relationships with teachers and beyond. It allows as seeing how social media are a reality during school life and learning how the interactions of youngsters constantly evolve from a static to a more complex dynamic framework.

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A 15 C's Pathway of Sustainability in Environmental Health Management & The Crucial Role of Higher Education Institutions

Sotirios Maipas [1]

Abstract

Manmade environmental degradation has created an unsustainable status quo posing many known and yet unknown environmental health threats. Innovation, which may be considered as a function of time, location, and explicit and tacit knowledge acquisition, is essential for the effective and sustainable management of environmental health issues. The following series of C's may function as a pathway towards sustainability in environmental health management: (1) Consciousness of the urgency, (2) Comprehension of the complexity, (3) Confidence in our ability to change, (4) Capacity-building for decision-making, (5) Cooperation among stakeholders, (6) Carbon footprint reduction, (7) Circular economy adoption, (8) Corporate sustainability, (9) Creativity (Creative thinking and action), (10) Creation of resilient and adaptive communities, (11) Creation of sustainable living environments for all social groups, (12) Creation of new explicit and tacit knowledge, (13) Communication of the new knowledge, (14) Curriculum updates, and (15) Crisis management. Apart from the emerging teaching and research priorities, the proposed pathway requires a strategic higher education institutions' contribution to the necessary societal transformation towards sustainability. Higher education institutions could play a crucial role in all the described steps of this 15 C's pathway and in the interconnections between them. Each step may offer emerging opportunities for innovative planning and action towards a more sustainable future. However, further research and pilot applications are necessary for the evaluation of the proposed theoretical model.

Keywords: Education, Environmental health, Innovation, Sustainability, Tacit knowledge

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1. Introduction

From the time of ancient cisterns and aqueducts and of the first suburban dump constructed outside ancient Athens, up until the potential future use of plastic-eating microorganisms, humanity is constantly striving to meet environmental health (EH) innovation milestones (Mays, 2014; Yang et al., 2015; Avgerinou et al., 2016; Koren, 2017). Despite this constant innovation in the EH sector, innovation differs vastly from one geographical area to another; this difference is especially visible between the developed and developing world (van Nieuwenhuijzen et al., 2009; Luzi et al., 2016; Zanello et al., 2016; Lausselet et al., 2017). The capacity for innovation differs not only among countries, but also among various institutions, between the public and private sector, and between firms of different sizes within a certain country (Nieto & Santamaría, 2010; Wang & Wang, 2012; Bloch & Bugge, 2013). It is obvious that innovation - which is essential for the effective and sustainable management of EH issues (Metz et al., 2016; Karjalainen et al., 2017; Demir et al., 2019) - can be considered as a function of time, location, and explicit and tacit knowledge acquisition.

Environmental degradation has created an unsustainable status quo that poses several known and unknown threats to EH (Costello et al., 2009; Smith et al., 2014; Kim & Zoh, 2016; Carratt et al., 2017; IPCC, 2019; Makris, 2019). Humans' relationships with their natural and man-made environments are multi-dimensional and are governed by socio-economic, cultural, health, ethical, and religious aspects (Schulz & Northridge, 2004; Costello et al., 2009; Morrison et al., 2015; Udofia et al., 2015; Fatorić et al., 2017; Weir et al., 2017; Tol, 2018; IPCC, 2019). All stakeholders have to act urgently and cooperate closely to deal with these threats, such as changing weather and landscape patterns, impacts on agriculture and the economy, food - and water-insecurity issues, increasing healthcare costs, and negative impacts on cultural heritage - such as archaeological sites (Costello et al., 2009; Daly, 2014; Zahid et al., 2015; Rojas-Downing et al., 2017; Tol, 2018; IPCC, 2019; Makris, 2019). A joint, innovative, interdisciplinary, and interprofessional effort among higher education institutions (HEIs), authorities, energy providers, the entire private and public sector, and local people is urgently required to mitigate and reverse the increasing deterioration of EH (Mapira & Mazambara, 2013; Eta & Angba, 2017; Howarth & Monasterolo, 2017; Mason et al., 2017; Milman et al., 2017; Klein et al., 2018; Tang & Demeritt, 2018; Elsner et al., 2019; IPCC, 2019; Makate et al., 2019; Makris, 2019). Given the nature of environmental problems, humanity must also adopt intergenerational cooperation (between current and future generations) to ensure sustainability.

Important factors affecting EH are legislation, the proper management of scientific uncertainty, and the management and transfer of relevant explicit and tacit knowledge (Cavusgil et al., 2003; Sen, 2005; Huang & Shih, 2009; Lwoga, 2010; Hens & Stoyanov, 2014; Iacobuta et al., 2018; Makondo & Thomas, 2018; Reis & Spencer, 2019). Moreover, the tacit and traditional knowledge of local indigenous communities, combined with scientific and technological advances, could generate innovations capable of speeding up sustainability (Tripathi & Bhattarya, 2004; Hunter, 2005; Nyong et al., 2007; Santha, 2010; Chhetri et al., 2012; Makondo & Thomas, 2018; Oroma & Guma, 2018; Makate et al., 2019).

The aim of this paper is to propose a pathway of sustainability in EH management, and to highlight the significant role HEIs could play in this process. The key aspects of EH will also be briefly covered.

2. A 15 C's Pathway of Sustainability in EH Management

EH is defined as the facet of public health concerned with the natural and man-made environmental factors that have the potential to impact health (McSwane et al., 2015; Frumkin, 2016). Several different professionals are involved in EH, including doctors, physicists, social and political scientists, civil engineers, architects, psychologists, zoologists, and food and noise inspectors (Fitzpatrick, 2002). One of the most common examples of an EH issue is climate change (CC). CC affects human health both directly (though extreme weather events) and indirectly (for example, through airborne and vector-borne diseases). It is considered to be the most significant global health threat of this century (Costello et al., 2009; Smith et al., 2014; IPCC, 2019).

Environmental crises are unavoidable and require appropriate management (Wisner & Adams, 2003; Moser & Luers, 2008; de Bruijn et al., 2017; IPCC, 2019). Moreover, vulnerable groups, including low-income families, people with medical conditions, and homeless people must be protected immediately (Costello et al., 2009; Akerlof et al., 2015).

The following series of "C's" could be a pathway towards sustainability in EH management:

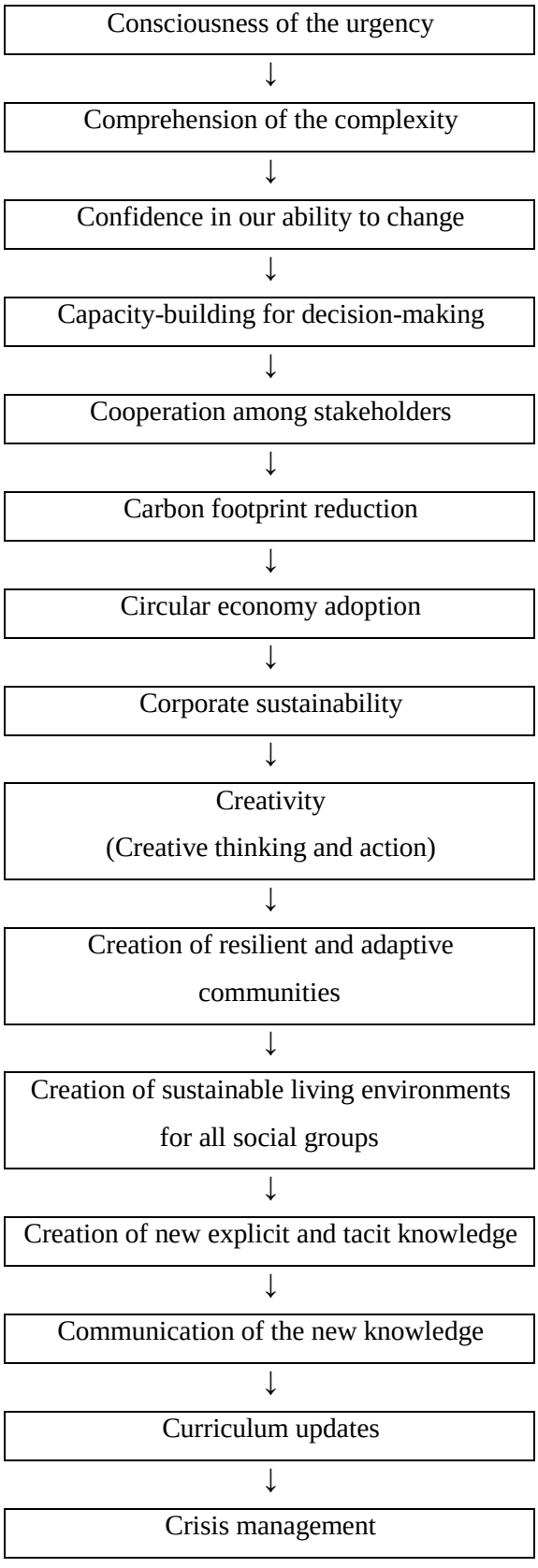

Figure 1: 15C's Pathway in EH Management

HEIs and firms are among the most important agents in this pathway. Both can promote innovation by investing in human capital and research, and by adopting sustainable strategies (Cortese, 2003; Benn et al., 2006; Smith et al., 2011; Amini & Bienstock, 2014; Perić & Delić, 2016; Boiral & Heras-Saizarbitoria, 2017; Skanavis et al., 2017; Geissdoerfer et al., 2018; Michalena, 2018; Olopade et al., 2020). Research could serve as an innovative driver of sustainability, including the proposal of newer methods and technologies that emit fewer greenhouse gases or reduce packaging waste (Benn et al., 2006; Fernández Fernández et al., 2018; Clark et al., 2019). Research is also necessary to understand the complexity of EH issues, eliminate environmental injustice, and reduce scientific uncertainty (Kundzewicz et al., 2018; Schreckenberg, 2018).

3. The crucial role of HEIs

Each educational institution is a complex system, which comprises students and teaching staff, buildings and indoor environments, and various services. Further, educational institutions have their own carbon footprint, and should lead by example by reducing it (Alajmi et al., 2012; Lambrechts &Van Liedekerke, 2014; Berchin et al., 2018). These institutions must promote research and prepare students to become responsible citizens and future decision-makers (Cortese, 2003; Mitchell & Weiler, 2011; Maxwell & Blashki, 2016; Perić & Delić, 2016; Eta & Angba, 2017; Skanavis et al., 2017; Berchin et al., 2018). Therefore, it is imperative that they invest in relevant research, disseminate knowledge, establish lifelong learning networks, and participate in the shaping of proper mitigation strategies against CC and other EH threats (Mohd Ghazali et al., 2007; Ardalan et al., 2013; Azeiteiro et al., 2015; Skanavis et al., 2017). HEIs must become important agents of the change, working towards sustainability (Cortese, 2003; Ćulum et al., 2013; Foo, 2013; Zamora-Polo & Sánchez-Mertín, 2019). Their proper interaction and cooperation with all stakeholders—such as the government, firms, non-governmental organizations, and local communities—is crucial (Henstra, 2017; Galvao et al., 2009; Pundt & Heilmann, 2020).

Education for sustainable development must cover factors associated with EH by introducing new courses, constantly updating existing ones, and by organizing relevant lifelong learning programs (Khalaf-Kairouz, 2012; Azeiteiro et al., 2015; Obasi & Ogwuche, 2016; Ahonen & Lacey, 2017; Lasker et al., 2019). The curricula of the many disciplines related to EH, such as

agriculture, economics, social sciences, psychology, law, and management sciences (see Fitzpatrick, 2002), must constantly evolve not only to cover the market needs (Tavoletti, 2010), but also to ensure sustainability (Khalaf-Kairouz, 2012).

Education for sustainable development must also include indigenous knowledge transmission (Kaya & Seleti, 2013; Ford et al., 2014). This important type of knowledge must be recorded, stored in databases, properly incorporated into curricula, and disseminated adequately (Hunter, 2005; Sen, 2005; Mapira & Mazambara, 2013; Ford et al., 2014; Makondo & Thomas, 2018; Oroma & Guma, 2018). Further, formal strategies against environmental degradation should integrate indigenous knowledge in favor of sustainability, such as in the case of CC (Nyong et al., 2007). HEIs should act as depositaries and guardians of indigenous and traditional knowledge and skills.

4. Conclusion

Todays' economies are unfortunately expanding in an unsustainable manner, increasing the burden on the environment. However, humanity now has the knowledge, skills, and technology to turn the current unsustainable status quo into a reality where current and future generations can thrive. Given the fact that higher education's traditional missions of teaching and research are not enough for achieving sustainability, educational institutions must adopt a more strategic role that transforms them into socially responsible "gates" to a sustainable future. Regarding EH, a joint, innovative, and effective effort among HEIs, authorities, the private and public sector, and local people is urgently required to mitigate and reverse the constant deterioration of EH.

This paper suggests a theoretical framework towards sustainability in the EH-management field. HEIs could play a crucial role in all the described steps and in the interconnections between them. Further research and pilot applications are necessary for the evaluation of the proposed theoretical model.

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Representing Europe in times of crisis. Rhetorical construction of “Europe” in the parliamentary discussions regarding the voting of the three Memoranda in Greece

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Abstract

This study focuses on the exploration of the political discourse regarding the voting of the three Memoranda in Greece, at a period characterized by the concept of "crisis", that triggered violent processes of redefining the social environment. As Greek society was under the strain of European stability, it was called upon to fully comply with the European imperatives of "development" and "competitiveness". In this context, the political discourse formed central representations and each political party tried to increase its sphere of influence. This study approaches the notion that the representations in the political discourse are formed under terms of strategic communication. Further, such representations aspire to influence four parallel audiences: the intra-party audience, the intra-parliamentary audience, the wider intrastate social audience and the international audience (European partners, main European political actors, international organizations, political actors and the media).

To investigate the way in which the Greek political system constructs the representation of Europe in the context of the Memoranda, the official parliamentary transcripts regarding the voting of the first, second and third memoranda were analysed. The analysis was based on both the quantitative and the qualitative approach, using the Iramuteq open source software (Ratinaud, 2009).

The central findings of this thesis underline the way in which the Greek political system established Greece's relationship with Europe in terms of dependence, how Greece gradually complied with European imperatives and internalized the concept of "Debt".

Keywords: Social Representations, Political Discourse, Crisis, Europe, Memorandum.

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Introduction:

The Greek social reality for at least a decade (2008-2018) could be summed up in a single word: "crisis"; Economic, political, partisan, social crisis, crisis of values, institutions, politics, identities. This crisis triggered violent processes of re-evaluating the social environment as the Greek society found itself trapped in the European "stability". Greek citizens were called upon to fully comply with the European requirements and the new reality of economic and social conditions, under the threat of social marginalization and economic asphyxiation strangulation. In this context, new concepts were formed and older ones were re-evaluated. A new political discourse was articulated and new political forces emerged in an effort to re-establish a new social reality. The common denominator of all the above: strategic communication. This study focuses on the exploration of political discourse regarding the voting of the three Memoranda in Greece, at a time when it was characterized by the concept of "crisis", which triggered violent processes of re-shaping the social environment. Greece signed three Memoranda, in an effort to remain in the European Union, since all harsh measures foreseen in those Memoranda were regarded as prerequisites to avoid a "Grexit". On April 23rd, 2010, the Prime Minister of Greece Giorgios Papandreou announced from the Greek island Kastelorizo that Greece appealed to the "Support Mechanism" to avoid bankruptcy. On May 6th, 2010, the Greek Parliament was called upon to vote in favor or against the first Memorandum, under the financial surveillance of the European Union and the International Monetary Fund. From that time and for the next (at least) ten years Greece experienced deep financial and mostly social turmoil. The Eurozone debt crisis, stemming from the global financial crisis, was regarded as the most important in the European Union (Roch & Uhlig, 2018; Samarakoon, 2017). Despite two years of efforts and enormous economic and social costs, the Eurozone and especially Greece have failed to find a way out. Europe was regarded as "ineffective" in managing the crisis both regarding Greece and the EU. The lack of leadership was linked to the attitude during the crisis by the countries of Northern Europe and especially Germany. These countries managed to recover more quickly from the crisis of 2008-2009 and were now the central reference point for economic rescue for all European countries in the region, demanding austerity and strong fiscal adjustment (Bogain, 2014; Lehndorff, 2012). Therefore, the second Memorandum was signed on March 1st, 2012 with even harder measures in an already torn-apart social context, namely high unemployment and crime rates (Saridakis & Spengler, 2012), social and financial imbalances (Gibson, Hall & Tavlas, 2012), labor deregulation and severe pension cuts (Liberaki & Tinios, 2012) and political instability (Katsikas, 2012; Matsaganis, 2013). The second

Memorandum was signed by a governmental coalition of the two historical rivalry parties in Greece (PASOK center and ND right-wing). What was also unique in this period is that the PM of Greece, Mr. Loukas Papadimos, was not directly elected from the Greek people, but was rather appointed. The second Memorandum proved to be extremely hard for the Greek society and led to the emergence of strong anti-Memorandum political rhetoric especially from the left-win party SYRIZA. This led to elections on January 25th, 2015 and it resulted in the electoral victory of SYRIZA that formed a coalition with the right-wing party ANEL (Independent Greeks). After hard negotiations between the new elected government and Troika (Klapsis, 2015; Stavrakakis, 2015; Zahariadis, 2017) SYRIZA and ANEL introduced the third Memorandum to the Greek Parliament.

Literature review

A crisis is defined as a specific, unexpected and out-of-routine event or series of events, which is based on organizational reasons and creates high levels of uncertainty and threat or perceived threat to an organization's higher goals (Seeger, Sellnow, & Ulmer, 1998). Additionally, a crisis occurs in various forms, in various fields, and refers to an undesirable generalized situation, the extent of which indicates its depth. Regardless of the form and area of manifestation, a crisis brings feelings of insecurity, threat and urgency (Boin, 2005; Coombs, 2010) and seeks to identify the origins of the crisis especially when the crisis delegitimizes political choices (Boin, 2005; Boin, Stern, & Sundelius, 2016; Carafano & Weitz, 2008). The causes of the crisis can be traced back to the system itself and remain unnoticed either due to the fact that the first signs of the crisis were not given due importance, or because the political scene failed to fully recognize the causes. For these cases, researchers (Reason, 1990) use the term "systemic pathogeny", as the underlying causes existed before the onset of the crisis. Alternatively, however, the crisis may be the product of a micro-change in an extremely complex system. As all three social, political and economic structures are based on high levels of complexity and interaction, an abnormality in a small subsystem can cause chain reactions and adversely affect the whole system. At the same time, this complexity makes it difficult to highlight a malfunction, as it requires a thorough knowledge of the entire system. Thus, this dysfunction may go unnoticed at first, until it manifests itself on a larger scale, in the form of a crisis.

In times of crisis, citizens expect government agencies to act decisively to address the effects of the crisis, exorcising risk or at least minimizing the negative consequences (Boin et al., 2016). The longer the exit from the crisis is delayed and the more normal the daily routine, the

more the rivalry intensifies, as more and more elements of feedback on the conflict are added. In the context of this study, the political discourse focused mainly on an effort to construct the social environment, especially regarding Europe and the future of Greece within the European “family”. This political discourse is being studied in the specific context of the parliamentary proceedings.

Despite its political significance, parliamentary discourse began to be studied relatively recently and was mainly approached linguistically (see for example Antaki & Leudar, 2001; Chilton, 2004; Christie, 2002; Ilie, 2000, 2001, 2003a, 2003b, 2010; Teun A van Dijk & Wodak, 2000). Parliamentary discourse is articulated with a formality that includes mainly political arguments, which are constructed within a specific political context (Steiner, Bächtiger, Spörndli, & Steenbergen, 2004; Van Der Valk, 2003; Teun A Van Dijk, 2002). Van Dijk (2004) points out that parliamentary discourse is defined mainly by the fact that participants are members of Parliament, that it is constituted within a political institution of Parliament, and that prime ministers carry out legislative work. In addition, PMs are expected to express, evaluate and justify their political positions as well as evaluate, attack and delegitimize the political positions of the opposition.

In the context of this study, the parliamentary speech is expected to contain normative statements regarding the "necessity" of the Memorandum in order for Greece to remain in the “European family” as well as delegitimizing positions regarding the evaluation of the policy imposed through the Memoranda. Parliamentary discourse is formed in "real time", where the positions, oppositions and attacks of political actors are recorded, in a specific context of reference and under a specific parliamentary procedure.

The use of political discourse is based on the synthesis of political ideologies and strategies in an effort to legitimize the decisions of the political leadership (Ilie, 2010). While confrontation and conflict are central concepts in the study of parliamentary discourse, processes of consensus and agreement are recorded not only within each parliamentary political party but also between political parties (Chilton, 2004). Parliamentary debates presuppose, on the one hand, a spirit of confrontation, which manifests itself in acts of consolidation and rivalry for power, and, on the other hand, in acts of cooperation, which is evident in cases of collective decision-making on problems involving all political parties. Thus, in the context of this study, the signing of the Memoranda obviously goes beyond narrow party boundaries and concerns a political choice (voting for or against the Memoranda), which has an impact on the wider social fabric.

Therefore, political actors often have to act through language, raising issues, setting issues in the debate, placing themselves and others in specific relationships, creating assumptions about the

realities that listeners are obliged, at least temporarily, to accept (Chilton, 2004). Power can also be exercised through the control of the use of language for example through processes of agenda setting (McCombs & Shaw, 1972), a concept that has been extensively explored in the strategic communication literature and concerns how the political elites and the media choose to present the main themes of their discourse by drawing the public's attention to specific issues. Establishing themes in the context of parliamentary debates lies in the rhetorical focus of political parties on specific "issues", such as debt, Europe and the domestic political system.

It would be useful to mention that in this study, the Greek parliamentary discourse “echoes” to four levels of audience: First in the intra-party, where the dominant narrative structures are formed in order to strengthen the party identity. Secondly, the intra-parliamentary, where the meaning of the Greek crisis, Europe and the Memoranda appear in terms of rhetorical antagonisms and the rhetorical competition underlines what collective / party representation of the Memorandum will dominate and become a norm. Third, the intra-state, where political rhetoric, despite its differences, functions as a transmitter of political messages aiming to provide meaning and evaluation of the productive causes of the crisis and the promotion (or not) of the Memorandum as a solution. At the same time each political party is called upon to compete with the rest to increase its influence on the recipients / voters. Fourth, the international audience, where international recipients (European Union, European Commission, International Monetary Fund, "markets", other states in the international arena) evaluate the political positions of national political actors. At the same time, they indirectly or directly affect the power and reliability of each message.

The parliamentary discourse changes, depending on the focal themes. Mutatis mutandis the Greek parliamentary discourse under study changes as it was articulated in a period of intense time, a period of "crisis", economic, social, political, and humanitarian. Therefore, it is important to examine how this crisis affects strategic political communication in the context of parliamentary debates on the adoption of the three Memoranda. Special focus is being placed on how “Europe” was rhetorically constructed comparatively in the three parliamentary sittings, drawing upon the sociopsychological theoretical framework of social representations (Moscovici, 1961/1976).

Theoretical framework

The concept of social representations with their focus on everyday communication and thought, aims to highlight the connection between the psychology of social actors and modern social and cultural trends (Moscovici, 1988). Social representations include emotions, attitudes, beliefs, and practices (Jovchelovitch, 1996; Moscovici, 1961/1976). If, however, social representations are approached from this point of view exclusively, they are approached "statically" referring to the notion of "theory", which includes practices and examples that support the theory itself. On the contrary, social representations, from a dynamic approach contain the constant dialectic between a "network" of ideas, metaphors and images (Moscovici, 1995). The concept of social representations incorporates fundamental concepts, such as opinion, image, and attitudes. Moreover, they incorporate concepts that do not involve the dynamic and active participation of social actors, who through their interaction constantly form, reproduce and reconstruct social reality. In this way the subject is actively involved in the creation of social meaning, while previous approaches depict people as simple receivers of a pre-formed message from the external environment. On the contrary, the concept of social representation approaches each social actor in a way that it reshapes and reconstructs the external environment. Thus each social actor participates in the construction of his/her environment, in a constantly enriched reconstruction of both the social actor and the environment (Moscovici, 1961/1976).

The dynamic and synthetic nature of social representations is also emphasized in Jodelet (1984) arguing that the concept of social representation implies a special form of knowledge, the knowledge of public opinion (sens commun), the contents of which express the management of processes socially determined. In addition, it reveals the forms of social thinking. Social representations are a way of practical thinking oriented towards communication, understanding and management of the social environment. As such, they have special characteristics in terms of content organization, mental processing and logic. The social definition of the contents or processes of representation means the reference to the conditions and contexts in which the representations emerge; to the communications through which they circulate; to the functions they perform in their interaction with the world and others. Jodelet's approach emphasizes the importance of communication in terms of understanding, evaluating, interpreting and managing the social environment.

Thus, political rhetoric and the way in which Greek political protagonists construct the dominant themes influences the way in which these representations are disseminated to the wider

society through political rhetoric. Therefore, political rhetoric organizes the meaning and content of the representation of the focal themes and creates a frame of reference for the formation of the representation of the Memoranda in the wider society, in what is usually called "public opinion".

Methodology:

This study focuses on the analysis of parliamentary discourse regarding the voting of the three Memoranda in Greece and is based on the official transcripts of the parliamentary sittings. The open source software Iramuteq (Ratinaud, 2009; Ratinaud & Marchand, 2012) was used for the analysis. Iramuteq is based on the Python and R programming languages and its innovation lies in the ability to examine large corpora, both qualitatively and quantitatively. A total of four variables were formed to analyse the parliamentary proceedings: First, the number of Memorandum (first Memorandum, second Memorandum, third Memorandum), second, the political speaker, third, the status of the political speaker (Prime Minister, Party Secretary, Party Chairman, General Secretary Member of Parliament, Rapporteur) and fourth, the political party to which the political speaker belongs. The principle of the analysis of each parliamentary debate on the voting of each Memorandum is captured through the hierarchical classification of the lectical choices of each parliamentary debate. Through thematic and structural analysis, the dominant clusters in each parliamentary debate are captured. The verbal material is hierarchically classified, based on the statistical significance of the co-appearance of words in the corpus. The method used for this analysis is based on the Reinert method (Reinert, 1983, 1990). This method categorizes the lectical choices into separate clusters while capturing the percentage that each cluster covers in relation to the overall text as well as the hierarchical appearance of the words, based on the value χ^2 of each word. This first analysis allows the first imprinting of verbal material into semantic categories and is the beginning of the recognition of the interpretive patterns of each cluster.

Following the mapping of the descending hierarchical classification (Reinert, 1983;1990), the study of each cluster and in particular in this study the exploration of the cluster “Europe”, continues with a construction of a table. At this table the χ^2 value of each word in the cluster is depicted showing the most dominant lectical choices. The aim of this study is to explore how the representation of “Europe” was rhetorically constructed in all three parliamentary sittings regarding the voting of each Memorandum.

Data analysis:

The descending hierarchical classification of the political rhetoric regarding the voting of the first Memorandum, classified the lectical material into five themes (see Figure 1).

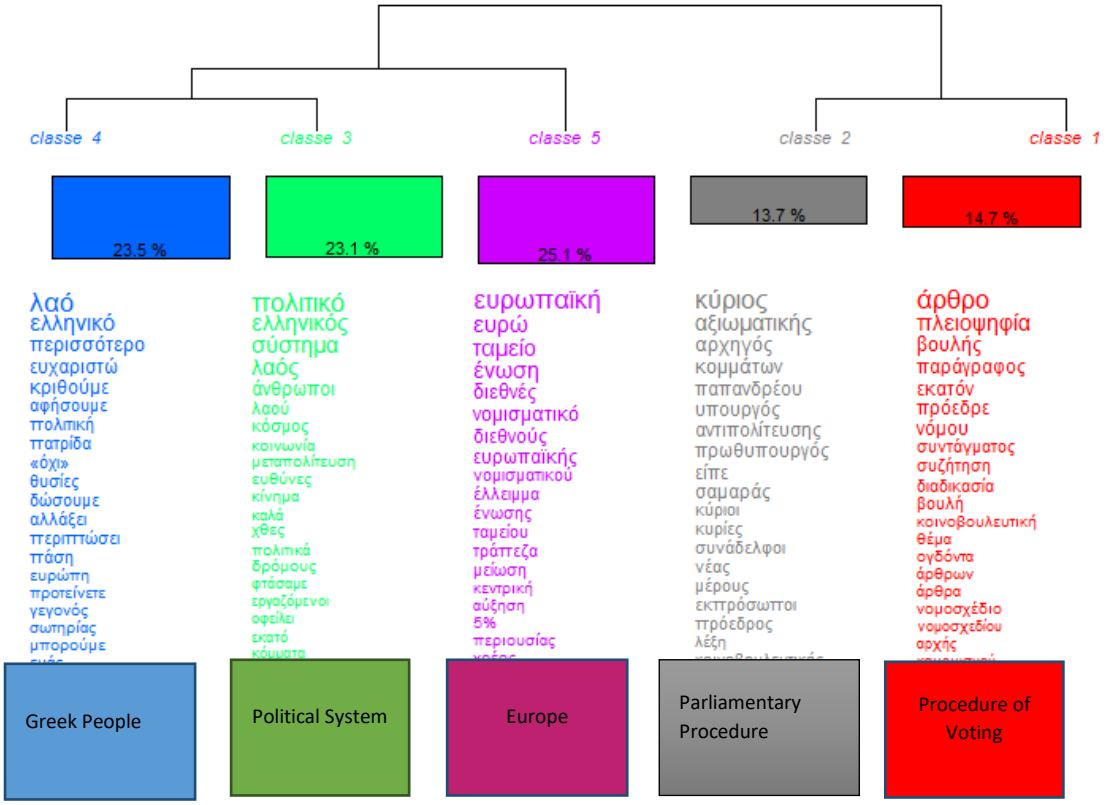

Figure 1. Descending Hierarchical Classification of lectical choices regarding the voting of the first Memorandum[5]

The classification of the political rhetoric regarding the voting of the first Memorandum classified the corpus into five distinct categories. These five clusters are grouped into two wider thematics, the first one containing cluster 1 and cluster 2 focus on intra-parliamentary processes, while the second one containing clusters 3, 4 and 5 focus on political rhetorical constructs. More specifically, cluster 1 (covering 14.7% of the entity of the corpus) contains lectical choices regarding the procedure of the voting and cluster 2 (13.7%) describes the parliamentary procedure in general. Therefore, the first two clusters concentrate on the parliamentary technicalities, even though the procedure of the voting of the Memorandum (with simple or qualified majority)

[5] Even though the Descending Hierarchical Classification "orders" the corpus into classes (classe 1, classe 2, etc) in this paper the term "cluster" is used instead of "class" to avoid any misinterpretation

triggered ideological differences between the political parties. cluster 3 (23.1%) and cluster 4 (23.5%) concentrate on the "political system" and the notion of "Greek people" respectively, where the political system constructed its reliability in terms of serving the "interest of the Greek people". The dominant theme in this is "Europe", covering 225.1% of the entity of the corpus. It highlights the importance of the political system to construct the representation of Europe, and operates as a focal point of reference regarding how the "political system" and the "Greek people" communicate. In order to deeper examine how "Europe" was constructed, the following Table (Table 1) shows the most statistically significant lectical choices of the particular cluster.

Word	**x^2**	**p value**
European	120,57	p < 0,0001
Euro	104,35	p < 0,0001
Fund	102,44	p < 0,0001
Union	80,57	p < 0,0001
International	75,75	p < 0,0001
Monetary	74,94	p < 0,0001
Deficit	50,01	p < 0,0001
Decrease	42,27	p < 0,0001
Increase	38,87	p < 0,0001
Debt	30,08	p < 0,0001

Table 1. Table of statistical significance of lectical choices of the cluster "Europe"

The most statistically significant words of the cluster "Europe" construct the representation in terms of institutions and economic means. Europe is mostly approached as the sum of "European Union" and the "International Monetary Fund". The notions "deficit", "increase", "decrease" and "debt" highlight that Europe was mostly represented in financial terms rather than political. This approach could be understood since from the onset of the financial crisis in 2008 Europe and especially Germany seemed reluctant to provide political solution and promoted severe austerity (see also Dullien & Guérot, 2012; Paterson, 2011).

This call for austerity remained with high intensity during the voting for the second Memorandum in Greece. The descending hierarchical classification of the political rhetoric regarding the voting of the second Memorandum classified the corpus into five distinct clusters (Figure 2).

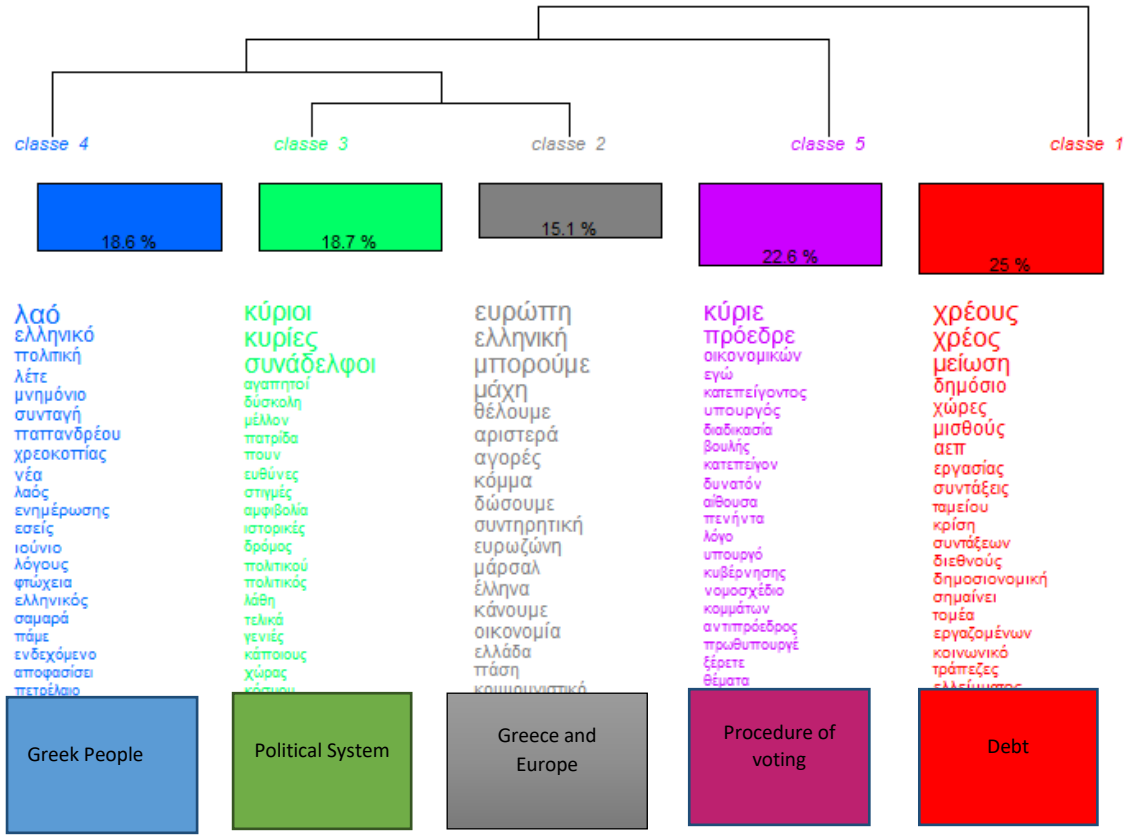

Figure 2. Hierarchical classification of lectical choices regarding the voting of the second Memorandum

The most dominant category ("Debt", 25%) is distinct from the other four, therefore it operates as a focal point of reference in this parliamentary discourse. This contrasts with the parliamentary discourse regarding the voting of the first Memorandum, where the dominant cluster was "Europe". This change appears due the internalization of the necessity of remaining inside the "Euro-family". However, in the second Memorandum the political system strives to handle the pre-requisite for remaining in the E.U. which is the managing of the debt. The fifth cluster (Procedure of voting, 22.6%) is the second more dominant category, due to the nature of the voting, which was again under terms of "urgency". There, political actors had to vote only in favor or against the Memorandum and no parliamentary discussion regarding the content of the Memorandum was foreseen, something that was also given during the voting of the first Memorandum. Cluster 4 ("Greek people") again focuses on the "national interest" and is connected again to Cluster 3 ("Political system", 16.7%) and "Greece and Europe" (15.1%). As with the parliamentary discourse regarding the voting of the first Memorandum, the political system again strives for credibility

under the name of the "interest of the country". But, at the same time the remaining of Greece within Europe is under consideration (cluster 2, "Greece and Europe, 15.1%) since political forces are challenging the norm that Greece should remain in the EU under any circumstances.

To examine how the Europe was represented in this parliamentary sitting, Table 2 contains the most statistically significant words of the second cluster, "Greece and Europe".

Word	**x^2**	**p value**
Europe	60,23	p < 0,0001
Greek	56,28	p < 0,0001
Battle	51,49	p < 0,0001
Left	37,77	p < 0,0001
Markets	36,37	p < 0,0001
Party	35,53	p < 0,0001
Conservative	33,07	p < 0,0001
Eurozone	33,07	p < 0,0001
Marshall	32,88	p < 0,0001
Greek	29,97	p < 0,0001

Table 2. Table of statistical significance of lectical choices of the cluster "Greece and Europe"

In this cluster the political parties differed in the way they illustrated the position of Greece within or outside E.U. This divide was between SYRIZA and KKE (left and communist party respectively) and PASOK, ND and LAOS (center and right-wing parties). Even though Europe is acknowledged as "conservative" by all members of the Greek parliament, the center and right-wing parties support that a "battle" should be given to remain in the EU. Though the left parties suggest that the "battle" should be given to leave the EU (see also Takas & Samaras, 2016). The pro-Memorandum rhetoric represents Europe under terms of necessity and despite the harshness of the measures Greece should "at all costs" remain in the EU. On the contrary, the anti-Memorandum rhetoric focuses on the measures that Europe demands to be taken, since these measures have a deep and profound negative effect on the social context. One of the major anti-Memorandum voices was the left wing-party SYRIZA that was later elected government but, to the surprise of many, signed the next Memorandum in Greece, the third consecutive Memorandum.

The hierarchical classification of the parliamentary transcript regarding the voting of the third Memorandum generated again five new clusters within the corpus, but with distinct differences in comparison to the clusters in the previous parliamentary sittings (Figure 3).

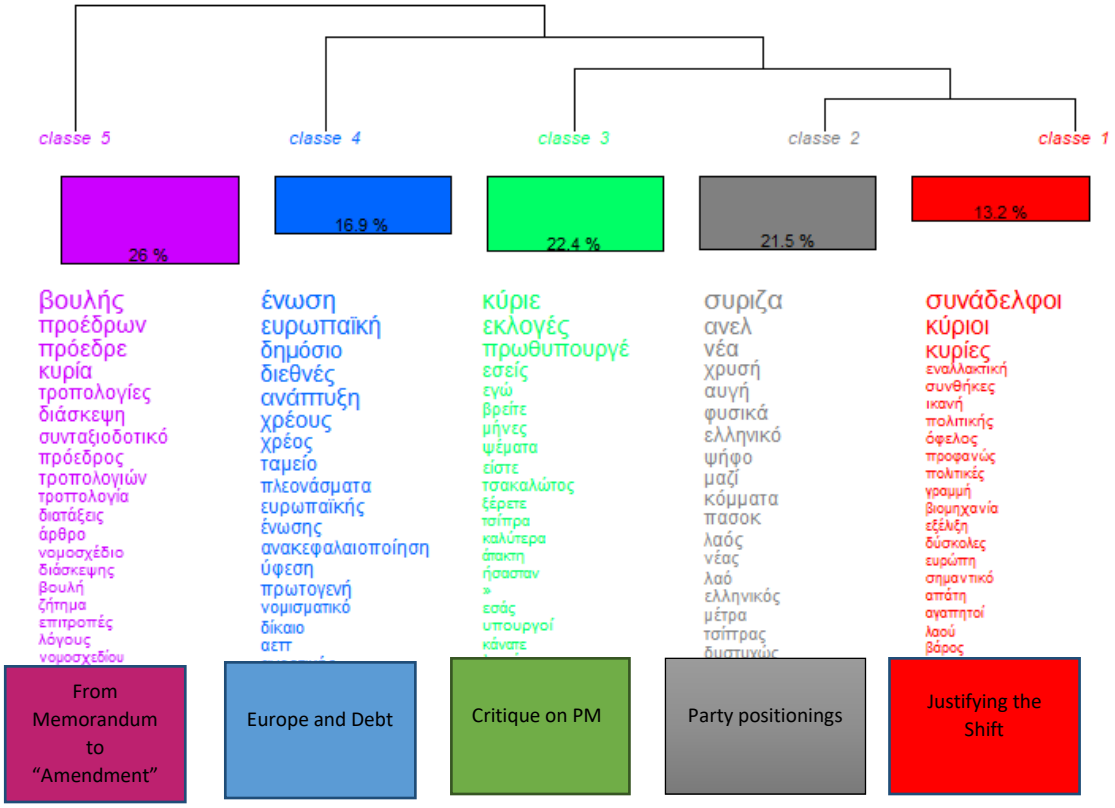

Figure 3. Hierarchical classification of lectical choices regarding the voting of the third Memorandum

The most dominant cluster is Cluster 5 (From Memorandum to Amendment, 26%) where the government, consisted of former anti-Memorandum parties, tried to explain the necessity of the third Memorandum not as a Memorandum per se but as amendments to pre-existing financial issues that had to be addressed. The representations of "Europe" and "Debt" have now been internalized into the second smallest cluster (Cluster 4, 18.9%) and is directly connected to all other three remaining clusters (Cluster 3, "Critique on PM, 22.04%; Cluster 2, "Party positioning", 21.5% and Cluster 1, "Justifying the shift", 13.2%). The pro-Memorandum shift of SYRIZA and ANEL forced the other parties that where mostly pro-Memorandum to shift their focus not on the Memorandum and the Debt themselves, but on securing the positioning of the partisan sphere of influence.

Word	x^2	P value
Union	73,42	p < 0,0001
European	67,82	p < 0,0001
Public	63,37	p < 0,0001
International	59,77	p < 0,0001
Growth	58,36	p < 0,0001
Debt	54,45	p < 0,0001
Fund	43,71	p < 0,0001
Surpluses	43,42	p < 0,0001
Re-capitalization	39,71	p < 0,0001
Depression	38,48	p < 0,0001

Table 3. Table of statistical significance of lectical choices of the cluster “Europe and Debt”

Table 3 depicts the necessity of Greece’s remain in the European Union and the acceptance of “Debt” as “public” (and not as private). The pro-Memorandum shift of SYRIZA and ANEL left little room for rhetorical antagonisms. The signing of the third Memorandum “tied” Greece’s remain in EU with the acceptance and management of the huge (formerly private) debt. “Europe” was again constructed in financial terms highlighting once more the absence of qualitative political critique.

Discussion of data

The aim of this study was to explore how the Greek political system represented Europe and its relation to Greece in times of severe crisis. In the parliamentary debate on the adoption of the first Memorandum, Europe was recorded as the most extensive cluster (see Graph 1), emphasizing the importance given by the Greek political system. The Greek political system was called for the first time to negotiate its relationship with Europe under conditions of conflict, as it had to consolidate its position in the European Union. Europe's image is shaped by economic conditions, and the reference to this includes the European Union, the European Central Bank and the International Monetary Fund. Europe's economic-centric approach highlights Greece's economic dependence. The reference to the Troika is made to construct the "Memorandum or Bankruptcy" dilemma, implying that non-voting of the Memorandum automatically means that Greece would no

longer be able to borrow financial resources. Thus, Europe is constructed having a strong position in the political rhetoric with the requirements of which the Greek political system is called to comply (see also Papastamou, Gardikiotis, & Prodromitis, 2017). The pro-memorandum rhetoric fully complies with this approach as it considers the signing of the Memorandum to be a "patriotic duty" since it ensures Greece's position in the EU. On the contrary, the anti-memorandum rhetoric emphasized in the existence of an "alternative route" outside the European Union.

Regarding the parliamentary debate on the voting of the second Memorandum, "Europe" and "Greece" as representations, have now been integrated into a much smaller cluster (see Figure 10), as debt, despite two years of severe austerity, constantly threatening the viability of the Greek economy. Thus, the thematic “Debt” itself is the central theme of reference and country's position in Europe is interpreted through it. The concept of the Memorandum is again a central reference, as it will ensure the country's viability and is a focal rhetorical reference. Europe is once again in a position of "power", as in the parliamentary debate on the first Memorandum, the "Memorandum or Bankruptcy" dilemma remains, as well as the rhetorical framework of the Memorandum under "patriotic duty". On the contrary, anti-memorandum rhetoric depicts Europe under conditions of oppression and non-progress. In the present parliamentary debate, despite the limited visibility of the "Europe and Greece" cluster, the formation of “Europe” is taking place on ideological terms (see alsoTakas & Samaras, 2016). The pro-memorandum rhetoric presents a conservative approach in terms of full submission and compliance so that Greece remains in the "heart of the EU" and development is ensured, while anti-memorandum rhetoric frames Europe in terms of blackmailing. While in the parliamentary debate on the first Memorandum Europe was a dominant theme, the representation of which was a central concern of parliamentary rhetoric, in the second Memorandum there are processes of internalizing the need for the country to remain in the EU and comply with Europe’s mandates. At the same time, in the first parliamentary debate, Europe was a separate rhetorical construction, while in the second, Europe appeared in the same cluster with "Greece". In the parliamentary debate on the third Memorandum, Europe is again not the main reference, but rather the second smallest cluster (see Figure 19).

More specifically, Europe, in the third parliamentary debate, is associated with clear references to the concept of Debt, which was the central reference in the debate on the adoption of the second Memorandum. In the first parliamentary debate, the main topics were “Europe and Greece”, with almost equal central references. In the second parliamentary debate, Europe and Greece co-appeared in a less important cluster in the dominant theme of Debt. In the third

parliamentary debate Europe is depicted with limited visibility. This process highlights how central conflicting concepts in the broader political parliamentary dialogue lose their centrality and are directly linked to the concept of Europe. During the two years between the voting of the first and second Memoranda, the "necessity" of Greece's remaining in Europe was fully internalized and in the three years between the signing of the second and third Memoranda, the "property" of the Debt was fully internalized. In these three years, the Debt has been internalized as "Greek", "public" and the only way to consolidate the country and get out of austerity is to manage the debt. The parliamentary debate on the adoption of the third Memorandum was marked by the pro-memorandum shift of SYRIZA-ANEL. This shift further reduced the conflicting reports in Europe and fully complied with the internalization of the Debt, as it was called upon to simply manage it being unable to politically address the issue. The whole approach highlighted Europe's inability to politically handle the financial crisis and Europe's persistence in econometric approaches, disregarding the social implications.

Conclusion

Regarding the parliamentary discussion for the voting of the first Memorandum, "Europe" was the dominant representation and was constructed under econometric terms in an effort to evaluate and comprehend the "other". The parliamentary discussion for the voting of the second Memorandum focused on the "Debt" was the dominant theme and at the same time Europe was represented in the smallest theme incorporating the notion of "Greece". The political rhetoric focused on the relationship between Europe and Greece, arguing against or in favor of Greece's remain in the European Union. In the parliamentary discussion regarding the voting of the third Memorandum, the pro-Memorandum shift of the former anti-Memorandum political parties SYRIZA and ANEL, diminished the importance of challenging both the debt itself as well as the position of Greece in- or outside the European Union. The remaining of Greece in Europe and debt were internalized, were fully accepted and the primary concern was the "management" of Europe's demands on severe austerity.

While Europe is nowadays facing the pandemic of corona-virus, hopes are growing that Europe will fulfil its political integration by avoiding to address matters in a strictly financial approach. Even though Europe seemed reluctant to dynamically handle the previous crisis by showing solidarity and social sensitivity it is now crucial to re-negotiate its existence and prove to be an actual Union facing collectively this new crisis. Future studies could focus on the

representation of Europe in the parliamentary discourse during and after the corona virus period. It would be of particular interest to examine to what extent in times of crisis the political systems "call upon" Europe to collectively face issues that concern the whole entity of the European Union.

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Situational Factors and Increased Workplace Burnout: A Study of Influences Affecting Current Younger Employees

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Abstract

Workplace burnout has been on the rise in recent years, and stress is a significant contributor. The World Health Organization (WHO) considers burnout as an "occupational syndrome," which is often a result of chronic stress. There has been an emergence in topic related studies, a need for clarity, diagnosis, and treatment regarding workplace burnout. The need for continual research is essential for further understanding of this phenomenon. Burnout has two contribution factors; situational factors and individual factors that contribute to stress. Situational factors include job demands and resources. Individual factors include financial situations and individual personality. These factors can affect the way persons respond to overloaded work responsibilities. This condition often results in a reduction in professional efficacy and productivity. This research explores workplace burnout in employees under the age of 50, often referenced to as younger employees and the relationship between workplace burnout and situational factors. Exploring the effects of why workplace burnout has increased in recent years could lead to a better understanding of the condition, and the suggestion of measures to reduce burnout. The research of burnout would be beneficial toward the continued understanding of global workplace behavior as it relates to the topic of stress management.

Keywords: workplace burnout; burnout; occupational syndrome; stress, stress management.

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Introduction

This article discusses the importance of further research regarding factors related to workplace burnout, situational factors, and how it affects personal mental health. Workplace burnout has become a concern worldwide in several industries and has affected all age groups that are in the workforce. The majority of current research has been focused on the top ten professions that have the most workplace burn as physicians, nurses, social workers, teachers, school principals, attorneys, police officers, public accountants, food service workers, and retail workers; due to these professions being highly-stressful, and highly demanding.

The World Health Organization (WHO) is embarking on the development of evidence-based guidelines on mental well-being and its connection to workplace burnout. In May 2019, the WHO estimated that 264-million people suffer from depression, one of the leading causes of disability. According to the WHO, repeat episodes of depression or extended periods of depression can be diagnosed as clinical depression. Clinical depression has been linked to workplace burnout, which can affect several aspects of a person's daily life and workplace responsibilities. Depression and disability have become costly in the workplace, and cost the global economy $1-trillion US dollars annually in lost productivity.

Situational factors are job demands and resources that can affect the way that an individual responds to work responsibilities that can become work overload and lead to unhealthy mental well-being. Workplace burnout is defined as a syndrome conceptualized as a result of chronic workplace stress that has not been successfully managed. Work overload is significantly connected or associated with burnout and emotional exhaustion. A negative work environment can lead to physical and mental health problems, such as absenteeism, lost productivity, and high employee turnover.

Literature Review

The articles and research shared in this narrative review serve to enrich the research findings of this study by presenting other published research regarding the connections of stressors, depression, and workplace burnout. Past evidence has underestimated burnout and its relation to depression. Prior studies revealed that higher levels of pressure in the workplace led to lower self-efficacy and tiredness at work. A possible source of stress may result from personal cognitive assessment as a form of response to one's own pressures that eventually lead to burnout. Low self-efficacy can lead to setbacks, attribute to success or failure, and neglect the factors of their inner ability and efforts.

The study "The Buffering Effect of Workplace Resources on the Relationship between the Areas of Worklife and Burnout" (Jiminez & Dunkl, 2017) explores the benefits of workplace resources and their role in workplace burnout, related to the stress-strain relationship. This study used a longitudinal sample of 141 Austrian workers that participated in two online studies over two-years. The results showed that workload is connected to emotional exhaustion and work rewards and values are related to cynicism, but only if resources are available in the workplace. Further moderating effects of resources supported the outcome of personal accomplishment. Workplace resources showed an increase in personal accomplishments. The study concluded that despite the short time of two-years, there was evidence that workplace resources were essential in prevention factors for burnout. The study also showed that employees that experienced high levels of control in a low resource workplace showed fewer personal accomplishments. Additional research and investigation are needed regarding workplace burnout stressors relationship for a more extended period to understand the full impact and benefits of workplace resources.

Schonfeld and Bianchi examined the overlapping of burnout and depression (2016). The researched group of 1,386 teachers in 18 United States public schools participated in the study seven months during a school year. The depression module of the Patient Health Questionnaire concluded that the magnitude of burnout and depression overlapped, and treatment for depression would be beneficial for workers that identified as being burnt-out.

> "A fundamental factor, however, that links burnout and depression is the stress of not having control over one's environment. According to the learned helplessness theory, when an individual perceives that exerting control of his or her environment, particularly in aversive

situations (and accessing important resources and pursuing major goals), is impossible, then the individual may no longer attempt to cope with such situations and become at risk for depression" (Gilbert, 2000; Peterson, Maier, & Seligman, 1993).

Many burnout patients exhibit motivational patterns reflective of learned helplessness (Peterson et al., 1993; Van Dam, Keijsers, Eling, & Becker, 2015)" (Schonfeld, & Bianchi, 2016). The study revealed there was a strong correlation between burnout and symptoms of depression and that traditional depression treatments were beneficial to help employees experiencing workplace burnout.

In a study involving teachers, Yu, Wang, Zhai, Dai, and Yang, 387-middle-school teachers completed the Perceived Stress Scale questionnaire in a classroom setting. All participants were aware of the research background, and purpose, and provided written consent to participate in the study. The study revealed that stress positively correlated with burnout, and self-efficacy did correlate negatively with burnout. The findings of this study showed that prior researchers provided valuable evidence on how mental health with provided resources, was beneficial in the workplace. Multiple studies identify stress as among the direct causes of job burnout among teachers and job burnout as an extreme form of work-related stress (Kyriacou, 1987). At present, teachers are being pressured mainly by role conflict, role ambiguity, relationship with students, relationship with colleagues, work overload, long working hours, and high work intensity, all of which cause mental and physical exhaustion, frustration, depression, and passive or indifferent perspectives toward life and work (Slick1997; Yankelevich et al. 2012). When work-related pressure is not alleviated promptly and effectively, teachers tend to lose their passion for education as well as teaching. They experience a state of overwhelming tiredness, completely lose their motivation, and begin demonstrating passive, negative, or apathetic attitudes toward their students. Therefore, a high level of pressure tends to excessively consume the passionate and physical resources of teachers, ultimately leading to an unembellished state of job burnout (Jou et al. 2013; Peng et al. 2013; Veldman et al., 2013). The study supports that self-efficacy has an effect on burnout (Yu et al., 2015).

Organizations are capable of taking a proactive approach to burnout. A study by Del Bosque and Karl focused on exploring workplace burnout, and the measures organizations can take to help employees through training and education (2016). Findings show three cognitive functions to have a connection to burnout, executive functions, attention, and memory. The connection of high levels of

work pressures and cognitive demands lead to burnout (Golanka, Mojsa-Kaja, Gawlowska, & Popiel, 2017). Furthermore, suggesting individuals experiencing burnout also experience impaired cognitive function as well as attention and memory problems (2017).

The shared articles and research in this literature review have shown that additional research is needed to understand burnout better. Employee assistance has been linked to being a benefit to decreasing burnout and has proved to reduce connections of stressors, depression. As additional research is done in the future, it will provide clarity, diagnosis, treatment, and understanding of this global workplace "occupational syndrome."

Methodology

The research for this article is qualitative in nature incorporating interviews and the analysis of respondent data. The reason for conducting a qualitative study was to learn more about the opinions and motivations of respondents in relation to this topic. What resulted was a deeper and more holistic understanding of the nature of burnout.

Participants of the study represent individuals under 50-years of age and work full-time (40-hours/weekly). The specific logic behind the participant qualifications was simply an attempt to narrow the pool of respondents, while considering respondents over the age of 50 mostly find themselves settled or on the path to becoming more settled career-wise after that age. The researchers decided not to share the interview questions (Appendix I) before meeting participants for the interviews. There was a consensus that respondents could potentially have biased opinions if they knew of the topic ahead of time.

The participant breakdown as follows:

- Participant A – Foster Care Life Coach
- Participant B – Retail Team Lead
- Participant C – Military Personnel Division
- Participant D – Foster Care Case Planner
- Participant E – Paraprofessional
- Participant F – Retail Marketing Manager
- Participant G – Transportation Security Administration (TSA) Transportation Security Inspectors
- Participant H – Social Worker
- Participant I – Special Education Teacher

- Participant J – Department Leader – Engineer

The approach to the research within this article incorporated a thematic interpretative analysis to understand the phenomenal nature of the topic of burnout through the experiences of others. As a result, the study is exploratory with a focus on the contributing factors and effects of burnout. It is important to note that the analyzed data is from a limited sample within one geographic area and does not represent the universal views or results of a global population. The study therefore offered an intimate exploration of stressors that contribute toward feelings of anxiety and burnout among a select group of respondents.

The participants for this study represent a cross-section of individuals from different industries whom were all willing to discuss their personal experiences within the workplace regarding the topic of this study in a relaxed and transparent manner. Respondents responded to open-ended questions that led to discussion, and participants were encouraged to expand freely. The use of predetermined questions supported the process of uncovering information relevant to the burnout. Responses produced purposeful sampling through the cooperation of individuals directly affected by issues of burnout.

2.

3. Burnout

Workplace burnout is work-related stress that can cause physical or emotional exhaustion that can affect a reduction in professional accomplishments and loss of personal identity. Many of the participants for this study described how the leadership within their workplace has a significant impact on how they responded to their workload or work responsibilities and can have an effect on their personal life. Studies have shown that employees under the age of 50 suffer from emotional symptoms, work imbalance between work-life balance more often, which can lead to stress or failure to complete their work.

Participant E – Paraprofessional discussed,

> "Workplace burnout is when someone is overworked and underpaid, which leads to burnout from working too many hours. I don't feel that in my current position, I fall under the work burnout category because I'm new to this position, and it is a position that allows me to do something I like and enjoy. I'm here to do whatever is need for now, so I'm not burned out yet. In the past, in another position and company, I was very stressed. My personality changed, I was irritable when I was at work, I wouldn't smile, and I had to bring work home, which brought stress onto my family."

According to the WHO (2019), there are three dimensions to burnout, feelings of depletion or exhaustion, an increase of mental distance from job responsibilities or negative or cynicism related to job responsibilities, and reduced professional efficacy. The symptoms of depersonalization can lead to severe emotional stress, trauma, and a connection to exhaustion, which can lead to a lack of personal accomplishments, decrease in feelings of competence, decrease in self-efficiency, and decrease in the sense of achievement.

Participant G – Transportation Security Administration (TSA) Transportation Security Inspectors stated,

> "I have experience being stressed and depressed from work. Work became a chore, and I had to force myself to go to work daily. This all affected my health and motivation."

Participant H – Social Worker has similar sentiments,

> "Our team leaders are more concerned about numbers. We are required to maintain a certain caseload without regard to quality. This stresses me out."

Misleading and lack of communication can become an issue between employees and management. This can lead to emotional exhaustion, depersonalization, and diminished personal accomplishment. Some researchers believe, "emotional exhaustion was the trait of burnout that was more consistently related to the group of institutions with more unfavorable working conditions regarding autonomy, organizational support, and control over the environment." (Nogueira, L.S., Sousa, R.M.C., Guedes, E.S., Santos, M.A.D., Turrini, RNT., Cruz, D.A.L.M.D., 2018).

Participant B – Retail Team Lead stated,

> "There are several days that I feel burned out from work; it would help if management would provide accurate staffing, training, and plan ahead for certain situations; my stress level would decrease. It would also be beneficial if management would jump in and help at stressful times. Assistance from management can make a big difference in a stressful situation."

Participant J – Engineer also contributed,

> "I love what I do, but sometimes I feel I am taken for granted. As my division's team leader, I am responsible for training new staff. I do not like doing this, and every time I have to, I get anxiety. I know how to do the job, but I am not a trainer, and my bosses could care less. Having new employees go through an organized training program would take immense pressure off of me."

Different types of leaders have different effects on employees, which leads to different responses in the workplace. Transformational leadership can heighten the consciousness of employees to achieve organizational outcomes that lead to personal outcomes. Studies show that "organizational outcomes, including subjective assessment of organizational performance, absenteeism, and average sales." (Zhu, Chew, & Spangler, 2005).

Leaders should use communication to encourage intellectual and mental stimulation to increase employee intelligence, knowledge, and learning within the workplace. This type of leadership helps employees to learn to be innovative in their approach to problem-solving and solutions. Organizational learning and innovation are an essential part of and promote leadership support and improve performance. Organizational learning involves cognitive and behavioral changes, which are crucial to decreasing burnout in the long-term. Studies show that an essential part of reducing workplace burnout will be leadership support. Transformational leadership is an example of leadership support, which is beneficial to both employees and management. "Transformative leaders have charisma, provide inspiration, and promote intellectual stimulation." (Bass, 1999; Bass and Avolio, 2000; Conger, 1999)

A good transformational leader will motivate followers to aim for goals that are beyond their initial vision and self-efficacy and improve outcomes. Self-efficacy belief has an impact on how a person feels about their self through thoughts, emotions, and actions, which affect an individual's mental health. A leader can have a significant influence on a follower's self-efficacy through motivation and mentorship. Motivation is a primary domain for a follower's development and leadership support system.

Participant D – Foster Care Case Planner stated,

> "I had a supervisor at my agency that was in graduate school, and she incorporated a work support group that meets every other Friday after workhours to allow staff to discuss challenges, share ideas, and complain about work in a safe place. We discussed our "Rose and Thorn" for the week. This made me feel heard and less stressed at the end of the week. I actually looked forward to those Fridays."

Workplaces that promote mental health awareness and support are likely to decrease these risk factors related to depression and create a healthy workplace. It is suggested that "managers, executives, human resource specialists, and design consultants can keep the physical work setting from undermining the success of workplace initiatives-that encourage high performance." (Becker, F.D., Steele, F., 1995).

Due to the rapid changes in the workplace, it has created uncertainty and direct pressure on individuals. There has been an increase in the amount and intensity of requirements for enterprises and organizations. Work-life balance has been shown to had a tremendous effect on the psychological characteristics of individuals and how they handle rapid developments in society and how they respond.

Participant F – Retail Marketing Manager expressed,

> "Answering phone calls and emails are not a requirement for my job, but it is an expectation by upper management. Answer calls and emails during off-hours makes me feel frustrated, and it invades my personal time."

Studies have shown the correlations of psychological capital with emotional labor strategies can lead to burnout and trigger other health conditions. Some health conditions that are related to stress are mental health, heart disease, cholesterol, type 2 diabetes, cardiovascular disorders, musculoskeletal pain, fatigue, headache, gastrointestinal issues, reparatory problems, and mortality. Burnout can also lead to a lack of sleep, metabolic syndrome, and lead to exhaustion and weariness, which all show the link between work-life balance.

An individual's health can be affected in many ways, which can lower cortisol levels. Cortisol levels help to activate the immune system and other stress responses within the body. Reduced cortisol levels can lead to hyperactivity of the immune-inflammatory responses. Hyperactivity of the immune system can lead to chronic diseases such as cardiovascular disease, diabetes, and cancer. Underlying health conditions can result in a decline in overall health that can be from burnout.

Burnout can lead to a lack of sleep, metabolic syndrome, and physiological effects, which are all known to lead to cause a lack of concentration, exhaustion, and weariness. The link between overall health and burnout shows how vital work-life balance is to an individual's health.

Participant G – Transportation Security Administration (TSA) Transportation Security Inspectors suggested,

> "If more workplaces offered more vacation days, and a mental health person on staff stress levels would be reduced in more workplaces."

Participant A – Foster Care Life Coach suggested,

> "Offering mental health days, support from management, and teamwork would be beneficial in the workplace."

Stress reduction programs would be beneficial for companies to create a healthy workplace balance for employees and promote work-life balance. Some examples of stress reduction programs would be stress-reducing training, wellness programs, initiatives to help with awareness and techniques, and cognitive behavior therapy. These types of programs could lead to an increase in job satisfaction.

Job satisfaction is essential to employees because it affects a person's overall happiness, job satisfaction, decreased absenteeism, and lessens workplace burnout. It is suggested that managers "provide their employees work hour flexibility, work schedule flexibility, flexibility in the workplace, promoting health, and a healthy lifestyle, promoting well-being and preventing stress and burnout in the workplace, relaxation training." (Rožman, M., Treven, S., Čančer, V., and Cingula, M., 2017).

Conclusion

Future research regarding burnout would be beneficial towards the continued understanding of global workplace behavior as it relates to the topic of situational factors, stress management, and work-life balance that can promote mental health and support individuals. As more employees are identifying themselves as "not engaged" or "actively disengaged" when they describe their current work situation, it shows that it is vital for changes within the workplace. By the WHO, advocating awareness regarding the workplace as a severe issue affecting employees, it may be possible that more people will receive the assistance that they need for work-life balance. A healthy work environment is beneficial for employees to avoid sickness and physical deterioration, secure functional cognitive behavior, and promote positive and active attitude towards a balanced life. It is suggested that companies will need to find different resources that can introduce and implement burnout assistance to employees to allow communication, motivation, support services, and positive moral leadership. All of these things are a vital part of an employee and employer workplace balance.

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Appendix I

The research questions discussed during each interview were:

1. How many hours do you work each week on average?
2. Do you answer phone calls outside of your work hours?
   - Is this a requirement for your position at work?
   - How do you feel answering calls outside of your work hours?
3. Do you answer work emails outside of your work hours?
   - Is this a requirement for your position at work?
   - Do your work emails go directly to your cellphone?
   - How do you feel replying to emails outside of your work hours?
4. What do you consider to be self-care?
5. How much time do you spend on yourself each week?
   - Do you consider the amount of time you spend on yourself weekly enough?
6. Describe what professionalism would be in the workplace?
   - Do you think that most people subscribe to your definition of workplace professionalism?
7. Can you describe your relationships with others at your workplace?
   - How do these relationships affect you?
8. Do you know what workplace burnout is?
   - Would you consider yourself to fall under this category?
9. Do you think your workplace has a direct impact on your health?
10. What can organizations/workplaces do to help relieve workplace burnout?

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An Empirical Study on the Influence of Social Media on the Interpersonal Relationship of Middle School Students

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Abstract

With the development of society, social media plays an increasingly important role in people's life as it creates a new social environment, which has subsequently and greatly changed the mode of communication in younger students. The new social norm will inevitably influence their interpersonal relationships and skills. The present study aims to find out the influence of social media on the interpersonal relationship of middle school students (including junior middle schools and senior middle schools). To this effect, 210 middle school students and 3 teachers from two middle schools in Guangzhou city of China took part in the research. Three aspects are considered in this study: interpersonal interaction (including interactions with peers, teachers, and strangers), interpersonal cognition (including an individual's evaluation of others, self-awareness, and self-presentation) and social participation.

Keywords: Social Media, Middle School Students, Interpersonal interaction, Interpersonal cognition, Social participation.

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1. INTRODUCTION

With the development of society, social media plays an increasingly important role in people's daily life, which affects their life satisfaction, social trust and emotion (Zhao, 2014). The rapid development of social media has created a new social environment. The methods of communication have changed from face-to-face, letter and others in the past to virtual space, networks.

Interpersonal communication is an important part of individual social needs, and various interpersonal relationships have formed in the process of interpersonal communication (Wo et al., 2001). According to Ouyang (2000), interpersonal relationship is an important index to measure someone's psychological health. Having positive psychological qualities is one of the core literacy requirements for Chinese students (Lin, 2007). Many studies have shown that the quality of interpersonal has a significant effect on adolescents' social skills, psychological health and academic achievement. Good interpersonal relationships can promote adolescents' mental health, self-awareness and academic achievement (Ding et al., 2004).

In China, middle schools include junior middle schools and senior middle schools, of which junior middle schools include grades 7, 8, 9, and senior middle schools include grades 10, 11, 12. Middle school students nowadays are mostly the generation after 00s, who are digital natives. They grow up with digital technologies such as the Internet and mobile phones. However, middle school students are in a period of rapid development of physiology and psychology, and their physiological and psychological development characteristics will inevitably be reflected in their interpersonal communication (Wo et al., 2001). Therefore, the emergence of social media will have a significant influence on their interpersonal relationships. The quality of interpersonal relationships determines whether they can have a correct value orientation and healthy psychological development. What are the effects of social media on the interpersonal relationship of middle school students? How to give correct guidance to these students as to social media and help them to build proper interpersonal relationships? These questions are worth further research.

2. LITERATURE REVIEW

Human has obvious social attributes, which based on human sociality, that is, to achieve multiple relationships between individuals through practical activities. Compared with adults, the interpersonal relationship of middle school students is relatively simple, mainly including three

kinds: parent-child relationship, peer relationship and teacher-student relationship (Zhang, 2016). The existing researches have mainly discussed the influence of interpersonal relationship on the individual growth of middle school students from two aspects of teacher-student relationship and peer relationship (Zeng, et al., 2010). Social media breaks the traditional social ties that rely on geography, blood, etc., and brings interpersonal communication into a new era. Whether during life experience or learning, communication with strangers has become very common. Therefore, some scholars believe that there should be another relationship: the relationship with strangers (Wo, Lin, Ma et al., 2001).

Antony Mayfield defines social media as a new type of online media that can give users a lot of space to participate. For social individuals, social media can promote users to participate in social activities (Ni et al., 2016). Therefore, in the age of social media, interpersonal relationships should include a social participation relationship between individuals and society in addition to the relationship amongst individuals.

Social media can easily affect the three characteristics of adolescent development: social cognitive ability, self-concept and self-esteem, peer group relationships. Among them, social cognitive ability refers to the ability to understand and manage multi-source social information, including empathy, anticipation or perception of other people's responses, and assessing the status of individuals in social groups (Barbara. M. Newman, 2014). Therefore, the use of social media for interpersonal communication, in addition to interpersonal interaction and social participation, should also include the individual's self-awareness and self-presentation.

In this paper, the influence of social media on the interpersonal relationships of middle school students is considered in three aspects: interpersonal interaction, interpersonal cognition and social participation. Interpersonal interaction is the interaction between individuals, including interactions with peers, teachers and strangers; interpersonal cognition refers to an individual's evaluation of others, self-awareness, and self-presentation, such as publishing dynamics through social media, showing self, etc. ; Social participation refers to the individual's participation in social activities, that is, conscious and behavioural participation in economic, political, cultural, social work and other activities.

3. RESEARCH DESIGN

3.1 Participants

This study investigated 231 middle school students from two middle schools in Guangzhou, and interviewed three teachers. The three teachers come from different subjects and different positions, including the head teacher and the information technology subject teacher. The information technology teachers usually teach more classes and have a wide range of contact with students. They have a better understanding of the situation of the students in the whole school, and the head teacher, who is in charge of the class, has more contact with the students and has a deeper insight into the situation of the students. All participants in this study have experience of using social media.

3.2 Research tools

(1) Questionnaires

The questionnaire in this study includes two parts: (1) personal data, such as: gender, grade; (2) the influence of social media on interpersonal relationship (see appendix 1).

Based on the existing questionnaire of interpersonal relationship, this study designed a first draft of the questionnaire and revised it by two experts in the field of educational technology. The second part of the questionnaire is measured with a Likert five-point scale, in which 1 means strongly disagree, 2 means disagree, 3 means uncertain, 4 means agree, 5 means strongly agree. Before the implementation of the questionnaire survey, we randomly selected 37 middle school students for a pilot study, and found that the overall reliability alpha value of the second part of the questionnaire is 0.807, indicating a high reliability; then according to the consistency test of each dimension, we modify the options with large differences, and finally determine the reliability and validity of the questionnaire after revision and improvement.

"The influence of social media on interpersonal relationship" is mainly designed from three aspects: interpersonal interaction, interpersonal cognition, and social participation, including six dimensions and 16 questions. Among them, 1-7 are about interpersonal interaction (including the use of social media to communicate with peers, teachers, and strangers); 8-13 are about interpersonal cognition (the use of social media for self-presentation, the influence of social media on self-behaviour and evaluation of others); 14-16 are about social participation (the use of social

media to participate in social activities). A total of 231 questionnaires were collected, among which 210 were valid and 21 were invalid, with an effective rate of 90.91%. Among them, 114 are female, 96 are male, and the proportion of female and male is equal. The Respondents involve in all grades of middle school and have experience in using social media.

(2) Interviews

The interview questions are designed based on the structure of interpersonal relationships and the characteristics of interpersonal relationships among middle school students. The interview outline includes six semi-closed questions. The content of the interview involves the evaluation of social media, the current situation of middle school students using social media for communication, and teachers' attitudes (see appendix 2).

4. RESULTS

4.1 Analysis of questionnaire survey results

(1) Description of the influence of social media on the interpersonal relationship of middle school students in various dimensions

Table 1 The influence of social media on the interpersonal relationship of middle school students

	Dimension	**Id**	**Title**	**Mean**	
Interpersonal interaction	1. Using social media to communicate with peers	1	Social media is an important way to communicate with friends and know their dynamics.	4.09	4.00
		2	The use of social media is an important way to strengthen my relationships with my classmates and friends.	4.05	
		3	The use of social media can strengthen the interpersonal relationship between me and my peers.	3.85	
	2. Using social media to communicate with teachers	4	Social media is an important way to strengthen my relationships with my teachers.	2.76	2.50
		5	I use social media to communicate with unfamiliar teachers.	2.25	
	3. Using social media to communicate with strangers	6	I will contact strangers I know on social media in real life.	2.42	2.35
		7	When I'm in a low mood or in trouble, I'll talk to strangers I know on social media and	2.28	

			ask for help.		
Interpersonal cognition	4. Social media is used for self-presentation	8	I often use social media to express my mood and life.	3.50	3.33
		9	I often use social media to comment on others' news and express myself.	3.39	
		10	I often post and present myself through social media.	3.11	
	5. The influence of social media on self-behavior and evaluation of others	11	Self-presentation and self-evaluation in social media will influence my behavior in real life.	2.70	2.89
		12	The evaluation of others in social media will affect my behavior in real life.	2.82	
		13	The different performance of others in social media and real life will affect my evaluation of others.	3.15	
Social participation	6. Using social media to participate in social activities	14	The use of social media has strengthened my attention to social hot spots and current events.	3.77	3.10
		15	I often use social media to express my views on social affairs.	2.86	
		16	I often discuss social events with others through social media.	2.95	

Social media has a greater influence on the communication between middle school students and their peers (M = 4.00). The use of social media can promote and strengthen the communication amongst middle school students and their peers, because the original intention of most middle school students to use social media is to contact their classmates and friends (85.2%).

The mean value of self-presentation and participation in social activities through social media is slightly higher than 3, which indicates that social media can partly influence middle school students to express, present themselves and participate in social activities.

The influence of social media on the interpersonal relationship of middle school students is not significant in three aspects (M<3). The use of social media to communicate with teachers (M = 2.50), the use of social media to communicate with strangers (M = 2.35), and the influence of social media on self-behavior and evaluation of others (M=2.89).

(2) The influence of social media on the interpersonal relationship of middle school students of different genders

Table 2 The influence of social media on the interpersonal relationship of middle school students of different genders 1

Gender	Communicate with peers	Communicate with teachers	Communicate with strangers	self-presentation	Self - behavior and evaluation of others	Social participation
Male	3.99	2.70	2.48	3.22	2.98	3.27
Female	4.00	2.34	2.24	3.44	2.82	3.13

The influence of social media on the interpersonal relationship of middle school students of different genders is not significant. Table 2 The influence of social media on the interpersonal relationship of middle school students of different genders 1In terms of self-presentation on social media, the mean value of female students is slightly higher than that of male students. In terms of using social media to communicate with teachers, strangers, self-behaviour, evaluation of others and social participation, the mean rate of male students is higher than that of female students.

To analyse whether there is a significant difference in the influence of social media on interpersonal relationship among middle school students of different genders, we conducted the t-test (as shown in

Table 3).

Table 3 T-test of the influence of social media on interpersonal relationship among middle school students of different genders2

		Levene test of variance equation		T-test for the mean equation			
		F	Sig.	t	df	Sig. (double side)	The mean difference
Using social media to communicate with peers	Assuming equal variances	1.294	.257	.154	208	.878	.01645
	Assuming variances are not equal			.152	192.830	.879	.01645
Using social media to communicate with teachers	Assuming equal variances	3.137	.078	3.021	208	.003	- .36541
	Assuming variances are not equal			2.983	188.729	.003	- .36541
Using social media to communicate with strangers	Assuming equal variances	2.330	.128	1.563	208	.120	- .24315
	Assuming variances are not equal			1.548	192.768	.123	- .24315
Social media is used for self-presentation	Assuming equal variances	2.151	.144	1.808	208	.072	.22037
	Assuming variances are not equal			1.829	207.669	.069	.22037

The influence of social media on self-behaviour and evaluation of others	Assuming equal variances	384.	.536	1.360	208	.175	- .15720
	Assuming variances are not equal			1.366	204.620	.174	- .15720
Using social media to participate in social activities	Assuming equal variances	259.	.612	1.123	208	.263	- .13859
	Assuming variances are not equal			1.129	205.231	.260	- .13859

Table 3 T-test of the influence of social media on interpersonal relationship among middle school students of different genders2The results show that the two-sided test Sig. value of using social media to communicate with teachers is 0.003, and the value is less than 0.05, which indicates that there is a significant difference between different genders in using social media to communicate with teachers, and social media promotes and strengthens communication between boys (M = 2.70) and teachers in middle school more significantly than girls (M = 2.34). In the other five dimensions, the Sig. values are greater than 0.05, and the influence is not significant.

(3) The influence of social media on interpersonal relationship of middle school students in different grades

Table 4 The influence of social media on the interpersonal relationship of middle school students in different grades 3

Grade	Communicate with peers	Communicate with teachers	Communicate with strangers	Self-presentation	Self - behavior and evaluation of others	Social participation
7	4.00	2.77	2.36	3.51	2.67	3.43
8	3.82	2.58	2.28	3.35	2.94	3.26
9	3.91	2.23	2.73	3.55	3.36	3.19
10	4.00	2.39	2.25	3.12	2.78	3.04
11	4.31	2.44	2.38	3.50	2.60	3.04
12	3.98	2.74	2.29	3.43	3.53	3.37

As shown in Table 4, except for the influence of social media on the self-behaviour and evaluation of others, there is no significant difference in other grades.

To analyse whether there is a significant difference in the influence of social media on the interpersonal relationship of middle school students in different grades, we conducted a one-way ANOVA with "grade" as the factor, as shown in Table 5.

Table 5 The difference test of social media influence on interpersonal relationship of middle school students in different grades (part)4

Dependent variable		(I) Grade	(J) Grade	The mean difference (I - J)	Standard error	p-value
Using social media to communicate with teachers	LSD	7	8	.18750	.24316	.442
			9	.54006*	.21423	.012
			10	.38260*	.15885	.017
			11	.33333	.25398	.191
			12	.03554	.24831	.886
Social media is used for self-	LSD	10	7	-.38962*	.15804	.015

presentation			8	-.23378	.22711	.305
			9	-.43404*	.19617	.028
			11	-.38087	.23854	.112
			12	-.31271	.23256	.180
The influence of social media on self-behavior and evaluation of others	LSD	9	7	.68468*	.19352	.000
			8	.41440	.24368	.091
			10	.57402*	.17811	.001
			11	.75447*	.25252	.003
			12	-.17057	.24788	.492
		12	7	.85525*	.22430	.000
			8	.58497*	.26877	.031
			9	.17057	.24788	.492
			10	.74459*	.21114	.001
			11	.92504*	.27681	.001
Using social media to participate in social activities	LSD	7	8	.17097	.24497	.486
			9	.23888	.21583	.270
			10	.39512*	.16003	.014
			11	.38854	.25587	.130
			12	.05806	.25016	.817

The LSD test shows that there is a significant difference between seventh graders, ninth graders and tenth graders in using social media to communicate with teachers. Social media promotes and strengthens the communication between seventh graders (M=2.77) and teachers more significantly than ninth graders (M=2.23) and tenth graders (M=2.39).

In terms of the use of social media for self-presentation, there is a significant difference between tenth graders, seventh graders and ninth graders. Compared with seventh graders (M = 3.51) and ninth graders (M = 3.55), tenth graders (M = 3.12) use social media to present themselves less frequently.

In terms of the influence of social media on self-behaviour and evaluation of others, there is a significant difference between ninth graders and seventh graders, tenth graders, eleventh graders, and there is also a significant difference between twelfth graders and seventh graders, eighth graders, tenth graders, eleventh graders. Ninth graders (M=3.36) are more likely to be influenced by

social media compared to seventh graders (M=2.67), tenth graders (M=2.78), and eleventh graders (M=2.60) on self-behaviour and others' evaluation. Compared to seventh graders (M=2.67), eighth graders (M=2.94), tenth graders (M=2.78), and eleventh graders (M=2.60), twelfth graders (M=3.53) are more likely to be influenced by social media on self-behaviour and others' evaluation. In terms of using social media to participate in social activities, there is a significant difference between seventh graders and tenth graders. Seventh graders (M=3.43) are more likely to use social media to participate in social activities than tenth graders (M=3.04).

4.2 Analysis of the interview results of teachers

(1) Teachers' evaluation of social media

Teachers tend to take a positive attitude towards middle school students' use of social media. They believe that social media can be widely used in life and learning. Because social media has the advantages of low cost, convenient communication, and strong interaction, it will become a trend for the whole people to widely use social media. In this environment, the use of social media can promote timely interaction between teachers and students, and help to establish a good relationship between teachers and students. But some teachers say that using social media to communicate with students will extend their working hours and take up rest time.

(2) The current situation of the use of social media for teachers to communicate with students

According to the interview results, teachers and students communicate less through social media. On the one hand, schools don’t advocate the use of social media for communication; on the other hand, although teachers hold a positive attitude towards the use of social media, some teachers still say they will not use social media to communicate with students, and only occasionally provide some learning resources for students. Besides, teachers and students are less aware of the use of social media for communication. At present, teachers often send good learning resources to students through social media, but this is a one-way transmission of information. The better situation is that teachers use social media to solve the problems raised by their classmates, which is very rare. However, On a formal occasion or informing important things, teachers tend to choose the telephone and face-to-face.

(3) The evaluation of the influence of middle school students' use of social media on teacher-student relationship

Compared with traditional face-to-face communication, some students tend to use social media to communicate with teachers, and also actively want to communicate with teachers through social media. For example, a teacher said, "after teaching the content of e-mail, I posted my email on the blackboard, and when students encounter problems, they will send me an email.". Through social media, students can speak to teachers more directly, which makes their relationship closer. However, students are curious about teachers, and they will use social media to mine some personal information about teachers.

5. DISCUSSION AND CONCLUSION

5.1 The influence of social media on the interpersonal interaction of middle school students

Interpersonal interactions include interactions between individuals and peers, teachers, and strangers. Middle school students use social media to communicate more with peers (M = 4.00), but less with teachers (M = 2.50) and with strangers (M = 2.35), because most middle school students use social media to contact classmates and friends, and students and teachers have less initiative to communicate outside of class. In psychology, the rapid physical maturity of middle school students makes them have a strong sense of adulthood, hoping to make decisions like adults. However, teachers still regard them as children and limit them too much in learning, which makes them reluctant to communicate with teachers, and the relationship with teachers is weakened (Wo, Lin, Ma, etc., 2001). For teachers, although some teachers hold a positive attitude towards the use of social media, they think that it will extend their working hours and take up their rest time, so some teachers seldom use social media to communicate with students. Relevant researches have also shown that teachers recognize the significance of teacher-student communication after class, but do not act well (Li, 2014). Besides, although the equal relationship between teachers and students is advocated, there is still a concept of "honor the teacher and respect his teaching" in China, which emphasizes the authority of teachers, and this unequal teaching relationship is easy to be

generalized in real life, which affects the equal communication between teachers and students in society (Cong, 2005).

For middle school students of different genders, there is a significant difference in the use of social media to communicate with teachers. Social media promotes and strengthens communication between male students (M = 2.70) and teachers in middle schools more than female students (M = 2.34). But generally speaking, middle school students use social media to communicate with teachers infrequently. For different grades, there is a significant difference between seventh graders, ninth graders, and tenth graders in using social media to communicate with teachers. Social media promotes and strengthens the communication between seventh graders (M=2.77) and teachers more significantly than ninth graders (M=2.23) and tenth graders (M=2.39). Relevant researches have also shown that the quality of teacher-student relationship is the best for seventh graders (Yao, Tang, 2005).

5.2 The influence of social media on the interpersonal cognition of middle school students

Interpersonal cognition includes self-presentation and the influence of social media on self-behaviour and evaluation of others. To a certain extent, social media will affect middle school students' use of social media to express and present themselves. Middle school students use social media to express their views, post dynamics, and show themselves more frequently. Middle school students are mostly in adolescence and have a strong psychological need for identity, and the positive feedback of self-presentation on social media can promote adolescents' self-identity (Liu, Sun, Zhou, etc., 2015), which can also encourage middle school students to use social media to present themselves, get feedback from others, and then get a sense of self-identity. However, different grades of middle school students use social media to present themselves differently. There is a significant difference between tenth graders, seventh graders and ninth graders. Compared with seventh graders (M = 3.51) and ninth graders (M = 3.55), tenth graders (M = 3.12) use social media to present themselves less frequently. Some studies have shown that the self-identity level of senior middle school students is slightly higher than that of junior middle school students (Liu, Sun, Zhou, et al., 2015), and junior middle school students improve their self-identity through self-presentation of social media. In addition, in the interview, some teachers said that the school does not advocate the use of social media. For senior middle school students, most of them are forbidden to use mobile phones on campus, which may also lead to senior middle school students use social media to

publish dynamic information and present themselves less frequently than junior middle school students.

On the other hand, social media has little effect on the self-behaviour of middle school students and the evaluation of others, but it is different for different grades. There is a significant difference between ninth graders and seventh graders, tenth graders, eleventh graders, and there is also a significant difference between twelfth graders and seventh graders, eighth graders, tenth graders, eleventh graders. Ninth graders (M=3.36) are more likely to be influenced by social media compared to seventh graders (M=2.67), tenth graders (M=2.78), and eleventh graders (M=2.60) on self-behaviour and others' evaluation. Compared to seventh graders (M=2.67), eighth graders (M=2.94), tenth graders (M=2.78), and eleventh graders (M=2.60), twelfth graders (M=3.53) are more likely to be influenced by social media on self-behaviour and others' evaluation. Facing middle school and college entrance examinations, ninth graders and twelfth graders tend to have greater psychological pressure, which is easy to cause anxiety and mood fluctuation. (Xiao, Zhang, 2016). Therefore, the behaviour of others on social media is more likely to cause changes in self-behaviour and the evaluation of others.

5.3 The influence of social media on middle school students' social participation

Middle school students are more willing to use social media to focus on social activities (M = 3.77), but they are less likely to express their opinions (M = 2.86) and discuss with others (M = 2.95). Some studies have also shown that most participants are reluctant to share their knowledge and views (Cabrera Á, Cabrera E F, 2002; ridings C, Gefen D, Arinze B, 2006). For students of different grades, there is a significant difference between seventh graders and tenth graders. Seventh graders (M=3.43) are more likely to use social media to participate in social activities than tenth graders (M=3.04).

In addition, through interviews and questionnaires, it is found that some teachers also believe that social media can promote timely interaction between teachers and students, which is conducive to the establishment of good teacher-student relationships, but at present schools do not advocate the use of social media.

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APPENDICES

Appendix 1: The questionnaire on the influence of social media on the interpersonal relationship of middle school students

Dear students:

We are from Beijing Normal University. Thank you for taking the time to fill in the questionnaire. This questionnaire is designed to investigate the influence of social media on the interpersonal relationship of middle school students. There is no standard answer. Please fill in it according to your own situation. The information collected in this survey is only for academic research. We will respect your privacy and security and will not disclose any information. Thank you for your support!

Part 1: basic information:

1. Your gender:

(1) Male (2) Female

2. Your grade:

(1) grade 7 (2) grade 8 (3) grade 9

(4) grade 10 (5) grade 11 (6) grade 12

Part 2: The influence of social media on interpersonal relationship

This section is a survey of the influence of using social media on you. Please select the appropriate number according to the following description. **(1 = Strongly disagree, 2 = Disagree, 3 = Uncertain, 4 = Agree, 5 = Strongly agree)**

Id	Title	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
1	Social media is an important way to communicate with friends and know their dynamics.	1	2	3	4	5
2	The use of social media is an important way to strengthen my relationships with my classmates and friends.	1	2	3	4	5
3	The use of social media can strengthen the interpersonal relationship between me and my peers.	1	2	3	4	5
4	Social media is an important way to strengthen my relationships with my teachers.	1	2	3	4	5

5	I use social media to communicate with unfamiliar teachers.	1	2	3	4	5
6	I will contact strangers I know on social media in real life.	1	2	3	4	5
7	When I'm in a low mood or in trouble, I'll talk to strangers I know on social media and ask for help.	1	2	3	4	5
8	I often use social media to express my mood and life.	1	2	3	4	5
9	I often use social media to comment on others' news and express myself.	1	2	3	4	5
10	I often post and present myself through social media.	1	2	3	4	5
11	Self-presentation and self-evaluation in social media will influence my behavior in real life.	1	2	3	4	5
12	The evaluation of others in social media will affect my behavior in real life.	1	2	3	4	5
13	The different performance of others in social media and real life will affect my evaluation of others.	1	2	3	4	5
14	The use of social media has strengthened my attention to social hot spots and current events.	1	2	3	4	5
15	I often use social media to express my views on social affairs.	1	2	3	4	5
16	I often discuss social events with others through social media.	1	2	3	4	5

Appendix 2: The interview questions

Q1: What do you think of social media?

Q2: Would you like to use social media to communicate with your students?

Q3: What do you think is the difference between social media and telephone in communication?

Q4: Do you think middle school students are willing to use social media to promote the relationship between teachers and students?

Q5: What is your expectation for middle school students to use social media to deal with the relationship between teachers and students?

Q6: What is your expectation for middle school students to use social media to deal with interpersonal relationships?