

Towards Cognitive Critical Discourse Analysis CCDA Methodology A multi-disciplinary approach to Social Science

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Abstract

This paper introduces a new approach to social science research, which I call Cognitive Critical Discourse Analysis (CCDA). CCDA depends on two paramount approaches studied extensively in Linguistics Approach in the last decade; the first is Cognitive Linguistics (CL) (which contains theories on Mental Frames (MF) and Conceptual Metaphors Theory (CMT)). The second is Critical Discourse Analysis (CDA) that includes the analysis of the linguistic production (the discourse) and the social and political context of that production (political agenda, injustice, social stereotypes, and equality). This article is not inventing a new methodology at all. In this article, I join all the puzzle pieces together. I put together the latest theories in all the approaches mentioned above in a solo multi-disciplinary methodology that social science researchers, who may not have a deep knowledge of linguistics, can easily understand and apply. This methodology aims to go beyond the socio-linguistic analysis to reveal the mental structures activated and re-activated by discourse towards social phenomena. This article is part of a series of articles dedicated to setting together CCDA methodology and providing empirical examples on how to include it in social science research.

This article provides researchers with the tools to analyze how ideologies, religions, and the public discourse construct the social mind towards cultural, political, and national values and how society members rearticulate these values through their linguistic production. Understanding how the public discourse builds our mental frames on values, diversity, gender equality is a significant step towards making a change in that discourse to achieve a higher level of equality and justice in any society.

1. Introduction

This paper introduces a multi-disciplinary approach to social science research. It aims to provide social science researchers with a multi-disciplinary methodology that is easy to understand and apply by those who may not have a deep knowledge of linguistics. I do not claim that I am going to create a totally new theory in sociolinguistics analysis. I only try to put together the existing theories in linguistics analysis in one comprehensive methodology for social science research.

This paper joins two paramount approaches in Linguistics: 1) the Cognitive Linguistics (CL), which consists of theories on mental frames (MF) and conceptual metaphors (CM), 2) Critical Discourse Analysis (CDA), which focus on the analysis of political and public discourse. Each of these approaches is a vast area of research that cannot be fully covered in this paper. I neither intend to provide deep bibliographical analysis for readers from a sociology background. This paper will provide summaries of main definitions and briefly run through (past and present) novel arguments in each approach. After that, I will introduce the Cognitive Critical Discourse Analysis (CCDA) as a methodology that combines these approaches altogether.

To reach that purpose, I will first go through the cognitive approach to explain how language controls and sometimes limits our understanding of the world. I will run through the MF (depending on Kovecses,

2006, 2005; Semino, 2008; Brugge, 2011; Zeim, 2014; Dancygier, 2017; Hart, 2017, 2019) and CMT (depending on Lakoff and Johnson, 1980; Barcelona, 2003; Kovecses, 2006, 2017, 2020) theories, explaining how the received language and the bodily experiences correlate in making sense of social life. After that, I will review the CDA theory (Van Dijk, 2001, 2013; Achugar, 2017; Mullet, 2018), which focuses on social inequality in public discourse. Finally, I will introduce the CCDA methodology. In this section, I mainly depend on Christopher Hart's various works (2010, 2011a, 2001b; 2014, 2017, 2018, 2019) and on my previous empirical study in which I put into practice the CCDA methodology.

2. Cognitive Linguistics: (Mf) And (Cmt)

"Cognition" refers to all conscious or unconscious mental activities such as thinking, remembering, reflecting, and learning. Cognitive and social psychologists define "cognition" as the mechanism "through which people attribute events to causes to make sense of experiences and to construct mental models of the environment" (Sperber, 1995:1). Depending on the definition of Diederik Aerts' in "*Quantum Structures in Cognitive and Social Science*" (Aerts et al., 2016: 5–7), the general aim of implementing the Cognitive Approach at any scope of research is to study the mechanisms that control how the brain processes the information of this field, how it transforms this information into memories, how the brain recalls this information and uses it in interaction.

Cognitive Linguistics (CL) aims to go beyond the visible structure of language to explain, or discover, the cognitive mechanisms through which the language operates in (inter)(re)action (Fauconnier, 2006; Moreno-Fernández, 2016). It is to say, CL studies how the received linguistic structures (the input) are processed and rearticulated (the output). CL considers that the "context" is an unavoidable element in such analysis. The binary language-context focus paved the way for the *Cognitive Sociolinguistics (CS)* approach. Willem Hollmann (2013) defines *CS* as the "study of linguistic variations from the combined perspective of social and cognitive constraints" (Hollmann, 2013: 2). *CS* does not limit the analysis to the input and output as *CL* does. *CS* enriches its findings by considering cultural diversities as an essential trigger for language variation. *CS* studies how processing the language, *the input*, and the (re)articulation of these linguistic structures, *the output*, shapes social values and promotes (or demote) social equality and diversity, *the outcome*. However, the approach is in its initial stages. Scholars are still working to put this approach together (Kristiansen, 2008; Geeraerts et al., 2010; Pütz et al., 2014; Moreno-Fernández, 2016; Guerrero González and Haska, 2017, Condamines, 2018; Zandi et al, 2020).

2.1. Towards a Comprehensive Imagination theory

Noam Chomsky's theories on mind, body, and thoughts opened a new path for linguists. In the second half of the 20th century, linguists shifted their focus from grammatical to cognitive structures. However, not all scholars agreed on Chomsky's separation between the mind and the body or Chomsky's denial of culture's important role in human language acquisition and production. The second generation of CL elaborated the term "Embodiment" that goes beyond the body's physical sense to involve every experience, meaning, thought, and language we go through in our life. "Embodiment" determines what we

think about and how we think; how we involve our multi-experiences (physical, emotional, psychological experiences) in the process of thinking and interaction (Lakoff and Johnson, 1999, Winkielman et al., 2015; Turner, 2018, Hart, 2019). Lakoff and Johnson (1999), the first to coin the term, argue that “Embodiment” is not limited to personal experiences. It extends to refer to social and cultural experiences stored in our cognition. The speaker’s embodied experience influences, or even controls, their language production in social interaction. Accordingly, the linguistic output is based on personal assumptions and self-interpretation of the situation based on previously received discourse or social experiences”.

Mark Johnson, in his book *The Body in the Mind: the Bodily Basis of Meaning, Imagination, and Reason*(1987), uses the term “embodiment” to refer to the mental structures of imagination we create to understand abstract concepts (such as time, love, and success). He argues that these mental structures are not arbitrary. On the contrary, they are based on emotional, historical, social, and linguistic experiences stored in our mind and body, the process of embodiment. Johnson explores the crucial role of human imagination in the “meaning-making” process. As our reasoning is part of our cultural and linguistic experiences, the imagination structures are these shared embodied (spatial, temporal, cultural) understandings that make our communication mutually understood. This process is called meaning-making. It is to say, we do not understand things individually. We instead understand things collectively as members of a (linguistic) community. Accordingly, Jonson asserts that the study of the meaning-making process requires a comprehensive theory on imagination which needs to cover the following cognitive processes (1987: ch1):

- Categorization: the process in which we break up our experiences into simpler patterns to order them and quickly come back to them when needed. It is an unconscious and continuous process in which new categories are created constantly (e.g., what is appropriate, not appropriate to do in a five-star restaurant; how to order in a fast-food restaurant and how to order in a daily menu restaurant; etc.)
- Image Schemata: (or mental frames) it is the storage, the mental structures, where the categories are stored. Unsimilar to the categories, they are hardly modified or created (e.g., the Restaurant Frame that includes all the categories of restaurants).
- Metaphorical projection: the tool by which we conceptually put in order and elaborate our mental frames. (e.g., social standards usually consider a five-star restaurant is UP and fast-food restaurant is DOWN on the scale of class stratification).
- Metonymy: another tool to project and develop meanings (e.g., the use of “McDonald’s” to refer to an entire categorization of restaurant-prototype).
- Narrative structure: the complex unity between the linguistic and the cognitive levels (e.g., how we frame all the previously mentioned mental processes into words in our daily interaction).

Imagination works on all these levels to give meaning to our experiences and control our reasoning about them. Each level is a wide field of research and an essential pillar in CCDA (we will go through some of them below). It is important to note that new approaches to the “Imagination Theory” appeared at the beginning of the XIX century.

2.2. A Semiotic Approach into Meaning-making Process:

Ferdinand De Saussure, the founder of the *Linguistics* approach, argued that social signs consist of a signifier and a signified. As he was a linguist, he considered the written words or their pronounced sounds as signs. The signifier refers to the word's letters, as C A T in the word *cat*, or it can be the sound of the word *cat* /kæt/. The signified is the concept, the four-legged animal with fur. He explains that these signs allow us to communicate and convey meaning in our daily interaction easily; it is to say, there is no need to look for a cat and show it up to convey the meaning of the animal. De Saussure's argument focused on language, arguing that there is no inherited relationship between the signifier and the signified. There is no inherited meaning between the "cat" word or sound and the animal.

In an attempt to incorporate De Saussure's theory into social studies, Charles Peirce (1960) suggested more than one way to find out the relationship between the signifier and the signified. He argues that signs can be an icon, an index, or a symbol. An icon is anything with a physical resemblance to the evoked idea (a photograph of a cat evokes the concept of a cat); an index is linked to the evoked concept by a direct relation as smoke comes from fire. A symbol has no relation between the signifier and the signified. The relationship comes from our decision as a society that the link should be that way. Language is a perfect example of symbols. Traffic lights are another example of a symbol. There is no inherited meaning between the red light and the fact that cars have to stop and the green light and the fact that cars can shove off. It is established by society and globally adopted.

Depending on Peirce's argument, various scholars draw a difference between the use of the term *sign* and the term *symbol* (Hausman 1989, Kaldis 2013, and Forte 2014). Kaldis (2013) assumes that signs have an inherited meaning which is an inseparable part of it. While symbols stand for another meaning that they do not usually refer to.

In the meaning-making process, all the linguistic approaches (pragmatics, semiotics, and cognitive linguistics) agree on the importance of mutual knowledge for any successful socio-linguistic interaction. Johnson's Imagination Theory asserts the importance of the shared mutual knowledge of social signs on all cognitive levels: (Categorization, Image schemata, Metaphor and Metonymy structures, narrative structure). But does mutual knowledge necessarily mean comprehension?

Sperber and Wilson (1980) argued that mutual knowledge in communication does not necessarily indicate comprehension. If we receive mutual knowledge on a cultural sign or symbol, then we process this mutual knowledge from our own cultural frame of reference, we will miss the point. For example, the zebra way is a symbol that indicates the place through which pedestrians can cross the road. In the Spanish context, the zebra way gives the right to pedestrians to cross the road; cars must stop to let them cross. Spanish pedestrians would not pay a lot of attention to all the directions because they know that the driver will pay attention to them if a car is coming through.

On the contrary, in the United Kingdom, zebra way gives the driver the priority to drive through the road; British Pedestrians need to make sure that no car is around. Or they calculate how fast the vehicles are to

know if they can reach the other side of the footway safe and sound. Drivers do not have an obligation to pay a lot of attention to whether someone on the footway desire to cross the road or not. Both British drivers and Spanish drivers share mutual knowledge on the zebra way symbolism. But what would be the result if a British driver drove through Spanish roads without prior knowledge on how Spanish process the zebra way symbolism? The disastrous results are due to processing the mutual knowledge from the British cultural frame of reference instead of reaching the Spanish frame of reference on the same symbol. In (inter)cultural communication, it is essential to activate our conscious thoughts to distinguish between the minority-related values on their cultural sign or symbol and our understanding of their signs from our own values.

Mutual knowledge and how we, as communities, process this knowledge are part of the focuses of CCDA methodology, as we will see below. The analysis need not be limited to the cognitive levels of "Imagination Theory." The analysis needs to include the social, political, religious, or any peculiar factors involved in the process which might lead to cognitive variation in the meaning-making process.

2.3. Conceptual Metaphors Theory CMT in Meaning-making process:

Lakoff and Johnson's (1980) *Metaphors We Live By* ignited the interest in metaphorical studies. The book argued that our conceptual system is metaphorical in nature. It is to say, what we think and what we experience every day are just matters of metaphors. They defined Conceptual Metaphors (CM) as follows: "the essence of metaphor is understanding and experiencing one kind of thing in term of another" (LOVE IS JOURNEY) (1980: 5). Antonio Barcelona's definition of CM (2003) is based on a mapping between two conceptual domains: the source domain (tangible concept, JOURNEY) and the target domain (conceptual and nontangible concept, LOVE). Barcelona uses the term "Conceptual Metaphor" to refer to "the cognitive mechanism whereby one experiential domain is partially "mapped," i.e., projected, onto a different experiential domain, so that the second domain is partially understood in terms of the first one" (2003: 3). A more straightforward definition is introduced by Zoltan Kovecses, who states that metaphors are cross-domain mappings that represent the relationship between two frames with the notion of A (abstract concept, the target) is B (more physical, the source) (2006:116). Kovecses' definition of conceptual metaphors is grounded on mental categorization and metaphorical projections in Johnson's "Imagination Theory" (mentioned above). He asserts that these cognitive structures are "essential for survival" and the "backbone" of language and thoughts (2006: 17).

In more recent studies on CM, Christopher Hart (2017) defines CM as "a cognitive process of frame projection which is reflected in and effected through metaphorical expressions in discourse" (2017:6). Similar to Kovecses, Hart asserts our need for conceptual metaphors to process unfamiliar or abstract concepts mentally. Hart highlights that conceptual metaphors are not merely a personal device; it is a collective device in which mutual knowledge is an essential element that gives meaning to social values, events, and situations. Accordingly, CM is part of the cognitive processes involved in meaning-making in general and in making decisions, actions, and emotional responses in particular (Hart 2011a, 2014;

Kovecses, 2020; Taylor 2021). Hart (2017) explains that CM can highlight certain aspects of any situation as important and marginalize other aspects. In doing so, “they problematize situations in specific ways, promote particular solutions to those ‘problems’ and pave the way for actions which accord with the metaphor” (Hart, 2017: 11). Currently, several scholars in social science approaches are more interested in CM analysis due to its capability to offer up interpretations on social phenomena due to its mechanisms of highlighting similarities and differences and prioritizing situations.

As I mentioned before, having a basic knowledge of CM is essential to fully comprehend CCDA methodology. To do so, I summarize some relevant components, 5 out of 12, listed by Kovecses (2006: ch8). Firstly, as I mentioned before, each metaphor consists of two main domains: the source domain (more physical, represented by the letter B) and the target domain (more abstract, represented by the letter A). The relationship between both is represented as A is B. In other technical words, *target is source* “AFFECTION IS WARMTH” and “LOVE IS JOURNEY.” The target domain can be attached to several sources “LOVE IS WAR,” “LOVE IS JOURNEY,” which is called the range of target.

Secondly, each metaphor acquires an experiential basis, our embodied experience, that remains unconscious most of the time. It helps any language users to understand the metaphors’ meanings easier. For example, we accept substantial metaphors such as “AFFECTION IS WARMTH” without difficulty because the feeling of affection correlates with the bodily experience of warmth. Thirdly, there are comprehensive mappings between the source and the target domains. For example, in the metaphor “LOVE IS JOURNEY,” mappings are as follows: lovers are travelers, love relationship is a vehicle, progress made in a relationship is distance covered, and so on.

Fourthly, there is a connection between the linguistic metaphor (rhetoric) and the conceptual metaphor (cognitive). Conceptual metaphors manifest through linguistic expressions. Finally, conceptual metaphors produce cultural models (or mental frames, defined below) which operate in thoughts. They are “culturally specific mental representations of aspects of the world” (2006: 126). These cultural models stand for mutual knowledge toward any abstract concept, such as LOVE, which is processed identically among the members of that culture. The LOVE range of target I have mentioned above is a good example. The different understandings of the target domain, LOVE, depend on the particular meaning in focus. Each of the sources, WAR, and JOURNEY, imposes an entirely different understanding of the target LOVE because each depends on the cultural, individual, bodily, and emotional experiences of being in love. Even when two cultures mutually understand the LOVE concept through the JOURNEY metaphor, each culture processes and maps this metaphor differently according to the related values system.

Lakoff and Johnson (1980) listed three kinds of conceptual metaphors. Firstly, “orientational metaphors” are metaphorical structures built on organizing concepts concerning spatial orientations such as up-down and front-back. For example, the expression “I feel *up* today” comes from the fact that HAPPY is oriented UP in the “HAPPINESS IS UP” metaphor. Such metaphorical orientations are not randomly

assigned. They are simply grounded on the speaker's physical and cultural experience. As a sequence, these metaphorical structures might vary from one culture to another.

Secondly, "ontological metaphors" refer to understanding experiences in terms of objects and substances. These metaphors allow the speaker to treat parts of their experience as discrete entities or substances of a uniform kind. The structure of ontological metaphors depends on our experience with the physical objects around us, e.g., MIND IS AN ENTITY is elaborated to be THE MIND IS A MACHINE, e.g., he *broke down*. The range of such metaphors is immense. Besides, they could vary within the cultural context. Some of the most used ontological metaphors are the following: containers metaphors (IN/OUT), entity metaphors (MIND IS A BRITTLE OBJECT, e.g., he *cracked up*), and personification (INFLATION IS A PERSON, e.g., inflation *has attacked* the foundation of our economy, the dollar *has been destroyed* by inflammation, inflammation *has given birth* to a money-minded generation).

Thirdly, "structural metaphors" provide the most abundant source of metaphorical elaboration. They allow the speaker to use one highly designated concept to structure another sub-concept. Such kinds of metaphors are more flexible than the previous ones. For example, structural metaphors provide us with more understandings of what communication, argument, and war are. Additionally, they are grounded on the systematic correlations with the speaker's experiences, e.g., IDEAS ARE BUILDING, ARGUMENT IS WAR, and LIFE IS JOURNEY.

These three metaphors do not necessarily contain universal metaphors, even if they depend on the same primary experiences. Even primary experiences (similar to mutual knowledge) might lead to a diversity of metaphors because cultural experiences are inevitably involved in categorizing, understanding, and framing these experiences (Kovecses, 2005:4; Bucholtz and Hall, 2016:186).

Metaphor variation occurs within and across cultures. The different embodied experiences of a shared conceptual metaphor (mutual knowledge) create diverse mental framing of the same sign, ritual, or practice. The core meaning focus of conceptual metaphors is significant due to their cultural sensitivity. In other words, the meaning focus of metaphors provides us with the source of differences in processing the same source and target between two social diversities (whether it is a value, a practice, an abstract concept, or a sign), such as the example I made above; two social diversities map the metaphor LOVE IS JOURNEY differently according to each cultural value. The meaning focus also reveals the different framings of the same target across social dimensions in the same society, such as the class dimension, the ethnic dimension, gender dimension, and religious dimension

2.4. Mental Frames and Conceptual Metaphors

In the Imagination Theory, Johnson promotes categorization as the first cognitive process. Categorization is a continuous unconscious process of analyzing situations around us and finding out a proper reaction. Everything we look at or think about is an "input" organized in an already established category. When our mind does not find a perfect match, a new category is created (Johnson, 1987). These mental categories are stored in the "Image schemata" (see Johnson's "Imagination Theory" above). Scholars have given

image schemata different names: scenario, scene, cultural models, cognitive models or, image schemas. All these terms stand for coherent, categorized structures of human experiences (Lakoff and Johnson, 1980; Johnson, 1987; Lakoff, 1987; Kovecses, 2006, 2005; Zeim, 2014, Dancygier, 2017). In my research, I use Kovecses' term "mental frames" because I agree with him that the term "mental frames" provides the "structured" mental representation that other definitions might miss (Kovecses 2000, 2003, 2005, 2006).

Based on the cognitive studies included in this paper, mental frames can be defined as the cognitive structures where we store the categorizations of our experiences of all types (bodily, emotional, social, religious, cultural, etc.). Mental frames provide us with models of reasoning based on what is considered "normal" or "acceptable" criteria to produce (re)action. They are stored in the scaffolds of our minds, not fixed nor stable, yet they hardly change. Lakoff and Johnson argue that we cannot make a radical and massive change in our mental system through the conscious act of recategorization even though we are regularly exposed to new mental frames. Our mental frames are deep and rooted in our cognition, so it takes too much time, effort, and consciousness to change them. Kay Brugge (2011) draws the attention that humans cannot think beyond these mental frames' scaffolds. It means our mind cannot go beyond these mental frames and think in an abstract uncategorized manner. Besides, human cognition is unable to think through a mental frame that it has never experienced, heard, or read about.

Brugge (2011) extends that conceptual metaphors provide the mental scaffold (frames) on which our thoughts can rest because they explain our lives' abstract aspects. He notes that our thoughts can only go as high as the scaffold permits. We live within the lines that mark our mental frames' borders, which become our life stage. These lines, or boxes, can be self-imposed (e.g., inner forces of underestimating or well-estimating of the self) or imposed by others (e.g., the social norms imposed on individuals). Elena Semino (2008) and Cristopher Hart (2019) agree that conceptual metaphors are not merely reflections of the mental frames we have in our cognitions. They are powerful tools that can modify and create new mental frames or expand the already existing ones. When new metaphors emerge from understanding new social situations, new mental frames might gradually emerge too.

Hart (2019) asserts that conceptual metaphors are a robust framing tool due to their ability to interpret how social situations, events, and values are understood, reasoned about, and responded at emotionally and physically. As he argues that mental frames are open-ended conceptual structures of different levels of generality and specificity, he explains that one frame can be seen as a "more specific instantiation of another frame" depending on the relationship between the metaphors in between (2019: 6). Semino (2008) states that using a particular metaphor rather than another is not a random decision. It is tied to what this metaphor highlights as foreground and background, the provided interferences, what kind of emotions and triggers are associated with this metaphor, etc. In this process, the discourse producers pragmatize situations in specific ways, promote particular solutions to those "problems," and pave the way for action that accords with the metaphor. Jonathan Charteris-Black (2011:32) asserted that in political discourse, metaphors are used to frame how we view or understand political issues by eliminating alternative points of view. As conceptual metaphors are expressed linguistically, mental

frames are not separable from the language we receive and produce. The received language contributes to building our mental frames, and we reveal our mental frames through the language we speak.

CL and cognitive psychology argue that the words we use to talk about any social experience or sign evoke already-established mental frames that attribute meaning to that experience or sign (Kovecses 2006; Tompkins, 2011; Boroditsky, 2011, 2018). The discourse circulated in the community is the tool that gives meaning to our social experiences and constructs our mental frames on social life. When I say “discourse,” I do not refer to everyday language, which CMT and MF used to analyze in Kovecses and George and Lakoff’s studies (cited above). I refer to all discourses we are exposed to daily (everyday language, public discourse, political discourse, etc.). In the last decade, multiple studies emerged to incorporate the analysis of conceptual metaphors in discourse analysis. Taylor (2021) argues that applying CM analysis in discourse analysis provides researchers with insights into the receptor’s perspectives. However, all these studies incorporated the analysis of MF as the output of CM analysis. In this paper, I argue that applying Cognitive Linguistics analysis consists of two separated but correlated approaches: CM and MF. I argue that the analysis of MF includes CM but is not limited to it. This separation is what makes CCDA more inclusive than the multiple attempts to include Cognitive Linguistics in CDA

3. Critical Discourse Analysis Cda

What distinguishes CDA from any other linguistic analysis focuses on social inequalities, hegemonic discourse, and ideologies. Teun Van Dijk (2001) asserts that CDA needs to be a tool to challenge the power relations of dominance in societies. Norman Fairclough (2013) considers CDA a transdisciplinary “multifarious” approach because it depends on different theoretical backgrounds, data, and methodologies. Fairclough asserts that the dialogue between these different theories and frameworks is essential for each’s development. He also notes that trans-disciplinary CDA should have a trans-disciplinary “methodology” rather than a pre-established “method,” which is not adequate for such trans-disciplinary CDA. He suggests that a cognitive approach to CDA can explain social life areas, including social wrongs and ways to righten them. It analyzes how the “wrongs” might be “rights” and how social and political values categorize all social phenomena into these two categories. It also investigates how possible changes might occur.

Christopher Hart, whose work intensively focus on joining CL and CDA into (CL-CDS), indicates that CL is not a “single discipline but a paradigm of cognitive science and linguistics which compromise a number of research programs related by a common set of assumptions” about grammar and semantics (Hart, 2011b: 270). He explains that CL offers CDA comprehensive links between discursive and social practices. At the same time, CDA allows CL to extend its analysis beyond linguistic and conceptual structures to include societal and contextual structures. He indicates that incorporating the CL approach to CDA can analyze ideology patterns in text (linguistic structure) and conceptualizations (cognitive structures). Hart’s association between CL and CDA is based on the incorporation of CMT in CDA studies, assuming that the analysis of MF is part of CMT. His interest in CMT is based on Lakoff and Johnson’s

statement: “metaphors create realities for us, especially social realities” (1980: 156). Although I totally agree with Hart on the impeccable outcome of joining CMT with CDA, I do not agree with limiting the CL dimension in CDA to CM analysis. I argue that MF analysis can be carried out on linguistic structures that may not contain any metaphor.

3.1. CDA and (hegemonic) Ideologies

Ideology is the system of ideas (social, political, or religious) produced by the dominant group, reflecting its interests. They define what is good and what is bad; it draws the borders on what is accepted and where to mark the redline. From a cognitive perspective, Hart (2015) highlights that ideologies are belief-system structures stored in our mental frames. He argues that ideologies that support social action are based on a shared system of mental representation (mutual knowledge) and are identically processed by group members. Such ideologies affect our language use as much as the conceptual metaphors individuals use to convey the related values of their ideology.

Van Dijk (1998) asserts that every ideology involves the “us/them” polarization, which entails positive beliefs about us and negative beliefs about them. Any ideological-group member follows fixed patterns of basic categories in constructing the ideological mental frame, such as:

1. Membership criteria: Who does (not) belong?
2. Typical activities: what do we do?
3. Overall aims: What do we want? Why do we do it?
4. Norms and values: What is good or bad for us?
5. Position: What are the relationships with others?
6. Resources: Who has access to our group resources?

These questions are pretty important because they summarize the collective beliefs and, hence, group members’ identification criteria. I will discuss these questions below as a significant step in CCDA.

From another perspective, David Francis and Stephan Hester (2004) argue that discourse (semiotic) hegemony is practiced by the mainstream or those in power. They indicate that hegemonic powers control and shape the public sphere. They decide what people listen to, speak about, and how they are supposed to react (against or for). The discourse hegemony controls the meanings attached to social experiences, values, and signs, especially those related to minorities; it is called a dominant discourse. Cultural authority legitimates such hegemony. Public figures (such as journalists, politicians, activists, and historians) consider themselves part of an authoritative community that enjoys the privilege of molding the events into preferred forms. The social authority assigned to them makes their re-articulation of the reality (the re-told story) a reliable version. However, their re-articulation of reality is generally a construction of similar but not identical reality in which secrets are concealed, details are skipped, and critical information is ignored. The receivers (the public) of the hegemonic and authoritative discourse do not show tendencies to challenge the re-told story as long as it, somehow, coincides with their already

established collective mental frames. Accordingly, those who control the discourse can control, or gradually change, the public mind (Toolan, 1991; Van Dijk, 1998; Lakoff, 2014; Salahshour, 2016).

3.2. Discourse(s) on social experiences and Signs

Previously, I explained the difference established between the terms “sign” and “symbols” in semiotics. I followed Kaldis’s suggestion that signs have an inherited meaning while symbols are used to convey a meaning other than what they usually refer to. In Sociolinguistics, language is considered the system of representations through which all social phenomena are realized (Stockwell, 2002; Holmes, 2013; Ruben, 2013). Accordingly, sociolinguists hypothesize that language can shape the meanings of social experiences and signs as much as the meanings of social experiences and signs control the linguistic choices in our discourse (Kramersch, 2004; Holmes, 2013; Gal & Irvine, 2019).

The question is: Is our discourse on social experiences and signs neutral? It is not. All CDA studies mentioned in this paper argue that the discourses, in general, are not neutral; discourse production depends on the speaker’s framing of the social phenomenon in accord with what is shared by society members. Hart (2017:271) highlights that the same social phenomenon is potentially conceptualized in many different ways, but the language structures used to talk about it impose on its particular framings. He argued that each’s discourse reflects the text producer’s perception of reality. And this perception is inevitably based on a sense of ideology.

Scholars also agree that members’ perceptions and re-articulations of social signs and symbol, in particular, is controlled by the public discourse on these signs and symbols. It is to say; when the social sign (or experience) belongs to our community, its meaning flows from its shared social value into the linguistic representation. But when the social sign (or experience) belongs to other communities that we do not feel identified with, e.g., minorities, the meaning is imposed on the signs and symbols by the dominant discourse’s linguistic choices. As a result, social signs and experiences that belong to less-powerful communities are framed as those in power understand them far from their essential system of values in that community.

To be aware of such twisted representation of less-powerful social diversities and their related values towards their signs/symbols/experiences is not relatively easy. It requires an active “conscious thought” that stimulates critical thinking of what we listen to and read about. An active conscious thought has to identify if the discourse (the used vocabularies and metaphors) frames the sign (or symbols or experiences) according to the dominant discourse’ understanding of that sign (or symbols or experiences), i.e., depending on their dominant system of value, or if the discourse frames it according to the system of value that this sign (or symbols or experiences) holds for that community.

Conscious thought involves the awareness of separate episodes that occur in different times and places at the moment of dealing with public discourse on social signs (or symbols or experiences): 1) the past (conscious remembering of the historical background), 2) the future (conscious planning of the consequences), 3) counterfactual (conscious reasoning: why it is framed that way), 4) imagined situation

(conscious design: the outcome of such discourse) and 5) desired situations (daydreaming: the mental comfort zone that we prefer not to challenge). The lack of conscious thought by the receptors (society members) ends up with manipulated and controlled mental frames by the dominant discourse in that society.

How can we activate conscious thought? It is through challenging the dominant (restricted) discourse (Van Dijk, 2001; Kulyk, 2006; Lakoff, 2014). When receptors have no choice but to listen to and read a dominant discourse without having resources to evaluate it, receptors lack the opportunity as much as the freedom to think about that social sign (or symbol or experience) from different perspectives. By creating an alternative public discourse that challenges the restricted (stereotypical) dominant framings, receptors obtain a variety of framings on the same sign (or symbol or experience), by which they expand their horizon on the diverse framing of the same social value. They will have the mental freedom to think critically through these varieties of mental frames and opt to stick to one of them.

4. Towards A Cognitive Critical Discourse Analysis Ccda

4.1. Recapitulation

So far in this paper, we have knocked on the door of different approaches: Semiotics, CL (CMT and MF), and CDA. I use the term “knocked the door” because I am aware that we have not even opened it. Each statement in previous paragraphs stands for a broad area for research. But as this paper aims to introduce a cognitive-sociolinguistic analysis methodology, CCDA, to non-linguist researchers, I consider this basic knowledge at each discipline’s doorstep is a clear and comprehensive ground to net together CCDA methodology.

In this section, I put the pieces together to develop the comprehensive and inclusive CCDA methodology. As I notified before, there were multiple research on the importance of joining CL into CDA, CL-CDS, (Van Dijk, 1993; Chilton, 1996; Stockwell, 1999; Koller, 2004; Musolff, 2004, 2006; Dirven et al., 2003, 2007; Semino, 2008; Hart, 2010, 2011a, 2011b, 2014, 2015, 2018; Charteris-Black, 2011, 2004, 2019; Taylor 2021, 2020; Taylor and Kidgell 2021; SalahShour, 2016). But these attempts limited their analysis-focus to conceptual metaphors. They considered the linguistic metaphorical structures the main tool to find out the mental frames in the scaffold of the speakers’ minds.

In addition to my objective to join all these attempts in a solo comprehensive multi-disciplinary methodology for social science researchers, I argue that the semantic analysis of the non-metaphorical vocabularies chosen to convey meanings is another essential tool in CL analysis. These vocabularies might not reflect any conceptual metaphor, but they are part of broader cognitive structures in which metaphors are only part of it (Stubbs, 2001; Kovecses 2006; Tompkins, 2011; Boroditsky, 2011, 2018). It is to say; public discourse might use selective semantic strategies to empower some (dominant) framings over others (less powerful, of minorities) without using any conceptual metaphors. CDA analyzes the semantic dimension of the used vocabularies without going through their cognitive dimension. And the

CL ignores the importance of the cognitive analysis of these vocabularies; it limits its analysis in CDA to conceptual metaphors. If, as Charteris-Black (2011), Hart (2014), and Salahshour (2016) argue, incorporating CMT will enrich CDA with the cognitive structures that control the public discourse, would you think how deep our findings will be if we incorporate the cognitive-semantic analysis as a significant additional tool in revealing the mental frames in that discourse?

4.2. Sewing threads together:

Hart (2014:47), in his efforts to join between CMT and CDA, was skeptical of the problematic relation between both of them. His doubts were based on their different focuses. Until the first decade of this century, CMT was limited only to daily apolitical discourse, while CDA focused on political and social public discourse. Another problematic relation between CMT and CDA is the “unconsciousness” dimension. Kovecses, Lakoff, and Johnson agree that the experimental linkage between the two domains of primary metaphors (the abstract and the physical) is part of the cognitive unconsciousness. While in CDA, Charteris-Black (2004:247) states that metaphors are chosen to achieve a specific communication purpose (to control how we frame certain political issues by eliminating alternative frames) in a particular context; they are not merely predetermined bodily experience.

Both perspectives are valid, but it does not mean that there is an incompatibility between them. If we think of knowledge and discourse as construal, we might overcome these problematic contradictions on the consciousness dimension (Hart, 2014). It is to say, in any social group, knowledge, and beliefs are firstly presumed, mainly by dominant groups, for a particular purpose or need. Then, an appropriate and convincing discourse is imposed on this presumed knowledge and beliefs; the dominant discourse is imposed on the rest of the community. After that, the community builds their experiences and mental frames towards these beliefs depending on the received discourse. Finally, the constructed and activated mental frames become part of the community’s embodied experience towards this knowledge and beliefs. Accordingly, even if conceptual metaphors in public discourse, as Charteris-Black indicates, are chosen, they eventually construct the public’s unconscious memory towards the topic.

In other words, the hegemonic-dominant discourse producers control and selectively choose conceptual metaphors in the public discourse. Yet, when the public receives the discourse, these conceptual metaphors are transformed into the receivers’ unconscious collective memory. Passive receivers of that discourse, who do not enjoy conscious thoughts and do not critically think about its liability or credibility, will reproduce these metaphorical structures sonorously and unconsciously. Having solved these doubts on the joint between CMT and CDA, multiple CDA studies applied CMT by the mid of the second decade; these studies are of different focuses such as migration (Salahshour, 2016; Taylor, 2020, 2021), Brexit Campaign (Charteris-Black, 2019), Miner’s Strike (Hart, 2019), The pandemic (Taylor and Kidgell, 2021). Again, all these studies included MF as part of the CMT analysis.

Based on multiple works on CL-CDS Charteris-Black (2004), Stubbs (2011), Hart (2011, 2014), Salahshour (2016), and Taylor (2021), I would like to reaffirm my use of the term CCDA in no way meant to claim a newly invented methodology. The term stands for a methodology that combines conceptual metaphors

and mental frames (through semantic analysis of vocabulary) in discourse as separate but correlated tools. Although I use the term “new methodology” throughout the article, I recognize all the attempts before joining CL into CDA. I use the term “new methodology” in addition to the term CCDA to distinguish between the previous scattered attempts, to join CL into CDA, which were limited to CMT, and this step-by-step elaborated methodology for non-linguist researchers. The term CCDA stands for a comprehensive multi-disciplinary framework that includes the needed tool to analyze social research data in a solo methodology. In addition, CCDA is selected based on my argument that CL includes both CMT and MF as separated but correlated fields of analysis

CCDA bridges the gap between the discourse analysis (CDA) and the cognitive processes behind that discourse (CL, MF, CMT). What differentiates CCDA from CDA is that CCDA extends to observing the analyzed discourse’s cognitive processes through the analysis of conceptual metaphors and mental frames. As CDA studies what is said and why it is said that way, CCDA studies how what is said in the way it is said shapes the public mental frames towards that topic; what are the activated, re-activated, and de-activated mental frames of what is said in the way it is said (the conscious use of conceptual metaphors and mental framing); how the receptors rearticulate what is said in the way it is said (the collective unconscious memory).

4.3. How to Apply CCDA?

First of all, I want to affirm that there should be no fixed pattern in applying CCDA. This methodology is flexible and can adapt to the research focus and discipline. In general, CCDA has carried out on three dimensions: 1) the linguistic-semantic dimension, 2) the cognitive dimension, and 3) the “social” dimension. I put the term “social” into bracket because it can be any other discipline in Humanities such as political, religious, gender, and feminist studies or psychological focus

Depending on the collected data, the semantic dimension is analyzed. If data are individual interviews, the semantic analysis is limited to the used vocabularies to convey the meaning of the study-focus concept. For example, let us think of a study on the increased visibility of X minority in the suburb of London. The researcher interviews the old/original inhabitant of this neighborhood. The analysis of the interviews focuses on the vocabularies used to convey related meanings such as a public sphere, cultural diversity, differences, us/them polarization, concerns, neighborhood identity, gender, etc. After that, the detected vocabularies are classified into two main categories of CL: 1) Metaphorical linguistic structures (e.g., invading, thread, defend, protect, in/out, sharing), 2) Non-metaphorical linguistic structures which do not use conceptual metaphors but they are used repetitively in the debate on the X minority visibility (ignorant, religious, homeless, their children break the internal school rules, etc.). When the researcher has their two lists defined, another sub-list is established in each category to analyze the findings according to their semantic fields (e.g., list (1) in metaphorical structures categories contains all the linguistic structures that convey the CULTURE INTEGRATION metaphor. List (1) in Semantic analysis contains all the vocabularies that (re) (de) activate the IGNORANCE mental frame of X minority, etc.).

The cognitive dimension starts when we have the categories and sub-lists classified. The researcher analyzes the cognitive structures that each list of vocabularies reveals on the concept in question. In the example mentioned above, vocabularies in category No. 1, “invade, thread, and defend,” stands for CULTURAL INTEGRATION IS WAR metaphor. In category No. 2, stigmatizing this minority as “ignorant” has no metaphorical reference. Still, they reveal the mainstream’s framing of this X minority members, for some reason, through the IGNORANCE frame and their children through an INDISCIPLINE mental frame. As our example belongs to the social research area, the role of the researcher is to find out the triggers of these conceptual metaphors and mental frames of this X minority. Are they considered as “thread” because of (historical or current) political conflict? Does (post)(neo) colonialism has anything to do with these cognitive structures shared by this community? Why is the X minority framed as ignorant? Is the trigger of this framing their religious affiliates? Is it their vestment choices? Are these framings applying to men and women in the X minority, or does some variation exist? What are the rules broken at school? Are these rules compatible with cultural diversity?

In such interviews, the researcher studies the unconscious conceptual metaphors and mental frames in the public mind. The outcome has to answer why those inhabitants use these vocabularies/metaphors and where do these framings come from? But when we study the same social phenomenon in press discourse, media discourse, or political discourse, the focus is not limited to the origin of these vocabularies/metaphors and framings; the focus extends to observe how the authoritative discourse frames this X minority in the public mind. What are the ignored attributions of this minority? What are the attributes attached to this minority? Is the sign’s interpretation relative to the X minority values system, or is it grounded on the authoritative perspectives? What is the (political) (national) (social) agenda behind such discourse? The outcome is a comprehensive analysis that allows us to observe closely and comprehensively the process by which the dominant discourse frames the public mind towards social phenomena.

AS the analysis of the public discourse differs from the analysis of interviews as I mentioned already, In the following, I will suggest some additional CCDA steps to follow in the analysis of national press discourse on X minority:

1. Detecting the discursive strategies used in presenting the participants in the debate. Are they presented as authoritative spokesmen/speakers on behalf of their minority? Are they given the legitimate and the credibility to opine in the debate? Compare your results on how the counterparts are presented and given credibility to opine in the debate.
2. Observe the visibility and the contribution quantity of the X minority members in the debate. Are they fairly presented and introduced to the public? Did they have enough time to express their perspectives? Compare it to the counterparts’.
3. Identifying the vocabularies used to refer to the members of X minority and reveal the (re) (de) activated mental frames (which I will explain below). The study’s focus might be the X’s signs, social status, or any other social aspect.

4. Uncover the conceptual metaphors used in the debate on the visibility, signs, diversity, or social status of X minority. Study the main meaning focus of these metaphors because it represents the shared knowledge on the X minority (output).
5. Find out the non-metaphorical linguistic structures and vocabularies that are used in the discourse. Classify them in sub-lists to fully understand the mental frame imposed by these vocabularies and structures (output).
6. Analyze these findings within the social, political, and historical context. It allows us to understand the historical-contemporary framework of the analyzed discourse. Without having this twofold knowledge about the studied target, we will not be able to understand, study and analyze our findings comprehensively.
7. CCDA reveals the interconnection between social exclusion/inclusion and public discourse (outcome). Interpret and reflect on the outcome, suggest solutions to improve the public discourse.

I referred above that public discourse, through metaphorical and non-metaphorical structures, uses three strategies in framing the public mind: 1) re-activating, 2) de-activating, and activating mental frames. “Re-activating” refers to the act of recycling a historical discourse on the X minority. Recycling a historical discourse on X minority means re-activating the past and historical mental frames in this minority in the contemporary discourse overthought that these frames are not applicable anymore due to social evolution (e.g., the public discourse uses vocabularies of migration on an X minority after two centuries of the X minority’s accommodation). Re-activating mental frames is typically founded in stereotypical discourse. “De-activating” mental frames occur when an alternative discourse challenges the dominant discourse. It occurs when the X minority produces an alternative discourse with alternative framings on the same topic (X’s sign, identity, or social status) to challenge the dominant one. It de-activates the stereotypical framing and, sometimes, activates alternative ones. However, such challenging discourse is usually restricted by the dominant hegemonic groups that prevent access to public discourse. Generally, such discourse and its attempts to de-activate the stereotypical framings are limited to X’s blogs, websites, or intercultural non-governmental organizations (NGOs). I use the “activating” mental frames term to refer to the newly created mental frames about the X minority by the dominant discourse (stigmatizing or not discourse) or by the X minority (to correct the stigmatization or to create totally new frames that reflect their current self-image). In CCDA, the analysis of the (de) (re) activated mental frames is carried out through the analysis of metaphorical and non-metaphorical linguistic structures, which reveals a comprehensive view of the cognitive structures behind the discourse.

4.4. CDA Strategies Applied in CCDA:

Discursive strategies bring the receptors closer or further away from the story’s core idea, make them empathize with the participant, and highlight the discourse as authoritative and trusted. Critical Discourse Analysis provided a wide range of methodologies depending on the study’s aim and the analyzed discourse genre (political discourse, press discourse, social media, literature, etc.). CCDA implies these linguistic analysis methodologies without any problematic contradiction. These methodologies can be the starting point to collect our linguistic data. The extension we add in CCDA is “the cognitive

dimension.” It is to say; we classify the findings (output) into the two previously mentioned categories: 1) the metaphorical structures 2) and the non-metaphorical structures.

For example, identification strategies in CDA depend on the needed ‘scope of reference.’ It is to say, the identification of the participant in the article depends on “categorization strategies” that identify certain social actors as prominent and authoritative while barring others as less important or as a prediction subject for the readers. It is a significant analysis because identifying participants in particular roles indicate framing them into specific statuses or qualities. The discourse, through framing-participants strategies, inboxes entities, actions, events, processes, or relations into attributions, qualities, or structural properties. Thus, readers tend to have all elements clearly ordered at reading the press: the negative others, the reliable sources, the amiable, the enemy, the anonymous insignificant contributions, etc.

CCDA studies how the vocabularies used in representing the debate participants, categorize them into pre-established mental frames (re-activation), categorize them within newly established mental frames (activation), or demolish specific framings of these participants (de-activation). The findings of participants’ categorizations are interpreted within the broader frame of analysis that consists of both linguistic-cognitive dimensions within the social and historical context, which allow us to observe the overall scene. In CDA, it is called the “categorization strategy.” In CCVA, I call it “framing-participant strategy.”

The participants’ quotations in the storytelling are another methodology in CDA that can be effectively incorporated in CCDA. Ruth Wodak and Michael Meyer explained four types of verbs used in representing any quotation which I call “quotation-framing strategy” (2009:59–60):

1. **Neutral structuring verbs** introduce the saying evaluating it explicitly, e.g., say, tell, ask.
2. **Metapropositional verbs** mark the author’s interpretation of the speaker, e.g., “declare, urge, grumble.” These verbs can be assertive to the content, such as “announce” and “declare.” Even the word “complaining” also adds an assertive notion to the speaker.
3. **Descriptive verbs** mark how the participants tell the story. These words control the reader’s emotions, e.g., whisper and laugh, and mark the speaker’s manner and attitude concerning what is being said. They signify the attitudes, power relations, and likelihood of truth.
4. **Transcript verbs** indicate the progress of the discourse, e.g., repeat, or relate the quotation to other parts of the discourse, e.g., pause. In the press, the journalist promotes the participant’s narration as “added” or “continued” to give the impression that they are offering more information while, in fact, the same point is repeated to be asserted. These representational verbs are used in the press discourse to make particular participants appear more authoritative or subservient, legitimate or non-legitimate. They help define the roles of participants or events even though they might not explicitly state it. They can also mark some participants as experts, objectives or subjective, of negative attitudes. Quotation-framing strategies contribute to stigmatizing the participants as friendly or imply moderation and authoritative levels.

After identifying the quotation-framing strategy, the cognitive analysis is done through a mega review on the (re) (de) activated mental frames by such representation (IGNORANCE framing of the participant's Vs. ACADEMIC/EXPERTS framing of contra parts). Like framing-participants strategy, cognitive-linguistic findings (outputs) need to be interpreted within the social, historical, and political context of the dominant and X minority groups. When these two framing strategies are analyzed, it is added to the rest of the founded frames to be studied as part of the systematic discourse that frames the X minority in the dominant group's mind.

Adopting CDA strategies into CCDA means applying all I have been through above in previous sections on the discourse analysis. I refer to 1) the mechanism through which these linguistic expression builds the memory of the public mind towards those social phenomena, 2) the role of the public embodiment experiences (historical and social) in the articulation of the public discourse on a daily level, 3) the self-assumptions and interpretations on the social signs (gender relations, social diversity, etc.) according to the received public discourse, 4) framing signs and symbols involved in the debate and the related values of such framing, 5) conceptual metaphors used to debate the social phenomena and the mental frame these metaphorical structures (de) (re) activate, 6) the non-metaphorical linguistic structures choices and the mental frames these vocabularies (de) (re) activate, 7) identifying the collective beliefs and hence the identification criteria of group members and their ideology (or related values), 8) social authority of the dominant discourse and the re-articulation of social realities, 9) if mutual knowledge on the same social phenomenon exists between the selected group of participants and how they process it etc. All of these steps are included in the three dimensions of CCDA. None of them is left behind.

5. Conclusion

This article puts the pieces together to come up with a comprehensive and inclusive CCDA methodology. This methodology is not new. There have been multiple attempts to bridge CL and CDA. Yet, all these attempts were mainly orientated for linguists with a lot of technical words. These attempts are also limited to CMT, in which MF was studied within the analysis of conceptual Metaphors. CCDA argues that the analysis of the non-metaphorical vocabularies chosen to convey meanings is another essential tool in identifying the mental frames that control language production in the public discourse as much as in articulating this discourse in daily intercultural communication.

This paper joined all previous attempts in a solo comprehensive elaborated multi-disciplinary methodology for social science researchers who has no linguistics background. It introduces a straightforward and simple-to-use methodology in social science research in particular and in Humanities studies in general. CCDA methodology consists of three significant dimensions: 1) the linguistic-semantic dimension, 2) the cognitive dimension, 3) the social and historical dimension. Incorporating these three dimensions in social science research allows us to identify the (re) (de) activated stereotypical frames.

Applying CCDA will able us to identify the cognitive structures behind social inequalities and injustice, deeply analyze them, and create an alternative discourse that challenges them. The outcome will help

academics from several social science disciplines. The outcome is a comprehensive knowledge of the dominant discourse's impact on framing the social mind towards social and political phenomena. CCDA bridges the gap between the linguistic analysis and the cognitive structures that operate in the receptors' minds. It aims to study how the collective memory is built, controlled, changed, or maintained by the public discourse. It also reveals the embodiment of social values in the collective memory, identifies the negotiation of diverse sign systems visibility, and uncovers the cognitive structures behind identity construction and belonging.

CCDA is flexible and adapts to every research focus. It aims to detect the discursive strategies that control the public mind, analyzes how such discourse operates, identifies the cognitive structures behind social inequalities and injustice. I have applied CCDA in my book titled..... that studied (I will add some reference). Reading the book analysis is going to be a revealing step to fully comprehend how to put CCDA in practice as much as to capture the significant contribution (outcome) of this methodology.

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Figures

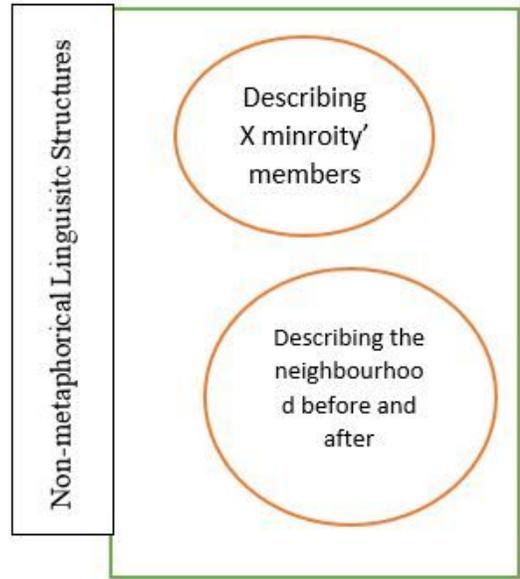
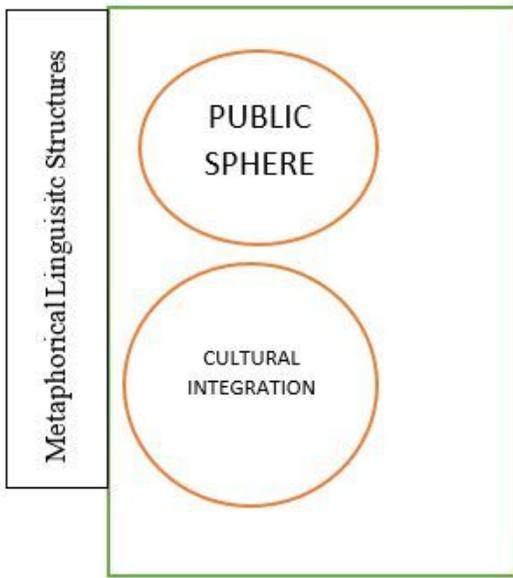


Figure 1

Legend not included with this version