BEAUTIFUL OTHER:

UNFAMILIAR UNDERSTANDINGS OF LANGUAGE, KNOWLEDGE, AND CHILDREN'S LEARNING

by

CRISTINA VALENCIA MAZZANTI

(Under the Direction of Melissa Freeman)

ABSTRACT

This study critically engages with the liminal space between theory and practice to challenge the constitution of language in its intersections with knowledge and knowing. To this end, I start by foregrounding my own experiences with the diversity that characterizes language to portray the significance of studying its ontology and plurality. I then identify philosophical hermeneutics as a practical metatheory that centrally positions language as a medium for understanding. From this perspective, I conceptualize how language manifests as a network of meaning that is constituted through an ontological metaphoricity that echoes an inherent duality in its capacity for presentation and representation of phenomena. I then intertwine text and illustrations to theorize language as a being that becomes and revels in its plurality, illuminating the inherent and necessary aesthetic and multimodal dimensions of any struggle toward meaning; a disruptive and transformative move that holds the potential to invite a diversity of experiences and perspectives currently not at the center of education and research practices. I consider how foregrounding the ontological metaphoricity of language can help researchers and educators aesthetically engage and artfully attend to the inherent complexities of language and its

mediating role in knowledge and knowing. Ideas about language developed throughout the dissertation are then contextually considered to rethink the multidimensional ontology of theory in qualitative research and to generatively study young multilingual children's learning.

INDEX WORDS: Language Diversity, Qualitative Research, Early Childhood Education,
Philosophical Hermeneutics, Aesthetic Engagement

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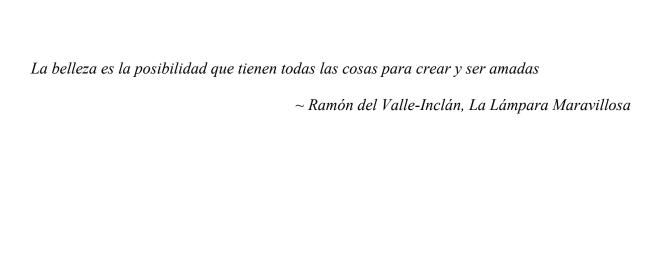
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Aprender es en su forma más profunda una extraordinaria manifestación de libertad.

Para ustedes que me enseñan constantemente lo que es la libertad.















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When the process of writing this dissertation started, I envisioned writing a few succinct and sober sentences for my acknowledgements. I am now filled with an overwhelming sense of thankfulness not only for the support that I received but in realizing the sheer number of people who have so significantly contributed to this work and the experiences that constituted this dissertation. I know these words will only offer a glimpse into the many ways I have been sustained in this process; thus, each thank you in this acknowledgement carries the excess of meaning that was shaped by each moment, space, and silence shared. It is your voices weaved into mine that make this work one of meaning and beauty.

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En todo lo aprendido queda una parte de mi que ahora es suya.

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CHAPTER 1

PREFACE

I intended to start this dissertation *in media res*, no introductions and no explanations. As it often happens, the writing process turned into a necessary negotiation between my intentions and the limits and possibilities language affords readers to find meaning in texts. Thus, I write this preface as a short welcome to the reader into the structure of the dissertation as well as the hopes and silences that lie behind every word in it. It is my intention that the form and content of the text work together throughout the study to challenge the constitution of language itself and illuminate its ontology. In doing so, I hope that this dissertation study will contribute to overturning the ways in which quick assumptions about languages are made and the privileging of certain uses of language over others.

To this end, I have structured the dissertation into five chapters starting with this preface. Chapter 2 unfolds as an experimental text weaving written words and illustrations to put forward a theorization of the ontology of language through its metaphoricity as a medium that revels in plurality and that is always necessarily multimodal and aesthetic. Chapter 3 then offers an example of how the ideas of language developed can be applied to the context of qualitative research to advance a pluralistic and multidimensional conceptualization of theory as a step toward more inclusive research. Chapter 4 provides an example of how the ideas developed can be practically applied to the context of early childhood education to understand children's

learning and language use through pluralistic perspectives. Finally, Chapter 5 offers a short moving forward; a reflection on the ideas considered across the dissertation study.

I would also like to use this preface to add a necessary note on the complexities entangled in naming people, communities, and languages. I fundamentally believe that the words and labels that we use for ourselves and each other deeply matter. It matters to our ability to understand who we are, the communities that we belong to, and the way we relate to one another. I know firsthand that the way we use language to name ourselves can make our experiences visible or invisible to ourselves and to others. Across this dissertation study, I will use an array of words that are steeped in power relations that can be and have been troubled such as monolingualism, multilingualism, multimodality, Spanish, English, Latine, immigrant, and even "other." These words are too many and too complex to each be succinctly re-defined, particularly because it is my hope that their meanings will continue to be renewed. Thus, instead of individual explanations for the complexities I see in each word, I would like to make explicit the ground from which I name myself and others.

I understand languages, ethnicity, culture, nationality, race, gender, sexuality, ability, and all the many other labels and words that we use for our identities and social experiences as heterogeneous. Such words are not and should never be understood as totalizing; their role is to provide constructs shaped by power and experience that can help us make visible who we are and discern the inherent tensions in the structures and history of societies that shape us. I recognize these words may turn unmovable and constrictive in the face of the pain of being othered or the experience of structural oppression. These words can also easily become blurry or completely lose their meaning when we stand in their intersections of our own very unique being. Yet, I also know naming can be cause for unbounded joy when it gives us a sense of

belonging and purpose. Thus, any naming undertaken in this study is a subversive engagement with power, an invitation to belonging, and an opening up of the possibilities of all that we can become within our communities and as people in a journey of meaning.

CHAPTER 2

THE OTHER IN THE SELF:

THE ONTOLOGICAL METAPHORICITY OF LANGUAGE



I remember.



I remember being around three or four sitting in my grandfather's lap naming fork, knife and spoon in as many languages as I could and after that him saying them to me in as many languages as he could.



I remember my grandmother speaking French. She spoke seven languages, and one of her goals was for her grandchildren to speak as many languages as possible. She hoped I would learn French since I was already familiar with Spanish and Italian and she believed that I would end up learning English, which she often described as a necessary language. Her pedagogical approach to accomplish this goal was to give me instructions and scold me exclusively in French. I never learned French but as far as I remember I was always able to understand her, even if I did not know the words and she had to repeat herself from time to time.



I remember how in my earliest years of school when I was yet to learn to read and write, my work and things were identified by a specific image that I got to choose at the beginning of the year. As time passed that image became folders filled with my work, my chair, my pencil case, and many other physical manifestations of my learning. I never thought much about it until I entered a classroom from the perspective of a teacher and saw that each child had his or her name and picture just as I had the image. I understood then how images, names, and pictures can be a symbol and a language. Having one image that belonged to me gave me a right to exist and belong.



I later understood through books and philosophy that we only name what is important to us. In having a name, I was creating my existence in those spaces. In several of his books, Argentinian writer Jorge Luis Borges rekindles the timeworn idea that words are originally symbols and metaphors that we forget are symbols and metaphors. I continue to find that explanation defines my relationship with words. My words are my metaphors, my words are the explanation to my reality, my words are what gives meaning to my actions and allow me to tell my story. My languages may not come from only Spanish, Italian, English, Latin, or even some French and Portuguese, my languages may not be the same as any other person, but they are mine and have a little bit of everyone that has touched my life in them and for that they are the bridge I have to the world.

Multi? Lingual

How would you describe the experiences with language I just portrayed? How about your own experiences with language? Would you use words such as bilingual? multilingual? polyglossic? plurilingual? heteroglossic? multimodal? monolingual? monoglossic? trilingual? polymodal? translingual? polylingual? As the plethora of words listed indicates, the task of

describing, categorizing, and understanding the linguistic practices of people is complex. After all language is socially constructed and positioned, and as such it is constantly re-constructed through an array of individual and shared experiences. The inherent ubiquity of language then ladens it with a complexity that informs our perceptions of it; complexity from the plurality of experiences, complexity from veiled beliefs, complexity from historically informed traditions.

As a social practice language inherently involves power; it enacts other structures, worldviews, and biases inherent to the contexts where we learned about and use language (Rosa, 2019). The power dynamics of language only become more intricate as we acknowledge that as people, we are in a world that is increasingly linguistically diverse (Blommaert & Rampton, 2011) and in its majority multilingual (Stavans & Hoffman, 2015). However, frequently the tensions of describing and understanding language diversity still stand on perceived dichotomies between pervasive monolingual ideologies and marginalized multilingual practices, manifesting underlying conflicts between dominant and minoritized practices as well as the tensions between abstract models of languages and lived experiences.

The prevalence of monolingual ideologies has been framed by theories of language that still consider being monolingual the norm hence constructing multilingual people as imperfect monolinguals and reproducing artificial distinctions among languages. Garcia and Wei (2014) brought together important and heterogeneous contributions from earlier scholars (e.g., Makoni and Penycook, 2007; Mignolo, 2000; Canagarajah, 2013) to point out that the predominance of monolingual ideologies is tied to historical, political, and ideological constructions of nations. Accordingly, too often the words and theories that we currently use to describe the linguistic practices of people embody a perspective that assumes that being monolingual is the norm, that forgets that distinctions among languages are socially constructed, and that infers that people

have the ability to experience different modes of language separately (Jørgensen, 2008). Accordingly, some scholars have problematized widely used words such as bilingual and multilingual as reproducing the idea that someone who speaks two languages does so as an addition of two or more separate languages (see Canagarajah, 2013).

In response to dominant linguistic ideologies and oppressive language practices, Garcia and Wei (2014) argued for centering translanguaging as a way to emphasize that the linguistic practices of any given individual are constituted as an integrated repertoire. In doing so, Garcia and Wei advanced the theorization of language through its practice to center the existing multifaceted realities of language diversity and the lived experiences of multilingual people.

Since then, the translanguaging current (Garcia & Seltzer, 2016) has shifted the work of scholars who study people's linguistic practices to advocate for socially situated approaches and pluralistic perspectives that counteract discriminatory structures. Translanguaging has gained many meanings, coming to signify a way to describe the linguistic practices of people who are socially recognized as multilingual, a set of pedagogical practices and principles, and a potential path for social transformation. As Garcia (2017) later explained, "translanguaging offers possibilities for liberación y transformación social that simple understandings of bilingualism and multilingualism, as just the pluralization of monolingualism, neglect" (p. 258).

Gramling (2016) posed there is a need to theorize and clarify what is actually meant by monolingualism as a concept that is regularly used in studies of language and yet is currently understudied and often misunderstood. Similar to Garcia and Wei (2014), Gramling's argument hinges on the understanding that both the multilingual and monolingual experience necessitate a recognition of languages as distinctive repertoires. Thus, Gramling's point revisits the idea that any divisions are in themselves limited and that what is often recognized as languages (i.e.,

English, Spanish, etc.) are socially constructed categories to which we associate certain linguistic features and practices (Otheguy, Garcia, & Reid, 2015). The distinctions among linguistic repertoires and features through which language manifest are then socially constructed and not actually authentic to the being of language itself.

Scholars and communities have constructed arbitrary boundaries that delineate distinctive experiences of language that rely on contrasts and social contructions that are inseparable from power relations that result in the privileging of certain linguistic features and language practices over others. Consequently, the task of understanding language will always fundamentally intersect with the understanding of other aspects of identity, as both are inseparable from the power structures that shape how we relate to one another in social contexts (Flores & Rosa, 2015; 2019). Any ethical engagement with language then requires an awareness of how it symbiotically inhabits and reproduces the harmful structures of the social world that demand the assimilation or dismissal of diverse linguistic practices of people who are minoritized. The power dynamics embedded in language bleed into its study also creating tensions about abstract and theoretical models of language that have been used to erase the lived experiences and language practices that do not fit idealized or dominant versions (Garcia and Wei, 2014). Accordingly, scholars continue to argue for the importance of approaching the study of language as a practice through standpoints such as centering the lived experiences of speakers (see Garcia & Kleyn, 2016), orienting towards practical theories (see Wei, 2018), and foregrounding functional and embodied approaches (Harman & Burke, 2020).

Lingual?

The different perspectives of language so far outlined signal the underlying power dynamics and tensions that situate language simultaneously as a distinct and heterogeneous

phenomenon. Overall, the abundance of incongruous arguments to position language in certain ways indicates that across disciplines its study is an unsettled process that continuously contends with hegemonic perspectives. Yet, the complexity of language is not simply given by the multiple manifestations or experiences that we have of it, nor to the fact that those are steeped in power relations. On the contrary, plurality is the mark of the ontology of language and thus in trying to conceptualize the different ways language is experienced there is an underlying unresolved question about the being of language itself. Language has the distinctive capacity of both being able to capture and create meanings that constitute phenomena and our experience of the social world (Gadamer, 1960/2013; Davey, 2006, 2013).

The ontology of language and our perception of it also revolve on the ability of language to both present and represent phenomena, reminding us that we inherently draw on it for the purposes of thinking, theorizing, and knowing the world around us. Gadamer (1960/2013) explained that

what comes into language is something different from the spoken word itself. But the word is a word only because of what comes into language in it. Its own physical being exists only in order to disappear into what is said. (p. 491)

The ability of language to function as a medium for communication, representation, and understanding then makes it so that its being disappears into other complexities entangled in the knowledge and knowing it captures. Accordingly, language has a "forgetfulness of itself" in its ability to seize understandings into being; "it expresses one thing while at the same time silences another thing, and it is unstable, constantly open to re-interpretation" (Moules, McCaffrey, Field, & Laing, 2015, p. 130). The ontology of language then is entangled in the movement of life

through its inherent being as a medium, through all that it can represent, through its creative potential, through all that we can become, through all its meanings and silences.

The Ontology of Language and Philosophical Hermeneutics

The questions and perspectives so far outlined point to a fundamental complexity in the being of language itself. I have discussed language in relation to my own experiences, the study of multilingualism, and outlined its role in understanding social realities and phenomena. As much as it is disclosed across contexts that language profoundly matters, it would be hard to infer an encompassing definition that could help us understand what language actually is. The idea of language has been studied from multiple disciplines and traditions; still philosophical orientations afford the opportunity to go beyond instrumentalist perspectives. Through my own experiences, I came to understand anew how philosophy's orientation towards a serious practical reflection on principles affords a rewarding path to attend to the complexity of understanding the being of language.

Over time, I found that philosophical hermeneutics as developed by Gadamer (1960/2013) and Davey (2006; 2013) may provide a fruitful and pluralistic orientation to attend to the complexities of language diversity in its ontology while grounded in its practice. Simply put, philosophical hermeneutics offers a theory of understanding that requires us to intentionally theorize its process. Hermeneutics emerged as a field for the study of traditionary or difficult texts such as religious ones, evolving through the work of Schleiermacher who argued understanding is never given and thus an intentional process of understanding is always required (Grondin, 1994). Heidegger (1927/1996) and Gadamer (1960/2013) developed the discipline into philosophical hermeneutics by advancing comprehensive theories of understanding and its ontology:

they argued that the experience of being in the world is the basis for understanding and interpretation, not a separate event. Humans do not first look at the world and then understand it, but they live out their understandings every day. For this reason, interpretation cannot be reduced to a predetermined method, but it occurs interpretively during the interpretive process itself. (Freeman, 2008, p. 387)

Philosophical hermeneutics then brings an awareness of the "limitations that exist within the dominant, scientifically oriented perspective with its tendency to reduce human experience to the law of averages. Interpretive hermeneutic understanding is born from the recognition that all human experiences are both rich and complex" (McManus Holroyd, 2007, p. 3). Hermeneutics continues to advance as a defined orientation across disciplines and perspectives, contributing not only to the theory itself, but also to other practices such as qualitative research (Moules et al., 2015) as well as other traditions such as poststructuralism (Caputo, 1987; 2000) and feminism (Code, 2003). Most significant to my argument is the way Davey (2006; 2013) has advanced hermeneutics through a focus on aesthetics to position it as a practical theory that renews the constituting intricacies of life and language.

At the core of Gadamer's (1960/2013) and Davey's (2006) contributions to philosophical hermeneutics is the idea that language is a medium of understanding, which I envision positions hermeneutics to contribute to understanding language in two main ways. The first main contribution is the hermeneutic theorization of the ontological metaphoricity of language, which I will explore more extensively in the next section. The second main contribution of philosophical hermeneutics to understanding the being of language and its role for meaning making in social representation is the ability of hermeneutics to function as a practical metatheory. As a metatheory philosophical hermeneutics can offer a substantive approach to

study complex phenomena by bridging across traditions, paradigms, and disciplines thus encouraging dialogue in the study of multifaceted phenomena that manifest across contexts. In doing so, hermeneutics is well positioned to help us understand and transform the being of language and its relation to the representation of knowledge across theoretical perspectives, disciplinary practices, and contextual manifestations while celebrating its plurality and becoming being.

In its practical orientation towards understanding life's original difficulty (Caputo, 1987) and its embodiment in language, hermeneutics provides an approach that then grounds plurality in practice. Drawing on Aristotle, Gadamer (1979; 1960/2013; 2007) positions knowledge in the social sciences as closely intertwined with application and context. Accordingly, what is generated in the pursuit of understanding is a practical philosophy that defies the dichotomizing of theory and practice. In its practical orientation hermeneutics presents a path to theorize interpretation and foreground the practices of researchers that is inherently intertwined and that becomes through heterogeneous manifestations. Hermeneutics offers a form of understanding that involves itself, foregrounding the lived experience as the dimension where the individual as a part of the community is re-constituted. Each experience weaves its own being in practice and language building filigrees of meanings that frame all that we have been and all that we can become.

The Ontological Metaphoricity of Language

In *Truth and Method*, Gadamer (1960/2013) wrote "language is the universal medium in which understanding occurs. Understanding occurs in interpreting" (p. 407). As I return to these words, I find they evoke many of the central ideas that Gadamer developed around language and its ontology. First and foremost, is the idea that language is the medium in which understanding

occurs and thus that the being of language is inherently tied to understanding. Accordingly, the realities that people encounter are interpreted, understood, and made meaningful through languages that belong to people as temporal selves and that belong to communities though shared experiences. Language then is not only the medium for understanding, understanding takes the form of language and is theorized as language itself. As Gadamer further articulated:

Understanding of the subject matter must take the form of language. It is not that the understanding is subsequently put into words; rather, the way understanding occurs—whether in the case of a text or a dialogue with another person who raises an issue with us—is the coming-into-language of the thing itself. (p. 386)

Understanding and language co-construct each other in the experiences of people, the world around them, and the languages that are shared in between. Language is neither created for understanding nor a tool used for understanding. Palmer (1969) explained:

World is more aptly seen as *between* persons. It is the shared understanding between persons, and the medium of this understanding; and what makes it possible is language. Language, as a realm of interaction, is not really a constructed "tool" for understanding. (p. 206)

Language then is centrally positioned as a medium that opens us up to all that is possible through a creative movement that holds potential for transformation.

Freeman and Vagle (2013) also interpreted Gadamer's theorization of language, explaining that meaning in language arises from the concrete experiences we have with it. They posed: "Language itself has meaning that is contained in it and gets shifted whenever it is alongside other language or experiences ... language and world co-construct each other" (p. 732). Gadamer himself (1986) theorized: "Words do not stand on their own account. Whether

they are spoken or written, their meaning is only fully realized within the context of life" (p.132). As such the being of language is the being of life itself. Language transposes and illuminates our in-betweens as becoming beings forgetting the boundaries traced through our struggles in meaning. The ontology of language then becomes in the plurality of its manifestations, shining forth as a being that is beyond the constraints of false dichotomies imposed through the transient articulations of what is language and what is not, what is multilingual and what is not, what is multimodal and what is not.

The ontology of language is constituted through a fundamental metaphoricity that delineates its being as a network of meaning that is enacted in its linguisticality as well as through its dialogic and speculative being. Drawing on Aristotle's philosophy, Gadamer (1960/2013) posed that language has a "fundamental metaphoricity" (p. 488) that foregrounds the relationality that is inherently embedded in the social world which is itself constructed in previous interpretations. As such the metaphoricity of language is essential to its capacity for understanding and interpretation (Davey, 2000). Vedder (2002) explained that Gadamer's theorization of metaphor is based on perspectives that align with broader thinking that points to the fact that at every stage of language there is something working metaphorically. Vedder then articulated that metaphor "installs a new order; in effect it is the discovery of meaning. One might thus wonder whether metaphorizing is not perhaps the basis of all talking and speaking, since the beings grasped in words reflect themselves in metaphor" (p. 198).

The ability of metaphor to carve out meanings as both an act of unveiling and creation gives language a multifaceted relationality that brings forward the movement of understanding that echoes life and our humanity. The metaphoricity of language gives it capacities to create narratives (Fitzpatrick & Farquhar, 2019), provide renewable and complex interpretations

(Zuñiga, 1995), delineate phenomena (Vallega, 2002), undermark similarities (Vedder, 2002), point to the relationality across phenomena (Veit, 1984), destabilize and bring forward contextual meanings (Peters, 1978), stipulate a model of how phenomena are being understood (Lakoff & Johnson, 1999), as well as open us up to all that we have experienced and can experience (Johnson Sheehan, 1999). Through the metaphoricity of language, particular experiences or phenomena are brought forward and woven into our individual and collective traditions and contexts in a way that helps them come into their meaning in the pursuit of an impetus for completion that can never be achieved.

The idea that language works as a network of meaning has been considered by Davey (2006, 2013) in his study of the hermeneutic theorization of language. Davey has used the term "network of association" (2013, p. 147), "networks of meaning" (2013, p. 150) and has expressed that what can be known stands in a "network of relations" (2006, p. 193). Language as a network of meaning then encompasses the idea that language delineates and relates beings, experiences, and phenomena, making them discernable to us and, as such, learnable and understandable. The idea of a network of meaning then manifests in the glimmers of light of an unattainable whole that comes through in the threads of our being in time and space as a shared embroidering of our passing through the universe. Yet, the idea that language is constituted as a network of meaning that manifests through its fundamental metaphoricity is not absolute.

It is important to understand that Gadamer's philosophy does not provide a decisive or unified idea of language; it leaves open many questions about what language actually is and can be. Grondin (1994) posed that the hermeneutic theorization of language is often the most misunderstood aspect of Gadamer's philosophy, particularly in the way some scholars have suggested that Gadamer narrowly defined language as a verbal exchange. This is to say that they

interpret that "Gadamer's main thesis in relation to meaning, understanding, and language, as expressed in *Truth and Method*, is that language, or to use Gadamer's own terms, verbal experience, determines the object as well as the achievement of understanding" (Kertscher, 2002, p. 142). However, the messages in Gadamer's writing about the prevalence of verbal uses of language are contradictory and his theory actually points out that language can happen beyond the verbal word in actualizing meaning (see Vilhauer, 2016).

Gadamer (1960/2013) himself elucidates this tension foregrounding the relation between understanding and language as a verbal one while also highlighting that this is a relation that transcends itself through our being in community and history as expressions of meaning. As he explained:

The essential relation between language and understanding is seen primarily in the fact that the essence of tradition is to exist in the medium of language, so that the preferred object of interpretation is a verbal one.... Linguistic tradition is tradition in the proper sense of the word—i.e., something handed down.... What has come down to us by way of verbal tradition is not left over but given to us. (p. 407)

We should understand that what is valued of language then is its ability for renewed becoming that restores both the contextualized and transcendent interpretations to the openness of what they can be, therefore making the world around us understandable and meaningful. In language, our heritage as part of histories and communities becomes, and in doing so, brings about a transformative movement of what was and what will be.

Gadamer's discussion of the actual interaction of multiple modes of language is often limited and centered around issues of translation; his main claim being that the act of translation is one of interpretation itself (Gadamer 1960/2013; 2007). Although limited, Gadamer's

perspectives on translation undermarks once more the fundamental recognition that words inherently bring their own meanings; words echo through the relationality of the modes of language that we experience. In this sense, the process of translation is the process of coming into language or understanding; Davey (2013) appropriately contends that it is "the process of becoming different to oneself by learning to think about oneself in the language of one's other. Transformation, not translation is the issue" (p. 7).

Philosophical hermeneutics then does not provide an effective theory of what language is; hermeneutics offers a philosophical ground from which to theorize the ontology of language in its practice and the multiplicity of its modes of manifestation. To better understand how and why language is centrally positioned as core to the human impetus for knowing in its constitution through a fundamental metaphoricity that shines forth as a becoming network of meaning it is helpful to consider three central aspects. First, the linguisticality of the being of language as a theorization of a capacity to transpose experiences and connect us to the meanings that have been and will be weaved into language. Second, the speculative being of language as the indeterminacy that signals an ability to point beyond itself and evocatively create meanings. Third and finally, the dialogic being of language as the authentic expression of its practice as the echoes of our communal being that opens up to the movement of understanding.

The Linguisticality of Language

Linguisticality captures the idea that the ability of language to foster understanding occurs because of what is evoked through it in the process of embodying ephemeral meanings in repeated metaphors. Language therefore brings forward a set of connections across contexts and experiences that take their meaning from our individual and collective experiences that are

caught in the metaphoricity of language. Palmer (1969) has interpreted Gadamer's philosophy to write persuasively about the power of linguisticality and how it manifests in language. He wrote:

One does not, in some kind of knowing or reflection, transcend language or the world; rather 'the linguistic experience of the world is an absolute.' This experience of ties and relationships in which beings might show themselves; every object of knowledge is encompassed within the world horizon of language. We may call this the linguisticality of human experience of the world. (p. 206)

Thus, when we reach understandings and learn, we do so through language; the linguisticality of language is what supports us in understanding and supports us in the journeys toward meaning.

When taking into consideration the communicative and mediating quality of language, the way its linguisticality is shaping our understanding, and even what we can understand, becomes even more significant. Linguisticality suggests that meaning in language becomes iteratively. Through the cyclic use and repetition of linguistic features in multifaceted ways and across contexts, webs of relationality are built that allow for the articulation of individual instances to ourselves and to others steeping us in the meanings that are given in the temporality of human experience. Linguisticality then marks the rhythm in which experiences and phenomena become distinct, interpretable, understandable, and come into the potentiality of meaning in language. As Moules et al. (2015) wrote:

To live in a world of meaning in the first place is to live in a world that is understood and interpreted through language. For Gadamer, this does not mean that things do not exist until they are put into words but that 'the speculative mode of being of language has a universal ontological significance'. (p. 36)

The Speculative Being of Language

In the quote above Moules et al. (2015) cite a statement made by Gadamer (1960/2013) in the closing section of *Truth and Method*. Gadamer's original passage reads:

The speculative mode of being of language has a universal ontological significance. To be sure, what comes into language is something different from the spoken word itself. But the word is a word only because of what comes into language in it. Its own physical being exists only in order to disappear into what is said. (p. 491)

Therefore, the linguisticality is actualized and bounded by the speculative becoming of language; language has the capacity to draw experiences and contexts that are evoked within the immediacy of words and beyond it. Words themselves carry horizons and bring forward meanings through which language matters as an opening up to the potential of our becoming and the becoming of language. The speculative being of language sculpts itself in the hope for becoming meanings evoked through the honest intent invited in the effort to communicate and understand. As Vedder (2002) explains: "The matter spoken of "reflects" itself in the words that are spoken. As speculative, language is not a reproduction of an already given meaning, but a coming to language of the matter itself' (p. 196).

Davey (2006; 2013; 2017) has extensively drawn on Gadamer's philosophical hermeneutics to theorize the speculative being of language. He posed that "when language works, when it brings things to mind, it works speculatively and when it does so, it also operates synchronistically" (p. 25). Language then presents in the duality of the movement of a temporal and asynchronous being that embodies what has been, therefore evoking the meaning of what can be. Words have histories, they have been used before and they will be used again, as such they inherently carry meaning. When humans use language, they are ingrained and weaved in the

fabric of life through the potential of their humanities. Languages open the possibility of communicating with others different than ourselves, to delineate our being shining forth in meanings that have already grasped our being in a movement of transformation that we are yet to experience. Thus, when we draw on language there are always contexts and meanings that are being evoked beyond what is immediately presented; that come from the contexts in which the words originated, that arise in the encounter with others different from ourselves, and that are becoming in our transformation through them.

Davey (2013) foregrounds that for language to work speculatively, it depends "upon unspoken reservoirs of culturally embedded meanings. These hermeneutical aquifers do not defy speech but, like tradition and social imaginaries, they antedate and can never be rendered fully explicable in propositional terms" (p. 28). In this sense, the speculative nature of language makes it inherently open and dialogical; the meanings evoked in words will never be fully actualized retaining their impetus and potential for understanding. Moules et al. (2015) explain:

Understanding-in-language presents a horizon of infinite possibility – not as a system of signs that can be endlessly reorganized but as 'an act that is linguistically creative and world-experiencing' (Gadamer, 2007, p.87). Precisely because language as such is endlessly proliferative, any given word, statement, text, or interpretation is finite within the world of meaning. (p. 36)

Hence, because of the speculative mode of being of language and its inherent meaningful interpretative nature, hermeneutic language and linguisticality open the possibility of creating understanding that can potentially continue to expand the horizons of meaning.

The Dialogic Being of Language

For Gadamer the most authentic practice and manifestation of language is dialogue. Language's linguisticality and speculative being are symbiotic manifestations of the dialogic ontology of language. Linguisticality points to the fact that language brings meaning and the speculative being of language points to its ability to openly evoke meanings. The dialogic being of language then also points to its contextual constitution in the co-construction of meaning. Grondin (1994) explained that Gadamer's hermeneutics of dialogue needs to be understood in opposition to propositional logic prevalent in Western thought. He argued that

against propositional logic in which the sentence consists in a self-sufficient unity of meaning, hermeneutics reminds us that a proposition can never be prescinded from the context of motivation – that is, the dialogue – in which it is embedded and which is the only place it has meaning. (p. 118)

The being of language then is its renewed becoming through experiences, building itself through individual moments in which dialogue opens us up to the intuition of all the experiences that have been woven into language and weave themselves in the renewal that is embedded in each communicative instance as a striving for understanding (Gadamer, 1992).

Thus, dialogue is always a contextual and transient engagement from which meaning shines forth to be experienced and understood. In dialogue we open ourselves to all which is other, and in the necessarily incomplete act of translation into our own language and being, we understand. In doing so, we are ourselves transformed in the recognition of the moving limits of our being that restore difference not as something to overcome but rather as the ontology of language as the embodiment of our humanity, as the signal of all that we have been, are, and can become. Language then is not simply an instrument of communication, it is

a dimension that is independent and constitutes the space of understanding.... to understand an utterance is a matter of being able to translate its sense in one's own words. According to Gadamer this is only possible if the speaker succeeds in embedding the utterance to be understood within a dialogical context.

(Kertscher, 2002, p. 142)

Meaning and understanding are necessarily co-constructed in the encounter with the other. This is to say the interpretation is ubiquitous in a world that is shared "with others with whom I communicate, so my descriptions of the world are always subject to modification on the basis of what I share communicatively" (Smith, 1991, p. 32).

Constructing and experiencing language's dialogic being is never reductionist, rather it is the becoming of openness. Fundamentally, "becoming-together is dialogical in its generative movement without being dialectical because it rejects a conception of the movement of understanding as a cumulative and progressive fusion of contradictory positions" (Freeman, 2020, p. 8). Hence, the fundamental hermeneutic ontology of language embodies its dialogical being, as Davey (2006) explained:

Philosophical hermeneutics opposes the instrumentalist (nominalist) view of language which maintains that a knowing subject (individually or collectively) determines the meaning of words. The language ontology of philosophical hermeneutics insists to the contrary, that whatever our chosen usage of terms, it will always convey or mean more than we imagine or intend. (p. 28)

The dialogic encounter is the space where words and terms will be actualized and infused into meanings, thus establishing language as openness through its ability to pull us into the movement of understanding as the contextualized and transient sign of who we are and cease to be.

The dialogic being of language indicates the in-between, the space where we delineate the borders of our being as we come into language bringing about a transformative process where we distinguish the other in ourselves. This border space is supported in the becoming of language and world as they co-construct each other and are co-constructed in our encounters with all that is unfamiliar and the experience of the unfamiliar itself. Davey (2006) reminded us that "as language speakers, the 'other' (the implicit network of linguistic and cultural connections embedded in our language) is already in us just as we are in the 'other'" (p. 176). Thus, the process of understanding others us, but also pushes us towards self-understanding, othering us and making us more ourselves; as Gadamer (1992) wrote: "There will always be a grain of self-recognition involved in all encounters of humans with humans and with their creations. This strain of speculative identity is innate in humans" (p. 43).

Metaphoricity and the Movement of Understanding

In the previous section I offered an outline of some of the ways Gadamer's philosophical hermeneutics theorizes language through its fundamental metaphoricity and interconnectedness with understanding. I posed that the speculative and dialogic being of language is what keeps us in the movement of understanding. Its fundamental metaphoricity constitutes it as a network of meaning that manifests through the experience of linguisticality; as such, "understanding is unavoidable, because we are born or 'thrown' into historical contexts that already have been interpreted" (Kerderman, 2003, p. 294). As an unfinished event and process, the experience of understanding is also one of openness. Jacobson (2018) explains that within a hermeneutic perspective, "openness means being 'positioned' toward an Other, open to them really saying something to us, even something against us, because we know our understanding of a subject is always limited" (p. 1356).

Understanding then requires us to be open to the possibility that there is always something beyond what we can discern or what is being presented at any given moment or context. There are always more experiences, more perspectives, more ways of being that transcend the immediacy of experience. The possibility of something other that is yet to come then makes the being of understanding the experience of openness and indeterminacy itself.

Understanding is the hopeful engagement towards other realities, other experiences, other beings that present to us as the recognition of our own horizons and the whole of everything that is still unfamiliar. The being and openness of hermeneutical understanding necessitates its instability. "They require the challenges of having to think again, of having to confront the emergence of difference and of allowing oneself to be questioned by the disclosures of change....

Understanding is always restless, unquiet understanding" (Davey, 2006, p. 100).

The experience of understanding is always the opening up in recognition of the limits and potential of our beings and the world around us, as such it necessarily pushes us into a transformative process charted in our individual and collective human journey of meaning. As such the experience of understanding is always shaped by language and is always one of meaning, the meaning that we co-construct in "the interplay of the movement of tradition and the movement of the interpreter" (Gadamer, 1960/2013, p. 305). It is the metaphoricity of language that gives expression to the movement of understanding as the rhythm of our lives and beings. The metaphoricity of language illuminates the duality of its ontology as a pluralistic becoming with the ability to be both presentational and representational, to both capture the thing and be the thing itself. The being of language then revolves around its core as dual yet not dichotomous, as dialogic yet not dialectic, thus foregrounding the relationality ingrained in any act of meaning pursued in our being woven in the communal filigrees of time.

Positioning understanding as a manifestation of our relationality with the other through language creates a trail for the hope and need in its theorization as a movement. As the experience of the other, "Understanding is entering into play where we are not in control of the movement, but rather are changed by the play" (Johnson, 2000, p. 71). In encountering the unfamiliar we will be transformed in ways that we cannot yet know, opening up to networks of meaning embodied in language that extend beyond us. Language then is the point of departure and arrival, it is the borders that shine forth with the potential of renewing meanings constituted in a beautiful experience of othering that delineates and becomes in the in-betweens that appear through contradiction, paradox, or difference.

Unfamiliar Understanding

This text started with fundamental questions about the language diversity inherent to people's beings and lived experiences, and a question about the complexities of how to understand and represent them. I posed that philosophical hermeneutics may provide a fruitful and pluralistic orientation to attend to these complexities in its ability to foreground the ontology of language while grounding it in its practice. So far, our discussion of language has centered around the hermeneutic theorization of language as the medium for understanding. I have discussed relevant ideas about the hermeneutic theorization of language as a network of meaning whose being is dialogical, speculative, and shaped by linguisticality. Collectively these aspects of language speak to the idea that the ontology of language is constituted by a fundamental metaphoricity that turns on itself and revels in plurality.

Identifying language as a constituted network of meaning encompasses the idea that through the metaphoricity of language phenomena, our beings, and the being of the other appear as frayed seams in the fabric of life. As horizons, the porous membranes wrought by language

will illuminate the becoming borders of all that is fleetingly discernable in an anticipatory movement toward understanding as the rhythm of the universe and our struggle as people in a journey of meaning. Palmer (1969) explained:

Such is the saying power of language that it creates the world within which everything may be disclosed; such is its comprehensiveness that we can understand the most diverse worlds that have come to expression in language; such is its disclosing power that even a relatively short text can lay open a world different from our own yet one which we are able to understand. (p. 207)

If language functions as a medium that expands our being and discloses our horizons, then what is possible depends on its plurality. In any instance in which language is in abundance, where there are more modes and dimensions, more ways of coming into understanding, of expanding our world, the horizons of who we are and who we can become will be expanded and renewed as intrinsic to our becoming being. Plurality carves out the possibilities ingrained in the recognition that understanding is a coming into language that others us, illuminating our becoming in the multiplicity of the modes of language as iterative, multifaceted, and aesthetic.

Thinking of the ontology of language as wrought in its metaphoricity and plurality provides a broad impetus to its ethereal being as it embodies itself in practice and context to then be carved out in its primeval relation to knowing. Ponder for a moment of how you and I are communicating now. The words and letters in this paper dis/appear to us as images and meaning. Through experience and tradition, we have learned to see them as language, we bring them forward into a relational network, and draw on them to make meaning through words. Those words will metaphorically evoke and create experiences and meanings. The experiences and meanings that I evoke as I write will be different than the experiences and meaning that you will

evoke as you read. Still there is a shared meaning and an impetus for completion for both of us as we labor through these words. The way we are communicating is then an aesthetic engagement with another that signals how, in its ontology, language will forget itself in its becoming thrusting us back into the rhythm of life that symbiotically echoes indeterminacy, transience, and multiplicity. Beings entangle themselves in a shared primordial movement that shines through the reveling plurality of language in all its beauty and modes. We become

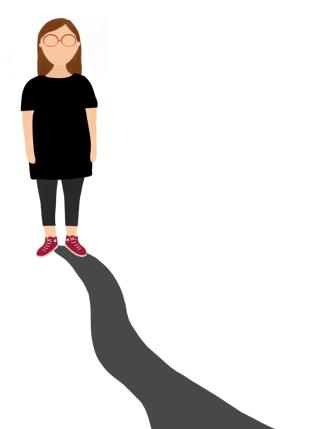
life becomes

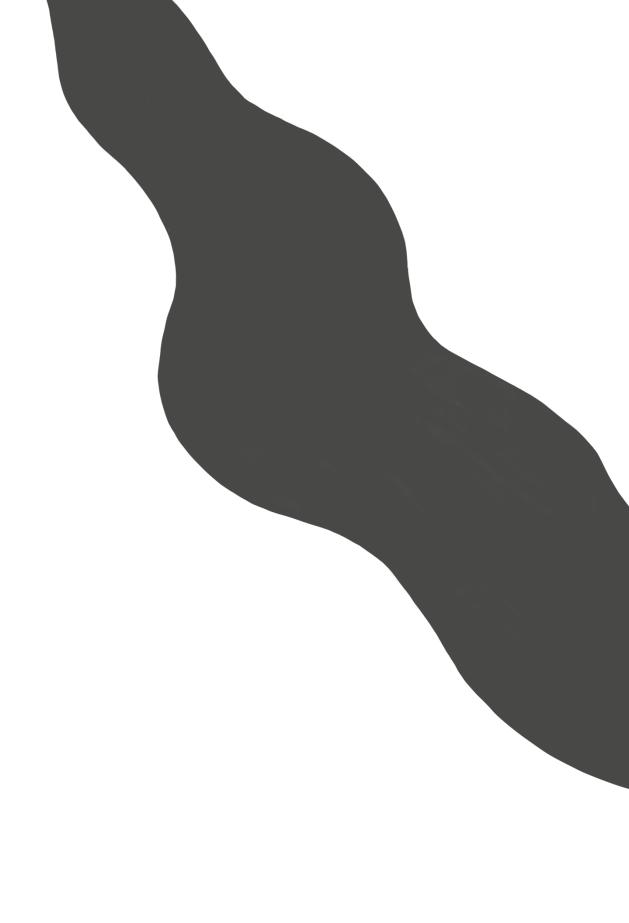
the universe becomes

the human becomes

language becomes

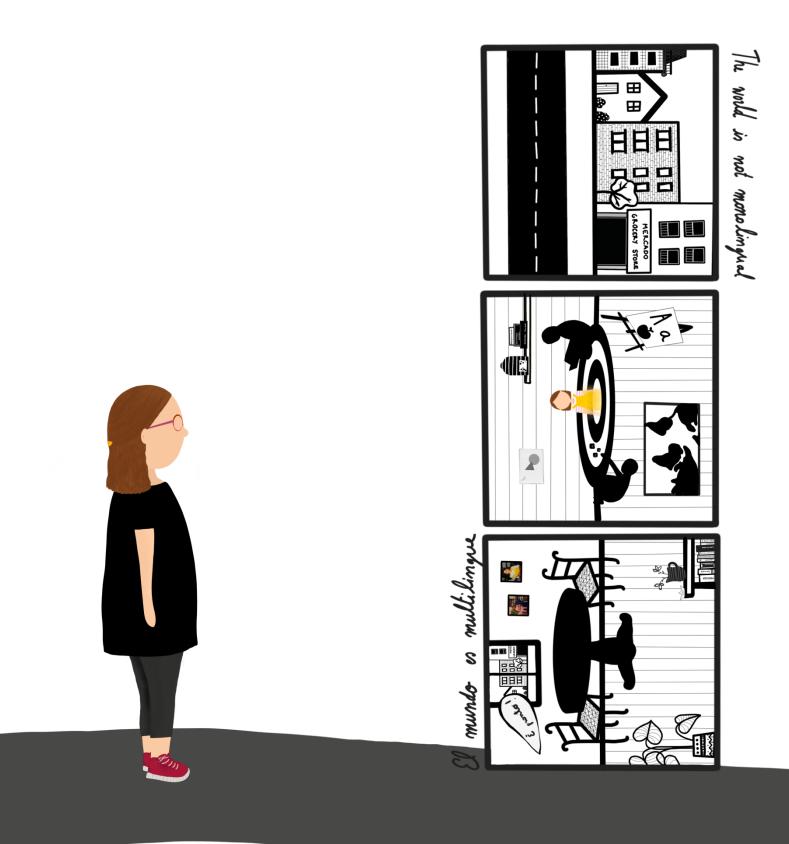






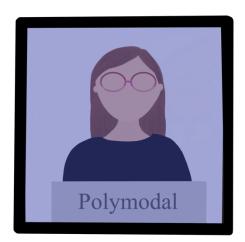




























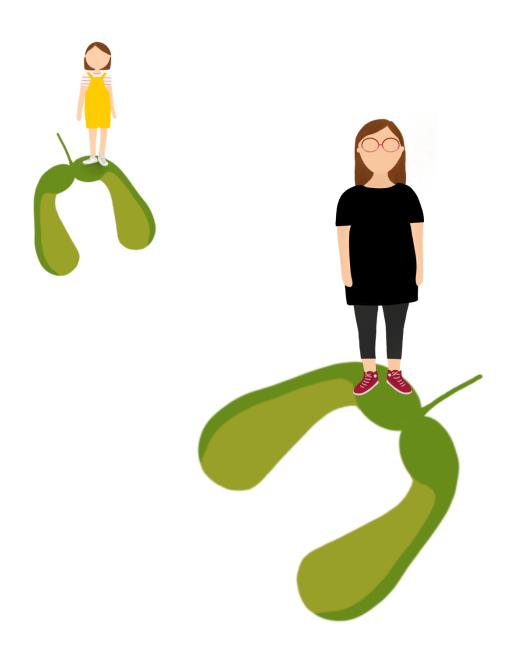


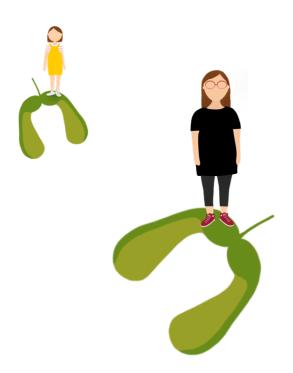






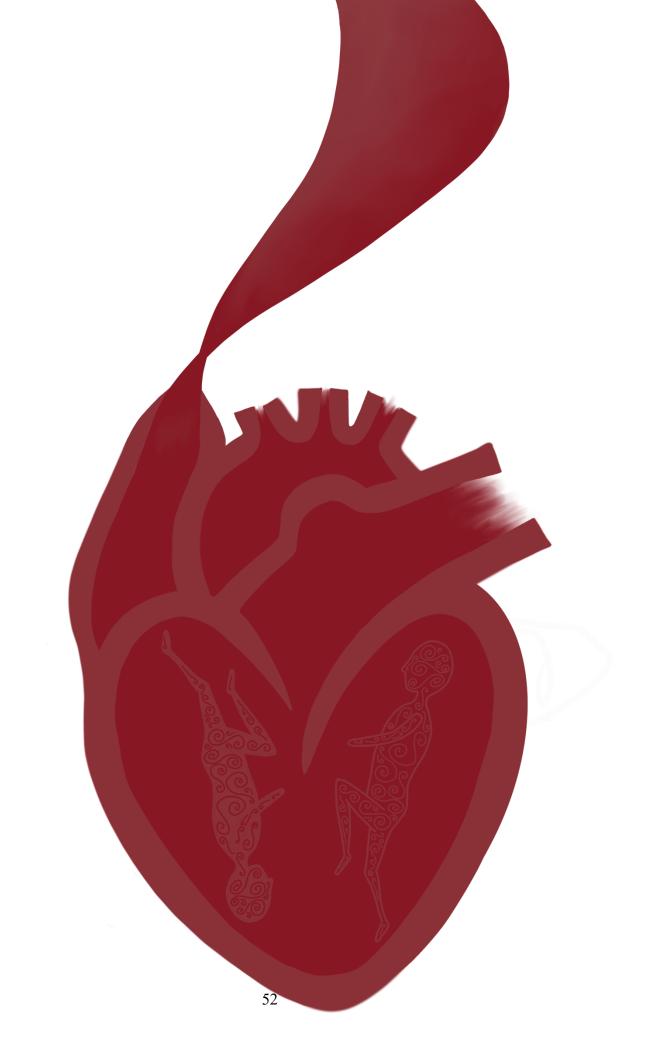


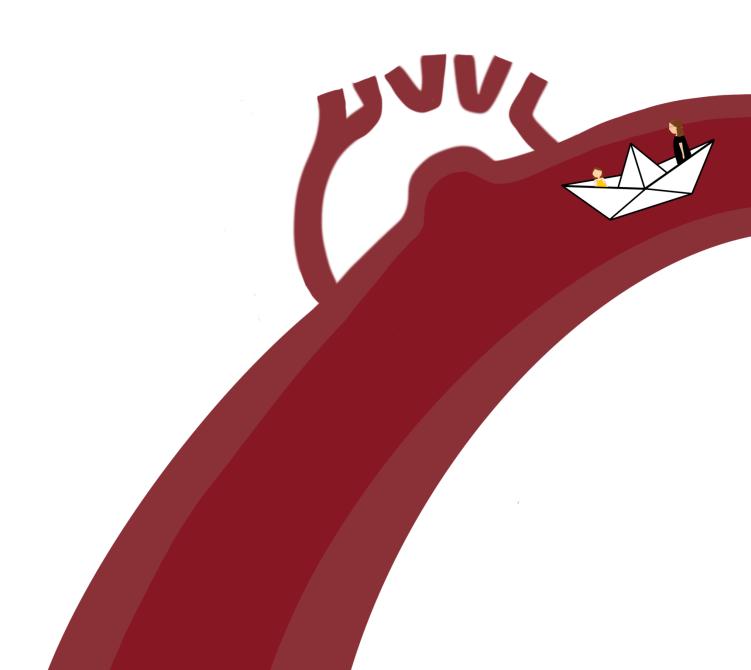


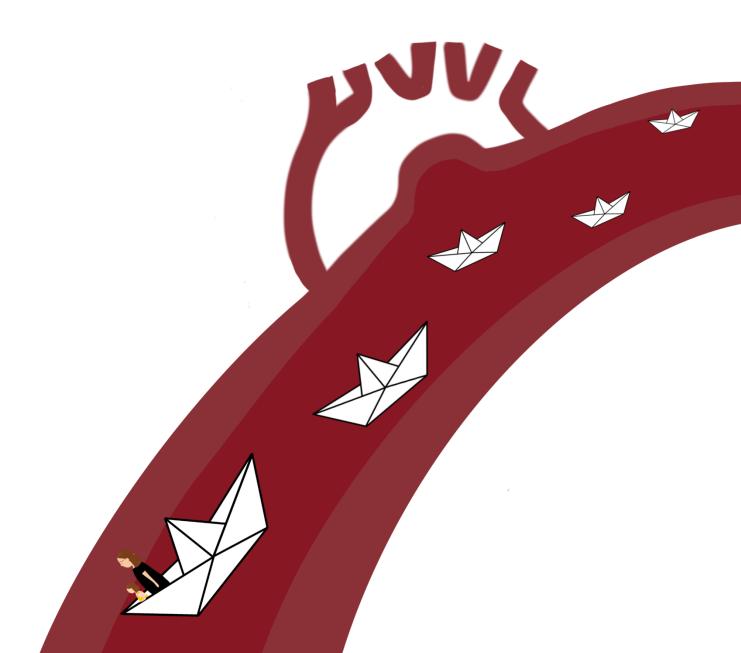












Note

Photographs of street art were collected as part of research (IRB ID: PROJECT00000476) with the support of the TINKER LACSI field research award. I took the photographs in public spaces in Bogota (Colombia). Based on consultation with a copyright specialist, I understand that I may use the photographs under fair use since I am using them for educational and research purposes. The copyright of the art portrayed in the photographs remains with the artists.

CHAPTER 3

THE BORDERS OF THEORY

El arte sirve para no morirnos de realidad

~ Anonymous graffiti in Bogotá, Colombia

A long time ago I read "pienso luego desaparezco." The words were rudimentary written on a wall in Bogotá, Colombia. I have a hard time remembering the wall or even the part of the city where I saw them. I however remember the phrase and the strong feelings it evoked, opening an ineffable world of meaning that I have continued to come back to over the years. To those unfamiliar with Bogotá, perhaps the most obvious meaning the words evoke is an ironic deconstruction of the famous proposition attributed to Descartes's "cogito, ergo sum." To those familiar with the political and war-ridden reality of Colombia the words may evoke the painful consequences that thinking or raising one's voice may have in a context of violence and oppression; the reality of the many people who have been made to disappear due to the perceived dangers of non-conforming knowing in the realm of power and politics.

In this chapter, the words "I think, therefore I disappear" serve to indicate the openings and contradictions pursued to help reimagine what it means to know and to represent knowing as well as the implications this may have for qualitative research and its practice. The phrase signals an awareness of how thinking can feel like disappearing when faced with the experience of the prevalence of hegemonic knowledges and practices. As a field, qualitative research continues to

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be predominantly framed by Western and North American scholars and philosophers (Brinkmann, Jacobsen, & Kristiansen, 2014), even when the research focuses on people who don't belong to that group or have been marginalized and oppressed by it. It would be naïve to attribute the prevalence of European and North American traditions in research practices to a lack of knowledges from other contexts that could support researchers in the task of understanding the social world. This paradoxical reality signals a fundamentally unsettled question about how we may otherwise conceptualize research to invite a broader range of perspectives and practices to frame, interpret, and construct knowledge.

Since its origins qualitative research has been in a continuous process of transformation creating a heterogeneous field within which practices and modes of representation have been pieced together through the many needs embedded in the fundamental complexity of the task of inquiry. Qualitative research is wrought in the centuries-old debate about what counts as knowledge and how to attain it or develop it. This tension has resulted in a variety of practices and perspectives that inform qualitative research, therefore centering the role of theory in accounting for the epistemological stances of researchers and in producing high quality research (Abend, 2008; Prasad, 2005). The history, cultural traditions, and modes of representation that shape theories have important implications for the way knowledges are represented and valued within the field. Accordingly, the diversity of theoretical approaches to the work of research (e.g., interpretivism, feminisms, postcolonial, critical, queer, postmodern, and so on) have been noted as one of its enduring qualities and a rich source for its accomplishments in advancing more pluralistic, participatory, and inclusive agendas (see Lincoln, 2010).

The complex epistemological relationships embedded in qualitative research are amplified by its interdisciplinarity. The practices of qualitative researchers have roots in

disciplines such as anthropology, sociology, philosophy, linguistics, the arts, and humanities. Yet, the language use of researchers, and in particular writing as the prevalent mode of representation, has been a transversal concern that shapes its practice. Clifford (1986) reflected on the origins of ethnographic methods and their role in the writing practices of researchers in the social sciences. He explained that ethnography started with an aspiration to capture in writing the truth of a culture or a social reality through the perspective of an authoritative observer able to deploy systematic and science-like methods. In the years to come, ethnographers and researchers in the social sciences would contend with the reality that translating complex social realities into text necessarily involves a use of language that is closely linked to artistic forms of expression. This was a metamorphic shift that carried within itself the recognition that, "governed by principles, values, laws, and practices that differ from the sciences, the arts also allow a wholly different character of investigation and interpretation of the human experience" (Rolling, 2016, p. 4). Fittingly, the root of the word grapho means both to write and to draw, signaling the symbiotic parallels and potential shared by these practices (Causey, 2017; Ingold, 2008).

Researchers pursuits of aesthetic and multidimensional engagement inherently carry the earlier recognition of social researchers about the importance of engaging with the artful dimensions of language; the recognition that the work of capturing the being of our humanities as individuals and communities requires a use of language and modes of representation that can evoke the ineffable. Richardson (2000) retraced the history of the relationship between social research and writing as a mode of presentation. She highlights that with the postmodern and poststructuralist turn, social researchers have been able to advance a plurality of writing traditions and practices while being able to accept these differences in modes of representation as

contributing on equal footing to advancing the field. Denzin and Lincoln (2013) have theorized that qualitative researchers must work as bricoleurs and quilt-makers, piecing together existing practices and creating new ones in the pursuit to understand a social world where there are no longer universal truths.

The practice of research is in constant movement due to the inherent duality of a being whose existence hinges on the shadow of a truth that has since ceased to be possible. Reflecting on decades of experience, leading scholars in qualitative research continue to identify it as a diversifying practice (e.g., Preissle, 2006; Lincoln, 2010). Yet, in spite of all the complexities in its becoming, qualitative research continues to give prevalence to written representations of knowledge, guided by western norms of philosophical argumentation (see Brinkman, 2018). Lincoln (2010) has suggested that perhaps what is needed is "a different metaphor for interpretivist inquiry, something that helps us to understand that we can collect, add to, and accumulate knowledge, but that it is *knowledge of a different sort*" (p. 6). Thus, as researchers aim for more complex and inclusive research practices, there is potential in opening up to knowledges that have manifested through alternative modes of expression, particularly because the recognition that knowledges are intrinsically tied to languages as the mode that represents them (Anzaldúa, 1987/2012).

In this chapter, I consider the ontology of theory as a shaping phenomenon in research by opening up its intersection with artistic, aesthetic, and visual dimensions as forms of knowing. To do so, I start by considering some of the ways theory has been explained and situated in the context of qualitative research. I then position images as both knowing and knowledge through the mode of being of art. Finally, I provide a concrete example of the possibilities of this aesthetic way of thinking for understanding the ontology of theory through a subset of over 2000

photographs of images of street art that I collected in Bogotá, Colombia in 2019. To close, I offer a short moving forward section arguing for the importance of artful modes of representation to be considered theory and the possibilities these may open for how qualitative researchers relate to theory.

Theory

The diversity of practices and identities of qualitative researchers shapes a divergent landscape that gives many possible dimensions through which to understand what theory is and its role in the study of our social world. Accordingly, succinctly explaining what theory is can be difficult, particularly since theory is ubiquitous in research and its ontology signals the complexities and plurality of perspectives of qualitative researchers. Theories serve to represent ontological and ethical stances and because of their epistemological nature they symbiotically shape and are shaped by the knowledge that is generated through them. What theory is and what its role is in inquiry endure as necessary questions; any possible answer to these questions is and should continue to be reshaped through the practice of qualitative research.

Perhaps because of its complexity, the being of theory is often explained through common metaphors such as the idea of a lens, a framework, or a guide. The idea that theory is a lens is currently most common and has helped illustrate how theory fundamentally guides the understandings developed in the study through a specific view or perspective of phenomena. In addition, Abend (2008) explains that theory understood as a worldview is "an overall perspective from which one sees and interprets the world" (p. 179). Martin (2019) posed that the metaphor of theory as a lens builds meaning into how theory can help us perceive and understand phenomena in a particular way. On the other hand, he also argued for the ways the metaphor of a lens can turn problematic, particularly when taken uncritically, therefore creating a situation in which

"thinkers who gave us ideology in the place of ideas now give us lenses instead of sight" (p. 294).

Just like the metaphor of a lens, the ideas of a framework or guide can also provide other dimensions to understand what theory is. Using the idea of a framework, Maxwell and Chmiel (2014) explain theory within qualitative research as "a conceptual model or understanding of some phenomenon, one that not only describes, but explains, that phenomenon – that clarifies why the phenomenon is the way it is" (p. 30). Graue & Walsh (1998) posed that theory considered as "a map, a guide ... allows one to see as connected what was unconnected before" (p. 25). Theory considered as a guide, or an interpretative task, then provides a way of reading or approaching the material (Abend, 2008). Thus, theory is a multifaceted being that can provide sight and guidance to help researchers make informed decisions such as how to design data collection procedures, how to carry out the analysis process, or the way phenomena should be conceptualized or framed.

All these metaphors for what theory is signal the fact that theory necessarily goes beyond offering concepts to think about the phenomena under study. Rather, it fundamentally shapes the process of qualitative research itself. Schensul (2008) explains that there is a necessary distinction between method and methodology and that methodology represents theoretically informed procedures and approaches to research. The fundamental connection between theory and methodology creates a symbiotic relationship where the two could be equated, yet there are differences in the two that indicate a different relationship between researchers and their practice (see Bradbury-Jones, Taylor, & Herber, 2014). To this point, Swedberg (2014) argues that a distinction between theory and theorizing can help us acknowledge the duality of theory in research as both a body of knowledge and a process of knowing. Accordingly, other scholars

(e.g., Davey, 2006; Freeman, 2017) have also argued that theory is not a fixed body of knowledge or phenomenon but is that which is experienced and created by those of us who draw on it. Culler (2011) explains: "Theory exists in communities of readers and writers, as a discursive practice, inextricably entangled with educational and cultural institutions" (p. 135). Thus, theory is shaped by processes that are integrally contextual and relational; theory then is not just guiding the construction of knowledges through a cohesive and preestablished corpus but it is we who are in the constructing of theory in our pursuit of knowledges.

One of the challenges of considering the being of theory through different conceptualizations is that each of these explanations inevitably introduces a sense of cohesiveness that is not inherent to theory itself, nor to the collective of qualitative research (Preissle, 2006). There seem to be as many understandings of theory and approaches to it as there are researchers. Moreover, too often any conceptualizations of theory seem to be positioned as an introduction, a passing comment, or a didactic chapter that helps explain the practice of qualitative research or the specific paradigms or traditions that serve as theories in research. As Swedberg (2014) and Gross (2014) claim, there is little written on the theorizing researchers engage in. Similarly, the ways theory practically manifests in the work of social researchers widely varies, often openly departing from overarching conceptualizations.

To better understand the practice of theory, I recently started systematically looking across articles published from 2016-2020 in five major journals focused on either qualitative research, educational research, or its intersections: International Journal of Qualitative Studies in Education, American Educational Research Journal, European Educational Research Journal, Qualitative Inquiry, and Qualitative Research. As I expected, what comes across most clearly across the multitude of articles I examined is the variety of theories and uses of theory

that mark the rhythm of the movement of qualitative research. I have found that some articles mention the word theory several times while others do not mention it at all. Some researchers draw on major philosophical perspectives, some translate theories developed outside their discipline into their own field, while others try to develop theories themselves, or relate theory to practice in some way. Most often, it seems that researchers use theories to identify specific concepts that can help them to explicate their own interpretation of phenomena and their processes.

Across conceptualizations and uses of theories it is also clear that theories are expressed and employed predominantly, if not exclusively, through oral and written uses of language that often reflect dominant communicative practices of research and academia. In this sense, it is important to note that it is not by chance that journals I considered to understand the practice of theory are published in English and that in spite of some of their international orientation they present scholarship that focuses on North America and Europe. After all, these continue to be dominant contexts for the development of research in education (ANGEL, 2020) as well as in the theory and practice of qualitative research (Brinkmann, 2018). If we come back to the underlying tension guiding this chapter, then we may be better able to understand how these dominant contexts and modes of representation can turn problematic. The need to consider alternative forms of representation then emerges as an invitation to the possibility that there are other knowledges outside of these dominant contexts that could significantly contribute to the practice of research and the desire to overturn the ways thinking can be an experience of disappearing in the face of hegemonic knowledge.

Artful Knowing

The prevalence of oral and written forms of expression that stand for theory has been brought into question, as scholars have argued for the importance of images and visual thinking in social research. A classic example of this is Arnheim's (1969) book *Visual Thinking* where he challenges the separation of words from images as well as thought from the senses. Furthermore, visualization of data as an expression of complex ideas has a rich history in research (e.g. Tufte, 1997). The book *Unflattening* created by Sousanis (2015) is a more recent example of scholarship that foregrounds the importance of visual thinking in learning and demonstrates how images are a form of expression that fuses the visual with the theoretical. Swedberg (2016) has also argued for the possibility for theory in sociology to be expressed through visual representations such as theory pictures and diagrams. He concludes that forms of visual thinking could benefit researchers, though frameworks and practices that support such approaches need to be further developed.

Underlining the potential contribution of the visual as a form of knowing is the fact that images can materialize ideas or phenomena (Davey, 2013; Knowles & Cole, 2008; Eisner, 2008) and that representation is in itself knowing (Gadamer, 1960/2013; Davey, 2013). Yet, discussion of the role of the visual as a form of theory continues to be underdeveloped. Although the visual has long been part of the social sciences, qualitative research, and its methodologies, images have not necessarily been seen as theory or recognized as a significant source of knowledge. In the introduction to a recent special issue in *Qualitative Inquiry*, titled *Visibilities and Visual Discourses. Rethinking the Social with the Image*, Traue, Blanc, & Cambre (2019) explain that as much as images have always played a role in the social sciences, "Too often however, visual information has been relegated to illustrative status, as an example, or as a support for an

explanation or description rather than as an important source of knowledge construction" (p. 327).

The way images are knowing thus supporting theory can perhaps be more easily understood in connections to art. Rolling (2016) explains:

When art critic and philosopher Arthur C. Danto (1986) says that he thinks of acts of interpretation "as functions that transform material objects into works of art" (p. 39), he is also arguing that without interpretation, there would be no works of art—only materials, objects, and marks on paper. In an arts-based research paradigm, just as a system for interpretation may constitute a work of art, it likewise constitutes a strategy for mediating an initial understanding of an encounter or experience with a natural material, human subject, event, or phenomenon. (p. 5)

Accordingly, *The Handbook of the Arts in Qualitative Research* extensively delineates the possible roles art and the visual can play in the social sciences and qualitative research. Though the handbook prioritizes understanding how art can be used as a methodology for inquiry, it also seeks to address the ways in which art, knowledge, and knowing are tied to each other. This is most explicitly addressed in *Part I: Knowing*, which only consists of two chapters: *Art and Knowledge* and *The Art of Indigenous Knowledge: A Million Porcupines Crying in the Dark.*The introduction to this part explains that the authors of the chapters in this section center culture as a way to problematize the centrality and dominance of Western thought in research and our perceptions of what counts as knowledge, and that together "the chapters provide a foundation for considering art, in its many forms, as a way of knowing, and knowing, in its many forms, as an art" (Knowles & Cole, 2008, p. 1).

In their own way, both chapters offer important perspectives on the way images as a form of art have the ability to represent our experiences and understandings translating them into knowledge. In particular, Eisner (2008) explains the contribution of the arts to knowing through four different processes: the arts as processes that address nuances, the arts as processes that generate empathy, the arts as processes to disrupt our worldviews allowing us to see anew, and the arts as processes to evoke our capacity to experience in relation to who we are and our lived experiences. According to Eisner, these processes "contribute to the enlargement of human understanding" (2008, p. 11). Eisner's idea that art has the ability to enlarge human understanding through certain processes is at the core of why images can function as a form of knowing and, by extension, theory. From this perspective, art can be opened up as both a body of knowledge that can constitute theory and a process of knowing that can constitute theorizing.

In the book, *Unfinished Worlds* Davey (2013) theorizes the relations between art, understanding, and knowledge by drawing on the work of hermeneut philosopher Gadamer (1960/2013). Through his investigation, Davey's work elucidates how art can both create and represent knowledge, therefore offering a substantial path to think about how the mode of being of art is both knowing and the creation of knowledge. As he explains: "All artistically communicated meaning involves the material particularization of something more general or universal. It would, however, be a mistake to assume that such analysis confirms the prior existence of the separate elements of such experience" (Davey, 2013, p. 36). In this way, Davey goes beyond helping us understand how art represents knowledge to help us see that art in itself is knowing and understanding.

Davey (2013) and Gadamer (1976) explain the experience of art as one of excess of meaning. From a hermeneutic perspective, the work of art has the capacity to be the medium in

which understanding occurs and bring us into a relational network of meaning that furthers our understandings by evoking traditions beyond what is immediately presented. Much like theory, the mode of being of art highlights the relationality embedded in the phenomena captured in its movement. Art then has a capacity to present as an experience of knowing that may help us interpret and find meanings that transverse experiences and contexts. Davey explains:

Gadamer's account of the symbol establishes that artworks are presentational rather than representational; they occasion the meanings they invoke and do not represent a meaning independent of themselves. The argument effects a profound and significant change in the meaning of aesthetic appearance.

The representational view of art relegates art to a secondary status: the artwork brings to mind something other than the artwork, an original state of affairs, a specific meaning of reality. (p. 52)

The potential mode of being of art that is embodied in the image then functions as mediums through which the realities become noticeable to us, and as such, discernable, learnable, understandable, and knowable.

Street Art and Theory



Figure 1. Photograph of street art.

To concretely consider some of the ideas in the previous sections, I now draw on street art from Bogotá (Colombia) to explore how and why alternative and visual manifestations of knowing have the potential to function as theory. At the core of why I started considering street art as a form of theory was the intuition that it represented deep aspects of my own experience, and thus it expressed a way I learned to make sense of the social world. During my doctoral studies, I came across a photograph (see Figure 1) of street art that juxtaposed the image of an indigenous woman to the background of an old colonial house that in turn covered the mountains that are so characteristic to Bogotá. The image framed the words "nuestro norte es el sur" [our north is the south] and foregrounded contradictory symbols of peace and war. The image presented to me as a strange moment of recognition not only of myself but of the way I had come to understand and envision the research process.

The excess of meaning that I found in the image of the street art opened up a world of knowing that I did not perceive to be fully reflected in the theories that I was learning about and that I understood as most common in qualitative research. Over time, this tension rippled into questions about the ontology of theory and the possibility that an image - such as the one in Figure 1 - had the ability to function as theory. As I was making sense of the ways that theory was at the core of qualitative research and shaped its practices, the possibility for such an image to be theory seemed to shine a new light not only into what was but onto what could be. If images could be theory, what other ways of knowing and being could more responsively be invited into the realm of qualitative research on a genuine equal footing?

The idea of the north being the south seemed to give new dimensions to the idea that research is not only a process that advanced through and toward language and abstraction as forms of theorizing, but that the material and embodied dimensions of the social world were also

fruitful dimensions to theorize. It was also a recognition that in spite of a diversity of practices, qualitative research remains a space where certain modes of representation are privileged over others. Thus, my intention in this section is not to try to translate the knowledge in the images of street art into written words that can be used as theory, nor is it to propose a methodological path for the way images can be used as theory in the practice of qualitative research. My aim is to draw on different images of street art to elucidate why I see street art as a compelling example of the ways we may re-imagine theory and knowing in qualitative research through including alternative forms of representation as theory and theorizing itself.

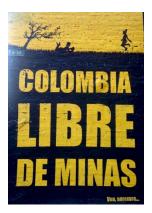


Figure 2. Photograph of street art.

As I considered the different modes of being of street art that constitute its potential to be a form of theory, it was the ways street art is multimodal that first stood out to me. I first recognized how street art relied on the ability to go beyond the oral or written word to express an understanding of the world. Multimodality is always an inherent part of any integrated repertoire or language use that we deploy to communicate or make sense of the world (Garcia & Wei, 2014; Blackledge & Creese, 2017). I knew written text always has in itself multiple modes that are used to convey meaning, from abstract ideas that are organized into letters to the materiality of the paper and ink that bring the words into being. Yet, street art seemed to make the multimodal dimensions of any communication and word use explicit in a different way. For

instance, the photograph in Figure 2 presents a complementary use of words and images to create multilayered meanings. In it, the artist contrasts the image of girls playing in nature to the words "Colombia libre de minas," bringing into play the different meanings of the word "minas" (bombs/mines/women/girl) with other elements in the art to evoke a sense of freedom, womanhood, and the political realities of Colombia. Meanings and contexts are evoked by the juxtaposition of dimensions, such as the use of yellow and black as colors traditionally used for street or warning signs, and the fact that the slogan is part of a government campaign against the use of landmines.

The idea of theories as a framework or guide was previously discussed to illustrate how theories themselves bring forward relational meanings that help researchers interpret phenomena under study, a characteristic that according to Davey (2013) and Gadamer (1976) is also inherent to the mode of being of art. As Gadamer explains it: "the language of art means the excess of meaning that is present in the work itself. The inexhaustibility that distinguishes the language of art from all translations into concepts rests on the excess of meaning" (Gadamer, 1976, p. 102). Thus, the mode of being of art allows images to capture understandings and perspectives in a pluralistic and less definite way that continues to invite interpretation. Moreover, the possible knowing of street art becomes in its multimodality as a mode of meaning that "is the most significant as it relates all the other modes in quite remarkable dynamic relationships" (Cazden et al., 1996, p. 80).



Figure 3. Photographs of street art.

Street art brings to the forefront the fundamental multimodality of any event of communication or understanding and transforms it into a deliberate medium for meaning. Consider the photographs in Figure 3, beyond the most obvious way in which street art is inherently multimodal as an image, there are also other modes such as space and time that further the meanings of these works of art. For instance, in the first photograph in figure 3, the glued advertising posters pilling off the wall create a background that gives depth and shapes the image itself evoking the absence of publicity in a space that has been reclaimed by art. In a similar spirit, the cricket (see the second photograph in Figure 3) makes use of the brick wall and plant to create an image that brings attention to the natural and human environments as they interact with each other. The image of the cricket also makes explicit how street art is always changed by time; the aesthetic experience of the work of art will change as the plant continues to grow and the bricks crumble.



Figure 4. Photographs that show the same piece of street art at two stages of completion.

Drawing on Newman and Shields (2013), Ulmer (2017) poses that street art is a fluid genre with a visual discourse that "engages public visual space through a qualitative inquiry of the street" (p. 491). The underlying question opened up by Ulmer, Newman, and Shields is about the correlation between space and change in the active, situated, and embodied engagement of theorized scholarship. These perspectives talk to the fundamental mode of being of street art as developed in the public space, those altering its experience and possibly theorizing it. The photos of the diver at different stages of development (see Figure 4) illustrate the way in which time and space in the public sphere play a role in the experience of street art. They capture the moment and ways in which the diver was created in the underbelly of a bridge to then become part of the experience of the bridge itself through a process that was always visible to the spectator. Thus, the being of the bridge and the diver are transversed, opening up networks of meaning and relationality that theorize them.

Street art speaks to the fact that the being of the process of creation is public, and that time makes the way knowledge manifests and is constructed at different stages inherently visible. In this way, theory and street art manifest a shared ontology through dimensions of being of space and time that can be transcended. One of Davey's (2013) points about the mode of being of art is that it opens us up to the relationality of knowing through the many contexts of previous

experiences and the experiences of others. What Davey means is that when, for instance, we look at the image of the cricket (figure 3) or the scuba diver (figure 4) and recognize them as such, both we and the images bring forward traditionary practices that shape our ability to recognize them and interpret them. Thus, akin to theory, the images of street art also manifest a mode of being that can function as contexts in which we can make sense of phenomena and the social world.



Figure 5. Photographs of street art.

The photographs in Figure 5 demonstrate other ways time is shaping the experience of the street art. The first photograph calls attention to the way in which space and time intersect. In this case, the three-dimensional creature is created by using the way the different buildings are positioned. Hence, the work of art makes explicit its mode of being as uniquely created in the space that exists at that exact point in time. The images (second and third photograph in Figure 5) help us see that the work of art is ephemeral, being constantly reshaped and changed through time simply by virtue of being in a space that is not just shaped by the human but also by nature. Thus, the experience of street art is always variable, limited to a time frame, and bound to alter; as time passes images will be modified through the rhythms of the community that shapes its own existence.



Figure 6. Photographs of street art.

By definition, street art is always created in preexisting structures, being shaped by the physical manifestations of the community that lives the space and by virtue of its own existence shaping the way the community perceives the spaces. Street art presents as an experience of a collective with the potential to transform relationships amongst people and spaces (see Silva García & Palacios Alaba, 2015). Consider the first photograph in Figure 6, it presents different images that seem to be by different artists: the face in the middle, the person sitting on the branch, the blue from the adjacent mural, the person coming out of the door, the bird on the branch, and the person in the web created out of the peeling wall. Although each work is distinctive and carries its own meaning, they all come together through the physical space of the building and the connections between pieces to provide one aesthetic experience of meaning.

The idea that theory and knowing are relational (Davey, 2013) also speaks to the fact that these practices create discursive communities amongst researchers that then build new meanings in each other's work. This again is a mode of being of theory that is also shared by street art.

Consider the second photograph in Figure 6, in this instance we see a house that is part of the historical part of the city adorned with a drawn representation of the historical city itself as a background that is being intervened through tags and written words that translated mean "in silence to not be silenced." Together they form an image and aesthetic experience that points to

the contradictions embedded in social realities that contribute to the movement toward theory and theorization. Collectively, the images that were independently created by different artists bring attention to the meanings and the city as the space of a community that shapes the way the street art co-constructs knowledge through multiple agents.



Figure 7. Photographs of street art.

The idea that theories are explanations as to "why the phenomenon is the way it is" (Maxwell and Chmiel, 2014, p. 30) carries in itself an assumption that the experience of social realities or phenomena can be explicated through reason or purpose. Yet, there are many experiences that are not easily captured through reason or lineal argument. In this sense, the ability of street art to hold seemingly contradictory perspectives while understanding both as equally possible opens up the possibility for a different form of theorizing. Consider the first photograph in Figure 7, it portrays an image of DNA, something conventionally associated with science. However, in this case the artist places the DNA in the hands of an indigenous woman who weaves it, which is often a cultural and artistic practice. The contradictions in the image evoke meaning to consider two realities that could be experienced as incommensurable and simultaneously accessible.

The oxymoronic being of street art as knowing also points to an inherent relation to power; it is knowing that disrupts what is taken for granted, opening the possibility to know

differently and more intentionally, to bring about change, to stand outside of reason or linear logic. In this sense, the way street art challenges power dynamics goes beyond the contexts in which it is created; its challenge to power goes beyond being created outside of the law and always changing the space in which it is created and the way people interact and experience that space. The second photograph in Figure 7 shows an unfinished work that illustrates how street art can function oxymoronically as well as how it defies power. In this instance, the work of art draws attention to different contradictory elements such as the image of the heart placed on top of the child's body, the placing of the windows on the forehead of the child, the body language of the child depicted in commonly understood posture of political defiance, and the way the corn evokes the possibility of a grenade. These contradictions offer and require our knowledge of the social world; at the same time, they require us to position ourselves in relation to what is being expressed in the portrayal of incongruence as a point of departure towards realities and knowledges that we are yet to imagine.

Moving Forward

In the previous section I examined street art as a form of knowing that is multimodal, communal, and oxymoronic. These characteristics are not absolute; they do not define all aspects of the experience of knowing in street art, nor does it comprehensively describe all possible experiences of knowing and knowledge in individual images. Each of these images brings forward the experience of art and thus any knowing materialized through it presents its own excess of meaning; each giving a different dimension to what theory can be. These excesses of meaning also create a way of knowing that is constantly being co-constructed by the active participation of an onlooker who needs to bring forward their experience, traditions, languages, and forms of expression to articulate the experience of knowing captured through images

(Davey, 2013). The invitation and requirement for active engagement then implicate the ontology in motion of theory.

Artful and visual engagements of theory matter not only for the theorizing they invite, but also because of the potential that they have to restore how researchers engage with theory. A question that has arisen for me as I continue to study and draw on philosophical traditions is the fact that these theories are originated by people who historically and socially have maintained hegemonic statuses. For instance, philosophy has centuries of being fundamentally developed through the views of European men in positions of privilege. This tension seems particularly relevant when thinking about the intention to create research practices and knowledge that is more just and equitable towards people who historically have been marginalized and oppressed.

The active and intentional engagement that art requires of us, also offers another perspective about how we may approach and problematize the use of hegemonic knowledges and worldviews. Theory then is not the inert text that contains the hegemonic worldviews but is constructed in our interaction with the knowledge embodied in those texts. Artistic knowing allows us to more intentionally and actively bring our own worldviews to re-signify these philosophies and give voice to the other, bringing forward our own traditions, languages, and perspectives. What is more, although our individual experiences are not totalizing, by individually bringing our own situated knowledge and experiences to co-construct theory, we are also advancing the heterogeneous and collective being and knowing of others who share and give meaning to our identities.

Note

Photographs of street art were collected as part of research (IRB ID: PROJECT00000476) with the support of the TINKER LACSI field research award. I took the photographs in public spaces in Bogota (Colombia). Based on consultation with a copyright specialist, I understand that I may use the photographs under fair use since I am using them for educational and research purposes. The copyright of the art portrayed in the photographs remains with the artists.

CHAPTER 4

TRANSLANGUAGING, MULTILINGUALISM, AND MULTIMODALITY IN YOUNG CHILDREN'S MATHEMATICS LEARNING

Soy, las ganas de vivir

las ganas de cruzar

las ganas de conocer

- Calle 13. La Vuelta al Mundo

Think for a moment of a powerful experience you had learning mathematics.

How were you learning? How were mathematics ideas being understood and communicated? What led you to interpret that experience as powerful? The experience you just evoked is unique to you and unfamiliar to me. Yet, it is likely that your experience brought to mind many aspects of meaningful mathematics learning that are at the core of this chapter. For instance, your experience likely materialized a social context and a moment when you were interacting with a person, text, or material to understand or communicate about ideas you were learning. Your experience likely involves language. Language mediated the learning you remember and language is now mediating your recollection of it, helping you bring to mind that previous event and identify it as powerful.

In this chapter, I consider the necessary role of language in children's mathematics learning. I explore how languages as a social construct and as a practice shape children's

experiences and ability to learn mathematics. The idea that language mediates learning is currently well established within educational research; it has been comprehensively studied and theorized by scholars who have fundamentally shaped current perspectives of pedagogy such as Vygotsky (1986). However, mathematics has a longstanding tradition of being perceived as a discipline that is devoid of culture and as having the ability to function independently of language (Skøvmose, 2011). Researchers have challenged this perceived neutrality of mathematics to centrally position language, culture, and context as key components of mathematics learning (see Gutierrez, 2012). Moschkovich (2017) effectively explains that "Language and communication are recognized to be core components in the teaching and learning of mathematics, but there are many outstanding questions about the nature of interrelationships among language, mathematics, teaching, and learning" (p. 521).

In educational contexts limited perceptions of languages continue to create narrow pathways to learning and act as a barrier for success, particularly for children who are minoritized (García, 2017). Languages are still too often understood in ways that intersect with other oppressive practices and that position monolingualism as the norm, leading to the unjust governance of linguistic practices and inaccurate views of students' linguistic abilities as deficient (Rosa, 2019). Educators and researchers advocating for more equitable mathematics teaching have systematically identified language as a crucial factor for inclusive pedagogical practices and effective teaching (Bartell et al. 2017; Celedón-Pattichis et al., 2018; Barwell et al., 2016). Barwell et al. (2017) contend that noticing students' mathematical ideas should go beyond their ability to communicate in traditionally valued ways and include ideas that are expressed through an array of diverse linguistic practices.

To bring about effective and equitable mathematics education requires researchers and educators to advance pluralistic perspectives of students' language use while learning mathematics. Multimodality has been identified as a key practice that students intrinsically deploy to make meaning and communicate (Garcia, 2011). Mathematics learning is intrinsically tied to the ability to represent and experience abstract concepts through different modalities (Radford, Arzarello, Edwards, & Sabena, 2017). For instance, Domínguez (2005) has explained how bilingual students support their mathematics learning and communication of complex ideas through non-verbal modes of communication. In the case of young children, Karsli-Calamak and Allexsaht-Snider (2020) propose that multimodality and embodiment can help disrupt the power imbalances in formal mathematics teaching and support authentic learning of mathematical ideas. Multimodal representations of mathematics allow for more authentic, contextual, and culturally diverse views of mathematics knowledge and practice. For instance, in his research on artisanal practices in Colombia, Aroca Araújo (2018) draws on multimodal representation to illustrate the mathematical underpinnings of said practices. Likewise, in her ethnographic study of the participation of diverse and emergent bilingual students in mathematics learning, Takeuchi (2015) concluded that multimodal resources were an integral part of that learning.

Currently language practices are increasingly diverse (Blommaert & Rampton, 2011) and all mathematics education takes place in a context of language diversity (Barwell et al., 2016). Thus, it is urgent to advance practices and perspectives that counteract current biases interlinked with language practices and respond to a diversity of experiences. In the next section, I will explain why translanguaging has been broadly identified as an approach to language that supports student's diverse language practices for learning and meaning making, particularly for multilingual students (Garcia & Wei, 2014). In this study, I focus on the intersection of

translanguaging and multimodality. Although the importance of multimodality for learning is well established it is rarely been studied in relation to multilingualism, even in fields outside of mathematics. Blackledge & Creese (2017) found that "studies of multimodal communication have tended to focus on monolingual settings, while studies of multilingualism and translanguaging have paid little attention to multimodality" (p. 251).

In this chapter I build on the potential translanguaging practices and perspectives afford for learning, to consider how its conceptualization of multilingualism and multimodality may afford disruptive understandings that support children's mathematics learning. To this end, I consider the following research question: How are young children supporting their mathematics learning in classrooms through multilingual and multimodal uses of language? To answer this question, I first offer a short overview of translanguaging, focusing on ideas about multimodality and multilingualism. Second, I explain my analytical approach drawing on hermeneutics, the practice of thick description, and my positionality. Third, I offer a brief description of the data, design, and context of the study. Finally, I offer an analysis of instances of mathematics learning involving multimodal and multilingual manifestations of children's language use. I close with a short moving forward section to highlight inherent power dynamics in the study of any language use, indicating the necessary movement from an idealized view of language to a view of language that is responsive to the experiences of people with diverse language practices.

Translanguaging

Garcia & Wei (2014) define translanguaging as the "multiple discursive practices in which bilinguals engage in order to make sense of their bilingual worlds" (p. 45). In other words, translanguaging can be understood as the fluid ability of multilingual people to use their full linguistic repertoires to make meaning of the world around them and communicate with others

about it. In defining translanguaging, it is important to know that it extends beyond the idea of a language practice to provide multiple levels of understandings. Flores and Schissel (2014) explain: "From a sociolinguistic perspective it describes the fluid language practices of bilingual communities. From a pedagogical perspective it describes the process whereby teachers build bridges between these language practices and the language practices desired in formal school settings" (p. 461-462). Recently, Wei (2018) added to these perspectives of translanguaging by making an argument as to how it can be understood as a practical theory of language.

These multiple ways of defining translanguaging point to the complexities in its practice and conceptualization. In this sense, it is sometimes easier to consider it through concrete examples of how translanguaging may look like in practice. Further on in this chapter, I will interpret different interactions between me and different children all of which can be recognized as translanguaging. To better understand what translanguaging is, here is an example of an interaction in which I used Spanish to ask Kira (pseudonym for a student) what her answer was to a question about addition, she responded by saying "I think it was dieciocho". This interaction is an example of translanguaging not simply because the child and I were fluidly using both English and Spanish to communicate with one another but because it draws on our full linguistic repertoires and previous experiences to make meaning of a complex mathematics question. In this instance, the student uses the features of Spanish to name the number because it is the way we more commonly count in the classroom and consequently a word that has a certain meaning and experience embedded in it; further highlighting her communicative skills. At the same time the student also feels the need to express her answer using English as this is the language in which she is more comfortable communicating and it offers for her different possibilities to

understand and to communicate. It is these complex ways of using languages to communicate, to understand, and to transform that makes this interaction an example of translanguaging.

The complexity of the interaction I just discussed also undermarks one of the defining characteristics of translanguaging, a way to see the language use of people as transformative for people and especially to the inherent power dynamics embedded in it. Garcia and Leiva (2014) explain that "what makes translanguaging different from these other fluid languaging practices is that it is transformative, attempting to wipe out the hierarchy of languaging practices to deem some more valuable than others" (p. 200). This conscientious use of language that systematically challenges and rejects accepted or biased uses of language offers endless possibilities to reimagine mathematics education. Particularly when we understand that "Translanguaging empowers both the learner and the teacher, transforms the power relations, and focuses the process of teaching and learning on making meaning, enhancing experience, and developing identity" (Wei, 2018, p. 16).

Translanguaging and Multimodality

The language use of multilingual children in mathematics classrooms indicates that it is also necessary to go beyond ideas about named languages to account for the complex language practices children draw on to understand and communicate. Garcia (2011) positions multimodality as intrinsically tied to translanguaging in classrooms; she explains translanguaging "goes beyond code-switching and translation in education because it refers to the process by which bilingual students perform bilingually in the myriad of multimodal ways of classrooms" (Garcia, 2011, p. 147). Although multimodality has been developed into its own field of study (see Adami, 2017), translanguaging supports a multilingual practical approach that focuses on pedagogical practices and perspectives of multimodality.

In a brief section attending to multimodality and translanguaging, Garcia and Wei (2014) describe multimodality as an essential resource for meaning-making and as such a form of translanguaging since translanguaging includes all resources for meaning-making. Blackledge and Creese (2017) have further explained the connection between multimodality and translanguaging with a similar argument. They pose other academics have already offered a clear understanding of translanguaging as the ability of multilingual speakers to draw on their full linguistic repertoire to make meaning and communicate. The acknowledgement of a full linguistic repertoire then can be developed as a natural connection to multimodality since any repertoire for meaning making and communication is intrinsically multimodal.

As I continued to work to understand multimodality as an intrinsic part of translanguaging I also found it helpful to consider Wei's (2018) argument to see translanguaging as a practical theory of language. If translanguaging can be seen as a practical theory of language, then it is not simply that multimodality is part of translanguaging but that in the way translanguaging views language it understands language as intrinsically multimodal. In Wei's words, "Language, then, is a multisensory and multimodal semiotic system interconnected with other *identifiable* but *inseparable* cognitive systems. Translanguaging for me means transcending the traditional divides between linguistic and non-linguistic cognitive and semiotic systems" (Wei, 2018, p. 20). This perspective has important implications for the way we may consider the communicative practices in children's mathematics learning; a salient perspective is that isolating different modes of communication closes possibilities for a more meaningful understanding and communication of learning.

Thick Description: A Multimodal Approach for Disruptive Understandings of Children's Language Use

I drew on philosophical hermeneutics to shape the data collection and data analysis processes in this study because it provides a focus on transformative understanding. Moules et al. (2015) explain that

unlike some other qualitative methods, the practice of hermeneutics is not aimed at inducing themes, semantic codes, constructs, or theories, but rather seeks to deepen understanding of a topic in such a way that it can be seen differently, and ultimately, can be practiced differently. (p. 119)

The hermeneutic way of positioning the practice of research through a focus on understanding aligns with the goals proposed in this study to provide disruptive understandings of the language practice of multilingual children while learning mathematics. The research study that generated the data was designed to promote understanding by creating opportunities for repeated engagement with the multilingual practices of children. Thus, a hermeneutic perspective informs my stance to look closely at those experiences and data and to disrupt them through purposeful interpretation, questioning taken-for-granted notions about language in the context of mathematics learning.

The practice of thick description has been identified as a way to foster a hermeneutic encounter that invites understanding (Freeman, 2014). Denzin (2001) designated thick description as an interpretative and creative system of analysis that involves multiple dimensions of experience to support thick interpretation. Simply put, thick description is an approach to analysis that involves dense descriptions and explanations of events, calling for a focus on context and meaning (Harrison, 2013; Ponterotto, 2006). In this chapter, I developed the

understandings that grew through my repeated experiences with multilingual children into thick descriptions. To do so, I drew on multiple data sources that reflect everyday events in bilingual mathematics teaching and learning. In alignment with the research question in this chapter, I centered on instances where children communicated their mathematical understanding through language practices that include multilingualism and multimodality.

Freeman (2014) argues that the opportunity to engage with a phenomenon in aesthetic and multidimensional ways is what gives thick description its ability to foster deep and transformative hermeneutic understandings. She concludes that "when we venture in the multiple aesthetic manifestations of meaning, we cannot separate out the meaning from the lived experience of the journey" (p. 832). Hence, I turned to instances that portrayed multiple dimensions of young multilingual children's experiences with mathematics learning focusing on the complex meanings that can only be brought forward when considered in context. As I developed the thick descriptions through multiple modalities and a diversity of experiences, I intentionally pursued thick interpretation of multilingual children's language use while learning mathematics. To support my analysis, I drew on findings from previous research as added contexts for understanding, foregrounding perspectives from mathematics education as well as literature on multimodality, translanguaging, and multilingualism.

Positionality

The understandings developed in this chapter stem from my own experiences as a multilingual, immigrant, and multicultural Latina. I have never known the world in just one language and I had most of my formative schooling experiences in settings where being multilingual was seen as an asset. My experience of being multilingual as a powerful and advantageous way of being that fosters learning is a perspective that remains prevalent in my

research and work as an educator. As a scholar, I am committed to develop research that helps address the structural and systemic injustices children face when learning, particularly for children who are Latine, linguistically diverse, and who have historically been minoritized and marginalized. I fundamentally believe that diversity in perspectives and experiences fosters complex representations of knowledge in our research.

In this chapter I have identified children as multilingual and Latine. Hence, I would like to explicitly acknowledge the heterogeneous nature of Latine and multilingual people and that neither way of being implies the other. Words such as Latine and multilingual can help us understand our identities as part of a community, yet they should not be used to erase the uniqueness of our experiences. It is important to understand that the word multilingual has been problematized for failing to oppose the hegemony of named languages, thus failing to reflect a truly heteroglossic and integrated view of linguistic repertoires (see Canagaraja, 2013). I use the word multilingual because it allows me to indicate in an easily recognizable way the necessary distinction of people who are not socially recognized as monolingual, while still representing a plurality of language experiences and identities.

Design and Context of the Study

The data I consider in this chapter were generated through a three-year study to understand young children's experiences as these relate to the connections between languages and mathematics learning. Data were collected across three years in two kindergarten classrooms in two public schools in a town in the southeastern United States. I joined the classrooms as a participant-observer, taking the role of a volunteer teacher and working with the classes an average of two to three times a week. As a part of my role as a volunteer teacher I actively participated in all instruction I was present for as well as special school events and field trips.

Because the focus of the study was the language use of the children while learning mathematics, during mathematics instruction I regularly taught the whole group, worked with small groups and individual students, performed mathematics assessments, and observed mathematics instruction. Since I was often working with the children while in the classroom, data were generated in journal entries and by collecting student work. For the second and third year of the study, I also introduced audio recordings during mathematics instruction of the children and periodic field notes taken by a second researcher through the role of reactive observer.

In this chapter, I will focus on data collected during the second year of the study. During the second and third years of the study data were collected in Ms. Moreno's kindergarten classroom, which was part of a DLI (Dual Language Immersion) program based on an 80/20 model (80% of the day in Spanish, 20% of the day in English). Each DLI class was projected to have equal amounts of students who were native speakers of each language, however more children came into the program whose dominant language was English and the children were often familiar with both languages. Mathematics instruction was intended to be in Spanish. In my work with the children the use of English was encouraged; complex ideas were intentionally stated in both languages not only by me but also by the children in the class. This particular kindergarten class had 22 children; most children in the class were proficient in English and able to understand basic instructions in Spanish. About half of the class had also attended pre-kindergarten in the DLI program, so they had previously received a year of school instruction in Spanish.

The data I considered in this chapter were collected during the second semester of the school year. The focus of instruction was the development of students' abilities to represent numbers and solve problems with addition and subtraction. For this purpose, the children and I

often worked together using familiar children's books in English and Spanish or scenarios (such as the park, the grocery store, or the classroom) to imagine a different context with meaningful questions involving numbers, addition, and subtraction.

Multilingualism and Multimodality in Children's Mathematics Learning

To represent the understandings that were developed in this study, in this section I focus on the experiences and language practices of children participating in a mathematical discussion centered around grocery shopping and adding doubles. The activity started with a whole group discussion, during which the children took the lead in considering what they would like to buy in a visit to the grocery store and what they would buy a lot of. When I prompted the children to think about items they would buy nine of, one of the children suggested pies. Other children found humor in the idea of being able to buy a lot of very large pies, prompting several children to continue to make jokes throughout the lesson about buying absurd quantities of pie. As a way to continue to gear the discussion towards mathematics learning, I asked the children if it would be reasonable to buy several small pies to share with a group of friends and family. The discussion then shifted to other items that would be good to buy nine of if you were buying lots of pies, which prompted a child to suggest apples as a healthy alternative. The children then worked independently to identify the total number of items bought and create models for their thinking. At the end of the activity some of the children shared their models and thinking with the whole group.

One of the most common presentations of translanguaging that occurred during mathematics instruction, was me prompting the children in Spanish and the children would then respond mainly in English inserting keywords in Spanish. This way of communicating can be easily noticed in the pies and apple lesson when a student, London, was called to share:

Original Transcript	English Translation
	(Italics represent original in Spanish)
Cristina: A ver London ¿cuál es tu respuesta?	Cristina: Let's see London, what is your
	answer?
London: uno, dos tres	
	London: one, two, three
Cristina: No, no muéstranos que	
dibujaste what's in your picture?	Cristina: No, no show us what you drew
	what's in your picture?
London: ¿Nueve?	
	London: Nine?
Cristina: A ver muéstranos	
	Cristina: Let's see show us
London: These are pies and they are in a row	
of pies and is nueve, and these are apples in a	London: These are pies and they are in a row
row of apples	of pies and is <i>nine</i> , and these are apples in a row of apples
Cristina: y muéstrales lo demás espera -	
ahí para que puedan ver	Cristina: and show them what else wait - right there so that they can see
London: uno, dos, tres, cuatro, cinco, seis,	
siete, ocho, nueve, diez, once, doce, trece,	London: one, two, three, four, five, six, seven,
catorce, quince, dieciséis, diecisiete,	eight, nine, ten, eleven, twelve, thirteen,
dieciocho	fourteen, fifteen, sixteen, seventeen, eighteen
Cristina: dieciocho! Gracias London, muy	Cristina: eighteen! Thank you London, very
bien	well

Table 1. Transcription and translation of interaction with London

In these interactions, the use of linguistic features socially associated with Spanish and English is self-evident. From the perspective of translanguaging, it is understood that in this instance London and I are using features of Spanish and English as part of one integrated repertoire, instead of drawing on two abstract systems (Garcia and Kleyn, 2016). This view of language counteracts biases and supports an interpretation of London as an agentic language user who is

able to choose from a wide range of linguistic features to communicate and learn, instead of an imperfect monolingual speaker of English or Spanish who is forced to rely on her dominant language because she is not yet proficient in the language of instruction.

When London was called to share her work, she immediately tried to count the objects in her work in Spanish. Dominguez (2019) has theorized students and teachers engage in processes of reciprocal noticing through which diverse students are able to bring forward culturally and linguistically situated manifestations of mathematics. In this instance, London demonstrates her experience sharing mathematical ideas and her understanding of practices that are relevant to the context of the classroom. Since the children regularly shared their models and thinking, London had experienced that the use of Spanish was valued and that counting was positioned as an important skill to explain models of mathematical thinking. Prompting children to count was one of my most common responses during any sharing activity. Hence, London demonstrates her skill in choosing from language features that are appropriate and relevant to the context and communicative practices of the bilingual mathematics instruction she was part of.

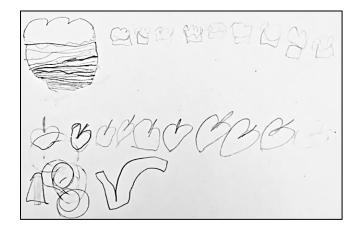


Figure 8. London's representation of 9 pies and 9 apples

London's words while sharing indicate how bilingual children necessarily rely on having multiple ways to represent their thinking to be able to successfully solve mathematics questions

and explain their mathematical ideas. Multimodality is necessary for meaning making and as such it is an inherent feature of any translanguaging practice (Garcia, 2011; Blackledge and Creese, 2017). London's ability to communicate complex meanings resides at the intersection of multiple modalities of language. As can be seen in Figure 8, London represented nine pies and nine apples, concretely drawing each of them. In her model London demonstrates her thinking about quantity while also exhibiting familiarity with the expectations of carrying out mathematics procedures in schooling contexts. She represented the total number of objects by writing the number eighteen at the bottom of her paper as well as a checkmark to demonstrate that she had counted and checked her work. When London counted by ones to 18, she pointed at each object she drew and when she reached the total number of objects, she pointed to the numeral for eighteen. London's drawings and actions show a depth of understanding that her words alone do not.

London skillfully wove together her words, drawings, and body movements to effectively share her mathematical thinking. London's actions point to the complexity of what was being communicated at this moment, and the complexity of the mathematics being learned. Her model demonstrates a consideration of quantity that seems to evoke the whole group discussion about large pie quantities and previous discussions the class had about strategies that could be used to represent groups of objects. Langer-Osuna et al. (2016) has explained that multilingual children are able to use multiple communicative resources to participate and create opportunities for their own mathematics learning. In her drawing London represents one big pie and then 9 small pies evoking the discussion about reasonable amounts of pie and the idea that the small individual pies form a group of nine. London's choices and language use transform shared understandings

of mathematics translating them through her lived experience and perspectives, a key step that children can take in fostering their mathematics learning (see Turner et al, 2013).

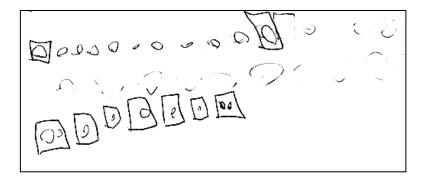


Figure 9. Jaxon's representation of 9 pies and 9 apples

The short glimpse into London's learning indicates the importance of children having opportunities to represent their mathematical understanding through multiple modes while also being supported in making connections across them. These are important skills and key learning opportunities (Radford et al.; 2017) particularly considering the increase in the language demands of students in mathematics instruction; children are now expected to provide in depth explanations for their mathematical understandings and procedures (see NCTM, 2013). The importance of children's ability to use different modes and languages to make sense of mathematics can also be identified in Jaxon's experiences. As can be seen in Figure 9, to find the total number of apples and pies Jaxon drew abstract representations of quantities using circles that originally did not match the actual quantities he was considering. In previous lessons, the class had discussed the use of circles as a strategy to represent quantities and objects. When I approached Jaxon, he had drawn more than twice the number of required circles to represent eighteen. He was able to verbally explain what he wanted to represent and seemed aware that the model he created did not match his thinking. When I offered counting-tiles (little plastic squares made of different colors), Jaxon was able to count, model, and explain his answer communicating his thinking using Spanish and English interchangeably. Once he represented the answer with the tiles, we used the tiles to revisit his drawing matching each of the eighteen tiles that he had counted to the circles he had drawn. In this final version of his work, it is possible to see the complexity of his understandings. Once I started working with a different child, Jaxon worked independently to accurately represent eighteen. He traced the shape of the counting tiles around some of the circles he previously drew and erasing most of the circles he had drawn before. In the final version of his model Jaxon represent nine circles and nine squares for a total of 18 items.

Jaxon's work and his process to effectively create a model of the mathematics question emphasize the importance of challenging preconceived notions of how effective mathematics learning and language practice should look like within schools. Students and teachers notice the way certain linguistic practices are valued over others in spaces of mathematics education based on an inevitable awareness of the inherent power dynamics that manifest in the way language is valued (Planas & Civil, 2013). Jaxon was not required to represent his work in a predetermined way or to use just one language to learn. Yet, he chose to model his mathematical thinking through an abstract model, which is often identified as a valuable mathematics skill (Lesh and English, 2005). When Jaxon was not immediately successful, he was given the opportunity to think about the situation independently and then to explain his thinking with support. Flores (2020) conceptualizes that multilingual children have the ability to draw on an array of linguistic features to communicate in ways that are effective and relevant to the context, thus their ability to act as language architects should be recognized as an important skill to support academic learning. In this instance, Jaxon was supported in considering his mathematics ideas across different modes of communication while drawing on both Spanish and English to help him make sense of the quantity (eighteen) in his own terms.

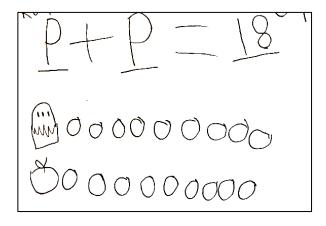


Figure 10. Kira's representation of 9 pies and 9 apples

The ability to interpret and appropriate valued communicative practices for mathematics learning was common across students. Although students were encouraged to use numerals and drawings to represent their thinking, I did not introduce number sentences or symbols for addition or equality during the activity with the apples and pies. My goal for the activity with the apples and pies was to support the children's practice modeling quantities and their mathematical thinking of a complex situation we imagined together in an open-ended manner. Yet, students had an experience of language as a multisensory and multimodal system that included non-linguistic resources (Wei, 2018) as useful resources to represent their mathematical thinking. Some students introduced the use of mathematical symbols as helpful resources to represent their mathematical thinking and models. For instance, in Figure 10, it is possible to see the model Kira created for the apples and pies. Her model demonstrates a depth of familiarity with the use of multiple symbolic linguistic features to represent mathematical ideas such as number sentences, numerals, symbols for equality and addition, as well as drawing abstract equivalents of an object to represent quantity.

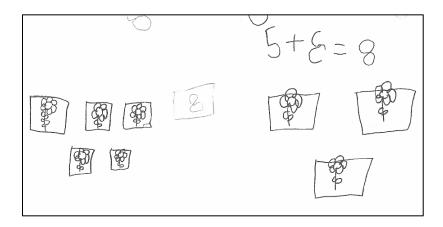


Figure 11. Kira's representation of 8 flower drawings

In a different drawing Kira created about a month earlier (see Figure 11), she developed a model portraying each element concretely, imitating the illustrations that she saw in the book we used as a context to create questions that could be considered mathematically. In contrast, in the model in Figure 11, Kira created opportunities for understanding by adding the same quantity by creating two rows of circles that equal nine and mirrored each other. In the model in Figure 11, Kira portrays her understanding of addition by concretely representing two groups one with five objects and one with three objects, originally drawing the numeral for eight in the middle of the two groups. When I asked her to explain her model during individual work, Kira shared about ideas in her drawing hovering her hands over each group of objects. When she described adding, she moved her hands bringing them together imitating the body movements we used to signal addition in whole group settings. When I started working with another child, Kira continued to work on her model, erasing the numeral for 8 she had originally placed in the middle and creating the equation to represent her mathematical thinking.

Across the two samples of Kira's work, the student demonstrates a continuous meaning making process of the use of equations to represent her thinking while changing strategies she used to model quantities. Kira's actions undermark the importance of instructional practices in mathematics that emphasize presenting multiple strategies based on children's readiness, instead

of a standard strategy enforced by the teacher (Carpenter et al., 2017). The two work samples from Kira indicate the way different models afford her an opportunity to demonstrate different understandings of addition and quantity. The practice of translanguaging then supported the necessary noticing of complex mathematics ideas that were being carried out through diverse linguistic practices communicated (Barwell et al., 2017) in ways that created opportunities for learning (Garcia & Wei, 2014).

Moving Forward

Children in bilingual classrooms are constantly deploying their linguistic repertoires to understand and communicate complex ideas. In the previous section I portrayed children making purposeful choices regarding their language use to learn and communicate mathematical ideas while drawing on a variety of linguistic features that include semiotic and multimodal resources. To learn mathematics, children use body movements, drawings, models, manipulatives, symbols, contexts, as well as spoken and written linguistic features. These experiences reinforce the need to draw on practices and frameworks to provide a learning experience that comprehensively responds to children's inherently agentic and contextual language use. In previous work, I argued that translanguaging is a fruitful practice and perspective to support the mathematics learning of multilingual students (Valencia Mazzanti & Allexsaht-Snider, 2018). In this chapter, drawing on translanguaging supported me as a researcher and educator in noticing language as inherently multilingual, multimodal, and multisensorial.

Questions about the way language use is perceived can pose challenges for researchers. A plethora of methodological practices have been developed within research that focuses on language to address the complexity of understanding and explaining increasingly diverse linguistic realities (King, Lai, & May, 2017). Similarly, the *Compendium for research in*

mathematics education also identified the need for theories and methodologies that help us develop research to comprehensively and innovatively understand complex phenomena in mathematics education (see Stinson & Walsh, 2017; de Freitas, Lerman, & Parks, 2017). Setati (2008) writes eloquently about the need in mathematics research to think about the political nature of language, moving beyond its pedagogical use in the contexts of schooling. Planas and Civil (2013) undermark the need to study issues of language not just as a resource for learning but as a social practice that inherently manifest power dynamics embedded in communities.

Currently it is impossible to imagine any context in which the language practices of all the children in the class, the teacher, and the curriculum are exactly the same. Thus, it is urgent to advance practices and perspectives that counteract current biases ingrained in languages and respond to a diversity of experiences. Translanguaging encompasses a transformative movement from an idealized view of language to a practical view of language that is responsive to the experiences of linguistically diverse people (Garcia & Wei, 2014). As researchers and educators aim to understand diverse language practices they must consider the multifaceted ways their own language and experience necessarily mediate the ability to interpret children's learning. In my description of bilingual children's experiences with language and mathematics learning I identified a range of language practices that children deploy to carve various paths that support their learning. At the core of this array of language practices is an experience of language as a multifaceted and integrated system that brings together multiple modalities to communicate complex ideas, thus transforming the contexts where language is enacted and in doing so the constitution of language itself.

CHAPTER 5

AN/OTHER MOVING FORWARD

Sursum Corda

~ Eucharistic Prayer

There is a shadow of a familiar meaning in the idea of a "moving forward." It seems so significant to the movement of understanding that has marked my journey through this dissertation, my doctoral studies, and the ideas that have grown through it all. In this sense, moving forward seems less like a conclusion and more like the imprint that will be left behind by the movement of my being intertwined in the learning journey that is now materialized in this dissertation as it evokes what is yet becoming. As the mark of my being as a researcher this study appears through the many voices that are now in mine revealing my reconning with belonging into a research community that is in itself caught in a rhythm of becoming. This dissertation study is then the manifestation of my will and attempt to do research differently, with an ethical awareness of what it means to be othered. In its process, the study became a strange and yet familiar path revealing the renewed beauty and hope I continue to find in learning, languages, and research. Thus, to close the dissertation I want to return to two ideas that were always at its core: language and otherness.

I started this study by opening questions about language diversity through my own experiences. I posed that the complexity of researching and understanding multilingualism and

language diversity is not simply shaped by its multiplicity but by a forgetfulness of the being of language itself. Language as a being that becomes and revels in its plurality irradiates the inherently aesthetic and multimodal dimensions of our struggle toward meaning. Foregrounding the ontology of language itself then opens us up to the potential of what qualitative research and education are and can be as practices fundamentally shaped by language. The restoration of the original difficulty that characterizes language is then a point of departure towards worlds, knowledges, and experiences that have been made to disappear through possible quick assumptions and dismissals of difference, particularly in relation to the capacity of language to represent and shape knowing.

As I come to the end of my doctoral journey, I find that a lot of questions remain about what research and education are and should be. At its best and its worst research and education seem to be manifestations of the willingness of people to learn that which is different from what is currently known shining forth the human struggle for meaning. This intrinsic willingness to know the other has played out terribly resulting in unethical and dehumanizing practices that have othered through power relations in ways that have repeatedly harmed and oppressed individuals and communities across history. On the other side, this movement towards the other also seems to be exactly the core of potential paths towards healing and dismantling power structures. Research and education then persist in the renewal of the plurality of voices of those who aim to make a claim of it, bringing their own knowledges and opening possibilities for their communities. It is in these possibilities that I recognize how our efforts as educators and researcher can change the in-between spaces that we work in to be more inclusive, equitable, and socially just. The in-between brightens the potential of worthwhile practices that uniquely

position us to learn from difference; echoing the movement of life as it pushes people to learn worlds that can be, worlds that perhaps we are yet unable to know and to imagine.

I used the phrase "el arte sirve para no morirnos de realidad" to frame a previous chapter because I find the words effectively convey an intuition that has shaped my own approach to research and the painful social realities that appear through its process that at times seem so unchangeable to me. I find its meaning evocative of the ways I know art, creativity, and imagination to play a necessary role when striving towards disruption and transformation of realities that are so painful that just its experience can feel like a form of dying. In the context of education and research as structures and practices that mirror our social world, therefore reproducing harm in ways that are hard to name and understand, artful approaches as multifaceted and aesthetic engagements seem to open us up as paths of hope towards the currently impossible and to transpose the incommensurable.

I find this tension between what is and what can be to also be at the core of my own research and this study in its relation to hegemonic knowledges. I am yet to acknowledge what may be some of the limitations of systematically drawing on philosophical hermeneutics and its interpretation of language in contexts where I consider the experiences and understandings of multilingual and minoritized communities, particularly when we take into account my own positionality. Amongst many things, I am an immigrant, multilingual, and Latina. My research often focuses on the experiences of people within my own communities, especially multilingual children and Latines. For me there are and there should be questions as to the implications and limitations of framing the experiences and understandings of minoritized people into a perspective that can be seen as belonging to the hegemonic discourses through which our communities have been systemically marginalized and oppressed.

More concretely, there are tensions in understanding that the hermeneutical view of language, comes predominantly from the perspectives of white European men, with an experience of the world that is assumed to be inscribed in monolingual ideologies, grounding their ways of coming into knowing in what has been traditionally valued within academia and western culture. Although my aim is not to resolve or comprehensively explain this tension, I do see it as something to acknowledge and as a generative space that may allow for deeper understandings. I recognize that in the struggle to advance agendas and the representation of diverse people and realities we will need a set of theories and resources that will inevitably be informed by current hegemonic discourses and groups. Our work as scholars then becomes to bring forward our own diverse perspectives to transform these theories in ways that make noticeable the inconsistencies and issues of navigating this power laden landscape while honoring our individual and communal identities that are at the core of our commitments to equity and social justice. I chose to draw on philosophical hermeneutics because it serves my own research agenda to represent and understand linguistic diversity through the ontology of language as a way to advance diversifying practices in research and education as well as theorizing of language itself.

de Andrade (1991) articulated the process of re-signification of knowledge and ideas through the metaphor of cannibalism. He explained that for those of us who once were colonized the boundaries between "us" and "them" are blurry. Then, we are left with the need to make sense and be in the world through cannibalism; a violent process of appropriation of other cultures and knowledge that is a right and a need, a process where we are called to eat the other, taking it apart and remaking it as a part of our own bodies to be able to make sense of our new reality. If anything, de Andrade's (1991) theorization through cannibalism reminds us that the

history of knowing is troubled. That troubled history bleeds into education and research, as practices and structures that also come with a troubled past calling us to consider how we may re-signify dominant traditions in education and in research, not for what it was or what it is but for what it can be as the echo of our humanity and of our being as part of communities.

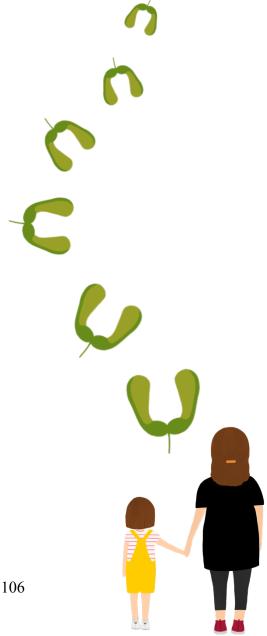
If I could cite ethos, experience, or beauty the reference list on this dissertation would be ever so different. There would be the transmission of identity given by my family: the way I have learned about the meaning of unconditional love and the limits of acceptance with my sisters, my mother's love as the acceptance of all that I am and the meaning of my ethical being, my father's will to open the gates of the world for me to overcome pain and to become, the witnessing of my aunt's faith as the shape of hope, the belonging in the shared becomings with my cousins, the freedom that I wish upon my nieces. There would be the experience of wind, as that which we cannot see but know to still exist, and the experience of colors we discern in an ever-changing sky, as that which we know not to exist but we can still see. There would be the ineffable feeling of walking in legs that are soon to fail, the anticipatory hopelessness of blindness, and the pain of my body as it has been cut apart and brokenly pieced back together. There would be the voices of my teachers and students as the meaning of freedom and the will to always think for myself. There would also be the music, the literature, the art that sustain a will to persevere through the subtle iterative breathing of meaning into language and the movement of life.

I know citation practices and modes of representation will need to continue to advance and shift in contexts of education and research through the ethereal trailblazing of diversifying knowledges and knowing. Each engagement in our own pursuit of meaning then becomes the departure from the familiar in the awareness of the transient yet permanent wakes that will necessarily be left behind in the process of knowing. Paths that will then weave themselves into

the fabric of space and time to constitute the known universe through the filigrees of meaning of our being in the transposing of what we wish to be and can be. I previously used the words "Soy, las ganas de vivir/ las ganas de cruzar/ las ganas de conocer" as a way to evoke the willful, wishful, and liminal being of language and its constitutional contribution to learning as a form of border crossing. I find that the phrase renews the metaphoricity of language to restore it as the borderland space of the primeval recognition of all that is other as the inverted dimension of the self. My search of the in-betweens then signals the intention to bridge across multiple identities, dimensions, time, and disciplinary practices when studying complex phenomena to be able to capture them in the reveling of plurality.

Earlier versions of this dissertation study started with the description of Tres Fronteras as a place that exists because of imaginary frontiers people create yet is still ignorant of the powers we give to arbitrary borders. As its name indicates, Tres Fronteras is a place imagined into a river in the middle of the amazon jungle where Colombia, Peru, and Brazil meet. A space where borders disappear into the experience of the transience of recognition and through the renewed becoming of time. As a point in space that exists because of imaginary borders and where borders disappear, Tres Fronteras becomes a metaphor that in its fantasy-like quality evokes the spirit of the work pursued in this dissertation towards complexity. It evokes the spirit of all the necessary in-betweens of our becoming as individuals that are part of the communal, the spirit of departure towards imaginary frontiers that both stand and forget the delimiting of multiple perspectives and disciplines. Tres Fronteras brings forward a manifestation of the potential for in-between spaces as the being of plurality and as a movement towards horizons that extend beyond imagination in glimmers of hope.

I chose the words "sursum corda" to frame this closing section because of the way the phrase became meaningful to me as my mother repeated it in moments of true uncertainty or bleakness. Time then etched the words into my being as the survival of hope in hopelessness. As I witnessed research and education, I recognized the echoes of hopelessness in the underlying aquifers of harm embedded in their structure that seem to inevitably resurface in their practice. Yet, I also recognized research and education as parallel and intersecting courses towards what the being of learning at its best can be, of the potential learning has to be in its deepest form an expression of freedom. Thus, I move forward. I depart from within the borders and into the inbetweens of plurality as the light of that which is yet becoming. I hope.



REFERENCES

- Abend, G. (2008). The Meaning of 'Theory.' Sociological Theory, 26(2), 173–199.
- Anzaldúa, G. (1987/2012). Borderlands/La frontera: The new mestiza. Aunt Lute Books.
- Arnheim, R. (1969). Visual thinking. University of California Press.
- Adami, E. (2017). Multimodality. In O. García, N. Flores, & M. Spotti (Eds.) *The Oxford Handbook of Language and Society*. Oxford.
- ANGEL (2020). Global Education Digest 2020. Development Education Research Centre, UCL Institute of Education.
- Aroca Araújo, A. (2018). Etnografía del saber matemático de los pescadores de Buenaventura,

 Pacífico colombiano: Elementos para una educación matemática contextualizada.

 Universidad del Atlántico.
- Bartell, T., Wager, A., Edwards, A., Battey, D., Foote, M., & Spencer, J. (2017). Toward a framework for research linking equitable teaching with the standards for mathematical practice. *Journal for Research in Mathematics Education*, 1, 7.
- Barwell, B., Clarkson, P., Halai, A., Kazima, M., Moschkovich, J., Planas, N., Setati-Phakeng,
 M., Valero, P., & Ubiliús, M. (2016). Introduction: An ICMI study on language diversity
 in education. In Barwell, et al. (Eds.), *Mathematics education and language diversity*.
 The 21st ICMI Study. (p. 1-22.) Springer International.
- Barwell, B., Moschkovich, J., & Setati-Phakeng, M. (2017). Language diversity and mathematics: second language, bilingual, and multilingual learners. In Cai, J., & National

- Council of Teachers of Mathematics. (Eds.), *Compendium for Research in Mathematics Education* (p. 563 606). National Council of Teachers of Mathematics.
- Blackledge, A. & Creese, A. (2017). Translanguaging and the body. *International Journal of Multilingualism*, 14:3, 250-268.
- Blommaert, J., & Rampton, B. (2011). Language and superdiversity. *Diversities*, 13 (2), 1–21.
- Bradbury-Jones, C., Taylor, J., & Herber, O. (2014). How theory is used and articulated in qualitative research: Development of a new typology. *Social Science & Medicine*, 120, 135–141.
- Brinkmann, S. (2018). *Philosophies of qualitative research*. Oxford University Press.
- Brinkmann, S., Jacobsen, M. H., & Kristiansen, S. (2014). Historical overview of qualitative research in the social sciences. In P. Leavy (Ed.), *The Oxford handbook of qualitative research*. (pp. 17–42). Oxford University Press.
- Canagarajah, S. (2013). Translingual Practice: Global Englishes and Cosmopolitan Relations. Routledge.
- Causey, A. (2017). *Drawn to see: Drawing as an ethnographic method*. University of Toronto Press.
- Caputo, J. D. (1987). Radical hermeneutics: repetition, deconstruction, and the hermeneutic project. Indiana University Press.
- Caputo, J. D. (2000). More radical hermeneutics: on not knowing who we are. Indiana University Press.
- Carpenter, T., Franke, M., Johnson, N., Turrou, A., & Wager, A. (2017). Young children's mathematics: Cognitively guided instruction in early childhood education. Heinemann.

- Celedón-Pattichis, S., Borden, L., Pape, S. J., Clements, D. H., Peters, S. A., Males, J. R.,
 Chapman, O., & Leonard, J. (2018). Asset-Based Approaches to Equitable Mathematics
 Education Research and Practice, *Journal for Research in Mathematics Education*, 49(4), 373-389.
- Clifford, J., (1986). Partial Truths: An Introduction. In Writing culture: the poetics and politics of ethnography. University of California Press.
- Code, L. (2003). Feminist interpretations of Hans-Georg Gadamer. Pennsylvania State University Press.
- Cazden, C., Cope, B., Fairclough, N., Gee, J., Kalantzis, M., Kress, G., ... & Nakata, M. (1996).

 A pedagogy of multiliteracies: Designing social futures. *Harvard educational*review, 66(1), 60-92.
- Culler, J. D. (2011). *Literary theory: a very short introduction* (2nd ed., fully updated new ed.).

 Oxford University Press.
- Davey, N. (2006). *Unquiet understanding: Gadamer's philosophical hermeneutics*. State University of New York Press.
- Davey, N. (2013). *Unfinished worlds: Hermeneutics, aesthetics and Gadamer*. Edinburgh University Press.
- de Andrade, O. (1991). Cannibalist Manifesto. Latin American Literary Review, 19(38), 38-47.
- de Freitas, E., Lerman, S., and Parks A. N. (2017). Qualitative methods. In Cai, J., & National Council of Teachers of Mathematics. (Eds.), *Compendium for research in mathematics education* (p.159-182). National Council of Teachers of Mathematics.
- Denzin, N. K. (2001). Thick description. In *Interpretative interactionism*. Sage
- Denzin, N.K. & Lincoln, Y. (2013). The landscape of qualitative research. SAGE.

- Domínguez, H. (2005). Bilingual Students' Articulation and Gesticulation of Mathematical Knowledge During Problem Solving, *Bilingual Research Journal*, 29:2, 269-293.
- Domínguez, H. (2019). Theorizing reciprocal noticing with non-dominant students in mathematics. *Educational Studies in Mathematics* 102, 75–89.
- Eisner, E. (2008). Art and knowledge. In J. G. Knowles & A. L. Cole *Handbook of the arts in qualitative research: Perspectives, methodologies, examples, and issues* (pp. 3-13). SAGE Publications.
- Fitzpatrick E. & Farquhar S. (2019). Narrative and Metaphor: The Beginning Matter. In Farquhar S., Fitzpatrick E. (eds) *Innovations in Narrative and Metaphor*. Springer
- Flores, N. (2020). From Academic Language to Language Architecture: Challenging

 Raciolinguistic Ideologies in Research and Practice. *Theory into Practice*, 59(1), 22–31.
- Flores, N., & Rosa, J. (2015). Undoing appropriateness: Raciolinguistic ideologies and language diversity in education. *Harvard Educational Review*, 85(2), 149-171.
- Flores, N., & Rosa, J. (2019). Bringing race into second language acquisition. *The Modern Language Journal*, 103, 145-151.
- Flores, N., & Schissel, J. (2014). Dynamic Bilingualism as the Norm: Envisioning a

 Heteroglossic Approach to Standards-Based Reform. *TESOL Quarterly*, 48(3), 454-479.
- Freeman, M. (2008). Hermeneutics. In L. Given (ed.) *The Sage encyclopedia of qualitative research methods*, 1, 385-388.
- Freeman, M. (2014). The Hermeneutical Aesthetics of Thick Description. *Qualitative Inquiry*, 20(6), 827–833.
- Freeman, M. (2017). *Modes of thinking for qualitative data analysis*. Routledge.

- Freeman, M. (2020). Perturbing Anticipation: Jazz, Effective-History, Dialogue, and the Nonrepresentational Movement of Hermeneutic Understanding. *Qualitative Inquiry*, 26(5), 527-537.
- Freeman, M., & Vagle, M. (2013). Grafting the Intentional Relation of Hermeneutics and Phenomenology in Linguisticality. *Qualitative Inquiry*, 19(9), 725-735.
- Gadamer, H. G. (1960/2013). Truth and Method. Bloomsbury.
- Gadamer, H. G. (1976). *Philosophical hermeneutics* (Trans. and edited by David E. Linge). University of California Press.
- Gadamer, H. G. (1986). *The relevance of the beautiful and other essays*. Cambridge University Press.
- Gadamer, H. G. (1992). Hermeneutics, poetry, and modern culture. In D. Misgeld and G. Nicholson (Eds.) *Hans-Georg Gadamer on Education, Poetry, and History:*Applied Hermeneutics.
- Gadamer, H. G. (2007). *The Gadamer reader: a bouquet of the later writings*. Northwestern University Press.
- García, O. (2011). Educating New York's Bilingual Children: constructing a future from the past. *International Journal of Bilingual Education and Bilingualism*, 14: 2, 133-153.
- Garcia, O. (2017). Translanguaging in Schools: Subiendo y Bajando, Bajando y Subiendo as Afterword. *Journal of Language Identity and Education*, 16(4), 256-263.
- García, O. & Kleyn, T. (2016). Translanguaging theory in education. In *Translanguaging with multilingual students*. Routledge.
- García, O. & Leiva, C. (2014). Theorizing and Enacting Translanguaging for Social Justice. In A. Blackledge & A. Creese (eds.), *Heteroglossia as Practice and Pedagogy*. Springer.

- García, O., & Seltzer, K. (2016). The Translanguaging current in language education. In B.

 Kindenberg (ed.) Flerspråkighet som resurs [Multilingualism as a resource]. (pp. 19-30).

 Liber.
- Garcia, O., & Wei, L. (2014). *Translanguaging: Language, bilingualism and education*. Palgrave Macmillan.
- Gramling, D. (2016). The invention of monolingualism. Bloomsbury Publishing USA.
- Graue, M. E. & Walsh, D. J. (1998). Theory as context. In *Studying children in context: Theories, methods, and ethics* (p. 24-54). SAGE Publications.
- Grodin, J. (1994). Gadamer and the Universe of Hermeneutics. In *Introduction to philosophical* hermeneutics (p. 106-123). Yale University Press.
- Gross, N. (2014) Afterword. In R. Swedberg (Ed.). *Theorizing in social science: The context of discovery* (p. 205-215). Stanford University Press.
- Gutiérrez R. (2012). Context matters: How should we conceptualize equity in mathematics education? In Herbel-Eisenmann, B., Choppin, J., Wagner, D., & Pimm, D. (Eds.) *Equity in discourse for mathematics education: Theories, practices, and policies*. Mathematics Education Library, vol. 55. Springer.
- Harman, R.M., & Burke, K.J. (2020). Culturally Sustaining Systemic Functional Linguistics

 Praxis: Embodied Inquiry with Multilingual Youth (1st ed.). Routledge.
- Harrison, A. K. (2013). Thick description. In R. J. McGee & R. L. Warms (Eds.), *Theory in Social and Cultural Anthropology: An Encyclopedia*. (p. 860-861). Sage.
- Heidegger, M. (1996). Being and Time: A Translation of Sein Und Zeit. SUNY Press.
- Ingold, T. (2008). Bindings against boundaries: entanglements of life in an open world. *Environment and planning*, 40(8), 1796-1810.

- Jacobson R.B. (2018) Democratically Undemocratic: The Case of School Bullying. In P. Smeyers (eds.) *International Handbook of Philosophy of Education*. Springer Johnson, P. A. (2000). *On Gadamer*. Wadsworth.
- Johnson Sheehan, R. D. (1999). Metaphor as hermeneutic. *Rhetoric Society Quarterly*, 29(2), 47-64.
- Jørgensen, J. N. (2008). Polylingual Languaging Around and Among Children and Adolescents, *International Journal of Multilingualism*, 5:3, 161-176.
- Karsli-Calamak, E. & Allexsaht-Snider, M. (2020) Manifestations of Mathematics Within the Power Dynamics in a Pre-K Classroom. *Teacher College Record*. Online First.
- Kerdeman, D. (2003). Pulled up short: challenging self-understanding as a focus of teaching and learning. *Journal of Philosophy of Education*, *37*(2), 293-308.
- Kertscher, J. (2002). Gadamer's Ontology of Language Reconsidered. In Gadamer, H.G.,

 Malpas, J., Arnswald, U., & Kertscher, J. (eds) *Gadamer's century: Essays in honor of Hans-Georg Gadamer* (p. FALTA). MIT Press.
- King, K., Lai, Y., & May, S. (2017). Research Methods in Language and Education. Springer.
- King, T. (2008). The art of indigenous knowledge: a million porcupines crying in the dark. In J. G. Knowles & A. L. Cole *Handbook of the arts in qualitative research: Perspectives, methodologies, examples, and issues* (pp. 14-26). SAGE.
- Knowles, J. G., & Cole, A. L. (2008). Handbook of the arts in qualitative research: perspectives, methodologies, examples, and issues. SAGE.
- Lakoff, G., & Johnson, M. (1999). Philosophy in the flesh: The embodied mind and its challenge to Western thought. Basic Books.

- Langer-Osuna, J. M., Moschkovich, J., Norén, E., Powell, A. B., & Vazquez, S. (2016). Student agency and counter-narratives in diverse multilingual mathematics classrooms:

 Challenging deficit perspectives. In *Mathematics education and language diversity* (p. 163-173). Springer.
- Lesh, R. & English, L. (2005). Trends in the evolution of models & modeling perspectives on mathematical learning and problem solving. *The international journal on mathematics education*, 37.
- Lincoln, Y. S. (2010). "What a long, strange trip it's been...": Twenty-five years of qualitative and new paradigm research. *Qualitative Inquiry*, 16(1), 3-9.
- Makoni, S., & Pennycook, A. (2007). *Disinventing and reconstituting languages*. Multilingual Matters.
- Martin, T. L. (2019). Believing Is Seeing: The "Lens" Metaphor in Critical Theory, *Literary Imagination*, 21(3), 289–295.
- Maxwell, J. & Chmiel, M. (2014). Notes toward a theory of qualitative data analysis. In U. Flick (Ed.) *The SAGE handbook of qualitative data analysis* (pp. 21-34). SAGE.
- McManus Holroyd, A. E. (2007). Interpretive Hermeneutic Phenomenology: Clarifying Understanding. *Indo-Pacific Journal of Phenomenology*, 7(2), 1.
- Mignolo, W. (2012). Local Histories/Global Designs. Coloniality, Subaltern Knowledges, and Border Thinking. Princeton University Press.
- Moules, N. J., McCaffrey, G., Field, J. C., & Laing, C. M. (2015). Conducting hermeneutic research: From philosophy to practice. Peter Lang.
- Moschkovich, J. N. (2017). Revisiting early research on early language and number names. EURASIA Journal of Mathematics Science and Technology Education, 13 (7b), 4143–

- National Council of Teachers of Mathematics (NCTM). (2013). Mathematics in Early Childhood

 Learning: A Position of the National Council of Teachers of Mathematics. National

 Council of Teachers of Mathematics.
- Newman, J. I., & Shields, R. (2013). In and Against Rhythms of the Neoliberal Public: Toward a Qualitative Inquiry of the Street. *Cultural Studies* ↔ *Critical Methodologies*, 13(6), 520–528.
- Otheguy, R., García, O., & Reid, W. (2015). Clarifying translanguaging and deconstructing named languages: A perspective from linguistics. *Applied Linguistics Review*, 6(3), 281-307.
- Palmer, R. E. (1969). Hermeneutics; interpretation theory in Schleiermacher, Dilthey,

 Heidegger, and Gadamer. Northwestern University Press
- Peters, T. (1978). Metaphor and the Horizon of the Unsaid. *Philosophy and Phenomenological Research*, 38(3), 355-369.
- Planas, N. & Civil, M. (2013). Language-as-resource and language-as-political: tensions in the bilingual mathematics classroom. *Mathematics Education Research Journal*, 25, 361–378.
- Ponterotto, J. (2006). Brief Note on the Origins, Evolution, and Meaning of the Qualitative Research Concept "Thick Description". *The Qualitative Report*, 11, 538-549.
- Prasad, P. (2005). Crafting Qualitative Research. Routledge.
- Preissle, J. (2006). Envisioning qualitative inquiry: a view across four decades, *International Journal of Qualitative Studies in Education*, 19:6, 685-695
- Radford, L., Arzarello, F., Edwards, L., & Sabena, C. (2017). The Multimodal Material Mind:

- Embodiment in Mathematics Education. In Cai, J., & National Council of Teachers of Mathematics. (Eds.), *Compendium for research in mathematics education* (p. 700-721). National Council of Teachers of Mathematics.
- Richardson, L. (2000). New writing practices in qualitative research. *Sociology of sport journal*, 17(1), 5-20.
- Rolling, J. H. (2016). Arts-Based Research: Systems and Strategies, Art Education, 69:3, 4-5
- Rosa, J. (2019). Looking like a language, sounding like a race: raciolinguistic ideologies and the learning of Latinidad. Oxford University Press.
- Schensul, J. J. (2008). Methodology. In L. M. Given (Ed.), *The Sage encyclopedia of qualitative research methods* (pp. 517-521). Sage.
- Setati, M. (2008). Access to mathematics versus access to the Language of power: The struggle in multilingual mathematics classrooms. *South African Journal of Education*, 28(1), 103-116.
- Silva García, B. & Palacios Alaba, D. (2015). Construcción de nuevas ciudadanías desde un proceso de creación y comunicación colectiva de manifestaciones artísticas en el colectivo La Redada. Universidad Piloto de Colombia.
- Skøvmose, O. (2011). Critique, generativity and imagination. For the Learning of Mathematics, 31(3), 19-23.
- Smith, D.G. (1991). Hermeneutic inquiry: The hermeneutic imagination and the pedagogic text.

 In E.C. Short (Ed.) *Forms of curriculum inquiry* (p. 187–209). SUNY Press.
- Sousanis, N. (2015). Unflattening. Harvard University Press.
- Stavans, A. & Hoffman, C. (2015). *Multilingualism*. Cambridge University Press.

- Stinson, D. & Walsh, M. (2017). Exploring different theoretical frontier for different (and uncertain) possibilities in mathematics education research. In Cai, J., & National Council of Teachers of Mathematics. (Eds.), *Compendium for research in mathematics education* (p.128-155). National Council of Teachers of Mathematics.
- Swedberg, R. (2014). From Theory to Theorizing. In R. Swedberg (Ed.). *Theorizing in social science: The context of discovery* (p. 1-28). Stanford University Press.
- Swedberg, R. (2016). Can You Visualize Theory? On the Use of Visual Thinking in Theory Pictures, Theorizing Diagrams, and Visual Sketches. *Sociological Theory*, *34*(3), 250–275.
- Takeuchi, M. (2015). The Situated Multiliteracies Approach to Classroom Participation: English Language Learners' Participation in Classroom Mathematics Practices, *Journal of Language, Identity & Education*,14(3), 159-178.
- Traue, B., Blanc, M., & Cambre, C. (2019). Visibilities and Visual Discourses: Rethinking the Social with the Image. Qualitative Inquiry, 25(4), 327–337.
- Tufte, E. R. (1997). Visual explanations: Images and quantities, evidence and narrative. Graphic Press.
- Turner, E., Dominguez, H., Empson, S., & Maldonado, L. (2013). Latino/a bilinguals and their teachers developing a shared communicative space. *Educational Studies in Mathematics*, 84(3), 349–370.
- Ulmer, J. B. (2017). Writing Urban Space: Street Art, Democracy, and Photographic Cartography. *Cultural Studies* ↔ *Critical Methodologies*, 17(6), 491–502.

- Valencia Mazzanti, C. & Allexsaht-Snider, M. (2018) ¿Es lo mismo? Bilingual children counting and making sense of number. In I. Goffney & R. Gutierrez (Eds.), *Annual perspectives in mathematics education (APME) 2018: Rehumanizing mathematics for Black, Indigenous, and Latinx* (p. 135-146). National Council of Teachers of Mathematics.
- Vallega, A. (2002). The Naming of Painting. Research in Phenomenology, 32(1), 177-195.
- Vedder, B. (2002). On the Meaning of Metaphor in Gadamer's Hermeneutics. *Research in Phenomenology*, 32(1), 196.
- Veit, W. (1984). The Potency of Imagery—the Impotence of Rational Language: Ernesto Grassi's Contribution to Modern Epistemology. *Philosophy & Rhetoric*, 221-239.
- Vilhauer, M. (2016). Verbal and nonverbal forms of play: Words and bodies in the process of understanding. In Warnke, G. (ed). *Inheriting Gadamer: new directions in philosophical hermeneutics*. Edinburgh University Press.
- Vygotsky, L. S. (1986). *Thought and language*. Revised edition. Massachusetts Institute of Technology.
- Wei, L. (2018). Translanguaging as a Practical Theory of Language. *Applied Linguistics*, 39(1), 9–30.
- Zuñiga, J. (1995). Hermeneutics in ordinary language expressions. *Philosophy & rhetoric*, 365-376.