People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
University of Tlemcen

Faculty of Letters and Languages
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The Impact of Multilingualism on Maladaptive Daydreaming:

A Grounded Case of Multilingual Maladaptive Daydreamers

Dissertation submitted to the Department of English as partial fulfilment of the requirements for Master's degree in Language Studies

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2022– 2023

DECLARATION OF ORIGINALITY

We hereby submit our dissertation entitled "The Impact of Multilingualism on Maladaptive Daydreaming: Grounded Case of Multilingual Maladaptive Daydreamers" to fulfill the partial requirement for the degree of Master in Language Studies in the Faculty of Letters and Languages, department of English of Abu Bekr Belkaid University, Tlemcen. We truthfully declare that this research is the product of our original research investigation and contains no material previously published or written by another person nor material, which has been accepted for the qualification of any degree or diploma of a university or other institution. We also attest that this paper contains no plagiarism and is the result of our own investigation, except otherwise stated.

Ms. Amira GHALEM

Ms. Djamila HADDAD

Date: 18. 06. 2023

DEDICATION

To mom and dad,

To those with little paracosms in their heads,

Who dream more often than sleep,

Neither lost nor found,

To the dreamers.

To my grandfather, mom, and dad,

To Spacetoon,

And to those who would rather believe a beautiful lie than live an ugly truth,

To woolgatherers.

ACKNOWLEDGMENTS

ABSTRACT

This research was based on the acknowledgment of the presence of a variety of languages in a maladaptive daydream. Thus, it attempted to view the relationship between multilingualism, imagination, Maladaptive Daydreaming Disorder and the bidirectional influence between the variables. Previous research has tackled the disorder from a psychological perspective giving less attention to the implications of several manifestations of multilingualism during daydreaming. Moreover, it attempted to examine the influence of incorporating multiple languages on daydreaming habits, rate, frequency, and imaginative skills. Incorporating evidence from a semi-structured questionnaire, semi-structured interviews, as well as memos, this research demonstrated that languages are used interchangeably in some cases, while individually in others, with careful consideration. It deemed the accumulation of linguistic competence to be significant in the potency of the disorder. It suggested that, while several triggers exist, exposure to certain languages is often a trigger for maladaptive daydreamers. It also argued for the language being a developmental trajectory for the disorder, which is a factor that renders daydreaming maladaptive. Finally, it demonstrated that incorporating multiple languages is considered an enthralling addition to vividness and creativity. It concluded that maladaptive daydreams are tacit projections of different languages; also, incorporating multiple languages increases daydreaming rate, frequency, and imaginative skills, which renders it maladaptive. This research could not achieve representativeness; thus, the conclusions drawn are not generalizable.

Keywords: creative imagination, Maladaptive Daydreaming Disorder, mastery, Multilingualism, rate, realism, switching, trigger, use, vividness

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List of Abbreviations and Acronyms:

Abbreviation	Definition
MDers	Maladaptive Daydreamers
MDs	Maladaptive Daydreams

Acronyms	Definition
ADHD	Attention Deficit Hyperactivity Disorder
CA	Content Analysis
DID	Dissociative Identity Disorder
ERPs	Event-related Potentials
GT	Grounded Theory
GTM	Grounded Theory Method
MD	Maladaptive Daydreaming
OCSS	Obsessive Compulsive Spectrum Disorders
PTSD	Post-Traumatic Stress Disorder
ToM	Theory of Mind

General Introduction

Psychologists and psychoanalysts have long tried to decipher how daydreaming, which is regarded as a common cognitive faculty amongst humans, is processed in the brain. At the start of the millennium, Maladaptive Daydreaming Disorder (henceforth, MD) was recognized as a distinct mental construct and is now seen as a discrete mental disorder. MD is characterized as a behavioural activity that is intense, immersive, and addictive that consumes much of a person's waking time to the point of encroaching upon their daily tasks. There is considerable body of research that tackles the characteristics, symptoms, triggers as well as developmental trajectories of said disorder.

On the other hand, the previous couple of centuries have engaged in the notion of how different languages map out different concepts. Linguists, psychologists, philosophers, sociologists, and pragmatists have poured their attention into identifying the relationship between language and imagination. This relationship was viewed from a pragmatic perspective where, in the context of conversing, the interlocutors exchange a set of information that happen to be influential on one another's imagination, perception, and comprehension. In other fields, such as cognitive psychology, the relationship was viewed in terms of the effect of language on imagery, as a core characteristic of imagination. The task is to take this relationship to another dimension to view how language affects imagination –and vice versa- in one's mind.

Within this context, more attention is being poured into the investigation of MD as a mental condition, as well as how multilingualism affects imagination. For this prospect, a deeper relationship existing between multilingualism and MD can be assumed. Language is significantly present in daydreams and its characteristics can seep into the daydream. Furthermore, this

longitudinal presence of Language(s) can have a deep impact on the disorder. Thus, the quest is to highlight the bidirectional influence between these variables.

This research is an attempt to explore the extent to which this bidirectional influence can extend. In other words, this work could contribute to Linguistics and Psychology through MD as a facet to both by settling two goals. First, the aim is to investigate how various languages are present in the daydream. It is an attempt to refine the fine lines of how daydreams are shaped by language or languages that co-exist in the brain. That is to say, within the research scope, it is crucial to view how linguistic behaviour is implemented during daydreaming. This includes code-switching and language choice in various contexts and settings to achieve various purposes. In addition, it seeks to delve into the effect multilingualism has on MD per se. That is, it is mainly based on the acknowledgment that, ultimately, the effect can be rooted within the disorder, which will render it perpetual or chronic. In simple terms, it seeks to view how multilingualism can render daydreaming maladaptive.

Consequently, taking multilingual adult Maladaptive Daydreamers (Henceforth, MDers) as a single case study, the researchers strive to answer the following questions:

- What are the possible manifestations of multilingualism in MD?

- How can multilingualism impact MD?

Following Grounded Theory Approach, the researchers were able to draw conclusions from analysing the data collected through data collection instruments. The hypotheses were as follows:

- Daydreams are tacit projections of different languages in terms of choice, impact, association with content, and mastery.

- Multilingualism renders daydreaming maladaptive through increasing the rate of daydreams and imaginative skills.

In order to meet the set objectives, the researchers deemed it fit to follow a specific methodology based on a mixed strategy i.e., *a grounded case study*. The instruments used were a questionnaire that tackled the linguistic behaviour and tendencies to relate languages to certain plots, attributes, and emotions, among Adult MDers. To excavate further, it tackled the relationship between mastery and the choice of language in a daydream. In short, it handles the first research question. The second main instrument was the semi-structured interview with the aforementioned sample; it was to collect the participants' experiences regarding said issue. The interview questions were targeted towards specific speculations regarding language being both, a developmental trajectory and a trigger of maladaptive daydreams (MDs). It also views the creative aspects of imagination in relevance to mastery of specific languages as well as other potential influencing factors. The avidity to reach the aforementioned objectives lead the researchers to collect mixed types of data from said research instruments.

It is crucial to mention that the sample targeted in this research varies tremendously in terms of demographics of geographical area, age, and gender. This leaves the researchers with a quite flexible sample to work with. Along with that, it is important to mention that the researchers seek to fill in *a gap of knowledge* in this particular area. In order to do so, it was deemed beneficial to opt for a grounded research. Hence, generalization may not be achieved, as it is not the main goal of the research. Despite the approach being mixed method, the data gathered was mainly qualitative for that this research is psychological in nature and tackles people's experiences to form speculations regarding the matter, which shall be further assessed through future research.

To carry out this grounded case study research, the work is purposefully divided into three chapters. The first one reviews the literature on multilingualism and imagination for they are remarkably present in daydreams and are considered among the influential variables. In fact, the research revolves around the fact that MD is a facet to the relationship between language and imagination; for that, it is crucial to dedicate two separate sections for multilingualism and imagination to give the methodology a steady ground to stand on. It also sheds light on MD and presents the body of research regarding its nature, characteristics, and developmental trajectories. Finally, in order to achieve a more comprehensive understanding of the relationship between said variables –and more- a dedicated section was included to synthesize the findings and clarify their interconnections. This chapter seeks to frame the issue and prepare it for contextualization.

The second chapter mainly consists of describing the methodological approach and design choices to deal with the gap. It depicts the philosophical conceptual framework that enables the researchers to approach the topic from a specific angle, which not only specifies the design choices, but also justifies said choices. It describes in details the research paradigm and methodology, philosophy, strategy, approach, and type, for that they are quite crucial to contextualize the issue and limit its scope. It also tackles the time horizon as well as the sample's profile. Furthermore, a section in this chapter is dedicated towards presenting the methods of data analysis that the researchers followed to analyse the gathered data. This section demonstrates the rationale behind the analysis, which served the data interpretation phase.

The third and final chapter presents the bulk of the research. A section is dedicated to highlighting the research findings with illustrations and evidence from the participants. Another section is dedicated to interpreting those findings and demonstrating their relevance to this issue. It contextualizes the data and showcases the researchers' presence in the research through

presenting their own understanding of the data. By doing so, the researchers were able to generate

hypotheses that answer the research questions and open portals for further research.

Chapter One: Literature Review

1.1. Introduction

Despite the excessive research on the condition, there is little to no concern regarding the aspects of imagination and language in relation to MD. Reviewing the current research would provide a holistic, yet, detailed image of MD in regards to the current dimension, which will facilitate the mission of relating it to other aspects. Not only will this chapter tackle MD, but it will also define and narrow the scope of multilingualism to include the relevant aspects. Since this research seeks to establish a new link between the fields of psychology and linguistics through MD, it includes literature regarding imagination, which then will be presented as a bridge to MD, in the light of incorporating other theories.

This research seeks to identify the various ways in which individuals tend to incorporate several languages in the same daydream. This includes the code-switching and implementations of languages in different contexts and contents, characters, and settings. This describes the major manifestations of language –or languages- in a daydream as well as the linguistic behaviour in relation to topics, content, emotions, social norms, and any possible other factors. To excavate further, it aims at investigating the relationship between mastery and the choice of language in a daydream. In addition, it attempts to view the way language(s) affect daydreaming. It is to test whether multilingualism can be considered a trigger and a developmental trajectory to MD. It also views how imagination skills can be affected by language. It addresses the differences in terms of the length of daydreams when certain languages are incorporated. Along with that, it addresses the relevance of mastery when it comes to triggering a daydream through exposure. Imagination, creativity, and vividness will also be subjected to questioning.

This chapter will include studies from the past few decades for that the quest entails notions that have been roaming for quite a while. It will not neglect the current research done on the matter to ensure the validity of the literature review and the inclusion of the most up-to-date research. The review will encompass both quantitative and qualitative studies to guarantee a comprehensive understanding of the topic. While the research is mainly about quite broad aspects such as language, imagination, and MD, it will only tackle a selection of a few studies and literature that address the matters in question. The selection is made with careful consideration as the researchers attempt to limit and narrow the scope of the research.

This literature review is organized into three key sections. First, it will explore the theoretical frameworks and conceptual models that have been used to understand multilingualism tackling several of its facets. It emphasizes the difference between multilingualism and monolingualism, and the most reoccurring patterns of language use such as code-switching and code-mixing as well as the acceptable norms of use through the employment of the Markedness Model. It explores the position of language on the spectrum of cognition with its multifaceted nature including metacognition and memory as well as emotions and relates it to the age of acquisition as well as culture. It then inspects the position of English from a universal viewpoint.

The second major section will be on the matter of imagination. It addresses imagination as a uniquely human cognitive ability and states the major definitions of imagination by philosophers. It then moves to determine the relationship between imagination and language by examining a collection of studies that tackled certain aspects of imagination concerning certain aspects of language. The majority of said studies did not evolve around language and imagination per se; however, through careful consideration of their methodologies, aims, and findings, the link and patterns should be quite apparent. Another major point in this section will discuss the relevance

of ToM in this research. Lastly, through examining a few existing studies and literature, a pattern between language, imagination, MD, and said theory should be quite comprehensible.

1.2. Multilingualism

Multilingualism is an complex phenomenon; it can be examined from various disciplinary angles (sociolinguistics, psycholinguistics, applied linguistics, to name a few). Many scholars have contributed to defining multilingualism such as Li (2008) who described a multilingual individual as "anyone who can communicate in more than one language, be it active (through speaking and writing) or passive (through listening and reading" (p. 4).

Today's world has an exceedingly high prevalence of multilingualism. This is understandable given that there are 200 independent nations and over 7,000 languages are spoken throughout the world (Lewis, 2009). Speakers of smaller languages must use other languages in their daily lives because there are more languages than countries and speakers of each language are dispersed unevenly.

Multilingual speakers of an indigenous minority language are possible, as they must learn the official language of the country. In other instances, multilinguals are immigrants who can communicate in both their native tongue and the language(s) of their host nation. Languages are sometimes taught as they extend across borders and are seen to create more prospects for social and economic advancement. English, the most widely spoken language and the language of teaching in many schools and institutions around the world is an example of this at the moment (Kirkpatrick & Sussex, 2012).

Several factors are linked to the propagation of multilingualism. Geographical factors, for one, are of noticeable importance in this matter. In contrast to the past, multilingualism is not

restricted to languages spoken in close proximity to one another or particular borders or commerce routes. It is a universal occurrence that is present throughout the planet. Socially speaking, multilingualism is no longer linked to particular socioeconomic strata, occupations, or cultural practices. It is becoming more prevalent across various societal groups, occupations, and sociocultural pursuits. Moreover, in the past, multilingual contact was frequently only possible through writing, and letters were delivered slowly. The Internet as well as globalization has made multilingual communication in the twenty-first century instantaneous and multimodal.

Recent years have seen the term "multilingualism" gained ground over "bilingualism." Although there are numerous perspectives on how the two ideas differ, multilingualism can be used as a generic term that refers to two or more languages (Aronin & Singleton, 2008). In this sense, multilingualism embodies bilingualism (and consequently, trilingualism.)

1.2.1. Multilingualism: Distinction from Multiple Monolingualism

The goal of psycholinguistics is to understand how language and nonlinguistic cognition relate to one another. Research on the language phenomenon of multilingualism has increased over the past few decades. It has become clear that multilingualism is significantly more common than previously believed and, thus, of greater sociolinguistic as well as psycholinguistic importance.

Language utterances of bilinguals and multilinguals in a multilingual language system must differ from those of monolingual speakers of the relevant languages. The once-common view that monolingual speakers' utterances should be regarded as the standard for evaluating the language proficiency of bilingual and multilingual speakers has been challenged and criticized by several academics for this reason. In the past, it has been harshly assumed that the language use of bilinguals and multilinguals, especially their use of non-native languages, is inferior to that of

monolinguals. Those who had such beliefs regarding the linguistic competence of bilinguals were forewarned by Grosjean who stated: "(…) beware! The bilingual is not two monolinguals in one person." (1989, p. 03). Similarly, Cook (1991, 2003b) introduced the term "multi-competence" to characterize a bilingual speaker-listener's special skill, which is distinct from, yet in no way inferior compared to that of a monolingual speaker-listener. Jessner (1999) embraced this same perspective on multilingualism stating: "multilingualism is no multiple monolingualism" (p. 201).

The majority of bilingualism research is predicated on the idea that bilinguals (and ultimately multilinguals) can be thought of as two monolinguals united with two distinct degrees of language proficiency. To put it another way, as two monolinguals combined. Traditionally, monolingual proficiency has been used to compare bilingual ability given that bilingualism is a relatively new research area in the history of linguistics. Thus, it is not surprising that many academics still frequently make reference to monolingual psycholinguistic ideas. Due to the predominance of a mentalist theory of language acquisition, as first proposed by Chomsky (1965), bilingualism is often considered a sort of double monolingualism, a view of bilingualism that would allow no link between bilingualism and SLA (Second Language Acquisition). However, the possibility of the two language systems interacting appears to exist, which reduces the likelihood of the double monolingualism hypothesis.

Most people are multilingual or at least bilingual. Therefore, monolingualism may become the exception and bilingualism the rule in a world, which is de facto multilingual,

But why should multilingualism be a problem? We estimate that most of the human language users in the world speak more than one language, i.e., they are at least bilingual. In quantitative terms, then, monolingualism may be the exception and multilingualism the norm.

Would it not make more sense to look at monolingualism as a problem that is real and consequential, but which can be "cured"? (Auer & Wei, 2008, p. 1).

This further highlights the advanced linguistic abilities of a multilingual without it being at the expense of monolingualism.

1.2.2. Multilingualism as an Individual versus a Social Facet

Multilingualism is both a personal trait and a widespread social phenomenon. It can refer to a person's aptitude or the way languages are used in society. People who live in multilingual communities are more likely to speak multiple languages than people who live in monolingual societies. Other circumstances that can affect the multilingual stance of a society are the rise of English as a global language, and hence, a lingua franca, as well as the population migration to cities across different countries.

Plurilingualism, on the other hand, is a form of individual multilingualism, defined as the presence of more than one variety of languages in a geographical area (Council of Europe (n.d.) website). Moore and Gajo (2009) used plurilingualism to emphasize the focus on the individual as the locus and actor of contact in a comprehensive perspective of multilingualism. Within individual multilingualism, there may be substantial differences in how acquiring and employing languages is experienced. A person can acquire many languages in two ways: simultaneously by being exposed to two or more languages from birth, or sequentially by being exposed to additional languages later in life. The distinctions between compound, coordinate, and subordinate multilinguals, as well as the numerous ways that bilingual memory can be organized, are related to these observations.

1.2.3. Patterns of Language Use

The most crucial and essential aspect of conveying intent is communication. In this instance, language is both a tool for communication and a crucial component of how these things are delivered. Everyday communication for multilinguals frequently involves a manipulation of the languages in their possession in order to establish their communicative aims.

1.2.3.1. Code-Switching

As previously stated, there may be situations in which an interaction between languages occurs for multilinguals resulting in code-switching. Hymes (1974, p. 103) defines code-switching as: "a common term for alternative use of two or more languages, varieties of a language or even speech styles" i.e., the use of more than one language or dialect during a discourse; an alternate method for simultaneously communicating in two or more languages.

Code-switching is a technique used by multilinguals to fill in the gaps during discourse and communication. Felicity conditions must be met, including the speaker and listener' prior knowledge, the addressee's ability to draw conclusions, and the addressee's familiarity with the speaker's language. There is a plethora of reasons, which lead speakers to code-switch. They may find themselves, for instance, in a situation in which communicating in one language solely is challenging; thus, code-switching would be imminent to compensate for their deficiency (lack of felicity). Speakers may also tend to express solidarity with a particular social group, which can be governed by their identity or social relationship. Moreover, code-switching can occur to express the attitudes or emotional states of the interlocutor(s).

1.2.3.2. Code-Mixing

Code-mixing is closely related to code-switching. Speakers of both languages frequently blend their use of them and switch back and forth between said languages to the point where they do so within a single phrase. Code-mixing may involve phonology, morphology, grammatical structures, or lexical items at various linguistic levels. In many cases, the second language is significantly influenced by the first. The majority of people in society borrow or use phrases from other languages to blend their native speech with others, yet sometimes they are still impacted by their mother tongue. Code-mixing is the process by which a new, restricted, or less restricted code of linguistic interaction is formed by the systematic transfer of linguistic units from one language into another utilizing one or more languages.

1.2.3.3. Markedness Model

Developing her revolutionary model based on Grice's "cooperative principle"[1], Myers Scotton (1993) considers code-switching as a socio-psychological procedure tackling the "negotiation of identity", she explains:

CS in general is a type of skilled performance with communicative intent. From the socio-psychological point of view, CS can be characterized as symptomatic either of unwillingness or an uncertainty on the speaker's part regarding the commitment to indexing any single rights-and-obligations set between participants in a conversation, or of a negotiation to change the rights-and-obligations set. (Myers -Scotton, 1993b, pp. 6-7).

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[1]Cooperative principle is based on the notion: "Make your conversational contribution such as is required at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged." (Grice, 1989, p. 26).

Hence, according to the Markedness Model, multilingual people need to be aware of the social implications associated with each social code. Based on their understanding of the indexical value of each code, they decide which type of social relations to negotiate. She put forward three maxims for communication. The first being *unmarked choices* which refer to the normative use of language and are "more or less expected, given the ingredients of the interaction (participants, topic, setting, etc.)," (Myers-Scotton, 2005, p. 159). Unmarked choices are a direct reflection of the rights-and-obligations set within a conversation. The second maxim is *marked choices,* which refers to a negotiation of a new rights-and-obligations set resulting from the speaker establishing a new (marked) situation within discourse. The third and final maxim is *exploratory choices*. Speakers turn to this maxim when the unmarked choice is unclear, and the right alternative is not provided by community standards. Thus, they would index the rights-and-obligations set that they deem most appropriate or helpful for their discourse.

1.2.4. The Cognitive Gamut of Multilingualism

Research seeking to tackle multilingualism in various fields such as applied linguistics, cognitive science, experimental psychology, and neuropsychology, has become increasingly fundamental during the past decades. Each contribution sheds light on key issues regarding the perception, production, organization, and conceptualization of languages for individuals. Through this cognitive lens, one is able to have a deeper insight into the inner workings of multilinguals and the way the presence of multiple languages is processed in the mental faculty.

1.2.4.1. The Metacognitive Sphere

As it is now used, the term "metacognition" refers to two levels of processing, a lower level of awareness or understanding of one's own thoughts and a higher level of regulation or control of

our thoughts (Fernandez-Duque et al. 2000; Fleming & Lau, 2014; McCormick 2003; Paris & Winograd 1990). For instance, even though one may be aware that one's perception of someone or something is unfair or prejudiced, he/she may not make an effort to control and alter that perception. Therefore, cognition and metacognition are interdependent processes that support the capacity to comprehend and engage with the world in an adaptive, goal-directed manner. Without competent metacognition, one would be unable to alter his/her cognitive processes in order to achieve desired goals due to being unaware of current performance levels.

In Abutalebi and Green's (2007) model of language processing in bilinguals, the two languages are supported by a common distributed network. However, multilingual contexts place additional demands on the left prefrontal cortex, anterior cingulate cortex, parietal cortex, and left caudate nucleus; all of which are connected to inhibitory control and metacognition. The fact that evidence suggests that the left and/or right caudate nucleus (along with other subcortical structures including the thalamus and putamen) is significantly larger in bilinguals than in monolinguals (Burgaleta et al., 2016; Zou et al., 2012) is congruous with the availability of a striatal gating system that administers the neocortical recruitment serving language processing and control.

There has been increasing evidence that multilingualism influences a wide range of brain regions, including those in charge of primary language processing as well as domain-general/nonverbal processing centers that are involved in emotional control and higher-level cognitive control. Whatever the nature of the cortical and subcortical developmental effects of learning multiple languages. The primary node influencing structural change in the rest of the system to enable the system to function more effectively in complex multilingual environments is

likely to be the frontoparietal network and anterior cingulate cortex, which are associated with executive attention and the resolution of response competition.

1.2.4.2. Language Memory Stores

How linguistic information is stored in memory has become a hot topic of debate in psycholinguistic research and literature as it seeks to determine whether multilinguals have a single mental lexicon or numerous, distinct repositories for their linguistic knowledge. In the case where separate stores are in existence, the interconnectivity of said stores remains a curious topic that leaves much to be learned.

Two hypotheses have been proposed regarding this matter. The single memory store hypothesis (Heredia & Cieslicka, 2018) suggests that different concepts are stored as abstract meanings devoid of language. According to this theory, said concepts are 'tagged' with words that dovetail with the language. On the other hand, the separate or independent memory hypothesis (Kolers, 1963) states that each language comprises its own separate memory store, i.e., linguistic data is processed, saved, and retrieved in a unimodal manner.

To bridge the gap between the two aforementioned hypotheses, models with distinct but related multilingual memory stores were created including the bilingual dual-coding theory (Paivio & Desrochers, 1980). This theory proposes that the speech codes of multilingual speakers are kept independently and separately in each of their respective languages. Each verbal code offers details about the word's semantic and syntactical constructions unique to that language. Despite being maintained separate, these speech systems are connected via translation equivalents. When labels for a certain topic map onto one another, linkages between languages are stronger and simpler to comprehend.

It is significant to notice that tangible objects or nouns perform well in terms of imagery accessibility and frequently map to a single translation across languages, whereas abstract words perform less intensely and frequently map to several translations. The bilingual dual-code model's three meaning stores (L1, L2, and imagery).

1.2.5. Multilingualism on the Emotional Spectrum

The topic of how multilinguals choose to experience as well as express their emotions has gained popularity in recent years. The intriguing topic of distancing oneself from one's L2 has also been noted in the writings of multilingual authors like Nancy Huston who asserted that she felt less emotionally invested in French (L2) than in English (L1). According to Pavlenko (2012), L1 is typically the language used to explain emotions because each language a multilingual individual speaks may have a distinct emotive valence based on the context and the interlocutors. She continues by pointing out that emotional processing is more automatic in L1 and that multilinguals exhibit a stronger electrodermal response to emotional words.

Phrases expressing love and swearing were found to hold a stronger emotional weight in L1 (Dewaele, 2013). Dewaele (2013, p. 15) explains that using certain words or expressions with strong emotional connotations was frowned upon by particular multilingual communities, more frequently Asians and Arabs. However, it is crucial to avoid making too many generalizations because other forms of powerful emotional language can also be employed, particularly derogatory phrases of language that inspire feelings of dread. The use of an LX (referring to a language that is not L1) for insults allowed speakers to transcend any social limitations. The analysis of language preferences and perceptions revealed that these multilinguals' adherence to the L1 culture's values and customs is so strong that words with the same meaning in L1 are frequently more emotionally charged than those with the same meaning in LX.

On the other hand, multilinguals may occasionally find it simpler to convey their emotions in their second language, despite the fact that they think their second language is less emotional than their first. An English-French bilingual woman, for instance, found it simpler to express her love in English after going through traumatic childhood experiences and experiencing a lack of love (Grosjean, 2011).

According to anecdotal evidence, bilinguals typically express their rage, affection, or religious passion in a particular language. Bond and Lai (1986) found that bilinguals leaned more toward their second language when diving into embarrassing topics, a feat that suggests that code-switching can serve as a distancing feature. On that front, switching to a second language can ease the severity of anxiety situations, which can occur when using taboo words for instance (Gonzalez-Reigosa, 1976; Javier, 1989).

1.2.5.1. Age of Acquisition, Culture, and Emotional Impact

Emotional linkage to language can be tightly related to the age of second language acquisition. Children begin to probe the world from a sensorimotor perspective that inevitably involves affective interchanges. The degree to which early emotive experiences in bilinguals are connected to just one language may thus affect the degree to which later experiences are still connected to their first language. If their early emotional experiences were connected to their native language, bilinguals should continue to use it in emotional situations so they can practice expressing their feelings in that language. This begs the question of whether this applicability is retained throughout their lives and whether additional languages shape their emotions as well.

A person's worldview is impacted by language acquisition and learning since it happens not only through friends and family but also through other readily available materials like books, TV shows, and other media. When learning a new language, people cannot ignore their culture

which seeps into the language(s) they are exposed to, children begin using a language's grammar structures and speaking in it at a young age before they learn it in school, Yezhyzhanska (2021, p. 16) explains. Similar to adults, young children subconsciously absorb the culture. Thus, many multilinguals experience a state of equilibrium in which a language carries its own culture, which, in turn, can determine the type and intensity of emotions to be manifested (Yezhyzhanska, 2021).

Multilinguals who have lived in colonized regions experience distinct identity formation than ones who have lived in independent nations with independent cultures and languages. To exemplify, due to politics, people who possess two or more languages from an early age are familiar with both cultures and hybrid national identities (multiculturalism), (Yezhyzhanska, 2021).

1.2.6. Universality of English

The age of globalization is currently upon us. Globalization, a multidimensional phenomenon that has emerged in the past few decades, seeps into all aspects of life whether social, economic, or cultural. This phenomenon led people to seek a wider range of communication -amongst other aims- that surpasses borders. In order for people from various backgrounds to establish successful communication, a lingua franca must be established. English has proven its stance on a global level to be the language of wider communication.

1.2.6.1. English as a Global Language: A Closer Look

The global spread of English has been extensively covered in the literature. Its impact has been most striking in those where it is spoken as a second language. English is now being taught and learned as a foreign language in an increasing number of nations worldwide. The latter is a

notion visually explained by Kachru's (1985)[2] concentric circles as well as Crystal (1997) who stated: "In my view the momentum of growth has become so great that there is nothing likely to stop its continued spread as a global lingua franca, at least in the foreseeable future" (p. 10). This extensive position played a significant role in the development of multilingualism in the world and impacted various disciplines, amongst which are sociolinguistic, psycholinguistic, and educational fields.

Because of British colonial power in the nineteenth and early twentieth centuries and American dominance in the latter half of the twentieth century, English is still seen as a foreign language in many nations around the world with no official status, but it is becoming increasingly common as the language of wider communication. English is frequently learned as a third language in a number of these nations. On the educational level, English as a foreign language (EFL) is being taught in over 100 countries (Crystal, 1997). It is spoken by over 380 million people worldwide with 200 million people considering it a second language (Alfarhan, 2016).

1.2.6.2. Hegemony of English: The Here and Now

If historical factors like trade, empire, military power, and industrial power contributed to English's rise to dominance in earlier centuries, technology has made it feasible for it to cross borders and endure without the requirement for the previous form of a physical connection. The spread of English and the emergence of the Internet as a platform for international communication are developments that support one another. The transmission of language was governed by these direct exchanges before the invention of radio, television, cinema, and other

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[2]Kachru's concentric circles demonstrated the spread of English in the form of three circles. The inner circle represents countries in which English is L1, the outer circle represents countries where English is a second. The expanding circle comprises those countries where English is taught as foreign language.

types of modern media. The languages that have the most momentum and appealing qualities have emerged as the most efficient means of online communication and exchange since the advent of the Internet and social media, which have the potential to reach an even wider audience. As a result, cross-cultural transmission is at an all-time high due to the interdisciplinary global status of English.

The globalization of the language has led to an increase in the sense of belonging and in-group membership among English speakers. The emerging class of proficient second-language English speakers in developing countries in Asia and Africa is predominantly influenced by the English language because language is the main component that defines cultural identity (Hatoss, 2003). Scholars refer to English as a kit that denotes membership in a specific group.

According to Lobaton (2012), languages shape the identity of a person. As a result of acquiring a new language, students who are studying English as a second language establish a variety of social identities. They also have diverse ways of discussing their cultural identities because of their distinct positions and identities, which are mostly determined by the acquisition of a second language. Hatoss (2003), however, stated that people are able to acquire new cultures, which are adjoined with their respective languages without necessarily losing their own. He explains that it can be quite difficult to determine which culture is preferred by everyone when multiple cultural groups are present. He continues by saying that the majority of the time, the dominant culture will persuade the underrepresented group to adopt its culture. Alfarhan (2016) explains:

> If one loses the language then he/she loses the culture as well because the two are impossible to separate. One cannot separate the language from the culture; we share the culture through the language. Therefore, once a person has lost his/her language then it means that he/she has

also lost the cultural identity because there will be no culture that that person identifies with.

(p. 5)

It is established that the English culture is mainly the one of England and the US (Alfarhan, 2016). However, as a lingua franca, it is used more frequently and extensively on a more or less daily basis. English, as a foreign language or an L3, may first be mistaken for just another variety of English, but it looks to be acquiring new features as Seidlhofer (2000, p. 54) explained this notion as: "(…) spreading, developing independently, with a great deal of variation but enough stability to be viable for lingua franca communication."

1.3. Imagination

Imagination in its broader sense is the cognitive process that enables humans to build mental images, reconstruct mental images, or simply recall previously encountered experiences. It may involve the production of entirely novel images special to the individual and are subject to biased judgments. Thus, imagination is tightly associated with other mental processes such as memory, perception, thinking, consciousness, and attention. Gosetti-Ferencei (2018, p. 2) stated, "The imagination is not a single mental phenomenon or skill, but multifactorial, a constellation of related activities contributing constitutively to the full dimensionality of human consciousness and our relations to the world." This complex cognitive process can represent a set of activities and processes in accumulation in order to generate the desired outcome, whether it be a novel representation, concept, or image, or reconstructing them starting from retrieval of existing knowledge. By doing so, a perspective is on the verge of formation, which will later be representative of one's rationale and way of viewing the world.

Imagination is highly present in humans' course of days through operating mental processes such as decision-making, generating ideas, and during moments where creativity strikes

its peak as in moments of art. The latter is then described as extreme *imaginative intensity* (Gosetti-Ferencei, 2018, p. 2). Accordingly, the degree of intensity is highly dependent on the context and the task that required creative imagination in the first place. Imagination is characterized by two main functions. Gosetti-Ferencei said on the matter: "Further augmenting the complexity of imagination, imagination is characterized by what was called a reproductive facility— based on and presenting images and ideas from previous experiences— as well as a productive facility— which is meant here that, though drawing from prior experience, imagination generates something new." (2018, p. 4). These functions were subject to debate among philosophers, which lead to a greater quest.

Throughout history, the concept and nature of imagination have struck the curiosity among several philosophers and thinkers. Extreme views emerged from two opposing poles. On one hand, imagination was viewed as a merely subordinate process dependent on other cognitive functionings such as memory and perception i.e., the combinatory view (Gosetti-Ferencei, 2018; O'Connor & Aardema, 2005). Imagination in this sense retrieves and combines preexisting information as a response to certain perceived stimuli. On the other hand, at the other end of the spectrum, imagination is viewed as a magical process, which differentiates human beings from animals. According to philosophers[3] arguing in this favor, imagination is the process by which the mind engages in a state of creativity and productivity. Hence, that is the reproduction view (Gosetti-Ferencei, 2018; O'Connor & Aardema, 2005).

Another perspective emerged; imagination involves excess and transformation (Gosetti-Ferencei, 2018). Being is of higher complexity and requires further explanation. It transcends the

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[3] For further information on said philosophers as well as other perspectives regarding imagination, it is recommended to check O'Connor, & Aardema (2005) and Gosetti-Ferencei, (2018).

claims of merely resembling and combining other mental processes or reproducing preexisting knowledge. In this prospect, Gosetti-Ferencei defines it as "The imagination is here defined as the presentational capacity of consciousness which can meaningfully transform what is thereby given." (2018, p. 6). In simpler terms, imagination is the ability of consciousness to transform and give meaning to what is presented.

1.3.1. *Language and Imagination*

After having understood approximately what imagination and imaginative skills entail, it is crucial to tackle the core aspect of this research, i.e., the relationship between language and imagination. Both language and imagination are fundamental aspects of human cognition. Language and imagination are intertwined mental abilities that enable humans to communicate and create mental representations of the world. There is a considerable body of research that strived to embody the relationship between the two and provided insights into the nature of this connection in the brain. This research is believed to be rooted in -and have several implications on- fields ranging from Psychology, Linguistics, Neuroscience, Socio-pragmatics, and education.

Imagination is not necessarily restricted to constructions and combinations of mental imagery or *phantasia,* which is defined by Aristotle in Gosetti-Ferencei (2018, p. 45) as the ability to manifest mental images of objects that are not present to perception. While most definitions of the process of imagination include mental imagery, it is crucial to acknowledge that imagination includes several types of information perceived and treated in the brain. These include other sensory modalities i.e., auditory, tactile, olfactory, gustatory, and kinesthetic. It can also involve emotional and affective experiences. However, to say that imagination revolves around mental imagery does not neglect the other sensory modalities for it can extend to include them.

One of the most prominent characteristics of imagination is creativity, which can also be considered a factor to link language with imagination. This link is not necessarily limited to one dimension. Creative imagination can be expressed and communicated through language; equally, language can boost and activate the creative aspect of imagination. Reuland (2017) explores the relationship between language and imagination from a revolutionary perspective. The article argues that imaginative ability is crucial to language and that mental imagery had evolved alongside language in the human brain. Looking at the relationship from a new angle enabled the researchers to shed light on the ancient bidirectional influence between the two cognitive abilities. It further explains the importance of mental imagery for comprehension and creating mental representations of language, through explaining De Saussure's *arbitrary sign* (1916) and Chomsky's *Computational System of Human Language* (1995). Thus, the article delves into the role of *syntax* in developing complex imaginative skills. Reuland (2017, p. 274) said

> Applying fixed interpretation rules to combinations of expressions enables human imagination to transcend the initial boundaries of the imaginable. Thus language enabled the transition from a 1st generation imagination to a 2nd generation (and perhaps even higher orders of) imagination[4]

In short, the ability to comprehend and utilize complex syntactic structures is related to the ability to create mental representations. In fact, to say that they are related can be an

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[4]Orders of imagination according to Reuland (2017) are 1st order imagination, which is a "A system restricted to representations derivative of objects cannot represent abstract concepts, impossible notions, quantification, modality, or states of affairs relative to some coordinate system" (p.264). The 2nd order imagination entails "Creating sentences and positioning them in every imaginable context and place" (p. 273). It also claimed the existence of higher orders of imagination.

understatement. As languages continued to evolve, they wired the human brain, which explains reaching imaginative intensity as Gosetti-Ferencei (2018, p. 2) would like to put it. On this favor, Wildgen (2004, p. 177) –in Ruthrof (2014)- characterized the "spontaneous creations of new words" for the communication of new ideas and "mental modeling" which he suggested, "constituted a second, imaginary reality in which human actions were represented with their possible outcomes, and could be elaborated into fantasy and myth".

Reuland's rationale provided with a holistic image regarding the revolutionary connection between language and imagination (2017). Starting with it, one can delve further into the depths of this connection to determine the specific points of influence. A study regarding syntactic complexity was conducted by Sitnikova, Kuperberg, and Holcomb (2003) using event-related potentials (ERPs) -a measure of electrical activity in the brain- to examine how the brain processes sentences with different levels of syntactic complexity. The participants were presented with images with and without grammatical structures. Said grammatical structures were either correct or incorrect and the researchers measured the N400 component of the ERPs, which is a wave that demonstrates the processing of semantic information. The study proved that syntactic complexity affects the processing of mental images. To be specific, their results showed that sentences with considerably complex syntax elicited larger responses than those with simple syntax, for they require more cognitive sources. The brain tends to process the images with correct syntax, which allows the prediction of the proceeding visual image. This, then, would lead to altering the processes of manipulation and creation of mental imagery.

Barsalou (1999) introduced a novel theory of cognition, which he referred to as '*Perceptual Symbol Systems*'. According to this theory, perceptual symbols are mental representations that are formed through the activation of perceptual and motor systems in response to sensory input.

These perceptual symbols represent a significant range of conceptual knowledge that represents and stimulates perceptual and motor experiences. In other words, this article discussed how language could activate perceptual and motor systems, which in turn can generate mental images. He stated,

> During a simulation, the processing is not limited to the retrieval of frame information but can also include transformations of it. Retrieved information can be enlarged, shrunk, stretched, and reshaped; it can be translated across the simulation spatially or temporally; it can be rotated in any dimension; it can remain fixed while the perspective on it varies; it can be broken into pieces; it can be merged with other information. Other transformations are no doubt possible as well. The imagery literature offers compelling evidence that such transformations are readily available in the cognitive system (…), and that these transformations conform closely to perceptual experience. (1999, p. 591)

This suggests that language and imagery are closely linked in the cognitive system. Furthermore, these stimulations can be used in various cognitive processes, among which, is language comprehension. To illustrate, reading a sentence about a cat running could activate the visual system to generate an image of a running cat in the reader's mind.

It is worth mentioning that there exists previous literature on the matter with similar findings. Kosslyn (1980) (also Kosslyn et al., 2006) investigated the nature of mental imagery and its relation to perception. It touched on the role of language and mental imagery. The research discussed how verbal labels could influence the size of mental images and that the use of language can affect the properties of mental images. The participants were introduced to visual stimulus and were asked to form mental images. Similarly, in 1982, Shepard and Cooper claimed that the role that mental imagery plays in language comprehension mainly consists of

transmitting the linguistic description encountered into mental representations. That is to say, the more vivid the language, the more vivid and detailed the mental image would be.

Paivio (1971, 2013) as well as Paivio & Desrochers (1980) discussed '*The Dual Coding Theory*' which emphasized the existence of channels of processing language that are functionally independent i.e., the verbal channel and the non-verbal channel. The research, in fact, attempted to prove that mental imagery- whether verbal or not- plays a significant role in enhancing memory performance. The participants were presented with several concrete nouns and were asked to recall them. As a side note, verbal representations are often linguistic symbols, whereas non-verbal representations consist of sensory and perceptual symbols, often referred to as mental images. The findings demonstrated that the participants who used both coding strategies recalled more words than those who only incorporated a single strategy. Furthermore, Paivio (1971) discussed how mental imagery could augment language comprehension as well as production. He claimed that language provides additional sensations to enrich linguistic representations. This results in constructing considerably vivid, detailed, and concrete representations, which enhances comprehension and facilitates memory recall. He argues that mental images are quite similar to actual perceptual experiences, which enables summoning and re-experiencing said perceptual and sensory details (Paivio, 2013).

To approach the link between imagination and language from a different angle, one can bring forward imaginative play as a facet of imagination at a young age i.e., childhood. Lillard et al., (2013) have conducted a comprehensive review regarding research that tackles the role of imaginative play on childhood development in several aspects and domains. Said domains include language development, social development, and cognitive development. The authors evaluated the evidence for three distinct positions: (1) pretend play is crucial to children's healthy

development, (2) it is just one of many routes to positive development, and (3) it is an epiphenomenon of other factors, which drive development. The relevance of the said study to this present research lies in the linguistic aspect. The authors denote existing literature that supports the assumption that engaging in imaginative play can enhance vocabulary and comprehension skills. They state that "In sum, most research shows that children who are more advanced in their play around 1 year of age are more advanced in one or more aspects of their language around 2"[5] (Lillard et al., 2013, p. 18).

1.3.2. A New Link: Theory of Mind, Language, Imagination, and Maladaptation

As another attempt to link language and imagination, one might view the link from another perspective, incorporating ToM. The term was primarily coined by proposed by psychologists David Premack and Guy Woodruff in 1978, which refers to the cognitive process that involves the ability to understand, process, and communicate one's feelings and beliefs as well as others'. It sheds light on the underlying mechanisms that contribute to humans' capacity for empathy, social interaction, and the formation of meaningful relationships. ToM initiates during the early years of childhood i.e., around 3 years old when the child is able to comprehend his/her own emotions, beliefs, and thoughts, which enables him/her to comprehend others' emotions, beliefs, and perspectives (Hood et al., 1979; Wimmer & Perner, 1983). It is a phase where the child can engage in imaginative play. It is built on several cognitive processes i.e., perspective-taking, mentalizing, and metacognition (Harris et al., 1989; Flavell, & Green, 2001). To be brief, perspective-taking entails adopting another's system of thoughts, emotions, and beliefs. Mentalizing entails attributing a system of thoughts, emotions, and beliefs to another accurately.

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[5]For further insights on the studies in question, it is recommended to refer back at the article for that all are mentioned there.

Finally, metacognition entails commanding one's system of thoughts, emotions, and beliefs. Through learning one's emotions and beliefs, the child will be able to develop intrapersonal intelligence skills where he/she will be able to comprehend the other's needs and perspectives. This ability is also linked with the aforementioned metacognitive functioning regarding language use for multilinguals. As previously explained, metacognition allows for a higher level of processing that reaches various domains among which are emotional and cognitive processing.

It is tightly related to language for the latter plays a significant role in conveying the abilities of ToM. Through language, one should be able to communicate his/her emotions, beliefs, and thoughts. Through understanding the implications of words such as 'believe' and 'understand', the child should be able to develop a notion regarding the existence of others' emotional states and thought landscapes. It allows the opportunity as well as the flexibility to describe and discuss various perspectives. In a paper published by Milligan et al. (2007), it is found that children who have better language skills are more likely to develop an understanding of others' mental states than children who have better false-belief understanding skills are likely to develop better language skills (2007, pp. 637-638).

Another crucial cue about ToM is the ability to attribute emotions, characteristics, perspectives, or beliefs to others. To do so, the individual relies on their imagination to fill in gaps about said attributes and generate plausible mental states for others based on observable cues and context. Perspective-taking entails placing oneself in another person's shoes and mentally expressing that person's viewpoint. Individuals can replicate how other people would experience the world, think, and feel through imagination, which helps them gain a better knowledge of other people's mental states. According to Harris, et al. (1989, p. 398), younger

children concentrate on imagining the other person's goals, whereas older children also take into account the other person's beliefs about those goals.

1.4. Maladaptive Daydreaming

It has long been understood that daydreams are a product of tacit or unconscious material. Many poets and writers have tackled daydreaming as a topic of literary works. Although a voluminous psychoanalytical literature targeting human introspection exists, there remains a lack of systematic knowledge revolving around the various aspects of daydreams. A notion agreed upon by Singer (1961, p. 151) who stated the following:

> The daydream or conscious fantasy has long intrigued poets and writers, as well as psychologists and psychoanalysts. Despite a voluminous psychoanalytic literature based chiefly on personal introspection or the relatively limited samples available to clinicians, there is little systematic knowledge concerning the frequency, range, variation, and patterning of daydreaming behaviour for normal adults or children.

Freud (1908, 1962) proposed that daydreaming was an attempt to find a solution to a deprivation state or conflict and that the fantasy conjured up into the individual's conscious awareness might serve as a middle ground between a thwarted wish and the moral shackles of society. He considered daydreams to share the same functions as those of night dreams, expressing, "It was no longer difficult to recognize that night-dreams are wish-fulfilments in just the same way as day-dreams—the phantasies which we all know so well" (Freud 1908, p. 149). Pierre Janet provided much more thorough and explicit information regarding daydreaming through his analysis of a patient who viewed daydreaming as an escape mechanism from her

daily troubles. He considered daydreams to be a form of *psychasthenia*[6] characterized by a lower mental efficiency and inability to handle real life. (Janet, 1909).

During the following years, theories described daydreaming as an offshoot of implicit, frequently adaptive, conflict-free psychological matter (Hartman, 1958; Zhiyan & Singer, 1997). Klinger (1971) stated that fantasy life, whether it is in the form of dreams or daydreams, reflects the "current concerns" of the individual. However, psycho-analytical developments have stated that conflict is not the sole trigger for daydreaming. Psychotherapy research has yet to recognize daydreams as a worthy subject of research. Barth (1997) noted that daydreams are rarely discussed during therapy although they can serve as a portal to the patient's internal world and struggles.

Jerome Singer, the father of modern daydreaming research, reported in his 1966 book "Daydreamers" that 96% of Americans experience some type of daydreaming. According to Killingsworth and Gilbert (2010), daydreaming is a cognitive process that encompasses over half of all human thought. Psychologists have identified three daydreaming styles: Positive Constructive, Poor Attentional Control, and Guilty-Dysphoric Daydreaming. Positive Constructive daydreaming invokes positive emotions and can promote problem-solving, while poor attentional control is characterized by an inability to focus on either the current thinking process or the surrounding environment. Guilty-dysphoric daydreaming involves compulsions and excruciating fantasies and falls under the scope of dysfunctional daydreaming. (McMillan et al., 2013; Singer, 1975; Yousaf, 2015).

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[6] Although the term is no longer in use, psychasthenia refers to a neurosis characterized by extreme fear, anxiety, phobias, and obsessive compulsions.

On the other hand, effective attempts to quantify the characteristics linked with daydreaming have been made by Wilson and Barber (1981, 1983) who discovered a group of fervent daydreamers they later characterized as 'fantasy-prone personalities.' They tended to live much of the time in a world of their own making: in a world of imagery, imagination, and fantasy" (Wilson & Barber, 1981, p. 31). They estimated that such proneness existed in 4% of the population.

Daydreaming is a common mental phenomenon that can serve various adaptive functions, such as future planning, creativity, problem-solving, attentional cycling, and dishabituation. Since daydreaming is not inherently harmful, it should not be viewed as a psychiatric anomaly. As a matter of fact, it is regarded as a highly widespread and common mental phenomenon. However, daydreams might reach a pathological and addicting scale that is identified as MD.

1.4.1. Notion of Maladaptive Daydreaming

Even though a considerable number of people suffer from this condition, it has not been identified until it was defined by Eli Somer as an "extensive fantasy activity that replaces human interaction and/or interferes with academic, interpersonal, or vocational functioning" (2002, p. 199).

Somer's (2002) revolutionary study on six MDers found that the story of captivity, rescue and escape, and the idealized self were prominent motifs. MDers often feel present in their daydreams and can become engrossed in detailed scenarios for extended periods of time. This illness affects 2% of the general population, and medical professionals and therapists are often unaware of the issue. An accurate diagnosis and the right therapeutic response are difficult to come by.

MD is a mental condition that leads to absorptive, compulsive, and immersive vivid fantasy. Patients with MD create intricately detailed internal worlds, which they referred to as 'private worlds' of fantasy which are more so known as "paracosms" in the literature (MacKeith, 1983) which feature a variety of people who converse in the manner of a play or novel. The individual is often a character in this mental universe, yet possesses abilities, traits, social success, and other aspects that are lacking in the external universe.

1.4.1.1. The Addictive Nature of Maladaptive Daydreaming

MD is considered a behavioural disorder by Somer, Eli (2002). It is fulfilling and satisfying to the point where it leads the person to attachment and addiction (Somer & Jopp, 2016b), "A core characteristic of MD is its lure (…) MD is so rewarding that MDers feel compelled to extend and repeat their experience as long and as often as they can" (Somer et al, 2017, p. 6). Individuals with this condition report having an uncontrollable impulse to engage in a fantasy world as soon as they wake up or when interrupted (Bigelsen, et al., 2016). They suppress it when they need to but find it hard to resist it in other situations.

Fantasy, which is under normal conditions a natural strategy to regulate effect, is rendered dysfunctional in the presence of MD and is thus used as a means of escapism. MD is a type of mental activity that requires a high level of structure and attention, as opposed to "mind-wandering" which is aimless, unfocused, and unstructured. It is often used as a means of escapism due to complex circumstances; but it can hinder essential domains of functioning such as relationships, education, and employment.

Somer (2018) claims that MD can be viewed as a vicious cycle in which MDers utilize daydreams to escape their stressors. However, they are becoming aware of the harm that daydreaming has done to their lives, relationships, and accomplishments. The latter, then, would

tempt them to alleviate and offset by daydreaming even more, Colin explains the matter: "Clinically it appears that maladaptive daydreaming often provides an escape from life circumstances that are depressing and anxiety-provoking, and the daydreaming is often described as being compulsive in nature" (Colin et all. 2020, p. 53).

MD is a valid clinical construct distinct from immersive daydreaming, marked by distress and embarrassment caused by interference with social and daily functioning. Some scholars such as Pietkiewicz (2018) have hypothesized that MD may occasionally be a behavioural addiction due to the similarities between this pattern of symptoms and each person's reactions to distressing conditions and those exhibited in addictive behaviour. Researcher Malia Mason described a patient having MD who has undergone a functional magnetic resonance imaging (fMRI) procedure in a 2015 interview stating: ''the test showed great activity in the ventral striatum, the part of the brain that lights up when an alcoholic is shown images of a martini. Frankly, it was super strong" (Bigelsen & Kelley, 2015).

1.4.1.3. Symptoms of Maladaptive Daydreaming

Individuals who have this condition tend to contrive vivid and intense daydreams that contain complex plotlines, settings, and characters. Their yearning resides in the fact that their daydreaming consumes much of their waking hours and takes an abnormal amount of time that can range from several minutes to hours.

MDers would face difficulties executing or focusing on daily tasks such as studying or doing chores. They could also be triggered by real-world events and/or sensory stimuli, a mere conversation, a movie, or a song might lead them down a spiral of daydreams. Many MDers have repetitive body and kinesthetic movements such as pacing, talking, whispering, facial expression, and fidgeting accompanying their daydreaming. This lends credence to the hypothesis advanced

by Robinson et al. (2014) that movement can increase sensory stimulation, allowing for a more intense, hypnotic state of daydreaming. They also face difficulties sleeping due to the ardent desire to continue daydreaming for they lack the ability to control and limit it. Additionally, it has been reported that those with MD exhibit higher symptoms of dissociation, generalized and social anxiety, higher levels of negative emotions, and lower levels of positive emotions (Abu-Raya et al., 2019).

1.4.1.4. Diagnosis of Maladaptive Daydreaming

The origins, risk factors, and potential treatments for MD are the subject of an expanding corpus of study. It is important to note that research on MD is still evolving, and there is ongoing debate among professionals regarding its classification and diagnostic criteria. Although a cut-clear diagnosis is yet to be found, an individual can be diagnosed with MD in several ways.

The 16-item Maladaptive Daydreaming Scale (MDS-16) is a questionnaire that helps individuals self-diagnose and is graded on a 10-point Likert scale. The average of the MDS-16 items yields the final score. The Structured Clinical Interview for Maladaptive Daydreaming (SCIMD) is another method for diagnosing MD, conducted by a qualified expert in order to recognize active symptoms and establish whether MD is present. A 2017 study carried out by Somer et.al confirmed that these tools could diagnose MD with high reliability and utility.

1.4.2. Triggers of Maladaptive Daydreaming

Reports show that daydreams are often triggered best through external stimuli. That is to say, habitually, daydreamers tend to engage in their internal worlds through an external medium that could function as a trigger or a mandatory condition to daydreaming. These conditions tend to vary on individual levels as they can be completely dismissed. A great portion of the

population finds music, pacing, and repetitive movements necessary to trigger or initiate a daydream (Somer, et al., 2016). Not only do these conditions trigger fantasies, but they can also be considered a requirement to reach the intended effect. "Pacing while listening to music" (Bigelsen & Schupak, 2011) was a common behaviour reported among MD population.

Different research indicates that media consumption in various forms triggers MD as well. This includes movies, videos, books –and audiobooks- as they have all been reported to be triggers as well as an accompaniment to daydreaming. Although media consumption is not directly related to the condition, individuals with MD often rely on them as a source of inspiration. It is also likely for a daydreaming episode to be triggered by reading a book, listening to music, or watching a movie (Bigelsen & Schupak, 2011; Somer, 2002). This factor depends on individual differences and preferences as the daydreaming experience highly differs from one person to another. The common point is that media in this sense might perform as a stimulus to imagination. Media can fuel the creative and imaginative aspects of MD, providing rich material for individuals to construct elaborate daydream scenarios. Furthermore, provided that the media in question creates a safe or rather, a desired environment for a stronger emotional resonance, it will act as a stimulus, or trigger, to MD.

1.4.3. Developmental Trajectories of Maladaptive Daydreaming

In light of what has been mentioned previously, it is safe to claim that there can be several possible developmental trajectories of MD. In other words, individuals depend on excessive daydreams to cope with unacceptable events, feelings, or stimuli. This claim requires a deeper understanding for it hints at the possible reasons behind developing MD as a condition.

1.4.3.1. Abuse

A great body of research has been conducted to investigate the possibility that MD results from previous traumatic experiences (physical abuse, physical neglect, emotional abuse, emotional neglect, and sexual abuse) (Somer et al., 2021). In accordance with the theory of hypnosis and hypnotizability in relation to childhood abuse conducted by J. R. Hilgard (1974, 1979), a history of harsh childhood environment is proved associated with imaginative involvement (Rhue & Lynn, 1987; Rhue et al., 1990; Wilson & Barber, 1981). In 2002, in research conducted by Somer, six participants, who were receiving treatments for neglect and childhood trauma, demonstrated a predilection for fantasies of elaborate worlds while engaging in physical movements. Bigelsen, along with Schupak (2011), published a large research paper on the matter, the results showed that, unlike Somer (2002), only 27% of self-diagnosed 90 participants reported childhood trauma; which presents the possibility of different pathways to MD. In most cases, individuals who struggled with physical and/or emotional kinds of abuse, assault, or neglect, prefer to assuage their overwhelming feelings through fantasies. This could signify fantasizing about a better world, a different life, revenge, violence, and better version of oneself or anything to ameliorate dissociation from the cruel reality.

1.4.3.2. Comorbidity with Other Disorders

At the utmost, other disorders play a major role in introducing psychological dissociations, and AF as an inadequate method to respond to abominable emotions. There is great body of research that proves MD to be comorbid with several distinct disorders. A few of the most prominent disorders can be named, neurodevelopmental disorders especially ADHD (Somer et al., 2017; Theodor-Katz et al., 2022), dissociative identity disorders (Ross et al., 2020; Somer, 2019), depressive disorder (Giambra & Traynor, 1978; Somer et al., 2017), anxiety disorders

(Anwaret al., 2018; Alenizi et al., 2020;Somer, et al., 2017), Schizophrenia and schizophrenic spectrum disorders, as well as obsessive-compulsive spectrum disorders (OCSS) (Salomon-Small et al., 2022).

According to The Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders by the American Psychiatric Association, inattentiveness and dissociative absorption are considered primary symptoms of several mental disorders, including ADHD. It is also a diagnostic symptom of MD as adopted by the MDS-16. Lower levels of meta-awareness mainly result from the low attention span during daydreaming. The MDer tends to pay less attention to their surrounding environment, despite being completely aware when daydreaming. In the long run, the continuous involuntary withdrawal from external as well as internal surroundings develops into relatively decreased attention capacity, as in psychopathology symptoms of MD. Since attention and awareness have been redirected toward the inner world for a relatively long period of time, staying present in reality becomes a challenge (Somer et al., 2016). MDers tend to face depersonalization and derealization episodes, which, according to the APA DSM 5th ed., are characterized by a diminished sense of reality. Such forms of dissociation incline to an impaired sense of embodiment. Although MD and DID (dissociative identity disorder) have 'the inner imaginary worlds' feature in common, they remain quite distinct and discrete.

Giambra and Traynor (1978) claim depression to be associated with the neurotic, dysphoric, anxious, as well as emotional aspects of daydreaming. The tendency to commit suicide is reported to be linked with mental malaise and high rates of clinical distress, which are also associated with daydreaming (Somer et al., 2017). They trace back to the nature and content of daydreams, which fall along the lines of self-loathing daydreams, suicidal tendencies, and failure daydreams. Unlike depression, the underpinnings and whereabouts of MD and Anxiety disorders

may not be quite clear. However, some speculations can be made. Generalized or social anxiety disorders are proven to be comorbid with MD (Alenizi et al., 2020) as the individual opts for stress-relieving scenarios to either cope with reality or exacerbate stress. People with anxiety tend to exhibit less extroversion, which coincides with having fewer romantic relationships. The latter potentially inspire daydreaming habits and finding romantic fulfillment within fictional partners.

A large body of research has been conducted to view the relationship between Schizophrenia and MD as they are comorbid in some cases besides being similar in many angles. MD patients have often been diagnosed with a schizophrenic or psychotic disorder and vice versa. The two disorders have overlapping symptoms that tend to be confusing in case of unfamiliarity with MD. Schizophrenic symptoms mostly include confusing fantasies and reality, which is how schizophrenia and daydreaming could overlap. Fantasies, however, differ from delusions and hallucinations in terms of awareness and controllability. The daydreamer being fully aware of the imagination and voluntarily engaging in them is not the same case as phantasm and believing in the paranormal. Our concern in this chapter is to highlight the several trajectories that could have led to triggering MD. Although Schizophrenia is highly comorbid with MD, research concerning its relation to early stages of daydreaming as to how it could have possibly introduced fantasy proneness and addiction is quite limited.

As for OCSS, research has found MD to be associated with Obsessive-compulsive (OC) symptoms. The quest is to determine whether MD is associated with obsession, compulsion, or both. On one hand, MDers often describe a high rate of addiction or compulsiveness to their daydreams due to the lack of controllability. It is also a key source of distress for MD patients for their inability to control the time spent daydreaming. On another hand, obsessions, are intrusive thoughts that are mainly characterized by strong vivid imagery. MD's intrusiveness makes it

similar to OCD's obsession. The main difference between the two is that the former is enjoyable whereas the latter is mostly unwanted (Starcevic et al., 2011) as mentioned in Salomon-Small, et al. (2022).

1.4.4. Functions and Themes of Maladaptive Daydreaming

A 2002 study executed by Somer revealed that MDs served various functions. Many individuals who engross themselves in MD do so to disengage from stress and pain by conjuring up scenarios and fantasies, which fulfill their wishes and enhance their moods. Others turn to MD to find companionship and lessen the sense of loneliness they experience in their daily lives by daydreaming about having close friends or spouses.

The same study highlighted the most recurring themes in MD. MDers often daydream about violence, sadism, and bloodshed, as well as war-related themes and one-on-one fights. They also fantasize about their idealized selves, power and control, captivity, rescue, and escape. MDers often felt unable to confront their hard pasts and they were stuck in their abusive homes. Hence, they would create scenes revolving around imprisonment, torture, negotiation with kidnappers, or rescuing victims.

Others, however, claim to be enthralled by tales that have soap opera-like plots involving parallel families or complex inner worlds in medieval or sci-fi settings. The characters are inspired by movies, books, shows, or even people from their real lives. Some MDers partake in the fantasy while others prefer to stay out of it and watch it from the perspective of the narrator or one of the characters. Additionally, they discussed how some fictional characters are maintained for an extended period and age appropriately through the years, while others are dismissed or they undergo changes through time. Some fantasy users repeatedly relive the same fantasies, whilst others never do.

1.4.5. Maladaptive Daydreaming and Emotional Regulation

MD is linked to low levels of emotional lucidity, impaired emotional control abilities, and emotional regulation issues, including acting impulsively when disturbed (West & Somer, 2019). A study conducted by Greene et al. (2020) found extensive overlap between emotional control issues and MD symptoms. The majority of associations were favorable, indicating that a higher degree of MD symptoms was often associated with less effective emotion control. This could be due to the fact that MD is often comorbid with other mental illnesses, which appear to be connected to a general increase in difficulty with emotion regulation. This suggests that the supposedly positive emotional effects of daydreaming may be fleeting, transient, and ultimately counterproductive for emotion control

The level of distress and emotional dysfunction triggered by daydreaming might have a hand in the emotional regulation of the individual. Daydreaming that was more enjoyable and satisfying was linked to greater emotional clarity "It may be that enjoyment of daydreaming allows for better processing of emotional content and therefore leads to greater emotional clarity" (Greene et al., 2020, p. 2).

Studies have shown that accessing emotions and experiences through fantasy can lead to a deeper understanding of emotions and empathy due to the ease with which one can visualize other people's situations (Bigelsen & Schupak, 2011). On the other hand, a study by Anwar et al. (2018) has revealed that negative emotion is a successor to MD, as it does not generate pleasure but rather causes psychological anguish. This suggests that an increase in MD is followed by an increase in negative mood.

1.4.6. Maladaptive Daydreaming and Language Use

Mariani et al. (2021) investigated the linguistic features of MD by analysing text descriptions of daydreams MDers had. This study revealed that MDers tend to use the first-person point of view frequently with either the first-person pronoun or verb tense. It was also noticed that MDers used more Abstract/Reflection words as well as Sensory-somatic words.

Furthermore, with the employment of the future tense and conditional verb forms, tales included greater future perspective as well as probabilistic possibilities. Additionally, more often than non-MDers, MDers employed symbols and punctuation, typically in the form of emoticons, which demonstrates the need MDers have to enhance their texts using non-verbal symbolic coding. This implies that the MDers' emotional and integrative needs may influence how they process information and lead them to annotate texts with non-verbal communication.

1.5.   Conclusion

The review presented in this chapter highlighted the key concepts constituting the relationship between multilingualism and MD. Given the rarity -or lack thereof- of research done in this field, this chapter sought to tackle the problem by establishing a foundation upon which a rationale links languages to imagination and ultimately MD for the purpose of substantiating a theoretical footing for the research.

Indeed, the multidisciplinary nature of multilingualism seems to hold much data regarding the perception, use, and status of various languages for individuals. It is shown that it pertains to an intricate cognitive faculty, a common feature with imagination. The latter is a purely human complex cognitive ability that can have an association with different linguistic phenomena on various levels and requires high levels of cognitive sources for functioning, a feat, which is also

present in MD. Since MD can be linked with imagination as previously explained, and considering many multilinguals have this condition, it is only logical to link it with language and eventually multilingualism in consonance with the literature review.

All-in-all, ToM, language, and imagination are tightly intertwined cognitive abilities that this research attempts to link to create a different perspective on viewing and understanding maladaptive behaviors. To elaborate, MD is a condition that involves constant daydreaming and an imaginative intensity that includes creativity at its peak. Daydreams are most likely to involve realistic as well as unrealistic –or irrealistic as Gosetti-Ferencei (2018, p. 10) would say- which revolve around perspectives, beliefs, and plots with intense emotions and notions of belonging to certain communities. In order to reach the desired level of realism, and for the daydream to be compelling, the individual ought to be wired with skills of understanding the other's perspective and system of thoughts, which eventually contributes to rendering the daydream vivid and complex. This process depends on the collaboration of imagination and language as two intertwined cognitive systems.

The forthcoming chapters will demonstrate the methodologies and philosophical rationale adopted in this research. They will also unveil the interconnectivity of multilingualism and MD on the basis of the aforementioned theories while highlighting the new and unprecedented results reached in this research.

Chapter Two: Research Methodology and Data Collection

2.1. Introduction

Before tackling a brief overview of the methodology of this research, it is beneficial to stay reminded of the research questions and aims. This research aims at unveiling to what extent multilingualism is present in daydreams and how it can be projected in them. It also seeks to prove that multilingualism has an effect on the MD disorder as a developmental trajectory. In order to achieve these aims, the researchers asked two research questions 'What are the possible manifestations of multilingualism in daydreams?' and 'How can multilingualism impact MD Disorder?' The purpose of this chapter is to highlight the research design followed to answer the research questions and aims. This chapter will contain three major sections in which the philosophical and conceptual choices as well as methodological approaches will be tackled.

The first section of the chapter will tackle the philosophical framework adopted. It will state the implications of adopting the pragmatism paradigm and serve as a base for understanding the logic behind the design of the research methodology. It will be followed by Research Type where the researchers will explain their reasoning. It will also categorize the research in terms of aim and data types. The third subsection will tackle the Research Strategy or action plan. It will explain that through a combination of case study and grounded theory approaches, the researchers were able to collect relevant data and analyse them accordingly.

The fourth subsection will deal with the Time Horizon of the research and explain whether it was a cross-sectional or longitudinal time frame of data collection. After that, the fifth subsection will showcase the sampling strategy that was adopted to identify the sample from the population.

The second section will discuss the research instruments and techniques that were employed for data collection. It describes thoroughly the data collection process underwent to collect the data. This includes sites where the questionnaire was published as well as sites where the interviews were recorded and transcribed. Furthermore, it is crucial to address a few ethical considerations that the researchers had to pay attention to during the data collection process.

The third section will be about data analysis methods; it will report in detail the results and findings from the research instruments and techniques. It states the various type of data analysis methods utilized to obtain the desired results. By tackling each instrument on its own, this section will present precisely the process of data analysis and go through the rationale behind choosing these specific analysis methods. This section showcases the relevance of each instrument as well as the fact that each instrument was analyzed in accordance with the research question, taking into consideration the other instrument.

2.2. Research Design Choices

Research design choices are controlled by a set of factors that the researcher ought to respect and consider, in order to design the most suitable plan for achieving research goals and answering research questions. The psychological and sensitive nature of the topic requires a thorough understanding and delicate framework to guarantee the validity of the data, results, and thus, the general hypothesis. Accordingly, the followings are the list of conceptual as well as methodological choices that the researchers deemed appropriate to carry out the entirety of the research.

2.2.1. Research Philosophy: The Pragmatic Worldview

There should be a strong base as to how research is constructed. Research Philosophy indicates the philosophical or theoretical set of beliefs upon which the research design is built. Such beliefs include the perspective or angle to adopt, type of data to collect as well as the instruments and techniques of data collection. The researcher ought to adopt the theoretical conception of the reality to be studied based on the research philosophy that he/she is following depending on the research questions and goals.

Positivism and interpretivism are two opposing ends of the spectrum with extreme beliefs in terms of nature and source of knowledge. Thus, they pay strong attention to the philosophical conceptions of conducting research. That is to say, these paradigms have completely opposing perspectives on the axiology, ontology, epistemology, and methodology of research. *Pragmatism*, however, is less restricted in defining these boundaries and allows more freedom in opting for the most suitable design for the research questions and goals.

The epistemological basis for pragmatic philosophy is tightly linked to action, or situation (Morgan, 2014b, p. 7). They claim knowledge to be a social construct that cannot be neutral to an individual's experiences or beliefs. That is to say, knowledge is not static, but rather, it is constantly evolving through experiences, experiments, and testing. It should be evaluated through research for possibilities of practical applications.

Pragmatic philosophy rejects fixed assumptions about reality (Morgan, 2014a, p. 2). In fact, it approaches reality with *flexibility* and manipulation of the variables for the maximum best outcome that fits the circumstance. However, they do not reject the objectivity of reality that exists outside of the realm of society or individuals. Reality, in this sense, can be objective yet dependent on individual experiences, which also serves as the ontological basis for pragmatic

research. This idea could be better explained through the logic of 'same stimuli or actions will always lead to the same results.' Here, the results will be dependent on the action itself. Once context or situation is included in this equation, different results are inevitably driven by the difference in context despite starting with the same actions.

The nature or source of knowledge here is not of significance, because the context determines the value. Speaking of which, according to Tashakkori, et al. (1998, pp. 26-27), the researcher's system of values is crucial to determine what to research as well as to anticipate results in accordance with this system of values. That is to say, the pragmatic approach considers the axiology of the research. What does all this mean in terms of research?

The pragmatic paradigm asserts the freedom of choosing whatever means necessary to solve the problem. It is most likely to guarantee the flexibility to either opt for any type of method. Cherryholmes (1992in Tashakkori, Abbas, & Teddlie, 1998) says on the matter:

> Pragmatic choices about what to research or how to go about it are conditioned by where we want to go in the broadest of senses (…) Beginning with what he or she thinks is known and looking into consequences he or she desires, our pragmatist would pick and choose how and what to research and what to do. (pp. 13-14)

The choice of methods highly depends on the research goals and questions, essentially, what is to be solved. It enabled the researchers to pick the most suitable design to fill the gap of knowledge in question.

Another point of strength is that through Pragmatism is the possibility of opting for multiple or mixed methods of research. Through paying careful consideration to the feasibility of the method and the applicability of the results, the researchers are able to adopt, adapt to, and

adjust the method in favor of their research problem, questions, and goals (Morgan, 2014b, p. 8). Once they put that to use, they were able to manage the complexity of the topic as well as the originality of the gap in question. The researchers opted for a mixed-method approach to guarantee the precision of details as well as the validity of the data.

2.2.2. Research Type

Whereas this research had identified a gap of knowledge that has never been tackled before, it is not conducted to test a hypothesis or experiment on existing knowledge; rather, it is to generate a hypothesis and attempt to answer questions regarding this newly established knowledge. That is to say, this research is predominantly *exploratory* in nature. It aims at exploring people's experiences with MD disorder and attempts to link their experiences with languages that they master or languages they are exposed to frequently. Not only does the research aim at exploring this linkage, but also establishes a cause-effect relationship between multilingualism and the disorder. The latter is considered an entirely different perspective on this disorder, multilingualism, and everything in between.

The primary goal of this research is to gain relevant yet detailed insights into MDer's experience with multilingualism, as well as the way it is projected in daydreams. As mentioned previously, this topic has never been studied before so it is given its first tentative analysis. That is to say, a remarkable lack of knowledge exists in this area, which requires exploratory study that can go beyond the existing current views.

In terms of the methodology, within exploratory research, the researchers were able to opt for the case study and have an in-depth study on a small case for valid and verifiable results. These patterns require explanations and interpretations. Swedberg (2020) identified this type of exploratory study as The Standard Exploratory Study (Type 1): "The goal is to explore a topic

that is little known, and to produce a publishable work. A multi-method approach is helpful." (p. 40).

To answer the research questions as an attempt to fill in the gap, hypotheses must be generated. *Inductive* reasoning, as opposed to deductive reasoning, involves generating hypotheses based on specific observations of patterns. This research is exploratory and seeks to form conclusions-or hypothesis- based on the data that has been collected through the case study. Furthermore, a thorough assessment of the data results and established patterns and themes allowed the researchers to gain further insights into the problem and thus draw conclusions based on the observations following a ground-up approach. The amount and quality of data that was gained through the instruments were sufficient to make the judgments. Some speculations were also confirmed through data that was collected from other techniques such as Memoing. Moreover, observing recurrent patterns lead the researchers to ask questions about the reasons behind these patterns. Establishing causality then require inductive reasoning, not only to establish the patterns but also to elucidate the meaning they convey and decide on summarizing hypothesis that answer the research questions.

Having collected the research data directly from the source through data collection methods i.e., the questionnaire and the interview, the researchers guaranteed the reliability and accuracy of the data. No type of secondary data was utilized in this research. The data is used to describe the phenomenon from the participants' experience, and it provided valuable insights to establish themes and highlight the cause-effect relationship between the variables in question. Therefore, the data collected in this research is descriptive in nature.

2.2.3. Research Strategy

A research strategy is an "overall plan for conducting a research study" (Johannesson & Perjons, 2014, p. 39). A systemic approach to the phenomenon is adopted through following a detailed plan of action. The plan in question provides guidance and monitoring. Two main criteria should be available in a strategy in order for it to be deemed appropriate for the study. It should go hand in hand with the research purpose as mentioned in Johannesson and Perjons (2014, p. 40). It should be feasible and provide practical guidance to carry out the study undertaken (Johannesson & Perjons, 2014, p. 40). The researcher ought to take necessary ethical precautions and guarantee the safety and security of all parties involved.

The present research incorporated a mixed strategy i.e., grounded case study. Each strategy is characterized by a set of beliefs to achieve certain purposes, study specific populations, utilize specific instruments, and incorporate certain methods. On one hand, since the research explores a particular gap, it is quite crucial to specify a case to work on to contextualize the phenomenon. On another hand, the questions of the research are not based on existing hypotheses to test, or to provide a practical solution to a problem. The research seeks to hypothesize about the phenomenon to establish a new link between the fields of psychology and linguistics by linking language and imagination through MD. Thus, the quest is to propose hypotheses that are grounded from the data collected in this research.

2.2.3.1. Fieldwork: Case Study

A case study entails a detailed in-depth study of a single phenomenon to generate applicable results that can solve real-world problems (Yin, 2018, p. 15). That is to say, it focuses on an instance in that phenomenon to provide insightful results on it (Johannesson & Perjons, 2014, p. 44). Rather than observing the entirety of the complex image, it scrutinizes a specific

part of said image to depict it thoroughly. It opens portals to further research initiating from the specific angle towards further comprehension of the matter. For that, a case study is proven appropriate for handling complex research questions and problems about an event, situation, or social phenomenon.

The nature of the topic in this research makes it intricate and sensitive which requires careful consideration of context. The problem in question is highly dependent on social context or context in general. That is the reason behind a case study being the most adequate method for studying such problems. It tackles the problem by paying careful consideration to the context behind it, which aligns with the conceptual or philosophical underpinnings of Pragmatic research.

The single case in this research is MDers who are members of the Maladaptive Daydreaming Disorder Support group on Facebook. Accordingly, the research was conducted in the natural context of MD where the participants address their daydreaming habits by answering questions or being interviewed. The data obtained through these instruments are valid and rich. This allowed capturing the complexity of the phenomenon in a natural habitat, which would not have been feasible through other research methods.

Since this research tackles a relatively new topic, there is a need for filling gaps and adding to the existing knowledge. Opting for a case study in this research falls under the realm of exploratory research, which enabled the researchers to identify the main themes and patterns to establish causality for that it is also explanatory in nature. Yin (2018, p. 28) says on the matter: "Case study research is particularly useful for answering 'how' and 'why' questions, exploring complex and dynamic social processes, and providing context-specific insights". This way, the researchers were able to put forward hypotheses and generate answers to the research questions.

According to the purpose of this study, the researchers have used the intrinsic type of case study, as it is more compatible with unique topics rather than existing ones. It is to explore the characteristics of incorporating multiple languages within MDs in depth.

It is crucial to note that the results are often not generalizable. They most likely require further verifications:

Case Study: the detailed examination of a single example of a class of phenomena, a case study cannot provide reliable information about the broader class, but it may be useful in the preliminary stages of an investigation since it provides hypotheses, which may be tested systematically with a larger number of cases. (Abercrombie et al., 1984 in Flyvbjerg, 2006, p. 220)

The exploratory single case study limited the research scope to a small case and oriented the research to make speculations and interpretations about the specific case of the research. According to this, the hypotheses that were generated via this research may not be generalizable due to the non-representative number of cases. However, it can serve as ground literature for future research.

2.2.3.2. Grounded Theory

Charmaz (2008), the founder of constructivist grounded theory, defines Grounded Theory (GT) as the following:

What is grounded theory? The term refers to both the research product and the analytic method of producing it, which I emphasize here. The grounded theory method begins with inductive strategies for collecting and analysing qualitative data for the purpose of developing middle-

range theories. Examining this method allows us to rethink ways of bringing *why* questions

into qualitative research. (p. 397).

As stated in the quote, GT is not merely about the product that resulted from using it. It

also includes the practical steps that resulted in generating a theory or multiple theories. It allows

for establishing patterns and relations grounded from the data collected; not only does it describe

and explore the phenomenon by answering 'what' and 'how' questions, but it also aims at

identifying causality and seeks to ratify 'why' questions.

For Grounded theorists, the theory in question ought to be grounded in data, and not

conceived by the pre-existing literature, which makes it a key principle in GTM (Grounded

Theory Method) (Charmaz, 2008). Once the data collection phase initiates, the research gets into

a *constant comparison* phase that involves the data being collected at that moment with the data

that was collected not shortly before. This comparison is estimating resemblances as well as

differences between data and other data, data and concepts, and concepts and categories. The

outcome of this is a core theory that is later on identified as a theory to explicate the phenomenon

under study. The theory thus emerged mainly from the data as opposed to the pre-existing

literature.

An interesting point about GTM is that it can be grounded from small amounts of data. It is

suitable for small-scale research such as this one as it does not require a huge amount of data

(Johannesson & Perjons, 2014, p. 47). The data in question can be qualitative or quantitative in

nature. Once the data collected reached *saturation*, it may suffice for grounding a theory. This

also indicates that the theory requires further investigation to ensure its credibility and validity.

That is why GTM offers triangulation opportunities to cover most angles and perspectives

possible.

Through GTM, the researcher is encouraged to acknowledge his/her reflexivity, which might be responsible for altering the course of the research. In other methods of research, the researcher's own biases and assumptions are frowned upon. However, GTM embraces these varieties within their natural setting and strives to evaluate them critically in order to ensure validity and credibility. For that, Charmaz (2008) acknowledged the existence of a possibility for multiple hypotheses and perspectives on the same question or phenomenon (p. 403).

When putting GT into practice, there are no limitations to what the researcher can opt for in terms of methods or instruments of data collection. This involves both primary and secondary types of data as long as they remain contextualized and relevant. The data then is coded through a systematic approach to coding which will be put under the microscope to evaluate recurring patterns and relations. The data collection process is preferred to be in parallel with the analysis as the comparison between the data collected and the data to be collected is a key concept for Grounded research as mentioned earlier. *Theoretical sampling* will then act as a guide for further validation and theorizing to confirm those patterns, get a deeper insight into them, or even reject them, as there is a possibility for multiple theories (Charmaz, 2008; Cohen et al., 2018).

2.2.3.3. Singularity of the Research: Grounded Case Study

The grounded Case Study is a method that combines both GTM and case study approaches to research. As stated previously, Case studies involve an in-depth examination of a particular phenomenon through a representative sample. GTM, on a different note, involves theorizing based on data. This combination allows squeezing out the most potential of both strategies to ensure a suitable action plan is being followed.

This research combined key concepts of both methods. It entails examining MD disorder in its natural setting and recognizing context as an influencing factor. The grounded case study

necessitates developing a theory in a ground-up process (Eisenhardt and Graebner, 2007). It is likely to initiate from primary data towards a more generalized conceptualization of the phenomenon through inductive reasoning. Through this section, the key principles of each: case study and grounded theory have been mentioned. The purpose is to highlight the benefits of opting for this combination.

Eisenhardt and Graebner (2007) have argued that it is considerably difficult to convince readers about the choice of a grounded case study as a research strategy instead of merely opting for a case study. The nature of the research, the aims, and the research questions decide the adequacy of the strategy. According toEisenhardt and Graebner (2007), the key answer to this concern would be tackling the significance of the study. It is thus the researchers' task to convince the readers of the feasibility of the work through this strategy and this strategy alone.

To the best of the researchers' knowledge, no prior research has been conducted on the subject. Thus, the present research is not to test a hypothesis or to question the applicability of a hypothesis. This research identified a lack of knowledge on this topic that is rooted in multiple disciplines all at once. The researchers asked questions regarding the potential existence of a relation of any kind between multilingualism and MD. Based on the assumption of its existence, they attempted to investigate its nature as well as the way in which it is manifested in daydreams. Do these variables impact one another? Alternatively, is each end of the spectrum dependent on the other? These questions do not seek to describe only but also identify and explicate patterns and relations.

Hence, there is a need to develop a theory based on primary data collected from a single case of MDers who master multiple languages who are members of the aforementioned support group. The instruments and techniques that had been utilized in the data collection phase have

allowed the attainment of rich, valuable, and relevant data. Contextualizing the phenomenon and having the opportunity to gain insights into the participants' experiences acted as a ground for the soon-to-be-mentioned claims. One cannot deny the limited scope of where these claims stand; however, there is an opportunity for further investigations.

2.2.4. Time Horizon

The researchers adopted a research topic that captures 'Snapshots' of a phenomenon (Saunders et al., 2009) at one point in time. These snapshots make up a time horizon better known as cross-sectional. Cross-sectional studies refer to researching a particular phenomenon (or phenomena) at a particular period of time.

The researchers adopted such a study due to the time constraints as well as resources that they were obliged to be aware and weary of. The employment of surveys and interviews for exploratory research is one way of establishing a cross-sectional investigation as stated by Saunders et al. (2009, p. 190): "Cross-sectional studies often employ the survey strategy (…) however, they may also use qualitative or multiple research strategies. For example, many case studies are based on interviews conducted over a short period of time."

2.2.5. Study Participants

The sample was drawn from a population of adult multilingual individuals who have MD through either self-diagnosis or professional diagnosis. The researchers have adopted a non-probability (purposive) sampling approach as a particular sample was targeted. Taking into consideration the minimal number of the sample, the researchers were aware that representation would not be achieved: "The selectivity which is built into a non-probability sample derives from the researcher targeting a particular group, in the full knowledge that it does not represent the

wider population; it simply represents itself" (Cohen et al., 2018, p. 217). Although this research is based on the mixed method approach, it is predominantly founded on qualitative data due to its exploratory nature. Thus, this method of sampling made more sense for the study's aims: "In most MM studies, this will involve both probability and purposive techniques, but there are some cases where either probability sampling or purposive sampling alone is appropriate" (Teddlie & Yu, 2007, p. 96)

Access to participants was achieved through a Facebook group dedicated to the MD disorder named: Maladaptive Daydreaming Disorder Support. The aforementioned access was part of the purposive sampling -more specifically- criterion sampling. It was used by the researchers to handpick participants who were required to have the following criteria: to be either a self-diagnosed or professionally diagnosed MDer, to be an adult, to be a multilingual with the possession of a least two languages, and to be a member of the Maladaptive Daydreaming Disorder Support group. Such a method of sampling allows for the gathering of exact and in-depth data that serves the purpose of the research by contacting 'knowledgeable people' with ample data and experience (Ball, 1990). Maxwell (1997) further agreed with the preceding notion by stating: "Particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices'' (p. 87).

Auxiliary methods of sampling were also employed for the questionnaire such as volunteer sampling in which friends and acquaintances volunteered to participate in the research to gather as many respondents as possible as well as to collect diverse data. To maneuver the issue of the lack of participants -and relying on snowball sampling-, the sample was enlarged by asking the identified participants to recommend additional respondents from the aforementioned support group whom they knew who might be eager to offer pertinent feedback on the study's

topic by filling out the questionnaire. Theoretical sampling was also employed as the researchers would not know which theories would be generated and when, such a sampling method was essential during the interviewing process to establish data saturation. Since the researchers were not striving to establish representativeness or generalizability, adopting such methods of sampling was not problematic.

Through non-probability sampling methods, the researchers have gathered 48 respondents for this study (41 questionnaire respondents and seven interviewees) from a broad range of demographic, ethnic, and linguistic backgrounds with varying viewpoints regarding their MD experience. The number of participants included in this study was not premeditated. The final number of participants was determined by data saturation, which has seeped into both instruments' results as a clear and distinct pattern emerged. No more new information, concepts, and themes were gathered from the questionnaire and the interview results, and the researchers deemed the pattern appropriate to answer the research questions.

2.2.6. Data Collection

Due to the psychological nature of the topic as well as the researcher's adoption of an exploratory case study, the questionnaire and the interview were the data collection instruments used as they allow for an insider's perspective and ample qualitative data collection that would serve the research aims. That means the entirety of the data used to generate the hypotheses is primary in nature. The data was accumulated from individuals taking the time to fill in the questionnaire from said sites as well as those whom the researchers conducted interviews with.

2.2.6.1. The Questionnaire

For the sake of gathering as much diverse data as possible, the researchers opted for a semi-structured questionnaire with a wide range of questions. A semi-structured questionnaire is composed of both close-ended as well as open-ended questions. Such a type of questionnaire led to the collection of both qualitative as well as quantitative data that serve the aforementioned mixed method approach. Another reason for choosing this type of questionnaire is to have a deeper insight into the respondents' experiences and viewpoints on a larger scale as this data collection instrument allows for an easier reach to a large number of individuals who are part of the sample.

The questionnaire employed in this study was composed of 15 questions, 11 of which were close-ended. Within the close-ended questions, five questions were dichotomous questions that offered two options allowing the respondents to provide unequivocal responses by ticking one of the two. There were also two multiple-choice questions with one being a single-answer mode (i.e., respondents can only choose one answer) and another being a free-choice mode (where respondents could choose as many as they agreed with from the options). Additionally, one rating scale question, which enables the determination of frequencies, was also included. The three remaining questions required answers of a numeral nature. These questions sought to gather data regarding the age of the participants, their linguistic background, their daydreaming history, and their daydreaming habits regarding languages.

Four open-ended questions were also included in the questionnaire which served the exploratory nature of the topic as they allowed the respondents to share their experiences and provided well-needed details as explained by Cogen et al. (2018): "Open-ended responses might contain the 'gems' of information that otherwise might not be caught in the questionnaire.

Further, it puts the responsibility for, and ownership of, the data much more firmly into respondents' hands." (p. 475). The questions sought to understand the reasoning behind the choices of the languages during daydreams and their relationship with the content of the daydreams. All questions as well as the responses were in English except for some exemplary ones, which served the purpose of the question.

The questionnaire was pilot tested with six friends of the researchers to examine whether the questions were clear, comprehensive, and straightforward. A few minor adjustments were made, primarily to the wording and sequencing of the questions. Once the questionnaire has been arranged, the final version (found in Appendix (B)) was published on the survey website "freeonlinesurveys", the survey was then shared on the aforementioned MD platform from February 10th to March 14th of 2023.

2.2.6.2. The Interview

Aiming to explore the participants' experiences, opinions, and perspectives, the researchers opted for a semi-structured interview when investigating the second research question. Additionally, its flexibility was of assistance to the researchers as it allowed multi-sensory channels to be used: verbal, non-verbal, seen, spoken, heard, and written. It allows for an exhaustive inquiry into the topics and people compared to a structured interview, it also facilitates more conversation and data gathering about the subject, respondents' ideas, and points of view. It is a less constrained and a more "flexible and dynamic" (Taylor & Bogdan, 1984, p. 88) method, the researchers had a great deal of freedom to delve into any interesting areas that surfaced thanks to the flexibility of semi-structured interviews, which allowed the subject to give more detailed and richer information than would be possible with a standard quantitative instrument.

A semi-structured interview is one in which the interviewer has a list of questions that are typically organized into an interview schedule; but is free to rearrange the questions' sequence as well as add unstructured follow-up questions to probe further elaboration or restate a question. The researchers tackled six primary open ended-ended questions targeting various ideas that sought to investigate the impact multilingualism has on MD. A copy of the original interview schedule is found in Appendix (D).

Seven interviews were conducted, and all were synchronous (real-time interviews) and individual. Five of them were conducted online using the video teleconferencing software Zoom and two were face-to-face. All of the interviews conducted via 'Zoom' were recorded using the Zoom video and audio recording software while the two in-person interviews were recorded using a phone voice recorder. All interviews were conducted and recorded after ensuring the verbal and written consent of the interviewees.

After each participant gave their consent to be interviewed, a meeting was set up with them at a time that suited both parties. The researchers introduced themselves and provided a background of the research topic before commencing. They did not adopt an expert position and chose to be transparent with the participants by asserting they share the same experience as them to create a safe space and establish rapport with them. The researchers would guide the interview to ensure all facets of the topic were covered when and if they noticed that the respondents are straying away from the subject while still making sure to remain informal and approachable: "Far from being an impersonal data collector, the interviewer (…) is the research tool" (Taylor and Bogdan (1984, p. 88)

The interviews were conducted over a period of 10 days (from March 14th to March 24th of 2023). The shortest interview was 17 minutes long and the longest interview was 35 minutes

long. On average, interviews lasted approximately 25 minutes. Three of the interviews were transcribed manually while four were transcribed using the transcription software 'Trint'. The researchers relied on verbatim transcription to capture every detail whether verbal or physical. All interviews were conducted in English to allow for an exact transcription of what they stated. However, in rare instances, some Arabic-speaking respondents expressed themselves in their native tongue, and that information was translated during the transcription process to extract proper and exact codes.

2.2.7. Ethical Considerations

Ethics seep into every nook and cranny of the research steps, Sikes (2006) states that ethics are part of "researchers and their research choices, research topics, methodologies and methods, and writing styles" (p. 106). The researchers abided by the rules of ethics they were expected to succumb to ensure both the respondents' safety as well as their own.

During the data collection process of both instruments, the researchers made sure to include participants in the loop regarding what the research is about and its aims in the scientific field. An informative participant sheet (found in Appendix (A)) was provided prior to the questionnaire page in which the researchers stated their identities, all details regarding the topic, and the purpose of their research, as well as the ensured anonymity of the respondents.

Moreover, when conducting the interview, participants who willingly agreed to participate after being approached by the researchers were provided with a thorough explanation of the research purpose as well as the interview procedure. They were also provided with an informed consent form which, in addition to containing the research topic and purpose, also included the limits of the participants, i.e., what they were comfortable and uncomfortable with so that the researchers will have a clear view of how to interview each participant. They were all requested

to sign the consent form (found in Appendix (C)) before conducting the interview. The participants also provided written and verbal consent to being recorded.

The interview questions were well received by the participants, so the study's practical advantages were immediately evident. It is possible that the interview process allowed the participants to share their experiences in a confidential, judgment-free environment because all of the participants appeared to engage freely in the conversations. In both of the data collection tools used, the researchers highlighted the aspect of confidentiality and anonymity of the participants and that access to the content of the questionnaires and the interviews was only granted to the researchers and their supervisor. The participants and the supervisor had no contact with each other. The participants' names were not mentioned in the final report and they were only referred to by pseudonyms.

2.3. Data Analysis

Any research procedure must include data analysis because, regardless of the type of data gathered, it is the analysis that has a significant impact on the research's results as explained by Keeves (1988, p. 471): "The events recorded must be processed and categorized systematically to draw conclusions from the data". A considerable bulk of raw data comprising of 24943 words was analysed, deciphered, and given a reliable conclusion in a systematic process.

2.3.1. Questionnaire Analysis

The analysis of the questionnaire was initiated once all data was gathered. The questionnaire garnered 41 respondents from various linguistic backgrounds. The researchers began their analysis by carefully reading and re-reading the collected data. Memoing was adopted by the researchers to uphold the ideas that were generated during the research process. Three

types of memoing were used by the researchers (Waring, 2012); code notes which contained the names of the codes gathered and how they were extracted. Theoretical codes were also employed to derive meaning from the data and extenuate the relationship between the codes. Additionally, operational codes were implemented to highlight the process of data collection and analysis. A day-to-day journal was also kept to document any notes and observations regarding the data.

2.3.1.1. Thematic Analysis

The researchers relied on thematic analysis as it allows for the systematic organization and analysis of vast and complex data sets (Dawadi, 2020). An inductive process was employed, as there were no pre-existing themes or preconceptions regarding the research topic (Brown & Clark, 2006). Thus, codes, sub-themes, and themes all developed from a meticulous analysis of the gathered data. Through this analysis method, the researchers were able to extract 5 main themes and 13 sub-themes. As researchers had no prior experience with this method of analysis, they adopted Braun and Clarke's (2006) proposed guidelines to carry out a thematic analysis.

Phase 1. The researchers commenced their analysis process by being attuned to the data they have accumulated. For them to do so, they printed out paper copies of the questionnaire results, which contained the responses of all 41 respondents. Next, the researchers immersed themselves in the data in order to get an in-depth understanding of said data while highlighting any points of interest regarding the research question's objective.

Phase 2. After multiple readings of the data, open coding was carried out in which the researchers emphasized all words, sentences, paragraphs, and ideas that held rich information. A line-by-line reading allowed for the amass of various initial codes in the form of words and sentences.

Phase 3. Once all initial codes have been gathered, the researchers began the process of axial coding in which they sought to conceptualize these codes and derive their underlying shared characteristics with the aim of grouping them under one sub-theme. They were able to do so by writing down all the codes that they extracted and separating them based on their nature (context, event, emotion…).

Once all sub-themes have been generated, the researchers, relying on selective coding, were able to assign the main themes under which these sub-themes were grouped. They were able to do so by analysing the patterns and relationships across them as Brown and Clarke (2006, p. 10) explain: "a theme captures something important about the data about a research question and represents some level of patterned response or meaning within the data set". In order to demonstrate all the main themes, sub-themes, and codes that have been generated, a thematic map was initially designed.

Phase 4. With all themes collected, the researchers began the process of reviewing and refining said themes by checking for internal homogeneity (coherence and consistency) and external heterogeneity (distinctions between themes) (Braun and Clarke, 2006). At this stage, the researchers relocated some codes into other sub-themes as well as renamed some elements, they also merged some main themes to ensure no redundancy occurred and that, eventually, all themes with their sub-elements were in accord with the data set.

Phase 5. Once all themes, sub-themes, and codes were finalized, the researchers provided definitions for each part while also demonstrating the relations between each one. Once all details were clarified and each theme, sub-theme, and code were in their proper positions, a final thematic map (found in Appendix (H)) was thus created that housed all improved main themes with their sub-themes and codes.

Phase 6. At this stage, the researchers were able to write a report of their findings. Accordingly, a logical and detailed account of the data gathered was provided and supplemented with sufficient evidence in the shape of extracts from the informants or examples (a table containing all themes, sub-themes, and codes is found in appendix (E)).

2.3.1.2. Content Analysis

Once all themes have been collected, the researchers undertook a statistical approach by evaluating the patterns they took notice of during the preliminary stage of analysis. To do so, they employed the method of content analysis (henceforth, CA) which is useful for evaluating patterns within the data. CA is defined by Krippendorff (2004, p. 18) as, "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use." In other words, CA is used to interpret systematically information that can take the form of texts, images, symbols, or audio data. It may be summed up as an effort to interpret the text.

Quantitative Content Analysis. Berelson (1952) defines quantitative CA as a: "research technique for the objective, systematic and quantitative description of the manifest content of communication" (p. 18). '*Manifest'* being a key term as it refers to the visible and countable features of the content being analysed that would be essential for answering the research questions. The researchers relied on this method to establish an analysis of the objective and quantitative nature of textual data (Neuendorf, 2002) with the aim of identifying patterns and numerical interpretation of the data. They have identified the frequency of multiple facets of research and tabulated data as suggested by Anderson and Arsenault (1998, pp. 101–2) who stated; "at its simplest level, content analysis involves counting concepts, words or occurrences in documents and reporting them in tabular form." Hence, CA in this case was adopted in order to achieve a quantitative aspect, which adds to the reliability of the research.

As previously explained, the principal aim of quantitative CA is to emerge with counts for significant categories and measures of certain variables (Neuendorf, 2002). It is crucial to reiterate that the researchers in their quest to analyse the collected data, have mainly adopted a qualitative approach while accentuating the most prevalent factors. This rationale of analysis was employed in order to achieve a bi-faceted level of cogency as demonstrated by Neuendorf (2002, p. 15): "When approaching a text—a message or message set—the researcher needs to evaluate his or her needs and the outcomes possible from both quantitative (i.e., content analysis) and nonquantitative analyses."

Conceptual Analysis. Within the context of quantitative CA, the researchers adopted conceptual analysis after accumulating concepts using qualitative analysis (thematic analysis as prior explained). As elucidated by Wilson (2011, p. 177), in conceptual analysis: "the content is coded for certain words, concepts, or themes, and the analyst makes inferences based on the patterns that emerge." Accordingly, the researchers selected the concepts that are worth examining to measure and tally their frequency in the textual data. The notion is used to assess the consistency or regularity of conceptions or ideas that are expressly mentioned in the data.

The researchers tackled various levels of analysis. The reason behind this is that the key concepts that were gathered were of distinct natures (words, phrases, sentences…). The researchers opted for coding for frequency to determine the potency of particular notions, which provides a greater understanding of the material. Then, general patterns were able to be distinguished once all concepts were accumulated through an exhaustive analytical and interpretive procedure. The researchers were able to emerge through the analysis of the questionnaire with 5 themes and 12 sub-themes.

2.3.2. Interview Analysis

Each interview was summarized and coded immediately after transcription, which allowed the researcher to assess and edit the interview questions as new concepts and themes emerged. The researchers relied on full verbatim transcription to pinpoint every detail of the interview with reliability and not risk recalling or quoting information provided by the respondents incorrectly. They also employed 'memoing' and 'journal keeping' during the analysis of this instrument as well.

The researchers deployed thematic analysis on the grounds of GTM as they built their themes through iterative coding and the constant analysis of the interviews, a method defined as "theory that was derived from data, systematically gathered and analyzed through the research process" (Strauss & Corbin 1898, p. 12). This integration of thematic analysis within GTM was highly productive as it allowed the researchers to derive themes from which a hypothesis could be generated and was not problematic as both "thematic analysis and grounded theory employ similar techniques" (Ezzy, 2002, p. 87).

Through the analysis of the interviews, codes were extracted and compared with codes from other interviews, and as new categories were created from said codes, they were compared with previous categories. Such comparison is better known as constant comparative analysis, which is part of GTM. It is mainly employed to identify similarities and differences to improve continuously concepts and theoretically relevant categories until saturation was reached.

As mentioned above, coding is a crucial step in GTM as it allows for the identification of the various concepts and categories that emerge, Charmaz (2012, p. 5) explains: "Codes rely on interaction between researchers and their data. Codes consist of short labels that we construct as we interact with the data. Something kinesthetic occurs when we are coding; we are mentally and

physically active in the process." The coding process was carried out manually by the researchers after transcribing each interview.

2.3.2.1. Open Coding

It refers to the process of analysing and coding the transcribed text line by line to describe and eventually categorize it. It is the initial coding stage in GTM and its most important one as it helped the researchers have an in-depth view of all the elements mentioned by the respondents. This type of coding led the researchers to collect various codes.

2.3.2.2. Axial coding

It occurs when several open codes share the same characteristic as Cohen et al. (2018, p. 671) explained: "An axial code is a category label ascribed to a group of open codes whose referents (the phenomena being described) are similar in meaning (e.g., concern the same concept)". In this intermediate coding stage, the researchers began connecting related codes into one axial category or a sub-theme around which those codes revolve (Cohen et al., 2018).

2.3.2.3. Selective Coding

Strauss and Corbin (1990, p. 17) defined selective coding as finding the central category or phenomenon better known as the core category (a main theme in this case) around which all other categories are integrated. Still in the intermediate coding stage, the researchers analysed the relationships, which have emerged between the categories, and continuously interacted with the codes and categories until a data saturation in which no new analyses or categories occurred.

2.3.2.4. Theoretical Coding

It occurs in the final stage of GTM. In this stage, the researchers examined the relationships between the different codes and categories to emerge with a hypothesis, as Saldaña (2013, p. 224) states: "Theoretical coding integrates and synthesizes the categories derived from coding and analysis to now create a theory". Theoretical sampling was essential during this stage to ensure that no new theories emerge. Cohen et al. (2018) stated,

> Indeed grounded theory would argue that the sample size could be infinitely large, or, as a fallback position, large enough to 'saturate' the categories and issues, such that new data do not cause any modification to the theory which has been generated. (pp. 222-223).

The researchers have also employed the aforementioned CA in this stage for the purpose of establishing a more thorough and valid analysis. Through the analysis of the interview, the researchers have emerged with three main themes and six sub-themes. All themes, sub-themes, and codes are found in Appendix (F). All of the accumulated themes were included in a thematic map (found in Appendix (I)).

2.4. Conclusion

In this chapter, the researchers have provided a detailed account of the methodology and methods they have adopted during their research process in order to answer the research questions. They have opted for a mixed-method approach, as it not only aligns with the purpose of their research. It also goes in accord with the ontology, axiology, and epistemology of pragmatism. A grounded case study was deemed most pertinent for this particular topic in which hypotheses were generated through the analysis of the accumulated data.

This chapter also illustrated the rationale and process of selecting the sample and highlighted the case study, which consisted of members of the Maladaptive Daydreaming Disorder Support group on the Facebook platform. The questionnaire and the interview were both employed with the sample their results were analysed using thematic analysis, content analysis, and GMT analysis. The following chapter provides a thorough account of the themes that emerged during the process of data analysis supported by quotes from the participants. It describes the analysis findings and showcases that the methodology provided in Chapter Two was adhered to.

Chapter Three: Results and Discussion

3.1. Introduction

Through opting for a Thematic Method of qualitative data analysis, the researchers identified eight major themes. Analysing the open-ended questions of the Questionnaire data in coordination with the close-ended questions about the sample's background resulted in generating five themes with categories and subcategories. The interview data resulted in generating three major themes that coordinate with the three sections of the interview. Questionnaire themes heavily connect with one another as they do to Interview themes. A clear pattern emerged from the alignment of the results of both data collection instruments, which aimed at providing a comprehensible image of how to answer the research questions.

Collectively, the Questionnaire themes were as follows: (a) Multilingualism, which contained three categories. The categories varied in terms of (a-1) balance, (a-2) frequency, and (a-3) number. The second theme was (b) Language Choice, in which the MDers' code-switching behaviour is viewed as either (b-1) deliberate or (b-2) spontaneous. It is followed by (c) The Impact of a Language over a Daydream, which tackled (c-1) Emotions, (c-2) Topics, and (c-3) Realism. The fourth theme was (d) Languages' Relation to Content. It included social norms (d-1), psychological motives (d-2), and education (d-3). The fifth and last theme was (e) Language Mastery; it involved (e-1) mastery and (e-2) use.

The interview themes were as follows: (f) Language as a trigger, which involved the languages individuals (f-1) master as well as the languages they (f-2) do not master. The second theme was (g) MD as a Developmental Trajectory in terms of (g-1) rate and (g-2) length. The third and last theme was (h) Imagination in terms of (h-1) creativity and (h-2) vividness. A few

aspects of the interview themes were to emphasize previous findings from the questionnaire. There was no discordance of any kind.

This chapter will hold the weight of objectively reporting the research findings. The latter consisted of the previously mentioned themes along with their categories. Each theme will be discussed thoroughly by pinpointing the main concepts that it was based upon. That includes tackling the participants' various points of view and the philosophical approach, which covered the entirety of the data analysis process. It will also tackle a few crucial remarks regarding the use of English and the attitudes that are associated with it. It also includes the effect of English over daydreams in terms of length, rate, content, and aspects of imagination.

3.2. Sample Profile
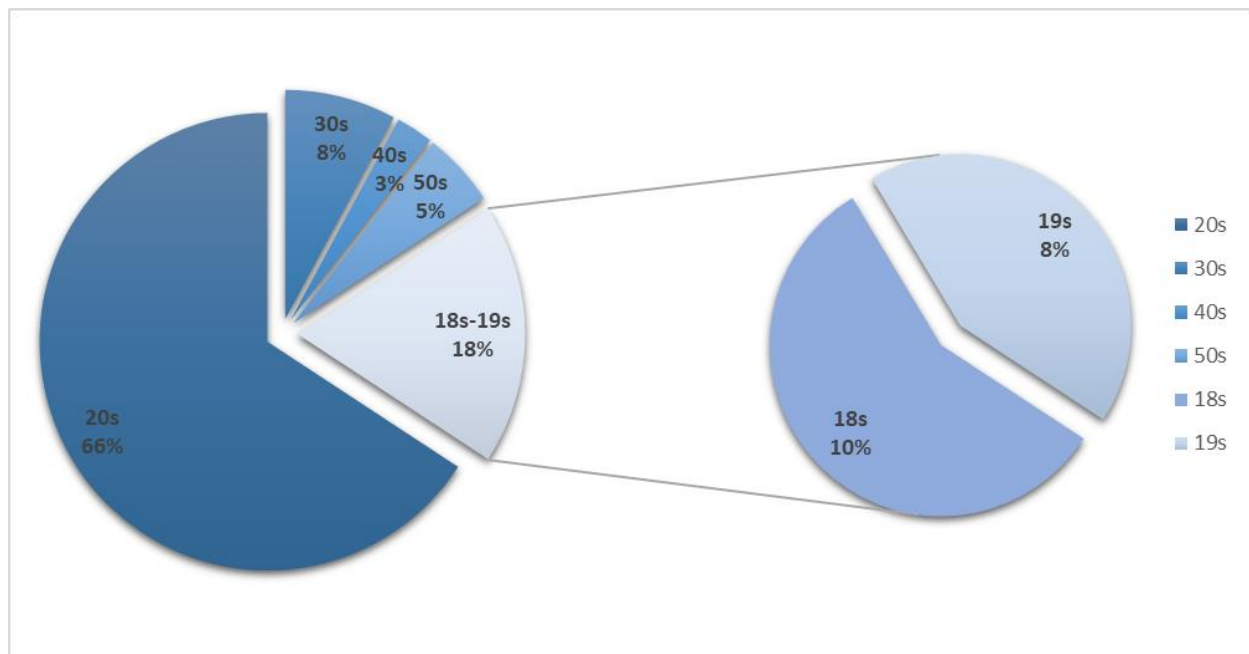
Figure 3.1. *Age Distribution*

According to the results demonstrated in the chart above (figure 3.1), the majority (66%) of the respondents are in their twenties. The figure demonstrated that 18% are early adults aged

18 (10%) and 19 (8%). 8% are in their thirties while the remaining 5% and 3% are in their fifties

and forties respectively.
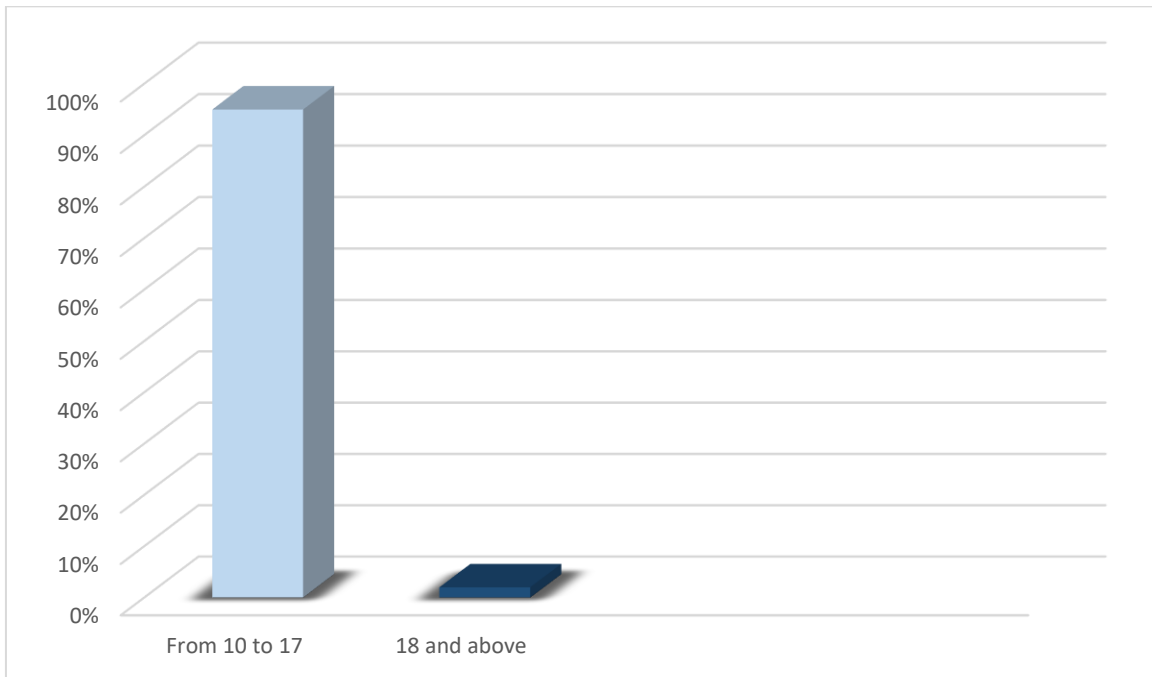
Figure 3.2. *Ages of MDers When First Starting Daydreaming*

In figure (3.2), 95% of the respondents reported starting to notice intense daydreaming

habits between the ages of 10 and 17. As for the remaining 5%, they began to notice –or claimed

starting to daydream excessively- when they became 18 or older, as demonstrated in said chart

(3.2).
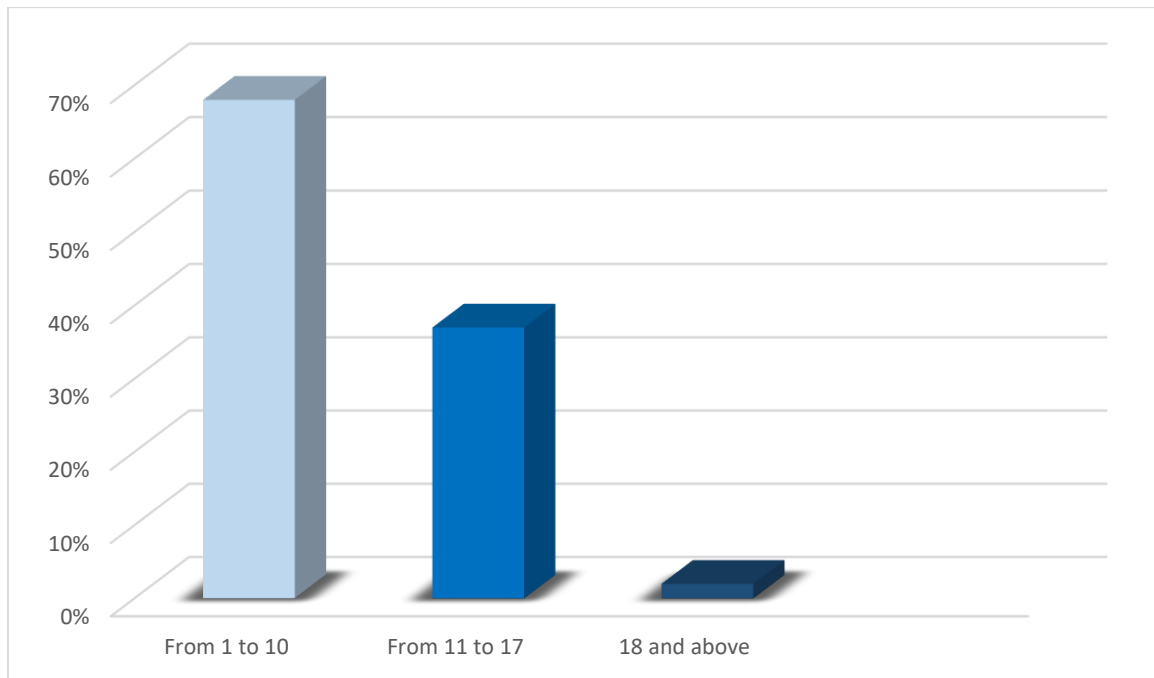
Figure 3.3. *Age Distribution of New Language Acquisitions*

As shown in the third figure (figure 3.3), the majority of informants (68%) began acquiring new languages at the ages of 1 to 10, while 37% began doing so at the ages of 11 to 17. The remaining 2% began from 18 and above, which is displayed in the figure (3.3) as well.

3.3. Questionnaire results

This section presents the major results there were to obtain from the questionnaire. As mentioned previously in the chapter, the researchers were able to extract five major themes from analysing the questionnaire data. As a reminder, the themes presented have a tight correlation with the first question of the research.

3.3.1. (a) Multilingualism

One facet of linguistic behaviour for many MDers lies in their multilingual dimensionality, which is manifested in their daydreams. All participants possess a rich linguistic background, which is substantiated by their use of multiple languages in their daydreams.

The majority of respondents reported using two or more languages when daydreaming: "My characters talk in English and Georgian", one MDer stated. Some employ two languages such as Japanese and Turkish, and others can go up to three, for instance: English, Mandarin, and Taiwanese, one respondent explained: "I use English most of the time and French and sometimes Turkish besides Arabic".

3.3.1.1. (a-1) Balance.
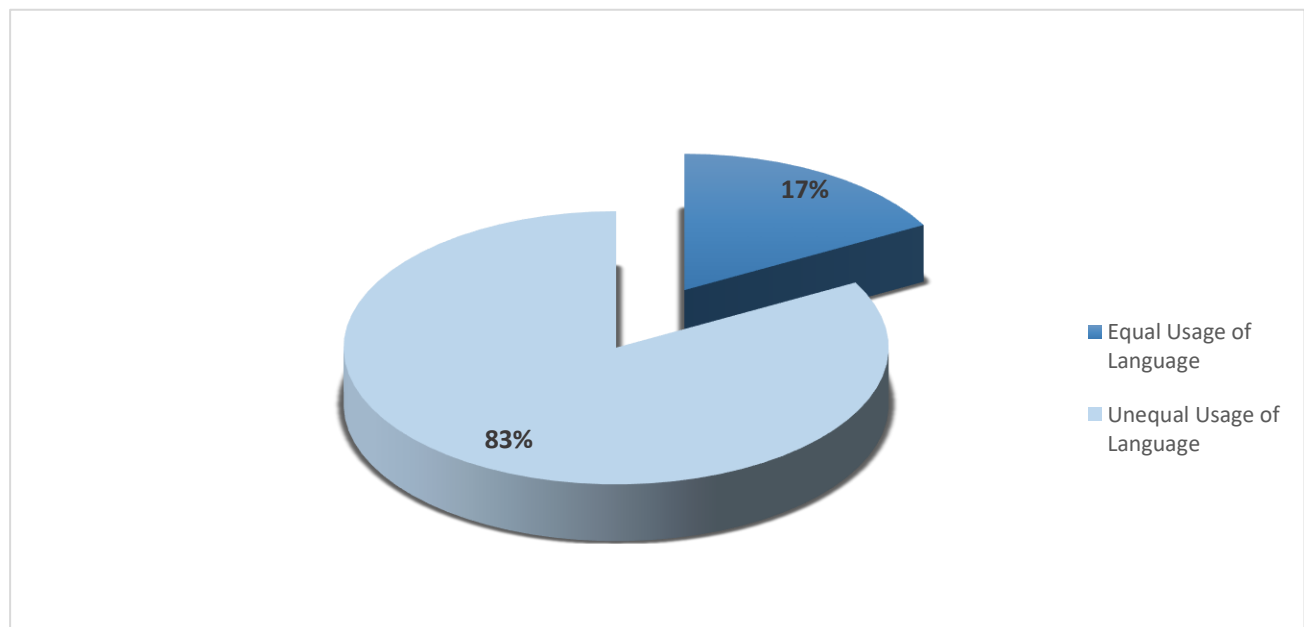
Figure 3.4. *MDers' Language Use in Daydreams*

In the figure above (figure 3.4), and within the scope of multilingual implementation in daydreams, 17% of MDers exhibit a balance with their language choices during daydreaming

where one language is no more dominant than the other is. While the remaining 83% in the figure (3.4), seems to lean more towards a particular language, portraying an imbalance in language usage in the same daydream.
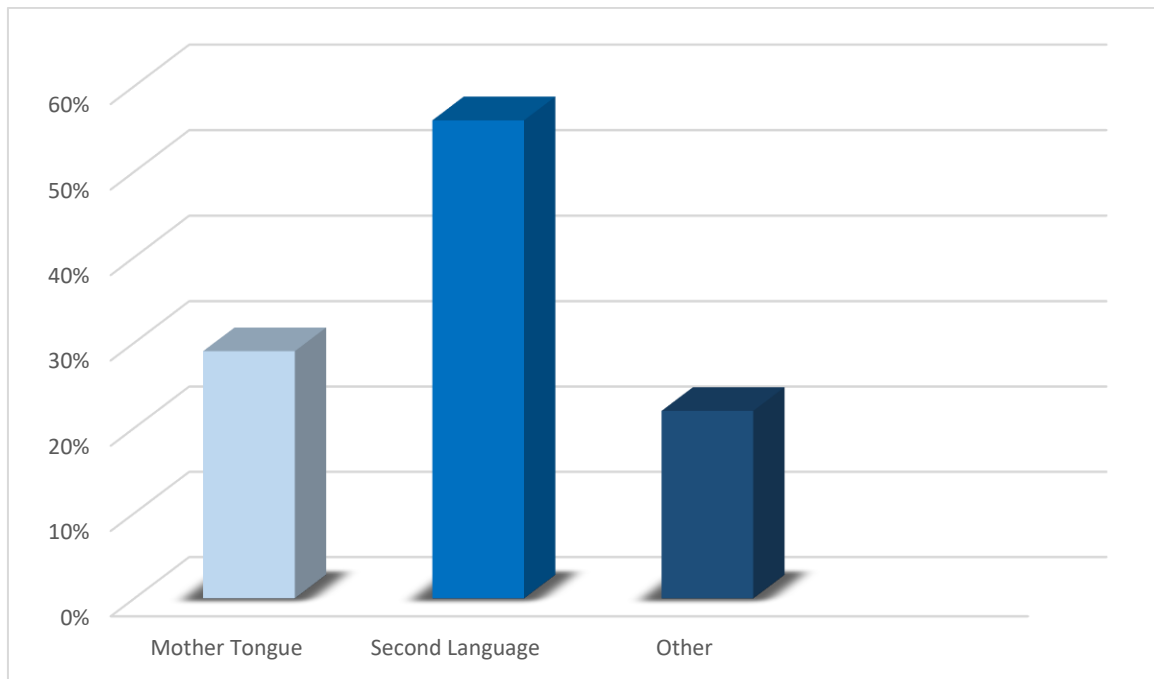
Figure 3.5. *Language Preference amongst MDers*

The figure (3.5) demonstrated that 29% of the respondents implemented their mother tongue as one participant stated, "At first it's always my mother tongue then it changes according to the situation or the people I'm around." As displayed in figure (3.5), a vast majority (56%) lean more towards their second language to be used in their daydreams as one participant stated, "English, my second language, is the most prominent one in my daydreams." Figure (3.5) also shows that 22% of MDers seem to prefer another language entirely (English, Setswana…) as one respondent explained: "(…) the scenarios of my daydreaming stories are always in English, it is rare for me to use my mother tongue for telling or narrating the whole story."
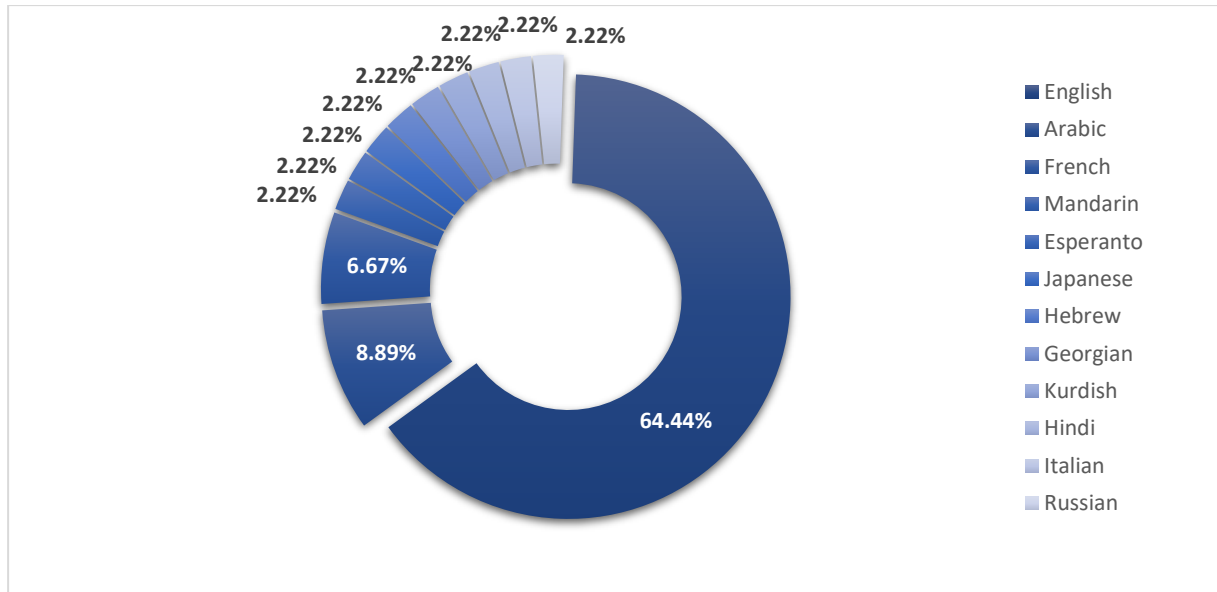
Figure 3.6. *Most Dominant Languages in Daydreams*

Within the scope of imbalanced language use and preference and as showcased in the above graph (figure 3.6), over 64% of respondents reported having English as the most dominant language in their daydreams as one informant stated: "I mostly daydream using English." Said graph (figure 3.6) also demonstrates that Arabic is the second most dominant language used during daydreaming with over 8% of respondents choosing it as their most frequently used one. French comes third with over 6% of informants reporting using it more than other languages (figure 3.6).

3.3.1.2. (a-2) Frequency
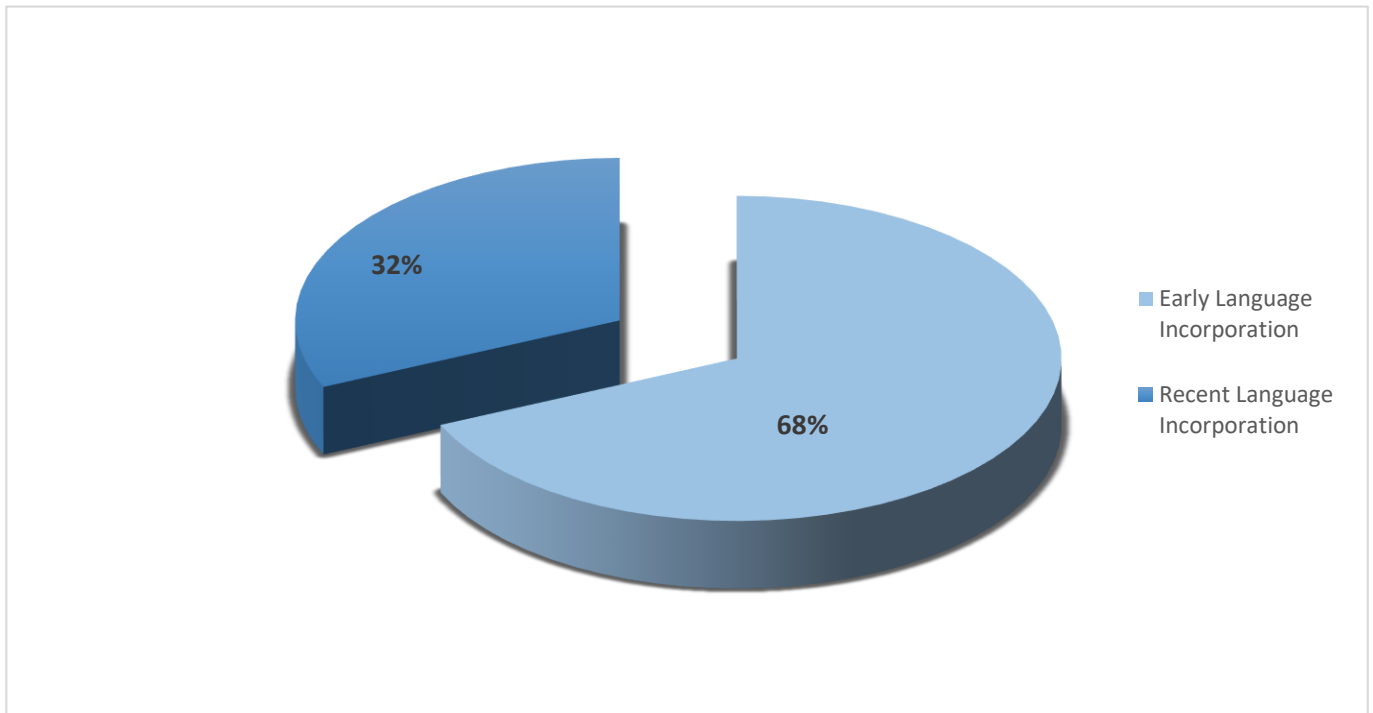
Figure 3.7. *Time Distribution of Language Incorporation in Daydreams*

In the above graph (figure 5.7), 68% of the respondents have been incorporating more than one language since early on in their daydreams. However, 32% of the respondents (figure 3.7) have only begun employing them during the recent years of their daydreaming.

3.3.1.3. (a- 3) Number

There exists a striking diversity in terms of the number of languages multilingual MDers use in a daydream. On one end of the spectrum, many seem to prefer employing more than one language in their daydreams; "when fantasizing about a fictional country I make, I assign some countries with either Portuguese, English, Japanese or a French creole." Others, however, prefer using only one language as one respondent stated: "I only use English now."

3.3.2. (b) Language Choice

When it comes to multilingual individuals, their linguistic repertoire allows for the selection of various or one particular language depending on the aims of the individual. Accordingly, multilingual MDers often find themselves handpicking the languages that best serve their daydreaming scenarios. MDers seem to base their choice of language during their daydreaming on a set of criteria. Not only do these choices enhance their daydreams but they also add to their complexity as well. A variety of circumstances influences their choices and for many, such decision-making is based on a conscious effort; while for others, it can be an unconscious process.

3.3.2.1. (b-1) Deliberate

As mentioned above, the majority of MDers implement more than one language in their daydreams and for many, each language serves specific purposes. Said purposes lead the MDer to choose a language based on either the plot of their daydreams as one respondent said: "It depends on the subject that goes on my vivid imagination", or if the character requires it as one respondent stated that language choice is inspired by: "where my characters come from". The place would sometimes impose a change in the language used as one MDer claimed that the choice of the language is based on where the daydream is taking place. Some are inspired by the various forms of media such as music, books, or movies, one informant explained: "(…) the music I hear in the background is what inspires my choices of language during daydreaming." Many tend to mix one language with another in order to achieve translation as one MDer reported: "I usually translate metaphors from Swedish to English", establish metaphorical code-switching, or fill in a gap. Others do not mix due to a lack of competency.

3.3.2.2. (b-2) Spontaneous

On the other end of the spectrum, many respondents experience shifting on an unconscious level where they are unaware of it occurring. While some report an inability to control it while daydreaming, others glide through languages without effort or even awareness. Some are not shackled by the logistics or rationale of the process and shift whichever way they please in their scenarios based on their mood as it would just suit them better or feels more right to them. One respondent stated on the matter: "When I used to switch between sentences, it just didn't matter. I could just switch, even in the middle of the sentence; it didn't apply to any rule or changed anything in the scene in my daydreams."

3.3.3. (c) Impact of a Language over a Daydream

For individuals who possess more than one language, different languages have varying degrees of effects on a daydream. While each person has their unique way of experiencing daydreams, certain languages might bring certain effects and allure in relation to the emotional, vivid, or even scenic dimension of the daydream.

Many MDers relate the language to a particular notion whether it is on the emotional, apprehensive, or realistic level. When chosen appropriately by the MDer, these languages would allow for creative freedom, daydreams that are more realistic, and dialogues that are more complex.

3.3.3.1. (c-1) Emotions
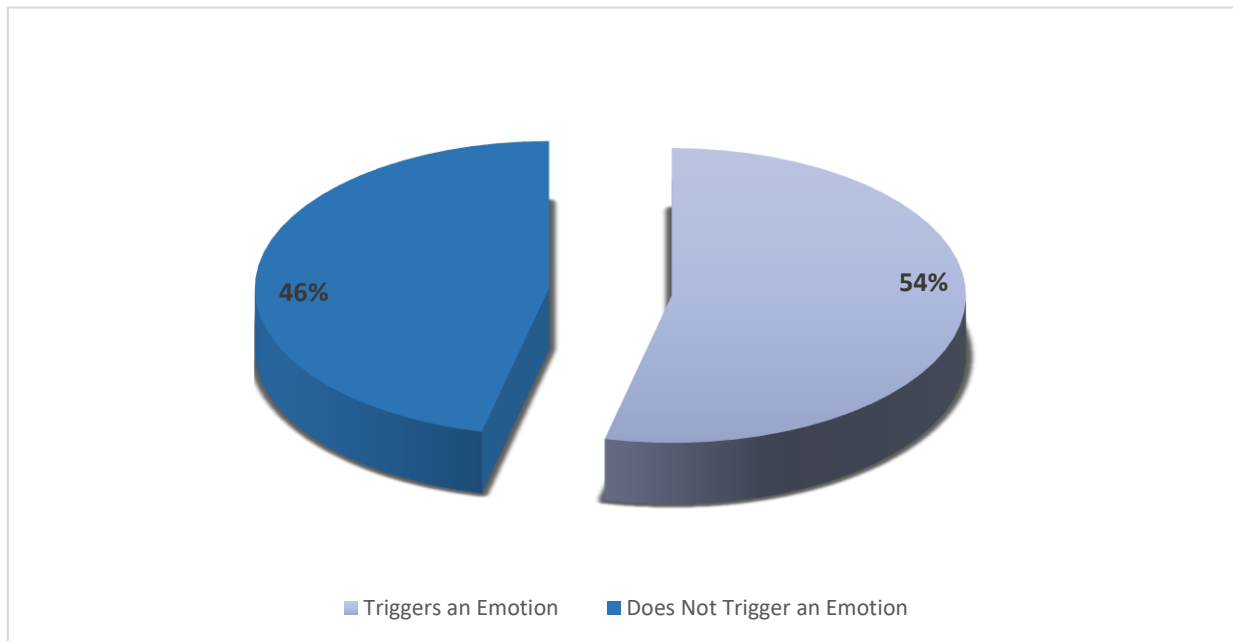
Figure 3.8. *Emotional Impact of Languages in Daydreams*

For 54% of participants (figure 3.8), each emotional state often finds refuge in a particular language. They create scenarios in which a certain language is associated with positive emotions such as love, nostalgia, relief, confidence, happiness, and elegance. One respondent stated, "French makes me feel more elegant and educated. Arabic makes me feel more level-headed and warm-natured." Nevertheless, many negative emotions from anger to depression and from sadness to angst are portrayed in certain languages as one MDer reported, "English makes me more sensitive to sad emotions"; and another related Japanese to grief. The remaining 46% (figure 3.8) do not notice a link between language and emotion.

3.3.3.2. (c-2) Realism

For many MDers, engaging in realistic daydreams feels very rewarding, a language may trigger a higher realism level in daydreams for many MDers in terms of accuracy, clarity, and even coherence: "If I'm speaking English, I feel like my daydream persona", one respondent explained. Additionally, a respondent associates Turkish with good memories and Japanese with bad memories. Such associations add to the vividness of the daydream content and enhance the daydreaming experience.

3.3.3.3. (c-3) Topic

MDers usually assign specific languages for different domains such as ones related to family and friends, or ones related to education. A certain plot, event, scene, or even tone of the conversation will lead the MDer to choose the language that is most appropriate for the scene. A participant confirms that their mother tongue usually comes up in scenes where there is a lot of drama or socializing, whereas their second language is used in daydreams taking place in professional settings. Another stated, "Arabic Fus'ha for literature, emotional content, poems, and songs. English when things start to get scientific or related to psychology. Arabic related to daily conversations of the characters that know the dialect."

3.3.4. (d) Language's Relation to Content

More often than not, the content of the daydream succumbs to the language used in said daydream. Many multilingual individuals are aware of the social and psychological facets of the language and choose to implement them into the scenario being created. This implementation is tightly linked to the reasons behind choosing one language over another in a daydream as many make a conscious effort to select the language based on its social or psychological features.

Additionally, such features could have an impact on the daydream itself as explained previously in themes (b) and (c).

3.3.4.1. (d-1) Social norms

Social norms and variables of the language form a direct link with the content of the daydream. Social relationships, taboos, race, and norms of language use all come into play in this criterion. MDers would project the social baggage of a language into the daydream as they deem fit and the content of the daydreaming scenario would be in accord with such social norms more times than not as one respondent explained: "I feel more comfortable talking about taboo things and my mistakes in English."

3.3.4.2. (d-2) Psychological motives

As daydreams are often known to be an escape mechanism, MDers usually view their daydreams as a coping mechanism in terms of wish fulfillment, emotional fulfillment, dealing with trauma, or escapism, one respondent states: "I am a big fan of Chinese action movies and other media, and I imagine myself starring in them" as a means of wish fulfillment. Another explained: "As my daydreams are some idealistic world of mine where I am an idealistic version of myself, English just feels like the best language for me to use in them as I like it better." Some languages reflect feelings such as angst, insecurity, or comfort. One respondent prefers using English when tackling feelings in the daydream and Georgian for humorous situations.

3.3.5. (e) Language Mastery

Mastery in this sense refers to whether the individual is in possession of adequate competency, proficiency, fluency, and ability to maneuver the language in general. Multilingual

individuals, as stated in the first theme, are in the possession of two or more languages that they use interchangeably according to the daydream (as explained in themes (a), (b), and (c)).

This does not exempt them, however, from having the possibility of implementing languages they do not master within their daydreams. While the respondents had varying viewpoints on the matter, mastery -or lack thereof- remains salient features of language use within daydreams.

3.3.5.1. (e-1) Mastery

MDers here are in possession of a language(s) they master well. They have no qualms about using it in their daydreams and the better they are at it the more they implement it, "the more I master it the more I use it", one respondent stated.

However, some choose not to employ the language(s) they master in their daydreams but rather use an alternative one. Such as the example of one MDer who prefers using Japanese rather than their native tongue explaining: "after a masters in Japanese and 20 years living in Japan, I can express myself much better in Japanese. My native language feels really restricting now."

3.3.5.2. (e-2) Use

Some MDers do not allow their lack of mastery of a language to hinder them from using it. Several respondents would pretend to know the language in their daydreams as one respondent said: "(…) I sometimes just make up something (like a fake line) and pretend that I say it correctly in that language", another explained: "I would still pretend I know a language and use it to daydream". Others utilize their daydreams to improve their lack of mastery of a language as one MDer stated: "(It) motivates me to want to perfect my knowledge on the language."

On the other hand, for many MDers, mastery, or lack thereof, plays a crucial role in whether or not a language is to be included in a daydream. Many seem averse to using a language they have no mastery of, as with the example of one respondent who claims: "I need to be fluent. I'm a beginner at French but never had French spoken in my daydreams."

3.4. Interview Results

This section presents the major results there were to obtain from seven semi-structured interviews. As mentioned previously in the chapter, the researchers were able to extract three major themes from analysing the interview data. As a reminder, the themes presented have a tight correlation with the second question of the research.

3.4.1. (f) Exposure to Language Can Trigger Daydreaming

Several stimulants that can lead MDers to initiate a daydreaming episode exist. This can include auditory, visual, or audiovisual stimulants like reading books, listening to music, or watching a movie or a video. Looking at this from another perspective, language is a means of communication that is not hindered by a certain way of transmission. That is to say, there are multiple ways in which a daydreamer can be exposed to a language on a daily basis.

As the main criterion that the sample ought to require is multilingualism. The respondents master at least two languages. They are also frequently exposed to other languages. The concern was whether exposure to language does initiate a daydream, which, then, adds language to the long list of triggers. When considering the fact that it does, should every language be expected to make MDers wander in their minds? Alternatively, is it mainly restricted to notable languages in particular situations? There emerged two significant categories:

3.4.1.1. (f-1) Mastery

When exposed to a language they hold a tight grip on, MDers reported that they often get overwhelmed by the urge to daydream. The significance lies not in the specific language, but rather in their mastery of said language. All respondents reported that exposure to a language in which they are fluent tends to elicit daydreaming. They noted that content on social media such as a video in a certain language that they master, a song, or a book in said language is most likely to provoke a daydreaming episode that may or may not get inspired by the content that they absorbed.

One participant said on the matter "For example if I am exposed to content in a British accent, it would initiate a dream of being British" (P1). The content that the individual is exposed to –in this case- is an influencing factor, not only in initiating a daydream but also in the content of said daydream. However, the opposite does stand. The language of whatever content that triggered the daydream is the only influencing feature.

It is also evident that the possibility of triggering daydreams through exposure to the language in real-life situations tends to exist. That is to say, the mere presence of a mastered language in the environment of the individual suffices to trigger a daydreaming episode. This, however, may result in dissociation as the individual tends to delve into the inner world, and neglects the surrounding environment.

P1 said on the matter "I feel that when I speak English or when I am in an environment that allows me to speak English that would definitely initiate a dream". First, language use can trigger a daydream. Although he had not specified precisely how speaking English would initiate a daydream, he did follow with "Since I enjoy speaking English, and I am in a situation where I am free to speak in English, I would definitely start daydreaming about that specific situation right

then and there" (P1). Second, it is noticeable that the individual included how he feels about the language as a way of indicating that not every language he masters leaves the same effect. Regardless, for P1, it appears that using the language or being exposed to it in real life is not of a significant difference for they both eventually trigger a daydream around the present context.

3.4.1.2. (f-2) No mastery

The participants adopted mixed views and attempted to describe their experiences from their narrow perspectives. However, the role of the researchers was to link the pinpoints of each story in order to make sense of the whole image. This means that the researchers must introspectively classify the details and illustrations to make sense of the whole image.
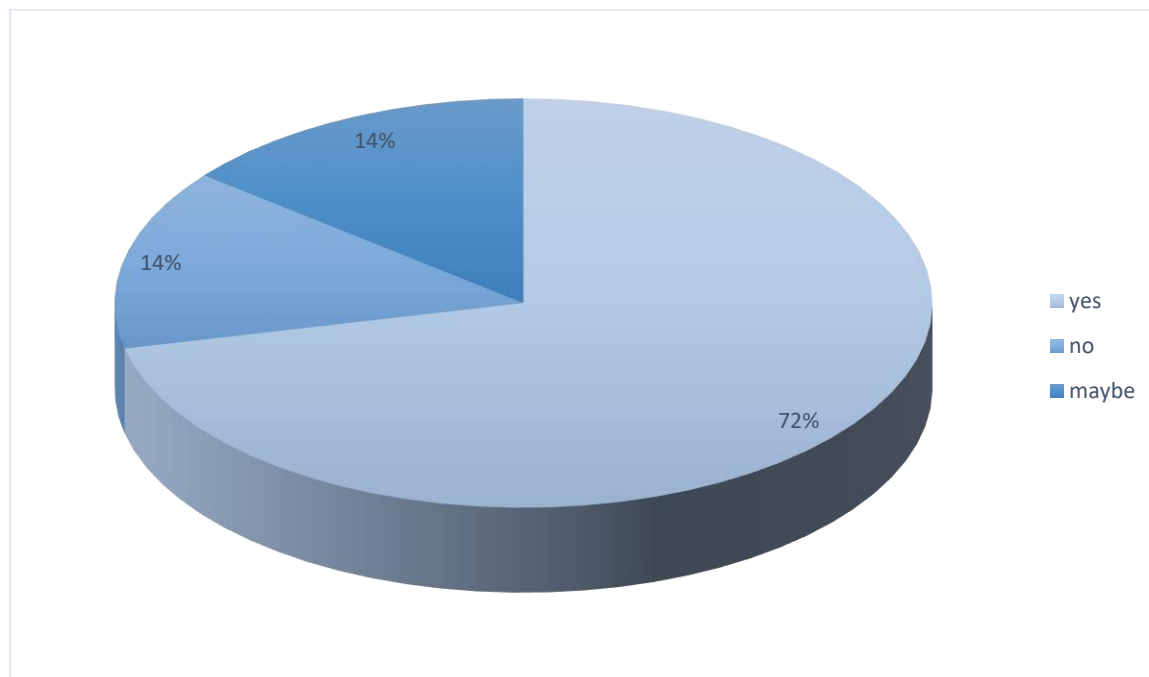
Figure 3.9. *Non-mastered Languages as a Trigger: Breakdown of Individual Differences in Experiences*

As demonstrated in the figure above (figure 3.9), the majority –which is five people out of seven- agreed that exposure to non-mastered language does trigger daydreaming. The remaining proportion (figure 3.9) claimed the mastered languages to have a lead regarding this particular issue.

Exposure to a non-mastered language could lead to the initiation of a daydream when it is associated with a scenario where the individual attempts to impress people. It is demonstrated by P2 as she stated, "Well, they're scenarios where it's either in the context where I'm trying to impress or trying to show off a new language". P4 agrees with this, as she claims the slight possibility of a short daydream to initiate. However, she believed that no alternative scenario could emerge other than flaunting language skills. Even though others explain otherwise, that is to be discussed thoroughly in upcoming themes.

As seen previously, exposure can occur through content on social media. As the person can be subjected to various languages, three participants out of five assert that their exposure is mainly through social media content. They also claimed that most of the time, it would lead them to initiate relatively longer daydreams, depending on the topic of the daydream. That is to say, the fact that these individuals confess that being exposed to a non-mastered language -in any way- does trigger daydreams is the focal concern.

Two individuals claimed that exposure to a language that they master rarely inspires them to initiate a daydream if not at all. Said individuals assert that mastery is the principal criterion for language use during daydreaming. P3 continued to assert that she only incorporated her native language as well as English due to being fluent in both. Hence, she rejects the possibility of using Spanish for that she believes that she lacks skills, despite having spent about three years learning it:

For as long as I can remember, my daydreams only consisted of Arabic because I did not know how to speak any other language. But since I learned English, I use it more and I think that watching a lot of videos on TikTok in English makes me daydream a lot. But Spanish, or French, or Korean can't start a daydream because I don't master them at all (P3)

When asked whether Spanish triggered daydreaming around the time she was learning it, she said, "I don't think it did, and even if it did, those daydreams are not that important so I don't remember" (P3). P4 claimed that it rarely occurs for her, as the odds are relatively low. However, she did state that exposure to Spanish – a language she attempted to learn- might trigger a daydream of flaunting her language skills around family and friends who are considered non-Spanish speakers.

The first theme to be tackled is the bidirectional influence between MD and multilingualism, which is linked to other themes. It was necessary to demonstrate this link by acknowledging that a few points will be discussed to ensure the pattern is intelligible and that the final map is coherent.

3.4.2. (g) Language as a developmental trajectory

The current research entails that the most prominent developmental trajectory of MD is comorbidity with other disorders such as ADHD, OCSS, Depressive Disorder, Anxiety Disorders, PTSD, and Schizophrenic Spectrum Disorders. To claim that a certain factor is a developmental trajectory to MD means that it turned normal daydreaming maladaptive, or abnormal. The findings of this research suggest that language can be a developmental trajectory, through which normal daydreaming can become maladaptive.

3.4.2.1. (g-1) Language increases daydreaming rate

What is meant by rate is the amount of time spent on daydreaming. Daydreaming should be a normal activity that takes about 25% of waking hours per day (Killingsworth & Gilbert, 2010). However, as explained in the literature review, daydreaming can render maladaptive, abnormal, that is, when it is constant to the point of interfering with daily activities. As stated previously, the findings of this research suggest language –or multilingualism- can classify amongst the list of developmental trajectories of MD.

Four individuals reported that denoting a certain language as the default language of their daydreams traces back to the fact that it is their most used language in real life; it is also the language that they are exposed to the most. As mentioned in the previous theme, exposure can be of influence on initiating a daydream. What is worthy to tackle in the current theme is the fact that constant exposure to the same language for a relatively long period can render daydreaming maladaptive.

To illustrate, P6 stated that she is interested in traveling content in French on video platforms such as YouTube and TikTok. The daydreams triggered by watching this content more than twice per day mainly revolve around traveling to France. The language is also used in a variety of other daydreams.

Watching these videos as a fan of traveling made me like French although I never liked it that much, definitely not the way I like English. And when I say that I don't like French it's not about the language it's about me using it in real life and my daydreams too. Yes, I copy those videos in my head in terms of the content and the language but I **started using French more** than before with other daydreams. **Now that there is a new language, I enjoy daydreaming**

even **more than usual** so I find myself mumbling French-sounding words when I am alone or doing something. (P6)

There exists another case where constant exposure to a new language at a young age increased daydreaming frequency. P2 noted that she primarily started incorporating more than one language around the time she showed interest in foreign music, mainly in English. She asserted,

English has a lot of **content** that I was exposed to **around the time my daydreams intensified** because I needed it more in my real-time since it's an escape mechanism. So, since I found a lot of sources to inspire from, you know, it was easy for me in that language. (P2)

Thus, English asserted its dominance in real life as well as daydreams since the early exposure and learning phases. For more emphasis, she added, "I feel like English, since I acquired it, it really doubled, like, by a 100 times. And multiplied it by a 100 times, the frequency of daydreaming, the intensity of daydreaming".

Similar to P2, P4 was exposed to a new language at a relatively young age. She is a native speaker of Bengali who also masters Hindi. She reported that she began incorporating Hindi once she became interested in movies and music in that language, which was around the time she noticed a pronounced increase in her daydreaming tendencies. When asked about the reason behind this remark she claimed that it was due to the fact that she has "more situations, more triggering things, (…) so I have more power to daydream". (P4)

P4 also claims that another language has exerted a remarkable influence on her daydreaming frequencies. For context, being a candidate for an exam for English proficiency intensified emotions of distress and anxiety. Hence, she felt the urge to cope with those negative

sentiments through extensive daydreaming where she incorporates the language as a method of *practicing*. To quote her, she stated, "When I was really scared that I am not fluent in English and I may not get a good score at the time. I think it triggered more because someone told me to describe everything in English".

3.4.2.2. (g-2) Language influence on the length of daydreams

The influence of language over the condition is not restricted to the constant and more frequent occurrence of daydreams in comparison to its prior state. It transcends to the characteristics of the daydream itself; among which is length. The results have demonstrated a clear-cut distinction between two, somewhat overlapping, categories: constant daydreams and episodic ones. Constant daydreams appear to be longer, lasting weeks or more, depending on several factors such as enjoyment, complexity, vividness realism, and creativity. Episodic daydreams are relatively short daydreams with less complex plots. They are episodic for that they tend to occur for shorter periods and less often.

Constant daydreams can also occur in the form of a short daydream or as a snippet but it is possible that the individual is unable to prioritize daydreaming due to a lack of available time. They are classified according to the complexity and amount of time spent on them, which depends on the language used in the daydream.

Constant daydreams. As explained previously, constant daydreams are classified accordingly due to a mastery of the language –or languages- incorporated, as well as the complexity of the daydream, which is determined satisfactory, thus, addicting. This section will tackle the relationship between language and lengthy daydreams as narrated by the participants.

When asked about which language –or languages- carry the longest daydreams, the majority of participants claimed that lengthy daydreams are in English where they benefit from creative freedom. That is to say, the most pleasant daydreams to six out of seven participants are the plots that are uncontrollable due to English being unrestricted by any laws or norms (which will be tackled later on). Evidently, this is a common point that these participants happened to share, however, it is crucial to mention that the way of incorporating English differs according to individual preferences. On another note, other daydreams in other languages –usually realistic daydreams in the mother tongue- do make a constant appearance despite not being as lengthy.

For P2, lengthy daydreams are often in English as they are the most creative due to her high proficiency and mastery of language skills. She deliberately compared daydreams in English with other languages and said, "It happens with English. I can be as creative as I want, and it could be anything. The other languages are just mere snippets in the English daydream". She asserts that English provides freedom to be as creative as possible. It could potentially include other languages, which she does not master.

P7 named this behaviour a "seasoning" as the languages are a detail or a touch to the main dish with the main ingredient being English. She said in this regard, "If I add on the language that I just want to be there, it's just a detail. It does not affect the length, the type, or how much I want to feel. It's just a detail" (P7). Unlike P2, it is plausible for P7 to include languages she does not master to the daydream, even if it means speaking "gibberish" (P7).

P1, as previously mentioned, has tendencies to associate languages with "characteristics and emotions". Hence, he incorporates these attributes into the daydream and the length varies accordingly. He also stated that a daydream triggered by a mastered language such as French is most likely to last long; "for example, when I am watching a movie, I would take two weeks

imagining my life in that movie. Especially when it's in French." (P1). Thus, the language adds to the feelings of enjoyment and therefore attachment to daydreaming.

To illustrate the fact that constant daydreams are not necessarily as lengthy, P3 claimed that most of her long daydreams are unrealistic plots carried by English. Despite resorting to English for positive emotions, mainly, she often finds herself stuck in a loop where realistic daydreams dominate for a while. She stated,

> I love Arabic but it is more realistic. I can't be creative using Arabic so I use English instead. But some days I daydream a lot about realistic stuff, or events close to my reality, about my family and that makes me happy. (P3)

Even though she prefers English, her bias towards Arabic is transmitted to her daydreams in the form of realistic plots often evolved around domains of friends and family.

Speaking of domains, P4 associates English to education, and the other mastered languages to a variety of other domains and plots. Nonetheless, she denoted that her daydreaming frequency increases noticeably when stressed or anxious about her career. She declared, "I had a tough schedule, but still, suddenly, I realized that I was daydreaming for, I think, seven days. I was not completing any tasks

P5 masters three languages and tends to associate all three with different plots and emotions. Each of which contributes significantly to increasing his daydreaming frequency. He claims that "Arabic is the nearest to me" (P5) for that it is more formal and used in an educational domain. Thus, he incorporates it whenever he aspires to daydream about his personal goals and motives, which typically consume a considerable amount of time.

Episodic daydreams. Individuals are not restricted to opting for long daydreams only. It is plausible for both types to occur frequently. It depends on several factors such as the availability of free time, the individual's emotional state, and the trigger. Even though episodic daydreams are considerably shorter, their occurrence is frequent in comparison to a single long daydream, which still classifies them as maladaptive. Several factors are responsible for triggering short daydreams; amongst which is language.

P2 has demonstrated that other languages besides the dominant ones in a daydream are mainly "just **snippets** in an English daydream". She also mentioned the fact that the daydreams triggered by a language she is not proficient in are mainly short. When asked about the reason daydreams that contain non-mastered language are shorter, she answered, "Because I don't speak that language. I can't just start saying **gibberish** in my scenarios so the use is quite limited to **the few words and phrases that I do know**" (P2). Non-mastered languages can be used to shorten daydreams, even if it is incorporated into an English daydream, which is typically lengthy as with P2's case.

P3 demonstrated this by explaining that when she was a learner of Spanish. Language had no significant effect in triggering daydreams. Despite that, it was included in a few short daydreams as "glances" (P3) when necessary. Similarly, daydreams triggered by Japanese cartoons for P5 are relatively short. The main difference is that they tend to be constant, as mastery of the language is considered sufficient to do so.

Another point that has to be raised is that episodic daydreams are not necessarily related to a long-term plot, such as lengthy daydreams. This is possibly one of the reasons behind their constant occurrence and short length. This could be inferred from P1's quote about watching a

French movie which triggers a two-weeks daydream, "for example, when I am watching a movie, I would take two weeks imagining my life in that movie. Especially when it's in French." (P1).

Daydreams are subject to variation for an individual, as many factors contribute to their length as well as the frequency of occurrence. The aim behind this theme is to describe daydreams in terms of the languages incorporated, and daydreams initiated through languages, their length, and the relationship between length, frequency, and mastery.

3.4.3. (h) Imagination and Language

So far, several angles of MD had been viewed. One of these facets, and significantly the most important one, is imagination. MD is a condition that involves intense daydreaming tendencies. Most of which are carried through imagining scenarios and creating plots, which will render the individual quite addicted to the behaviour. Hence, this research is interested studying in the relationship between language and imagination, with the condition being a medium that carries both. This section will report findings concerning two major aspects of imagination: creativity and vividness.

3.4.3.1. (h-1) Creativity

Daydreams, especially MDs, share a universal aspect, which is complex content in terms of plotlines, characters, and even universes. It is also considered amongst the diagnosing criteria that one is ought to pay attention to. For that, one aspect that needs to be addressed is to what extent language can be associated with creative and elaborate plots. This section will present the research findings regarding this matter.

When talking about the types of topics daydreamers are addicted to, two categories emerged, realistic content and fictional content. First, realistic content is based solely on real life

and is tightly linked to the environment of the individual. It primarily involves plots that evolve around the surrounding people and events of the individual despite the fact that they can be imaginary and are most likely not to happen. This type might also involve reminiscing about experiences and memories.

Fictional plots, on another hand, are a pure product of the creative mind of the individual. They involve completely novel and original plotlines, universes, and even characters. They can be realistic to some extent where they involve settings and characters from real life; however, they are unlikely to occur in real life. To illustrate, P6 stated that her unrealistic daydreams might evolve around her being in a movie.

Regardless of mastery, individuals tend to incorporate the *characteristics* of the language as an addition to the realistic content of the daydream –whether it be fictional or realistic-. When mentioning the characteristics of the language, the individual mainly reflects upon his/her personal attitudes towards the language in question. P1 provided his input on the matter considering the fact that he has been incorporating non-mastered languages based on his own attitudes towards said languages stating "I associate language with different characteristics and emotions, so when I hear a language I would try to embody that characteristic or emotion in my daydreaming" (P1). To clarify, he stated that he associates French with emotions such as elegance, which he would attempt to include in the daydream. When asked about the reason behind associating French with elegance, P1 claimed that his view about French fashion products and companies highly influence this choice. He also claimed, "French just sounds so fancy". P1 asserted that said attributes are specific to French and that he would resort to French when in need of these attributes.

Similarly, P5 claimed that he associates the main three languages that he masters with certain attributes as well. He claimed that he reserves French to humorous situations, "I do find French a little bit more funny in some situations. French is perfect for saying something funny or attracting the attention of the other guys or the person I am talking to" (P5). He relates English as well as Japanese to negative emotions and plots, "when I experience something about anger or being serious in my daydream, I always use English. English is the language for anger and (…) it makes me feel like I'm the main character of a story" whereas Arabic is mainly formal so it is rather reserved for education themed plots.

The rest of the participants agree on the fact that the mother tongue is mainly associated with realistic daydreams. That being said, realism primarily signifies how close to reality the content is in terms of the characters, the events, the topics of conversations, also the language used to carry those conversations. P2 stated,

> **I would relate more to a dream if it was in my mother tongue**. Because, that's what I use in real life; and because I want the daydream to be **as realistic as possible**. So, I think it is better to use mother tongue than use another language… unless there are other **particular situations** where I would prefer to use, you know, another language. (P2)

In other words, for the daydream to be as realistic as possible it is restricted by a specific language. (P3) agrees with this as she claims that other languages, mainly English is reserved for fictional plots, as she believes that "English is the most realistic for unrealistic stuff". She stated that English also triggers the most creative plotlines, unlike her mother tongue, which is mainly used when reminiscing.

Realism is not limited by a certain plot or topic. A daydream can be quite realistic and creative at the same time. The difference, however, would be in terms of language choice. (P4)

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exemplified the matter with one of her daydreams, where two cricket players are passed their rivalry. She stated that this particular daydream was triggered by a story she had read in her mother tongue. Although it is purely fictional, it is characterized by a certain degree of realism. The characters are based on existing people, the events, however, are the main subject of creativity.

P6 and P7 claimed that they enjoy incorporating a variety of languages, even ones they do not master. Realistic daydreams or not, their creativity level is mostly at its peak when using languages they master such as their mother tongue and English. The main difference is that P7 can only incorporate non-mastered languages as an additional detail, whereas P6 attempts to create an entire plotline evolving around the language in question.

Another aspect to be tackled is taboos and topics that are quite refrained upon within a certain society. Realism, as a significant ingredient in daydreams, might be associated with a certain factor that ought to be recognized. Each society or speech community that a language can be linked to adopts laws or norms of conduct that are also projected into the language. These norms transcend -and are projected into- the socially accepted norms of language use.

When asked about this matter, a few participants acknowledge that they attempt to stray away from these norms as well as what is socially permissible; while a few others tend to stick to these norms, as objective realism could not be achieved otherwise. P2 emphasized the matter that her realistic daydreams ought to represent a realistic image of the world. She claimed, "When I am attempting to incorporate a new language, I try to know a lot about the area and the people to make the use of that language fit the certain context to make it as realistic as possible" (P2). She ought to have background knowledge of the language and the community where it is used as a context for the daydream.

On the opposite end of the spectrum, P7 had claimed to stray away from the norms of conduct and use of language. She claimed that most of her realistic daydreams consist of discussing taboos and topics that are regarded as controversial with family members. The language used in this case is what adds to the realism as well as vividness, which will be tackled in the coming section.

3.4.3.2. (h-2) Vividness

Vividness is projected in daydreams in terms of realism as well as creativity. The levels of realism and creativity are also conveyed through the intensity of the plots and how clear and realistic the images, sounds, scents, textures, tastes, movements, and details are. Highly vivid daydreams are also influencing factors on emotions for that MD is mostly considered a coping mechanism to negative emotions. The individuals were asked to describe how vivid their dreams were and they stated that they are mostly vivid. The main difference lies in terms of creativity and details, depending on the languages incorporated.

All participants claimed that their daydreams are characterized by high levels of vividness. In some cases, vividness can be bounded by realism[7], where the daydream ought to be realistic for it to be vivid. P2 stated on the matter, "In my mother tongue, they are the **most realistic, thus, the most intense and vivid**. I don't have power over the daydream in languages other than

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[7] Realism in this context indicates the objective representation of real life in one's mind. That is to say, a vivid imagination is bounded by real-life characteristics and details. To illustrate, an apple can be red or green; it should be either red or green in the daydream for it to be vivid. The difference between realism in this context and the previous context -which is a type of daydream-, is that the type mainly refers to abiding by the lifestyle of the individual and projecting it into daydreams as content.

the ones I master so **vividness is tightly liked to mastery"**. Accordingly, P2's imagination and creativity skills are restricted to realism, which is tightly linked to mastered languages.

Furthermore, since P1 incorporates characteristics from real life into his daydreams, his creativity is not hindered by lacking proficiency in a certain language. Therefore, he claimed that all his daydreams are highly vivid. He exemplified with a specific daydream where the characters purposefully speak French for the aforementioned reasons,

> I have made up several characters and one of them speaks French so elegantly because I wanted to implement more of that language in my daydreams. This character is closest to me and our relationship is really strong. When they speak, it all sounds so fancy and make the whole daydream come to life. (P1)

What can be understood from this quote is that the use of "come to life" (P1) signifies vividness and imagery. The latter can be characterized as detailed and quite realistic since it represents a lively experience.

In other cases, some individuals deem the entirety of their daydreaming experience to be quite vivid, that is, four out of seven people. Considering the fact that several factors are tightly linked to vividness, to say that all daydreams are vivid is to say that vividness is independent of said factors. P7 stated that her daydreams are all vivid, even unrealistic ones and the ones containing non-mastered languages, "realistic or not, all my daydreams are vivid" (P7). P3 and P4 both incorporate a variety of languages and have a high creativity drive; they both claim that all daydreams are vivid to the point of interfering with emotional regulations. A table (found in Appendix (G)) that demonstrates the patterns of the relationship between mastery, creativity, realism, emotions, and vividness among the seven participants will be attached in the appendix.

3.5. Remark

One of the most frequent concepts that occurred in the entirety of the interview experience is the incorporation of English in daydreams and its noticeable effect on the daydreaming process. This subsection will present a few interesting remarks regarding English in terms of use, rate, and its effect on the length of daydreams as well as frequency. It is also crucial to highlight the main findings regarding the attitudes participants have towards English.

In terms of use, English can be considered the most dominant language in daydreams, however, not necessarily for reality. To explain, an individual can opt for English as the most dominant language for daydreaming while in reality, the dominant language can be another language. Interestingly enough, they all claimed that learning English had increased the rate of daydreaming. P3 asserted that her "daydreaming was not as bad as it is now" (P3) before she had improved her English language skills. For the majority of participants, daydreaming habits had initiated, or been recognized, around the age of 10 to 13. In addition, for the majority of participants, that is the age when they had begun being exposed to English and learning it.

Not only did learning English and incorporating it into the daydreams had increased the frequency of daydreaming, but also the length of daydreams. Participants described daydreams in English to be lengthy and quite complex. In cases where they are not, they tend to be episodic and more frequent than others for that matter. For all participants, English is associated with unrealistic plotlines and scenarios. The level of realism can vary; individuals can be far in the spectrum as they can be quite close with a bit of altering to reality. An example of this would P1 as he prefers to make people speak English despite reality stating otherwise.

The constant resort to English for unrealistic fantasies appears to be common for all individuals as they collectively share one attitude towards it. They all claim that English provides

them with a sense of freedom that cannot be found in other languages, especially the mother tongue. It is also characterized by neutrality, P7 stated, "For me, English signifies neutrality and easy expression". Neutrality in this context refers to the lack of any sort of association with emotions.

Exposure to English was deemed tempting to initiate daydreams. As mentioned in earlier sections, P1 stated that being in a situation where he would be able to interact in English is most likely to provoke him to start daydreaming about that specific situation. He also confessed regarding his tendencies to make people speak English in his daydreams as an addition to complexity along with creativity. Such tendencies are shared among individuals who master English and use it as a dominant language during daydreaming.

Another point that reoccurred often is the majority of participants claiming that they had improved their English language skills through constant use in daydreaming. P5 tackled this when asked about the use of languages in his environment, he stated, "When I am learning a new word in English, I start using it and practicing it in my daydreaming. So, it's going to last longer in my head." (P5). This is also the case for P5, as she felt pressured to improve her language skills for educational purposes; thus, she resorted to daydreaming about this matter. The rest of the participants were not attempting to learn it deliberately, but they improved their skills nonetheless.

The results presented in this section demonstrate the high levels of infiltration different languages have in daydreams. MDers are prone to using multiple languages when daydreaming with various degrees of preference as well as mastery while also assigning said languages to specific contexts most of the time. Different languages would also have distinct impacts on daydreams, which alters the emotional, realistic, and scenic state of those daydreams.

This section also showcases the role multilingualism plays in the daydreaming process. Languages can be a major trigger to initiate daydreams based on their mastery levels. Not only that, but languages can also be a developmental trajectory that alters the rate and length of daydreams. Finally, said languages can provoke significant levels of imagination in terms of vividness and creativity.

3.6. Discussion

In the light of lacking research on the matter, this research aims at establishing a link between multilingualism and MD. That is to say, it sheds light on the several possible projections of multilingualism within a daydream. In order to do so, a questionnaire was utilized. Another major aim is to investigate how language may be considered responsible for rendering daydreaming maladaptive. For that, a semi-structured interview was utilized. Thus, there are two research questions:

- What are the possible manifestations of multilingualism during MD?

- How can multilingualism impact MD?

The first objective this researcher aimed to tackle was the various manifestations multilingualism has within MD. Several conclusions can be deduced from the results presented in this chapter. Although the sample from which data was withdrawn was not large, the researchers are of the opinion that the gathered results are of relevant and insightful significance.

The questionnaire results revealed that multilingualism is implemented in numerous forms in daydreams. Multilingual MDers are prone to employing several languages in their daydreams and most of them prefer using some languages more than others (as shown in Figure 3.4) with English being the most dominant language used in daydreams (figure 3.5). This suggests that

while multilingual MDers possess the ability to use more than one language in their daydreams, they seem to prefer specific languages most predominantly English due to the creative freedom it provides, as it allows for the access to a variety of social and cultural identities as explained by Lobaton (2012). This is crucial for many MDers, as they tend to conjure up various themes and scenarios of different natures (Somer, 2000). Thus, a language (English in this situation) which makes a plethora of these themes accessible would rationally be amongst the most used languages for MDers.

For most of the informants, intense daydreaming habits became apparent around the time they started acquiring new languages. This suggests that the accumulation of linguistic competence plays a significant factor in the potency of this mental condition. Different languages would lead the MDer to generate more intense and complex daydreams due to the availability of more content to manipulate and shape into his/her desired daydream scenario. A common ground can be found between this particular point and Holcomb's (2003) ERPs mentioned in the first chapter. To explain further, since a complex syntactic formation led to higher degrees of imagery processing, it is rational to assume the same can be applied in the process of MD. Furthermore, an increasingly complex (resulting in improved competency) language acquisition for MDers leads to an improved sense of imagery and hence daydreaming.

While it remains true that MDers employ different languages in their daydreams, said employment can be a deliberate action based on different variables such as plot, place, media, etc. They tend to be hyper-fixated on creating the most logical plotlines and scenes and would choose the language which best fits that scenario. Such calculated decision-making falls in accord with Schimmenti et al. (2019) who proclaimed that MD demands a high degree of focus and attention, thus, a more intense cognitive ability. This does not mean, however, that all language choices are

deliberate. Some MDers would employ languages spontaneously as they do not necessarily consider that language choice matters when daydreaming and their decision-making is based on "what feels right" as one participant claimed. It is rarely restricted by outside motivations and mostly succumbs to the MDer's mood rather than the scene itself. This type of language choice falls in accord with Heredia and Cieslicka's (2018) single memory store hypothesis, which states that languages are stored as abstract meanings separate from language. By projecting this hypothesis on the case of MDers, it is possible to conclude that they view language as an abstract entity and hence for some, language choice is not an analytical process but rather a means to an end.

Whilst most MDers tend to select between distinct languages, said languages carry their own weight in daydreams as well. On the emotional spectrum, many MDers agreed with the notion that different languages provoke different emotions. Some would feel more intense and realistic emotions when daydreaming in their native tongue, which goes hand in hand with Yezhyzhanska (2021, p. 8) who stated: "People feel more emotional while expressing themselves in their first or dominant language than in second languages". Others, on the other hand, would feel more emotional when using their second -or other- languages. It would allow them to step out of the shackles of rationality and constrictions and to seek an outlet for their thoughts, desires, and emotions -whether positive or negative- that they find hard to express in their native language(s). As illustrated by Dewaele (2013), using alternative languages other than the native one for insults or expressing negative emotions allows for the disaffiliation of social norms.

Moreover, MDers tend to project the psychological aspects of languages into their daydreams from wish or emotional fulfillment to trauma response, which serve the principal purpose of MD being an escape mechanism (Colin et al., 2020). This is also accurate due to the

fact that the major functions of MDs in general serve the purpose of escaping from life stressors by creating scenarios that satisfy their desires and lift their spirits. Others seek out MD in order to have company and reduce the loneliness they feel in their daily lives by thinking about having close friends or partners (Somer, 2002).

Languages can also play a major role in the realistic aspect of daydreams as many MDers seek to create realistic and vivid daydreams by relying on specific languages. This desire to create authentic scenarios and paracosms is a fundamental feature of MD as Schimmenti et al. (2019) has explained: "People suffering from MD display an intense fantasy activity that usually involves highly vivid and complex scenarios". MDers are also aware of the social baggage of different languages and they tend to link the social norms (race, taboos, relationships…) of each language to a specific topic to add to the realistic aspect of the daydream. This is also a primary reason why English is the predominant language used in daydreams by multilingual MDers; its universality and lack of restrictions lead the MDers to have creative freedom over their daydreams without risking realism, which creates the paradox of 'realistically unrealistic daydreams'. Furthermore, unrealistic daydreams can be regarded as daydreams where the individual attempts to break free from reality's restrictions and limitations. Mostly, this sense of freedom is to be conveyed through innovative topics and scenarios that function as a wish fulfillment and a coping mechanism. Thus, the role of language, as well as choice, are not to be disregarded because they tend to represent the power that the individual holds against these restrictions. Hence, it would seem probable that languages are just as important in the creation of the daydreams as the scenes of said daydreams. Since different languages lead to heightened levels of realism in daydreams, it is safe to presume that languages can be a reigning factor in the increased maladaptation of daydreams for multilingual individuals.

Mastery is another manifestation of multilingualism in daydreams in the sense that for many, it is a required condition in order to employ languages in the daydream. This signifies that daydreams would not feel as realistic, vivid, or creative if they do not have linguistic competence in the target language. Others, on the other hand, are not limited by their mastery, or lack thereof, as they find no impediment in employing languages that they do not master or know very little about in their daydreams. The main reasons behind such employment are boosting the intelligence of their daydream persona, which is in itself an aspect of wish fulfillment under the form of "representations of idealized selves" (Shimmenti et al. 2019). Another reason is the fact that many MDers seek to improve their linguistic shortcomings by using a language that they do not master in their daydreams repeatedly. A study conducted by Paivio (1971) attempted to prove that mental imagery, regardless of the channel of language processing triggered by, plays a remarkable role in enhancing memory performance. Thus, it discussed how mental imagery could augment language comprehension as well as production and claimed that, on the other end, language provides additional sensations to enrich mental representations.

As a reinforcement, data collected from the interview suggested that there are three ways in which multilingualism may impact the condition, predominantly. On a daily basis, MDers suffer from a constantly hyperactive mind, which is what differentiates MDers from normal daydreamers. This may have resulted from the fact that several triggers exist, language being among them.

As demonstrated in the findings chapter, exposure to a mastered language is deemed a trigger to daydreams. That is, exposure to a language that the individual is proficient in initiates a daydreaming episode, regardless of the method of exposure, the daydream's length, topic, or even the language used in the daydream in question. This can be explained by referring to the fact that

MD is a behavioural addiction that, when activated, produces a rewarding experience (Bigelsen, et al., 2016; Somer, 2002; Somer & Jopp, 2016b). The key point is that language performs as the medium to access and activate said rewarding experience. Thus, the means of exposure or mastery of the language can be regarded as merely side variables that meet personal needs. Regardless, as seen in Barsalou (1999), exposure to language, whether through social media or being present in a code-switching or mixing environment, is a stimulus to the motor and perceptual systems, which results in an automatic projection of mental images. Said study explained the process behind the outcome of exposure, which is what the research required. Whether the content of the triggered daydream i.e., through exposure, is relevant to the stimuli, it is of no significance for that the desired outcome is already achieved.

On another note, there appears to be a mix of opinions regarding whether exposure to a non-mastered language triggers a daydream or not. However, the majority claimed that exposure to a non-mastered language does trigger daydreaming. Needless to say, MD is considered a means to an end, thus, individuals exploit the liberty to seek that enjoyment and reward regardless of the method –or language, in this case-. However, it is quite important to highlight those opposing opinions that claim the lack of stimuli from non-mastered languages. To put it in simpler terms, those individuals are most likely attached to specific scenarios, or templates, which can be adjusted. Those templates, however, are backed by specific languages, which cannot be replaced. Saying, the language triggers a certain emotion or is associated with a certain content. In such cases, non-mastered languages are of no use to the individual for they do not hold the same emotional or creative weight.

Another impact of multilingualism on the disorder is that it may interfere with the early phases of development; it is when daydreaming becomes maladaptive. On a side note, there is

shortage of research that links MD to the age of the individual. Owing to the fact that the disorder is often linked to other variables such as trauma, other neurodivergent and psychological conditions, and loneliness. Although the entirety of the research participants had claimed that their early phases of the MD journey were initiated at a considerably young age (young adolescence and adolescence), it is crucial to mention that it should not be the case for every MDer. However, a link can be established once two significant aspects during childhood development come into the frame. At first, Lillard et al. (2013) acknowledged the existence of literature that came in favor of imaginative play. As mentioned in chapter one, the authors denoted that children with more advanced imaginative play display advanced language skills. Viewing this from another perspective, children with better language skills are most likely to comprehend and absorb the concept of individual differences, which highlights their advanced intrapersonal social skills. This is mainly projected in the ToM. Eventually, the previously mentioned remarkable skills are going to have a noticeable impact on the child's imaginative skills, which later on might develop into habits of the excessive resort.

It can be safe to say that language can render normal daydreaming habits maladaptive nonetheless, which still stands for the sample. At the utmost, this impact can be projected in two ways, the rate of daydreaming and the length of daydreams. As explained previously, learning a new language or mastering a certain language, in some cases, can be considered an inclusion to daydreams. For the majority of the participants, extensive exposure to English at a considerably young age through movies, music, and books had rendered English quite endeared. This concept is no different from what has been stated before regarding MD being a rewarding experience. Languages are tightly linked to speech communities and individuals can hold bias towards any language. For that, to say that a language is dominant in daydreams signifies biased preferences

that meet individuals' needs on a finer scale. The continuous resort to the same language in comparison to the previous one signifies an alteration in preferences and interests, which feeds into the urge of experiencing pleasure and enjoyment.

As for the length of daydreams, it is already explained that lengthy daydreams are not the only indicators for maladaptation, although they are considered a diagnosing symptom. With that being said, a dominant language received its status of dominance for that is often used with complex, immense, and highly rewarding daydreams. Such daydreams tend to be lengthy and last several hours, or even weeks as P1 admitted. If not, episodic daydreams tend to occur frequently in comparison to normal daydreamers; hence, they function similarly to lengthy daydreams. There is a variety of languages that can be used in episodic daydreams, for that the stories tend to be less complex. They most likely serve a certain purpose or trigger a certain emotion. Examples of this would be practicing new words or phrases in a daydream, or using new languages to flaunt. The literature in this regard consists mainly of Koslyn (1980) which tackled the effect of linguistic input, verbal or not, can manipulate the characteristics of the mental image. Considering the fact that daydreams are predominantly constructed mental images and representations that serve a certain purpose, they remain malleable and reconstructable due to several factors. This includes characteristics such as the size or in this case the length as well as the frequency of the daydream.

Data analysis also identified a third major influence, which typically concerns imaginative performance, mainly, creative imagination. This research tackled two aspects of imagination: creativity and vividness. As for creativity, different languages play different roles in increasing the complexity of some daydreams, mostly far from reality. Adults reported exposure to different languages due to overall high consumption of content whether on social media, books, movies, or

music. Said content highly influences the daydreaming content, however, this does not neglect the fact that daydreamers engage in creating their own novel plots. This is the main reason why adults engaged in immersive daydreaming have a higher capacity for imagination. To bounce back at the aforementioned claim regarding the uncontrollable urge, the key element is that MDers indulge in this experience merely for pleasure, which also justifies the fact that the triggered daydream does not always reflect the content in question. However, the same study (Brasalou, 1999) tackled that the stimulus is most likely to activate a mental image that is related to it. Here, the content of the stimulus influences or is being projected into –to be exact- the content of the daydreams, which is the habitual process of imagination.

Addiction to daydreaming stems from dissatisfaction with reality; thus, it functions as a wish fulfillment. A few participants described some of their daydreams that could potentially stem from a willingness to fill a wish, P3 to name one. She felt ashamed confessing her daydreams in English mostly consist of her being a rich CEO of a company. Inspired by Freud (1962), one might estimate that in this phantasy, she had fulfilled what she was not able to fulfill in reality. The need and urge to do so trace back to wanting to please her family. In this regard, findings show that language can be a moderator between daydreaming and creativity.

To take this further, the entirety of the participants claimed to have high levels of vividness, regardless of the language or complexity of the plotlines. The data demonstrated that realistic daydreams are more likely to be the most vivid. Most of the sensations, images, and emotions are drawn from real-life experiences. Realistic daydreams are mainly a projection of a preexisting body of information and knowledge, manipulated, accumulated, and accustomed according to one's preferences and needs. Daydreaming about family members or individuals from the surrounding environment is believed to be an easier task for that all the required components of

the daydream, whether visual, auditory, olfactory, sensory (tactile), gustatory, or motor. Thus, the main task for starting a realistic daydream, or a daydream that contains bits of realism, consists of summoning back existing knowledge. As explained in Kosslyn (1980), which predominantly targeted mental imagery and perception, mental images are believed to play a role in manipulating mental images. With that being said, there are similar findings in this regard. Shepard and Cooper (1982) found that the role of mental images consists of transmitting linguistic input into accurate mental representations. This could signify that the vividness of the mental image or representation is highly dependent on the vividness of the linguistic input. This falls back on the fact that language can be a trigger to daydreaming as well as the fact that mastery is of significance.

However, there are a few points that should be addressed in this regard. The knowledge in question relates to the surrounding environment of the individual, i.e., in a daydream that revolves around family, individuals are expected to summon knowledge about their family members. This includes physical appearance, personality traits, the sound of their voices, the languages they speak, and the feelings they trigger. It was evident that regardless of the extent to which the individuals describe their daydreams as unrealistic or irrealistic (Gosetti-Ferencei, 2018, p. 10), the daydreams are still realistic to a certain extent. One can exemplify with the characters created by the individuals. They are built upon knowledge of the way human beings are built, the physical traits and experiences regarding emotional traits that as gained through personal endeavors or other people's experiences. The daydreaming process is merely conveyed through imaginative skills, which consist of retrieval and reconstruction of previously acquired knowledge about the world, acknowledgment of one's unmet desires and needs, and language as the medium that acts as a portal between reality and irreality (Gosetti-Ferencei, 2018, p.10)

daydreams. That is to say, the reason behind keeping a certain level of realism is the fact that it is attached to language per se. Language in this sense is more than a means of communication; rather, it is a means to transfer reality to a different customized dimension.

English is rarely associated with a particular society or community of speech. This explains why there is a common attitude towards it, which indicates liberty and breaking free from norms, laws, and restrictions. On the contrary, mother tongue and first language are tightly linked to the individuals' community of speech. The latter proposes unbreakable norms and sets of laws that its members ought to follow or submit to in order to showcase their belonging. As highlighted in the review of literature, the acquisition of the native language is inseparable from the acquisition of its culture; hence, one's L1 can be challenging to navigate freely in the case where it is not English. As explained previously, English seems to hold a rather universal and dominant status in general, but such dominance is also projected in MDs in the sense that this language fulfills a sated need for 'realistically unrealistic daydreams' due to its supple and pliable nature. This concept is similar to Myer-Scotton's (2005) 'Markedness Model' where she acknowledged the existence of several socio-psychological motives behind every choice –including linguistic choices.

This notion of universality linked with English can be viewed from a fresh perspective on the basis of Seidlhofer (2000, p. 54) who claimed that English is developing as an independent variable although not to the point of losing its status quo as a lingua franca. Applying this notion on the case of MDers, it is not extreme to assume that this 'development' is also occurring on a cultural level as well. This is due to the fact that this universality cannot help but lead certain cultures and mindsets to clash, merge, and eventually shift as English has now no boundaries to confine specific norms and cultures to. Hence, people -MDers more specifically- can alter the

pre-established norms of the language when and if necessary. From this standpoint, MDers would rely on English to customize paracosms that defy their ingrained norms and rules solely for the fact that this language allows for a multidimensional spectrum of options that still feel 'realistic' when daydreaming.

It is always necessary to refer back to the main reason behind resorting to daydreams i.e., escapism. Freud (1962) claimed that escaping to inner phantasies stems from dissatisfactory and unpleasant experiences in reality. Thus, individuals are most likely to create worlds in which they can overcome said unpleasant experiences. This insurgency is displayed through language choice, hence why they are most likely to prefer English, which is not associated with strict societies, laws, and restrictions. In addition, due to the current global status of English, it can come in a wide body of content essentially due to today's technological advancement (the Internet, social media, etc.) which acts as an inspiration as well as stimulus for most individuals.

The fact that multilingualism has impact on MD and manifests itself through various behaviors into MDs has been tackled throughout the discussion section. However, there is another side to the equation. Daydreaming in English provides an opportunity to improve language skills. It is estimated that that is most likely due to practicing the language. All interview participants as well as the majority of questionnaire respondents claimed that English is their dominant language in daydreams. Through constant use of the language comes a sense of familiarity with the language, which later on results in attachment. However, Paivio (1971) explains it by claiming that language provides additional sensations to enrich linguistic representations. It results in constructing considerably vivid, detailed, and concrete representations, which enhances comprehension and facilitates memory recall. Therefore, instead of merely treating memory recall behavior as re-experiencing previously encountered experience, this research found that said

mental representations facilitate language-learning process through actively practicing the language in one's mind.

As stated previously, English is not associated with particular emotions; however, it is responsible for triggering several emotions throughout a daydreaming episode, or daydreaming journey in general. For the majority of participants, it is completely acceptable to daydream about taboos or topics that are rejected in their community using English. The opposite does not stand true for the mother tongue for previously mentioned reasons. The main reasoning behind this rationale lies in the aforementioned multidimensionality of this language that has transcended the limitations of specific cultures and/or norms. Dewaele (2013) further explained this logic by exemplifying the ability to use profanities in certain languages (English for this situation) without risking a violation of one's culture or customs.

The analysis of the MDers' questionnaire proved a correlation between the results and the proposed hypothesis. The hypothesis contends that different daydreaming paracosms serve as unique manifestations of multilingualism. This claim had been supported by the various themes presented above, which demonstrate the distinct projections of multilingualism in daydreams. Moreover, analysing daydreamers' interviews suggested a clear-cut path toward accepting the hypothesis, which claimed that multilingualism could render daydreaming maladaptive. This impact is projected through increasing the rate of daydreams as well as the imaginative skills of the individual. The said hypothesis is supported by the aforementioned themes.

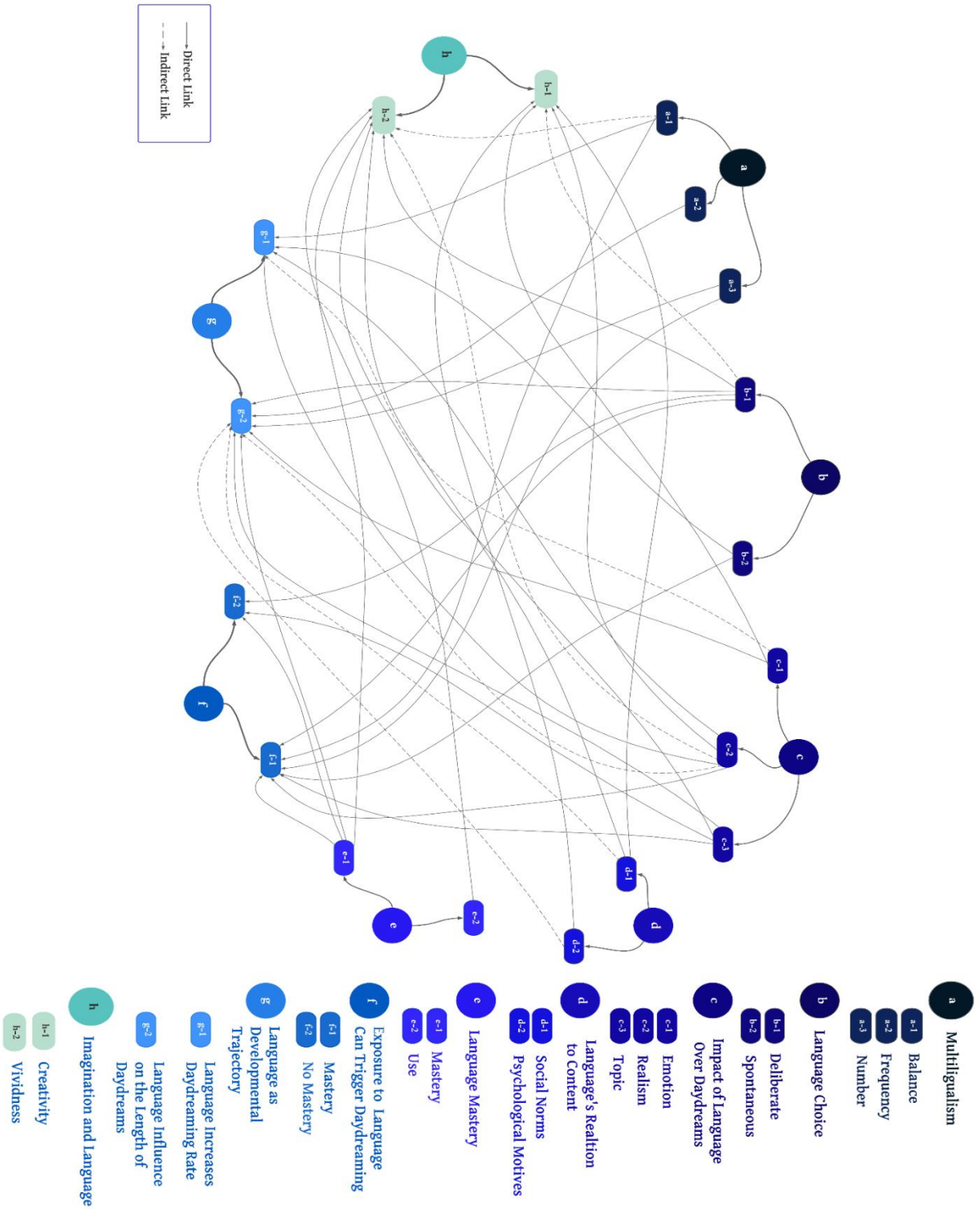### 3.6.1. Inter-relational Thematic Map

Figure 3.10. *Holistic Thematic Map*

In the light of all that has been demonstrated, it is deemed appropriate to present the bulk of this research in a holistic thematic map (figure 3.10) that displays the overall relationship between the questionnaire results and interview results. It highlights all relations between the themes from the questionnaire with those from the interview, taking into consideration the categories, which frame said themes a cohesive whole. Two detailed maps that tackle the relationship between each questionnaire theme with the others and each interview theme with the others will be found in appendices (H) and (I) respectively.

The first five themes in the thematic map (figure 3.10) tackle the first research question, which is about the various manifestations of multilingualism in a daydream. In other words, it is about the presence of languages in a daydream, which denotes the difference between daydreams within the same mind. On another note, the interview themes view this relationship from an utterly different angle. It suggests that these characteristics and manifestations contribute tremendously to the maladaptation of the condition. Thus, this map tells the narrative of the hypotheses and visualizes the researchers' vision. The arrows in the map (figure 3.10) are directed from the first five themes to feed into the last three themes, which is the precise mechanism that this research suggests.

Although the map displays a deeply interconnected network of the relations existing between various themes and hence, sub-themes, noticeable attention is poured on a set of categories. Sub-theme (b-1) referring to deliberate language choice is linked to a variety of elements, which indicates the conscious thought process MDers go through when selecting the language for their daydreams. Not only is this choice triggered by exposure to a language they either master or do not master, but it also plays a crucial role in the length of the daydreams. Additionally, MDers would choose a language as it serves their imagination in terms of vividness

and creativity (albeit not as directly as the rest of the categories). Furthermore, another sub-theme, which is realism (c-2) can be noticed to be linked to the majority of categories due to the principal reason being MDers' aim to achieve highly vivid and complex daydreams. Hence, exposure to a mastered language would initiate more realistic daydreams as MDers would already be in possession of a stronger foundation upon which they construct highly detailed daydreams regardless of whether the language of their daydreams is the same as the one they were exposed to or not.

As demonstrated in the map (figure 3.10), realism is also tightly linked with the elements of developmental trajectory as MDers are being rewarded with realistic daydreams; hence, they would seek to both lengthen and repeat them. Since daydreams are a facet of imagination, the latter itself can be linked to realism in terms of vividness of imagery and emotions as well as the creativity of plots. In the map (figure 3.10), sub-theme (f-1), which refers to the exposure to a mastered language, is also at the recipient end of a considerable number of links for being exposed to a language one is already competent in would lead him/her to employ that language in their daydreams (easier access). Such employment can be either conscious (as explained previously) or spontaneous as some MDers subconsciously adopt the language they have been exposed to. As this category is also linked with the realism level of daydreams, it can also be directed by the topic of the daydream itself.

Since MDs are characterized by their abnormal periods, language influence on the length of daydreams (g-2) would be another important fact to focus on, as displayed in the map (figure 3.10). It amassed a substantial number of links for the principal reason that MDers' employment of their various multilingual facets from language choices to mastery (as well as other facets) is projected in one or another in the length of their daydreams. Moreover, it is vital to keep in mind

that MDs are still a fantasy activity, thus, accordingly, creativity (h-2) is also at the recipient end of much recognition from other categories such as deliberate choice (b-1), social norms of language (d-1), mastery (e-1) to name a few. MDers are generally in need of delving into creative imagination while daydreaming whether in the form of complex or simple plots and to do so, many lean on their linguistic abilities.

Overall, multilingual MDers' rationale as presented in the figure above (figure 3.10) is an intricate, well-thought-out cognitive functioning that is manipulated constantly by said MDers to establish their desired daydreams. In other words, it can be viewed as another perspective of the vicious cycle as explained by Somer (2018) in the sense that MDers conjure their multilingual abilities to feed their daydreaming habits, which would then lead them to employ said abilities and continuously remain in a constant loop of maladaptive behaviour.

3.7. Conclusion

The third chapter of this research paper is devoted to the analysis and interpretation of the results gathered from the data collection instruments used in this study. This chapter dealt with the research issue purely from the MDers' perspective. The analysis and interpretation of the results showed a striking diversity in language use amongst multilingual MDers. They have no hesitations about employing the distinct languages they possess in their daydreams and most of them assign different languages to different daydreams, as they tend to relate their social and psychological properties to the content of their scenarios in order to create cohesive and realistic daydreams. Most MDers employ language they master in their daydreams so that they can authentically develop their plots, but many do not let the lack of mastery hinder them from engaging in daydreams. As a matter of fact, most of them agreed on the notion that they do so to improve their linguistic abilities.

Regardless of the type of exposure, the length, the subject, or even the language utilized in the daydream in question, exposure to a mastered language is considered a trigger to daydreams. Although there seem to be conflicting views regarding whether or not exposure to a language that has not been mastered induces daydreaming, the dominant view remains that exposure to a non-mastered did trigger daydreaming however not on the same creative or emotional scale. Additionally, languages seem to be a determinant factor in the developmental trajectory of MD for individuals in terms of their rate and length, which further supports the notion of languages being a trigger for MD. Moreover, a connection between vividness, imagination, reality, and emotions could be established through languages, which strengthens the fact that although imagination triggers MD behaviour, said imagination with all of its components may be fed through different languages.

English has also proven its popularity amongst MDers as it remains the most used and preferred language to be used during daydreaming. Such proclivity towards this language stems from a leniency that it possesses that is hard or challenging to achieve with one's native tongue (when it is not English). This aspect of leniency arises from the fact that English is not uprooted from one specific society or culture but a culmination of various social norms, cultures, and viewpoints, which lowers one's inhibitions and sense of restrictions when using it and allows for a broader reach of various daydreaming scenarios. This preference has led many MDers to improve their language skills thus a loop can be observed in which MDers tend to prefer this language and thus use it more (higher rates of daydreaming and longer daydreams) which then results in better proficiency in the language itself (use of mastered languages in daydreams.

General Conclusion

MD has become a widely recognized mental condition in the last decade with thousands of individuals coming forward and embracing this condition. Defined by its name, MD entails an addiction-like state towards the act of daydreaming. Although it may look harmless on the surface, its intricate cognitive anatomy is nothing but. Said intricacy lies in its double-edged sword nature for it is not always a source of leisure but also deep turmoil. Looking at the other end of the spectrum, the notion of how distinct languages present and trigger different concepts in one's mind has been an interesting topic of debate amongst various scholars from different fields. One of the said concepts is imagination, which is usually tackled from a pragmatic point of view. The pivot here is to treat imagination as an access point to daydreaming and consequently, MD. While it remains accurate that this condition has been receiving some well-deserved attention lately, many inquiries remain unannounced regarding its different facets, one of which is the impact multilingualism has on MD.

Therefore, this work comprises three chapters, the first one dealt with the theoretical bases of multilingualism, imagination, and MD for the sake of narrowing down the theoretical gap existing in this research to the best of the researchers' abilities. In the second chapter, the researchers presented their methodological considerations for this research, which contained their research philosophy and data analysis procedures. The analyses and interpretations of the data collected as well as the limitations faced by the researchers during their investigation are provided in the third chapter.

In this study, the researchers aimed to shine a light on the various facets regarding the impact multilingualism has on MD. Hence, a grounded case study research design (exploratory case study) which guaranteed both qualitative and quantitative approaches to data collection and

analysis was employed to achieve the aforementioned purpose. After the analysis of data gathered from various sources ranging from a questionnaire and interviews for MDers, the hypotheses put forward by the researchers were confirmed. The results showcased the dynamic relationship MDers have with different languages when engaged in MD which highlighted the notion that daydreams can be a direct product of linguistic choices which confirmed the first hypothesis. The analysis of the results has also demonstrated the impact said multilingualism has on the process of daydreaming. They revealed how multilingualism not only serves as a trigger for MDs but it can also be a developmental trajectory for this condition as well. Additionally, the results also accentuated the close-knit relationship multilingualism has on imagination. All of these factors led to the confirmation of the second hypothesis.

Although MD has gained attention in past years from professionals and the daydreaming community both, it remains an undervalued condition and demands much research. This research cements the aforementioned fact as it tackled an entirely new perspective regarding MD on the multilingual spectrum. The argument here is based on the belief that not only can this condition be directed by languages in general, but also said languages can play a major role in the maladaptive aspect of daydreams. This purveys a plethora of MDers a new perspective regarding their MD experience, which in turn can increase the understanding of the condition itself. In consequence, an entirely new scope of fundamental queries regarding MD, in general, can be unfurled.

Further research is needed to assess the theoretical findings of this research. As grounded theory was implemented, it is believed to be crucial to assess the findings. First off, a larger sample can be utilized to compare between monolingual MDers and multilingual MDers in terms of realism, emotions, and content. It is also crucial to experiment with how languages increase

daydreaming rate and frequency through longitudinal research. Two groups at their early daydreaming phase can be used, a focus group that is not subjected to manipulation regarding languages, and a control one that is subjected to manipulation in terms of language. This can be either through mere exposure or through learning new languages. The dependent variable would be daydreams; the independent one would be the target language, preferably English. A third factor that ought to be supported through quantification is vividness. A test or a survey can be used to assess the levels of vividness through different languages. The survey may contain descriptions in two languages, for instance, images and sounds. The task is to assess individual differences taking into account language preferences and differences.

This study was subject to a number of limitations. The originality of the topic imposed a theoretical gap, which led the researchers to rely on their own introspection for the development of the research and instrument questions, which might have imposed an aspect of subjectivity and bias on the research. It also required the researchers to rely on non-probability sampling, which required a specific sample. Due to the discrepancy between the sample size and the target population, the researchers were not able to achieve representation for this research.

Due to the nature of the research questions, the questionnaire and interview questions yielded largely qualitative results. Although the researchers relied on a mixed-method approach, the exploratory nature of the study led them to lean more toward qualitative methods of analysis. This, paired with the absence of representation due to the small sample size, impeded the researchers from achieving generalizability.

Since the research sought to investigate a precise topic, some informants faced difficulties comprehending the questionnaire, and several questions were left unanswered or were filled out of subject. Additionally, during the process of analysis, the researchers became aware of the

manner in which they gathered data during the semi-structured interviews had limited their ability to conduct a thorough analysis of the results regarding the impact of multilingualism on the rate of daydreaming. Thus, the results gathered were not up to par with the research topic's demands.

To conclude, one might argue that multilingualism has proven its stance in a variety of ways regarding MD. Although further research remains crucial for this field study, it can be safe to say for the meanwhile that language is as salient feature in MD. It is not always a means to an end for multilingual MDers, but rather a salient feature upon which daydreams are constructed.

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Appendix "A"

Questionnaire Participant Information Sheet

Title: Investigating How Maladaptive Daydreamers Use Language within Maladaptive Daydreams.

Students: M.A. Amira Ghalem and M.A. Djamila Haddad.

Academic Supervisor: Prof. Noureddine MOUHADJER.

Dear participants, thank you for your interest in this study. We are Amira Ghalem and Djamila Haddad, and we are studying for our master's degree in the department of English, foreign languages, at Abu Bekr Belkaid University, Tlemcen, Algeria. Accordingly, we are undertaking a research project in which we invite you to take part. Before proceeding, please read the following information. If you wish to contact us you are more than welcome to do so via our emails:

amira.ghalem@univ-tlemcen.dz

djamila.haddad@univ-tlemcen.dz

What is the purpose of this study?

This study aims at investigating the impact multilingualism has on maladaptive daydreaming. It also seeks to develop the field of research regarding maladaptive daydreaming even further.

Am I qualified to take part?

You are taking part in this research as someone who is diagnosed with excessive daydreams. This research does not aim at diagnosing the participants. Therefore, you are legitimate for participation only if you are an adult and aware of your intense daydream tendencies. The research topic imposes that the participants should be able to speak more than one language or

one dialect. To clarify, for this research, it does not matter whether the participants speak only one language. What matters is that they are able to speak different dialects of this language. Unfortunately, you cannot take part if you are under 18 and do not have intense daydreaming habits. Also, you cannot take part if you don't incorporate language - or languages - into your Maladaptive daydreams.

Is taking part in this study mandatory?

It is not mandatory to take part in this study. In fact, you received this questionnaire due to the fact that you are a member of the Maladaptive Daydreaming Support Group on Facebook, or it was sent to you by someone. However, it is up to you to decide whether you want to participate or not.

What are the possible benefits of taking part in this study?

There is no immediate benefit to gain from answering this questionnaire, as there is no incentive to be provided. However, taking part in this study will help close a gap in this field of research and generate theories about Daydreaming and Language. Also, attempting to answer these questions will give the participant time to reflect upon their daydreams and be more conscious about their use of language.

Is it possible to withdraw from the study after it starts?

Absolutely! As this is mainly an online study, withdrawal from the questionnaire is possible at any time. All you need to do is close the page if you feel discomfort or violated in any way, shape, or form.

Anonymity:

Rest assured that your information and any data you provide will remain confidential. You will be evaluated anonymously and without judgment and will not be passed on to third parties. As this study is anonymous, there will be no way to identify or contact you in any way.

What would happen to my data after the study?

The data you provide about your age, linguistic background, and daydreaming habits are all necessary for reaching the research goals. They are in no way to be shared. They will be completely destroyed once the study is terminated.

What if I face a problem during the study?

 If you are unhappy or you face any issues during the study, please feel free to contact us at

amira.ghalem@univ-tlemcen.dz

or

djamila.haddad@univ-tlemcen.dz

Thank you for reading this information sheet and considering taking part in this study. Please feel free to answer the questions thoroughly for every little detail matters.

Appendix "B"

Maladaptive Daydreamers' Questionnaire

1-How old are you?

………………………………………………

2- How old were you when you started acquiring new languages?

☐ A- From 1 to 10

☐ B- From 11 to 17

☐ C- 18 and above

3- Specify at what age you acquired what language.

………………………………………………

4- How old were you when you started daydreaming?

☐ A- From 10 to 17

☐ B- From 18 and above

5- How many languages do you use in a daydream?

………………………………………………

Provide an example:

………………………………………………

6- Have you always been incorporating more than one language into the same daydream?

☐ Yes

☐ No

7- Is there an equal usage of the different languages in the same daydream?

☐ Yes

☐ No

8- Which language is more dominant in the same daydream?

☐ A- Mother tongue

☐ B- Second language

☐ C- Other

Provide an example:

……………………………………………………

9- Does a certain language trigger a certain emotion in a daydream?

☐ Yes

☐ No

Provide an example:

……………………………………………………

10- How often do you translate concepts like metaphors and proverbs in a daydream?

☐ A- Never

☐ B- Rarely

☐ C- Often

☐ D- Always

Provide an example:

……………………………………………………

11- What inspires your language choices during daydreaming?

……………………………………………………

12- What makes a certain language specific to certain content?

……………………………………………………

13- How do you shift languages during the same daydream?

……………………………………………………

14- How does your language mastery affect the choice of language in a daydream?

……………………………………………………

15- How does a certain language impact the content of the daydream?

……………………………………………………

Appendix "C"

Interview Participant Sheet

Research Topic: The Impact and Manifestations of Multilingualism on Maladaptive Daydreams

Name of researchers: M.A.Amira Ghalem & M.A. Djamila Haddad

Research Purpose:

This interview is for Master's dissertation about the possible impact of multilingualism on maladaptive daydreaming as well as its various manifestations in maladaptive daydreams. We estimate that it will take about 15 to 20 minutes.

Thank you for agreeing to be interviewed as part of the above research project. Interview subjects must expressly consent to being interviewed in order to comply with ethical standards for academic research. We need this consent form to make sure that you understand the reason for your participation and that you accept the terms of it. Would you kindly read the information document that is included before signing this form? It is to confirm that you agree to the following:

- Participation in this research is voluntary.
- The interview will be recorded and a transcript will be produced.
  The transcript of the interview will be analyzed by Amira Ghalem and Djamila Haddad as research investigators.
- Access to the interview transcript will be limited to Amira Ghalem and Djamila Haddad and academic colleagues and researchers with whom they might collaborate as part of the research process.

- All information provided in this interview will be treated confidentially. The researchers will not identify the participant by name on any report and their confidentiality as a participant in this research will remain secure.

- No payment will be provided for participating in this interview.

- Participants have the right to decline to answer any question or can withdraw from the interview at any time.

- Verbatim direct quotes will be used in this research and it will be published.

CONSENT FORM

1. I confirm that I have read and understood the terms listed above for the mentioned study. I have had the opportunity to consider the information, ask questions, and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.

3. I understand that data collected during this study, *could* be requested and looked at by regulatory authorities. I give my permission for any authority, with a legal right of access, to view data which might identify me. Any promises of confidentiality provided by the researcher will be respected.

4. I understand that the results of this study may be published and/or presented at meetings or academic conferences. I give my permission for my anonymous data, which does not identify me, to be disseminated in this way.

5. I consent for the observation to be audio or video recorded. The recording will be transcribed and analysed for the purposes of the research.

6. I consent to verbatim quotes being used in publications; I will not be named and no data about my identity will be used.

7. I agree to take part in the above study.

Name of Participant:

Date:

Signature:

Appendix "D"

Maladaptive Daydreams' Interview

1. Does exposure to a language that you master lead you to initiate a daydream?

2. Does exposure to a language you don't master lead you to initiate a daydream?

3. Can the employment of different languages add to the vividness of the daydreams?

4. Can the employment of different languages add to the creativity of the daydreams?

5. Has multilingualism increased the rate of MD?

6. Does a certain language increase the length of a daydream?

Appendix "E"

Questionnaire Codes

Theme	Category	Code	Coding units	Quote
Language Choice	**Deliberate**	**Plot**	Context – scenario – characters – theme – movie star – whomever I daydream about – imaginary life – story – content.	"Depends highly on the context of the daydream and the specific scenario I want to play out in my head"
		Place	Worlds – where characters are from – location – setting.	"The worlds I create"
		Media	Music – books - T.V shows – movies – films.	"[…] the music I hear in the background is what inspires my choices of language during daydreaming"

Appendices

THEME	CATEGORY	CODE	CODING UNITS	QUOTE
	Spontaneous	**Mood**	Sounds better – confidence – feels right – sentimental – authentic – regret – love English – mood of the scene.	"It's hard to explain it in words since it's not something I have control over it happens spontaneously"
Impact of a	Emotions	**Positive Emotions**	Elegance – attractive - confident – love - feel better – comfortable - natural - feminine – precious - sense of achievement – relief – gratitude – happiness - level-headed - warm-natured – humorous – strong.	"Some words and sentences in Persian make me feel more attractive and confident"
		Negative Emotions	Rage – sadness - depressing, sad – regret – upset – mad – grief.	"Rage, anger, and fury were always expressed in English"

THEME	CATEGORY	CODE	CODING UNITS	QUOTE
Language Over a Daydream	Realism	**Coherence**	Smooth dialogues – easier dialogues – coherent expression of thoughts.	"I'd say the only thing that language impacts is the speed at which my thoughts are expressed coherently
		Accuracy	Morerealistic - reality vs fiction - clear ideas - personal experience - attitude towards the language – more options – precise and detailed daydreams – language assigned to topic - tone of speech – levels of politeness – authenticity – culture associated with the language – good memories vs. bad memories – storyline.	"If I use a certain language in a certain situation, it would be more accurate and real"
	Topic	**Domains**	Education –	"I use each language for a specific topic for example I

THEME	CATEGORY	CODE	CODING UNITS	QUOTE
			family – friends – science – psychology.	use English for daydreaming about education"
Language's Relation to Content	**Social Norms**	**Social Relationships**	Friends – the person – pop culture – race media.	**"**Pop culture hyper fixations are easily clung onto when in English"
		Norms of Language Use	Neutral language – Taboos.	"The ability to express what I can't express in my mother tongue"
	Psychological Motives	**Feelings**	Comfort – angsty – insecurity.	"(…) if speaking my mother tongues fits an angsty daydream that had me expressing my inner feelings (…) then so be it'
		Coping	Trauma – escapism – wish fulfillment – emotional fulfillment.	"As my daydreams are some idealistic world of mine where I am an idealistic version of myself, English just feels like the best language for me to use in them as I like it

THEME	CATEGORY	CODE	CODING UNITS	QUOTE
				better"
Language Mastery	**Mastery**	**Mastery and Usage**	Fluent – master – easier – express myself better – perfect conversation- more comfortable.	"I always use the language I master the most in my daydreams"
		Mastery and No Usage	Preference – less creative - restricting	"I'm fluent in both languages, but I find that I can express myself better in my second language"
	Use	**Usage With No Mastery**	Doesn't affect - pretend	"Motivates me to want to perfect my knowledge on the language"
		No Mastery Hence No Usage	Need to be fluent	"I need to be fluent. I'm a beginner at French but never had French spoken in my daydreams"

Appendix "F"

Interview Codes

THEME	CATEGORY	CODE	CODING UNITS	QUOTE
Triggers	**Mastery**	**Initiation of a Daydream**	Content in that language, whether auditory, visual, or audiovisual.	"if I am exposed to content in British accent, that would initiate a dream of being British" (P1)
			Exposure to the language in real life	"I feel that when I speak English or when I am in an environment that allows me to speak English that would definitely initiate a dream" (P1)
		Initiation of	Triggers a new scenario	"Well, they're scenarios where it's either in the context where I'm trying to impress or trying to show off a new language." (P2)

Theme	Category	Code	Coding units	Quote
	No Mastery	**a Daydream**	Content in social media	When asked about any exposure to a language that is different from the usual, (P6) said "well, let's say Russian for example, If I ever watched content in Russian I believe that would make me daydream but not sure about what"
		No Initiation of a Daydream	Exposure does not initiate a daydream	When asked about whether languages she does not master –Korean as an example- initiate daydreams or not, (P3) said: "no, because I don't speak Korean that well. I know English so it triggers me"
			Constant use of the language	"English basically because it's the most used other language" (P2)

Theme	Category	Code	Coding Units	Quote
Developmental Trajectory	**Rate**	-	Constant exposure to the language	"it has a lot of content so I was exposed to that content a lot around the time my daydreams intensified" (P2)
			Improvement in language skills	"it's like when I started mastering English, I feel like my daydreaming habits became intense to the point of dissociating from reality" (P3)
			urge to use the language	"When I was really scared that I am not fluent in English and I may not get a good score at the time. I think it triggered more because someone told me to describe everything in English"(P4)

THEME	CATEGORY	CODE	CODING UNITS	QUOTE
	Length	**Constant daydreams**	Mastery	"I have a lot in my brain to work with, with the languages that I do master" (P2)
			Realistic creativity	when asked about the longest daydreams, P2 said "my mother tongue, because I want it to be as realistic as possible"
		Episodic Daydreams	No mastery of the language	"the other languages are just snippets" (P2)
			Realism constraints	When asked about the length of daydreams carried through the mother tongue, (P3) said "no they're not as lengthy as the daydreams in English because they have to be realistic"
				"A language that I

THEME	CATEGORY	CODE	CODING UNITS	QUOTE
Imagination	**Vividness**	**Emotions**	Sense of power and being in control over the daydream	do master, I would be more in control. So, in my scenarios I would definitely be the main character" (P2) "it definitely depends on the degree of knowledge I have about that area. The more I know about it, the better" (P2)
		Realism	Characteristics of the language	"sometimes if I like something about that language, it would be more vivid" (P1)
			Mastery makes it more vivid	"in my mother tongue, they are the most realistic (…) they would make me feel the same way I would want to feel in that moment so it's pretty vivid" (P2)

Appendices

THEME	CATEGORY	CODE	CODING UNITS	QUOTE
	Creativity	**Characters**	Relationship with the character Desire to implement the language into daydreams	"I have 4 characters that I imagine (…) one of them speaks French because my relationship with the character is strong and I wanted to implement it more in my daydreams" (P1)
		Content	Emotions associated to the language	"I associate French with being elegant and sexy. Sometimes I would try to implement those emotions to add to the creativity. I could imagine whole plotlines, change them, make them complex" (P1)
			The characteristics of the language implemented in the daydream	"I associate Hindu with culture. Their culture is so rich. Sometimes I associate it with traditions so when I am having a daydream about

THEME	CATEGORY	CODE	CODING UNITS	QUOTE
				something traditional or a culture, I would try to implement that language" (P1)
			Creative imagination	"all of my unrealistic daydreams are English" (P6)
			Realistic daydreams	"if I daydream stuff about my family, and the environment that I am living in, they require using Algerian Arabic" (P6)
			A language triggers a new scenario Wish fulfilment	"if I say there is an Italian scientist I would make a plot around that in the same language but it's going to be minimal" (P2)

Note: in the code cell for 'Rate', the minus '-' indicates that the code itself became the category.

Appendix "G"

Table of Relationships between mastery, realism, creativity, emotions, and vividness

Participant	Language	Mastery	Realism	Creativity	Emotions	Vividness
P1	English	✓	✓	✓	✓	✓
	French	~	✓	✓	✓	✓
P2	Mother tongue	✓	✓	~	✓	✓
	English	✓	~	✓	✓	✓
	Italian	x	X	x	x	x
P3	Mother tongue	✓	✓	✓	✓	✓
	English	✓	X	✓	✓	✓
P4	Bengali	✓	✓	✓	✓	✓
	Hindi	✓	✓	✓	✓	✓
	English	✓	X	✓	✓	✓
	Spanish	x	X	x	x	x
P5	MSA	✓	✓	✓	✓	✓
	French	✓	✓	x	✓	✓
	Eng	✓	✓	x	✓	✓
P6	Mother tongue	✓	✓	x	✓	✓

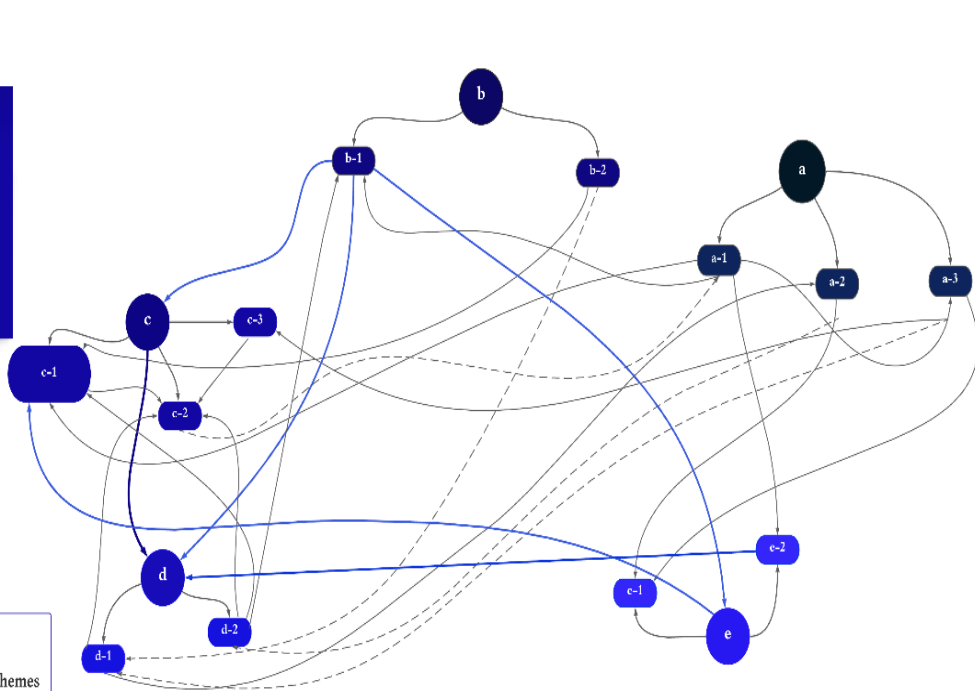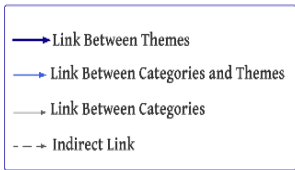| Participant	Language	Mastery	Realism	Creativity	Emotions	Vividness
	English	✓	✓	✓	✓	✓
	Others	x	X	x	x	✓
P7	Mother tongue	✓	✓	✓	✓	✓
	French	✓	✓	✓	✓	✓
	English	✓	X	✓	✓	✓

Note: '✓' is good, 'x' is bad, '~' is average.

The table presented above demonstrates the patterns of the relationship between mastery, creativity, realism, emotions, and vividness among the seven participants.

Appendix "H"

*Thematic Map: Questionnaire Themes*

N.B.
Realism is linked with multiple other categories and themes due to its unequivocal impact on the daydreaming behaviour which leads MDers to constantly strive to reach it when daydreaming and achieve a "vivid fantacy activity".

Legend:
→ Link Between Themes
→ Link Between Categories and Themes
→ Link Between Categories
--→ Indirect Link

Key:
- a — Multiligualism
  - a-1 — Balance
  - a-2 — Frequency
  - a-3 — Number
- b — Language Choice
  - b-1 — Deliberate
  - b-2 — Spontaneous
- c — Impact of Language Over Daydreams
  - c-1 — Emotion
  - c-2 — Realism
  - c-3 — Topic
- d — Language's Realtion to Content
  - d-1 — Social Norms
  - d-2 — Psychological Motives
- e — Language Mastery
  - e-1 — Mastery
  - e-2 — Use

Appendix "I"

Thematic Map: Interview Themes

Summary
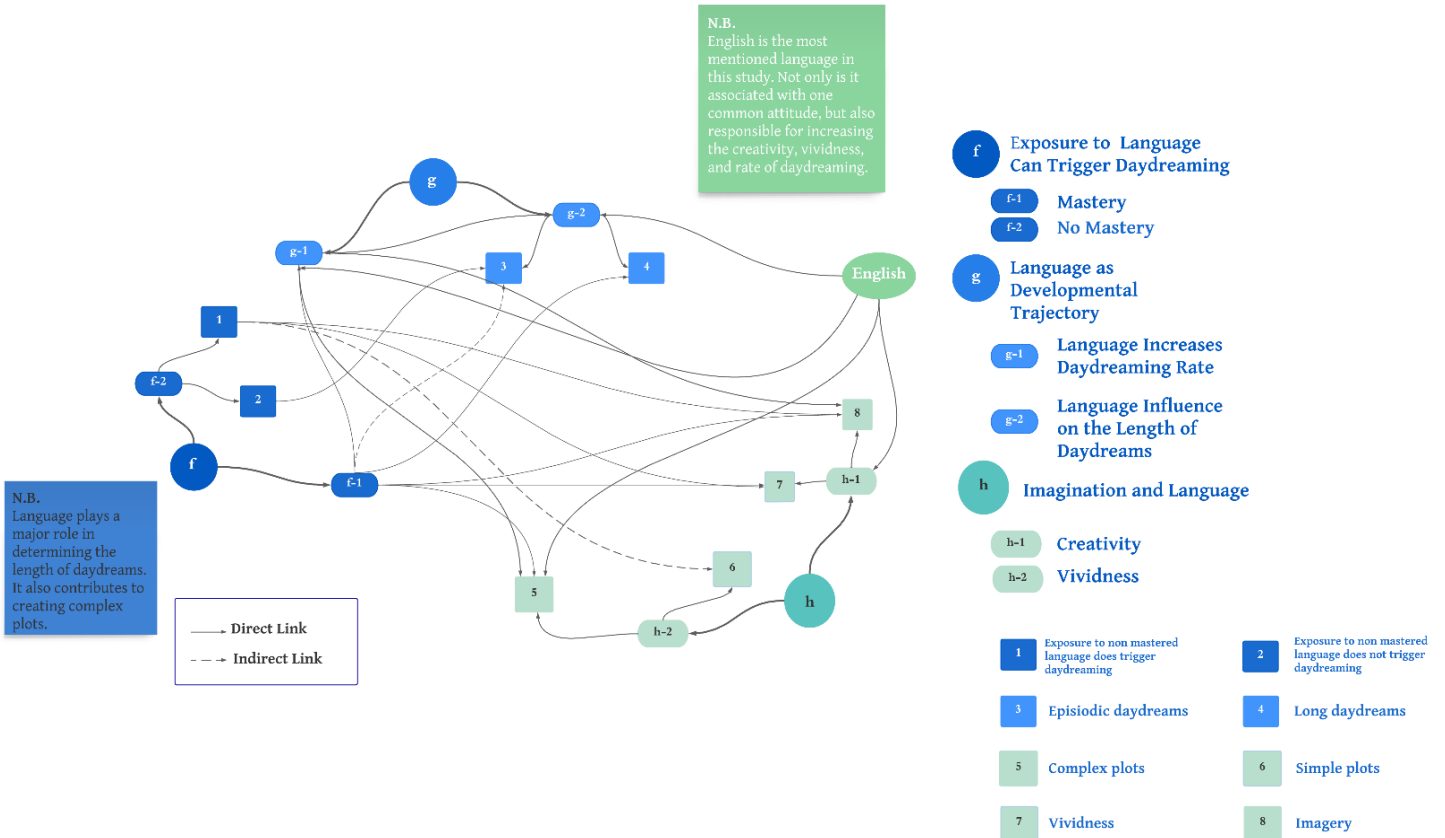
المُلخص

يُعنَى هذا البحثُ بالعلاقةِ بين تعدّديّة اللغات والمُخيّلة واضطراب أحلام اليقظة المفرطة. بعد التعمق في البحوث السابق نشرها عن هذا الموضوع، تمكن الباحثان من تضييق نطاق البحث إلى أمرين أساسيين، ألا وهما السلوكيات اللغوية التي اعتمدها مدمنو أحلام اليقظة الناضجون والقادرون على التحدث بأكثر من لغة، وتأثير ذلك على اضطرابات أحلام اليقظة التي يعانون منها. الهدف من ذلك خلق أرضٍ ثابتة تُمكّنُ من وضع نظريات حول الموضوع من خلال دراسة معمقة لحالة معينة. تم استعمال استبيان شبه منظم ومقابلات مع المتطوعين وكذا تقنيتيّ كتابة المذكرات والتسجيل اليومي. تحليل وتفسير المعلومات مكّن من وضع نظريتين حول الإشكاليتين المطروحتين آنفا. تتجلى التعددية اللغوية ضمنيا في تفضيل لغات عن أخرى في أغلب الأحيان عندما يتعلق الأمر بمحتوى الحلم، مما يؤدي إلى التعلّق بأحلام اليقظة من خلال زيادة طولها وتكرارها وزيادة المهارات التخيُّليَّة. أظهرت النتائج كذلك وجود سلوك عالمي مشترك تجاه اللغة الإنجليزية. يُقترَحُ إخضاع هذه النتائج إلى بحث كمّي معمّق للتعرف على آلية هذه العلاقة.

الكلمات المفتاحية: ابداع المخيلة، اضطراب احلام اليقظة المفرطة، التمكن، تعددية اللغات، المعدل، الواقعية، التبديل، محفزات، الاستعمال، الحيوية

Summary

This research is an attempt to investigate the relationship between language, imagination, and Maladaptive Daydreaming Disorder. After immense readings on said variables, the researchers were able to limit the scope to two major concerns, the linguistic behaviour of adult MDers in MDs, and the impact of multilingualism on MD. The purpose was to put forward a stable ground for a theory to emerge, through studying a specific sample. They used the semi-structured questionnaire and semi-structured interview as well as other tools such as memoing and journaling. The analysis and interpretation of the data allowed for grounded hypothesis to emerge; MDs are tacit projections of multilingualism through in terms of choice, impact, association with content, and mastery, which renders daydreaming maladaptive through increasing the rate of daydreams and imaginative skills. Other interesting results involved unraveling the universal attitude towards English. It is recommended to assess these results through quantitative extensive research to provide more insights on the mechanism of this relationship.

Keywords: creative imagination, Maladaptive Daydreaming Disorder, mastery, Multilingualism, rate, realism, switching, trigger, use, vividness

Résumé

Cette recherche avait pour but de mettre en exergue la relation entre la langue, l'imagination et le trouble de la rêverie compulsive. Après investigation concernant ce sujet, les deux chercheurs ont adopté deux notions principales qui sont : le comportement linguistique dont se servent les sujets portés sur les rêveries et l'impact de multilinguisme sur cette maladie. Ainsi, les chercheurs dans ce domaine se doivent de développer des théories sur des bases concrètes en s'appuyant sur un cas d'étude. Pour ce faire, ils ont opté pour un questionnaire semi-structuré et une interview semi-structurée, tout en pratiquant la prise de note, en présence de volontaires. Après analyse et interprétation des résultats de l'entretien ceci a permis de mettre en place des hypothèses concernant les problématiques sus mentionnées. La préférence d'une langue a un autre fait en sorte que celle-ci pourrait avec son influence interagir sur les rêveries et leurs contenus qui font qu'ils soient longs et répétitifs en augmentant les performances imaginatives de l'individu. Les résultats obtenus ont montré aussi que l'Anglais est une langue universelle. Les personnes concernées par cette recherche recommandent qu'il y ait d'autres investigations sur le plan quantitatif sur ce sujet.

Mots Clés : créativité, imagination, Trouble de la Rêverie Compulsive, maitrise, multilinguisme, taux, réalisme, commutation, déclencheur, usage, netteté