Negotiating Meaning:

Discourse in the Graduate Research Seminar

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Preface

The present thesis represents original scholarly work. It is innovative in its application of deictic analysis to the negotiation of meaning, and more specifically to deepening our understanding of the performative basis of the graduate research seminar.

Abstract

There are few discourse analyses of the graduate seminar even though graduate learning environment presents a very different interactional environment compared to the primary or secondary classroom, which has been the focus of most classroom discourse research to date. An outstanding problem in discourse analysis is how to analyze shared understanding and the present study proposes a novel methodology grounded in an ethnographic perspective based in the analysis of *deixis*, (deixis: coordinating actions and speech in communicative situations). Here we focus specifically on the use of demonstrative pronouns for capturing the linguistic processes involved in the negotiation of meaning in communicative interactions. The negotiation of meaning appears to be a central feature of seminar work that largely occurs through discourse, in which most of the talk is both displaced and abstract. The main objective of this study is to discover how participants use deixis to maintain a shared understanding and to negotiate meaning in communicative interaction. The research questions that guided this study are (a) How do participants employ deixis to negotiate meaning in the graduate research seminar? (b) How do participants' use of deixis vary according to the roles they adopt in the graduate research seminar? Through a series of analyses, we found that (a) Participants negotiate meaning through a shared understanding of situation. (b) Deixis is involved in the negotiation of meaning and the maintenance of shared understanding. (c) Deictic speech acts are used to situate, orient, position, and coordinate ideas and actions in communicative interaction. (d) Patterns of deictic speech acts enact discourse moves like positing, marking cohesion, subordinating an idea, introducing a complement, indicating mode/mood, making a judgment, clarifying, disambiguating, describing, and (dis)agreeing. Finally, (e) the differential deployment of deictic resources within the seminar situation varies as a function of a speakers' intent as manifested by the roles they adopt in the interaction. Thus, deixis use appears to be related to the participants' ongoing understanding of situation and their command of the discourse, which can be more, or less, sophisticated, and whose performance of deixis is correspondingly more,

or less, sophisticated. Thus, the study of deixis in learning environments has the potential to capture learning trajectories in communities of practice.

Résumé

Il n'y a pas encore eu d'analyse de discours approfondie du séminaire de recherche des cycles supérieurs. Or les cycles supérieurs offrent un environnement distinct de l'école primaire ou secondaire qui ont été le site des recherches jusqu'à date. Par le biais de cet étude, nous décrivons certains mécanismes linguistiques qui sont utilisés pour négocier le sens en interaction. La négociation du sens est nécessaire pour garantir l'intersubjectivité—la compréhension partagée—condition nécessaire d'une activité communicative réussite. L'activité communicative figure comme le mode d'interaction privilégié dans le séminaire, conçu ici comme une communauté de pratique. La présente étude propose une méthodologie novatrice, élaborée dans une perspective ethnographique, qui emploie l'analyse déictique, (*deixis* : la coordination des actions et de la parole en situations communicatives) dans l'occurrence, l'utilisation de pronoms démonstratifs, pour capter les processus linguistiques mobilisés pour négocier le sens lors des interactions communicatives. Cette activité discursive s'avère nécessaire dans le contexte du séminaire de recherche où la majeure partie du discours est abstrait et indirect. L'objectif principal de cette étude était de recenser l'emploi du déixis par les participants dans le maintien de l'intersubjectivité et pour mobiliser les savoirs en interaction. La recherche a été guidée par les questions suivantes. (a) Comment les participants déploient-ils les ressources déictiques pour mobiliser les savoirs dans le séminaire de recherche ? (b) Comment le rôle du participant affecte-il son utilisation du déixis en interaction ? Par le biais d'une série d'analyses itératives et récursives, nous constatons que (a) les participants négocient le sens de leurs énoncés par une compréhension partagée de la situation communicative. (b) Le déixis est impliqué dans la mobilisation des savoirs. (c) Les actes de paroles déictiques servent à (se) situer, (s') orienter, (se) positionner, et coordonner idées et actions en interaction communicative. (d) Les séquences d'actes de paroles déictiques servent à accomplir des actions comme

affirmer, maintenir la cohésion et cohérence du sens, subordonner une phrase, indiquer le mode ou la disposition, porter un jugement, clarifier, différencier, décrire, et montrer son (dés)accord. Enfin, (e) la variation entre participants dans leur exploitation des ressources déictiques semble être indicatrice de leur compétence pratique dans le domaine de la recherche qualitative et du rôle qu'il ou elle adopte dans la situation communicative. Ainsi elle représenterait leur compréhension actuelle de la situation et leur maîtrise du discours, qui peut être plus ou moins sophistiquée, tout comme leur performance déictique correspondante. La performance du déixis se distinguerait effectivement comme un composante importante d'une pratique compétente. L'étude du déixis dans des environnements d'apprentissage nous permettrait de capter les trajectoires d'apprentissage dans la communauté de pratique.

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Chapter 1: Introduction

The purpose of this discourse analysis is to describe participant performance in a graduate research seminar. In this study, I view seminar participation as performance (Goffman 1959; 1974; 1981) of the discourse of the field of practice (Bourdieu, 1990; Hanks, 2005) as a form of legitimate peripheral participation in a community of practice (Lave & Wenger, 1991; Wenger, 1998).

Discourse analysis can help us understand how participant interactions connect and relate to learning in seminars (Gee & Green, 1998). Discourses become meaningful in situations (Gee & Green, 1998) by invoking cultural models and other framing devices that contextualize our utterances, rendering them meaningful. These are indexed through contextualization cues (Gumperz, 1982), including deixis, which help participants interpret utterances appropriately. Deixis refers to linguistic functions used to coordinate actions and speech in communicative situations (Bühler, 2011; Hanks, 1992). By employing deictic analysis to map participants' use of demonstrative pronouns, we can describe how participants negotiate meaning in interaction. This study will demonstrate how the negotiation of meaning operates through deixis and it will show how the negotiation of meaning is a distinguishing feature of the seminar situation, as opposed to the traditional classroom situation, where the initiation–response–evaluation (I-R-E) triadic sequences dominates (Nassaji & Wells, 2000). It will also demonstrate that participant speech patterns are dictated by the roles they adopt in seminar situations.

The discourse analysis of the graduate research seminar can help us better understand how the co-construction of a shared discourse, through the negotiation of meaning, affords and constrains learning in social interaction. Through this approach, we can show to what extent deixis functions as a means of maintaining intersubjectivity, that is, for maintaining shared understanding in the classroom through meaning negotiation.

But this is not only an analytical project, as can be seen in the vignette below, the instructor himself declares that dialogue offers the gift of other perspectives, and it is these

perspectives that form the basis of what is learned in their seminar discussions. Deictic analysis provides a systematic way to describe the co-construction of discourse through the negotiation of meaning and to show how seminar learning involves the adoption of a disciplinary discourse, or the gift of other perspectives.

Vignette

The seminar on qualitative research methods has been meeting once a week for a month already. Today the students have been collaborating on the design of their research projects that they were assigned at the start of the course. At this moment, the group is debating what is the best research design to address one student's topic of inquiry. The class assesses the merits of phenomenology, and case study with regard to one student's project for examining the graduate experience of foreign students enrolled at the university. In this context, the instructor takes the opportunity to clarify the distinctions between different kinds of case study. The instructor ends the discussion by drawing their attention to what the students accomplished in discussion. Below is an excerpt from the transcription. Note the high frequency of use of demonstrative pronouns (highlighted in red (demonstrative pronouns) and blue (relative pronouns) throughout the manuscript).

> But what happened tonight was, we thought of some fresh ideas. We had a genuine discussion, and we found me not being able to answer your question at the evening just like that. And that's a good thing, you know when we're pressed at those levels. And it seems to me that as we go on with this we can not only intellectualize with each other, getting gifts from other people, uh slightly new insights maybe support sometimes when we need it, you know? Um... gifts. But we can also uh (clears throat) learn the knowledge that we that we didn't have, and so this process of dialogue, I believe in this process of dialogue.
>
> *–Excerpted from the transcript of videotape Feb 3C*

The above excerpt lays out very explicitly how the seminar discussions were meant to help them in their learning and the accomplishment of their research projects. These seminar discussions were a means to engage in dialogue about the field of qualitative research. The process of dialogue is tacitly presented here as a philosophy of learning in social interaction. If the process of dialogue is the main motivation behind their interactions, then it must also be seen as one of the goals of seminar discourse, at least according to the instructor. In which case, the gifts received through dialogue ought also to be understood as an important facet of what is accomplished through participation in seminar discourse. But dialogue requires a sharing of perspectives and that places certain communicative demands on participants. This sharing of perspectives, or intersubjectivity, is a necessary precondition of understanding (Rommetveit, 1985; Wells & Arauz, 2006). As we can see from the above excerpt, the demonstrative pronouns index different elements of the situation and make them salient to the ongoing conversation. Thus, the study of deixis can make apparent the linguistic operations invoked in the negotiation of meaning for maintaining intersubjectivity.

The Research Problem

The graduate research seminar is an interactional environment that has not been the subject of extensive empirical research, though the literature is full of reports on instructional practice. Seminars share certain commonalities, namely they involve small groups in verbal or discursive interaction, and it is possible to sketch out into distinct categories based on audience and instructional goals. Broadly then, we can speak of seminars for transitions, new faculty, new students; also of seminars for the study of advanced topics in certain fields and disciplines; and seminars are omnipresent in professional development situations too. Across these groups there is a lot of diversity but one thing seminars have is a common interactional structure, that is, a small group instructional situation of focused topic and activity with regular meetings over a period of time. It is a classroom environment that favors discussion and dialogic instruction over

other conversational and instructional forms, and is often suited to advanced study for the close collaboration that is afforded by the small number of participants.

The field of discourse studies is an interdisciplinary cross-section of the social sciences and the humanities. Historically, the study of language has been fractured at the sentence level: everything below, the domain of linguistics, and everything above that of discourse studies. Disciplinary specializations overlap with heuristic categories that structure the field of discourse studies but their exact meanings can vary. There are semantic, pragmatic, interactional-sequential, performative, and semiotic levels of analysis. Semantics studies linguistic meaning, a field in its own right, wherein there exists a great deal of diversity in approaches. They are mainly concerned with the propositional content of utterances and the rules of linguistic inference. Interactional-sequential studies (Cazden, 1988; Gumperz, 1983; Hymes, 1972; Mehan, 1979) are primarily focused on the rules of communicative action. Pragmatic studies (Grice, 1989) are focused on the appropriateness of discourse production for a given speech situation. Performative studies including critical approaches (Austin, 1953; Fairclough, 1992; Searle, 1969) focus on what is accomplished through discourse. Semiotics and social semiotics (Eco, 1978; Halliday, 1978; Lemke, 1990) study signs and sign systems, and signification in communication. For the present purposes, I group the performative, pragmatic, and semiotic levels together because we are primarily concerned with goal-directed intentional action in describing what is accomplished through seminar discourse.

In the interactional environment of the classroom, language serves dual functions as both the medium and the tool of learning (Wertsch, 1986; Vygotsky, 1962; 1978). Educational researchers commonly accept that learning in classroom environments results from the negotiation of meaning in interaction and is mediated by the discourse co-constructed in social interaction. Yet exactly how discourse mediates learning is unclear. To date there has been no study of the discourse mediation of learning, as a species of meaning negotiation (Wenger, 1998), in a graduate research seminar. Studying

the discourse mediation of learning requires an analytical approach that can bridge the gap between linguistic meaning on the one hand and communicative interaction on the other. Discourse cannot be solely captured by a sequential analysis because it is inherently meaningful (Hicks, 1995). A discourse has a semantic content, it is about something, but it is also presented as a semiotic object. The act of adopting a discourse has signaling power: it can mark membership, it translates a specific worldview, etc. In this study, we will study the negotiation of meaning in the seminar by focusing on linguistic devices employed to invoke and organize ideas in the shared ideational space (which covers both conceptual and perceptual spaces) of the seminar. Thus, we will be mainly concerned with the semiotics (i.e., the sign functions of language (Halliday, 2003) of classroom discourse, taking the semantics of the classroom discourse as given. In other words, we will focus on meaning negotiation, not on meaning making.

Discourse can be considered an interactional accomplishment in the sense of Hymes (1972). Discourses are larger units of meaning that are negotiated in interaction. Discourse, like talk, serves different functions. It is informative, communicative, and performative. To give just three examples: one learns by adopting certain discourses, shares stories that evoke discourses, and demonstrates membership or affiliation by invoking certain discourses.

Discourse is a form of communicative activity that demonstrates unity in meaning and cohesion in form (Canale & Swain, 1983). It is a vehicle for *thinking together* (Mercer, 1995) and a means for co-constructing a shared understanding, through the negotiating meaning. At its most basic, it means connecting ideas together. The speech acts we are concerned with here are accomplished in the abstract field (Bühler's (2011) *Deixis am Phantasma*), that is, they don't necessarily effectuate a change in the physical world but in a shared cognitive reality—what others have called intersubjectivity, common ground, or context, etc.

To the extent then that discourse exhibits unity in meaning and cohesion in form, we can say that the study of classroom discourse is the study of cohesive and coherent stretches of talk for the purpose of learning. Whereas cohesion, the connections between utterances, is a necessary precondition for communicative understanding of any kind, be it in a conversation or otherwise, a discourse by definition must also exhibit coherence; it must make connections among situations and texts, between the communicative situation at hand and other speech situations, their constituent events and activities, and the products of discourse, (commonly referred to as texts). Discourses, like models and schemas, are structuring frameworks defined by their internal coherence. Disciplinary discourses are the set of knowledge, skills, attitudes, and beliefs that are integral to the shared repertoire of particular communities of practice. It follows that discoursing involves the coordination of perspectives in intersubjectivity. Thus, it appears that discoursing is much better described as the negotiation of meaning rather than as the exchange of information, which implies knowledge transmission, rather than the construction of a shared understanding. In the community of practice perspective, discourses are part of the shared repertoire of practice (Wenger, 1998). Discourses are greater than the sum of the interactional sequences, or the information transmitted. Discourses evolve as they are constructed by participants in situations; as meanings being negotiated by participants in interactions, discourses are performed. This study is focused on the performative dimension of the discourse of a graduate qualitative research seminar. Thus, it explores the linguistic means by which meaning is negotiated in the co-construction of the seminar discourse.

The fact that seminar discourse can be described in terms of its semiotic dimension is an important conjecture for the present study. Why semiotic and not semantic? First, participants in a seminar are involved in the negotiation of meaning, which is fundamentally a semiotic activity (because meaning here is interpreted idiosyncratically by each participant). And second, semiotics does not preclude semantics. I take the position that what we do when interacting in seminars is refer to bodies of knowledge and practices, and index (Ochs, 1992) through our performance

(Goffman, 1959) of beliefs, norms, attitudes, and ways of being in the community of practice. A classroom environment simply does not permit the kind of wholesale inferential reasoning that is assumed in truth-conditional semantics, for instance. Hence, semiotic reasoning can be thought of as communicative shorthand. We do not so much transit in meanings, but in signs and symbols, which we use to present, re-present, and negotiate meanings with ourselves and with others. From an information theoretic perspective (Chalmers, 1997; Shannon, 1947), we say meanings are encoded and decoded from signals. Signals are communicated; meanings are reconstituted from signals. Meaning is a constructive process. In real terms, the meaning of our utterance is not contained in the signs we use (Leiman, 1999). Research demonstrates that speech is essentially underdetermined because a host of pragmatic or contextualization cues provide a signaling basis as a communicative ground for inference and meaning interpretation. The word *interpretation* itself suggests the transit between two viewpoints or the taking-between-two-points. Constructing meaning is an active process involving thinking-acting agents in social interaction. Meaning is created intrasubjectively but is negotiated intersubjectively. As a condition of our shared understanding we impute meanings to others because we ourselves have subjective-internal meanings and representations. This is a corollary of the fundamental assumption of intersubjectivity that guides this study.

By the definition provided above, discourses should exhibit a non-trivial structure along with a sequential ordering. Structure and order in interaction can be communicated through deixis (Bühler, 2011; Hanks, 1992). Indeed, the concepts of cohesion and coherence are fundamentally deictic in nature and are intertwined with the notion of context. Context, or what surrounds the immediate utterances, is signaled diacritically through deixis. It is the demonstrative functions of language that creates the interpretive grounds for discourse comprehension. Contrary to certain context theorists, it is the whole communicative situation that is relevant to a communicative exchange, everything within the perceptual surround. Any aspect that can be signaled can be attended to by the participants in interaction. The context is composed of the significant

elements of a situation that have been activated in the sequential development of the interaction. It is what is given semiotically in the situation. Following Bühler (2011) and Hanks (1992), I divide context into two fields that I call the physical and the ideational. The physical field is the immediate communicational environment and is made up of physical objects (people, places, and things). The ideational field is an abstract cognitive space extending the perceptual field and made up of ideas and discourses, beliefs and attitudes, and framed (Fauconnier, 1994/1984; 1997; Fillmore, 1976; Goffman, 1974) in ways of seeing and being. Objects in both the physical and the ideational fields are indexed in our mental model of the communicative situation (Van Dijk, 2008; 2009) through semiotic means, including deixis.

Describing through a semiotic analysis of deixis how participants negotiate meaning in the co-construction of discourse in a graduate research seminar can help reconcile the sequential and semantic dimensions and provide a mechanism to more fully capture the negotiation of meaning in social interaction. The study of deixis in the graduate research seminar can also demonstrate how seminar learning is a function of the linguistic performance of adopting a disciplinary discourse in a community of practice.

Theoretical Framework

I take an interpretivist-pragmatist stance and believe that language does not represent an unmediated underlying reality but in fact is mediated by our cognitive-perceptual apparatus. This is not to say we do not possess representations of reality, only that our representations do not mirror an unmediated reality. Furthermore, I take the cognitive linguistic position that studying the negotiation of meaning as an interactive phenomenon is a window on linguistic reasoning that can provide a glimpse of the coordination of concepts in an intersubjective ideational space while remaining agnostic on the propositional content of verbal utterances.

Adopting the perspective of community of practice (Lave & Wenger, 1991; Wenger, 1998), I conceive of the graduate research seminar as a form of legitimate peripheral participation, where students learn to become researchers by appropriating the discourse, or language of practice, of qualitative research. Discourse and practice are intimately intertwined, such that becoming a competent member of a discourse community (Swales, 1990) requires, for instance, learning to attend to relevant features of context and making use of these contextual cues, adopting the rules and roles of salient participant structures, as what Wells (2002) called a semiotic apprenticeship.

A philosophical framework should account for assumptions about the nature of social reality, truth, and knowledge and knowing, and the nature of language and meaning. This study subscribes to the American pragmatism of Dewey, James, and Peirce, as the intellectual precursor to the brand of ethnographic inquiry born out of the Chicago school of symbolic interactionism of G. H. Mead and Blumer, C. S. Peirce's Semiotics, and the sociologists of everyday life, Goffman, and Schegloff, Sacks, and Jefferson. As with any confluence of ideas, there are important parallels between American pragmatism, the Chicago school of symbolic interactionism, and Vygostkian socioconstructivism, namely their shared phenomenological roots and their shared beliefs in the social construction of reality (and knowledge), the interactional constitution of situations and the negotiation of meaning, the reflexivity of human action and agency, and the emergence of mind and self in social life. Snow (2003) identified four organizing principles that are broadly similar: human agency, interactive determination, symbolization, and emergence and would be acceptable to a Vygotskian socio-constructivist.

Critics point out that a pragmatic theory of truth, essentially what is true is what is useful, is insufficient in itself to determine truth in any objective way but I believe that this is largely due to incommensurable notions of truth (Oberheim & Hoyningen-Huene, 2016). The cognitive and situative debates illustrate the difference well. Cognitive theorists are focused on individual mental processes, whereas situative theorists focus on the activities of individuals within communities. It is no surprise that their modes of

inquiry are different, their objects of study are different. But although they are different, they are not mutually exclusive but rather complementary. In fact, both research programmes can and do inform the other. However, it remains the case that for the most part research in one or the other domain will elide over the other. Situative theorists will often take the mind as a given, and cognitivists, for the most part will take society or culture as constant as well. But this is largely due to the variable levels of analysis. Indeed, interesting work is now being done that attempts to transcend these differences (Greeno, 2011) and studies are productively conducted at one level or the other. For instance, the present study is focused on individuals acting within communities and it will take the cognitive reasoning processes underlying our communicative competence as a given. I will focus only on the semiotic functions of language in interaction, while eliding over the semantic and syntactic dimensions of cognitive meaning-making processes.

The pragmatic theory of truth is to be conceived within communities—what the pragmatists Peirce, Dewey, and Mead referred to as the scientific community but that some contemporary ethnographers often refer to as communities of practice. Objectivity is a function of the community's consensus on the appropriate modes of validation or verification. This is in alignment with socio-constructivist epistemology. Notions such as knowledge being socially constructed, local meanings, and the Vygotskian concepts of the intermental and the intramental (Mercer, 2008) depend on the assumption of intersubjectivity (Rommetveit, 1985; Wells & Arauz, 2006). The present study is no exception. Intersubjectivity here is understood as the shared understanding of situation as a necessary condition of communication.

American pragmatism and Vygotskian socioconstructivism embody interpretivist philosophies and entail perspectival accounts of truth as situated in local realities and negotiated in interaction. These stances on truth are intimately associated with praxis, that is, theories of practical action, conceiving intentional action as one of the defining characteristics of social life. In other words, for ethnographers and socio-constructivists

alike, explaining social reality requires a theory of action to account for the social construction of both reality or culture (as the window onto reality) in the interaction between thinking and acting agents. The inheritors of Vygotsky's legacy developed activity theory to explain the processes and the mediational means involved in human social activity. Whereas the sociologists of everyday life employed a theory of social action grounded in the structuring concept of the situation, of actors acting with tools for specific ends. Both traditions focus on tools and symbolization is explained by the shared influence of phenomenology specifically and German idealism generally (Habermas, 1974). Tools, both physical and ideational, are mediational; they act to produce and reproduce the situations of their use (and interpretations thereof) and influence the very conditions of interpretation of reality by creating potentials (or possibilities) for action thereby influencing our experience of self and agency—what we are capable of accomplishing in practice.

Symbolization, and language, is recognized in both traditions as the medium of social life, of access to reality, and the primary mode of interaction with others. In Vygotskian terms, language is both means and ends of learning and development. For Vygotsky, language is intimately involved in the processes of concept formation and the development of higher-order thought, whereby knowledge and behaviors, first accessed and formed through social interaction, are assimilated and internalized by the individual to become part of their cognitive repertoire of knowledge, skills, attitudes, and dispositions. Whereas Mead (1936) denies the possibility of thought without language, Vygotsky (1978) describes an ontogenetic evolution of higher-order mental processes through cultural-historical development very reminiscent of Hegelian phenomenology. Thus, it is not that there is no thought without language, but more precisely that the self is actualized through language. Our cognitive abilities become refined through symbolic mediation and our agency (action potentials or what is possible in action) becomes expanded as a result.

In these traditions, meaning is negotiated in social interaction. However, the actual semiotic processes underlying our capacity for meaningful (communicative) understanding is still subject to debate today. And by and large, there are two main camps. There are those intellectual inheritors of Saussure, who see the semiotic function of language principally as a relation between sign and signified. Alternately, there is the camp descended from Peirce, who theorize a triadic relationship between sign, object (signified), and interpretant, claiming that a sign is only rendered meaningful with a coherent system of interpretation (interpretant). The study of deixis and the importance placed on the indexicality of language situates it squarely within the Peircian semiotic tradition. The work of Bühler (2011) with its conception of linguistic fields is amenable to the Peircian tradition though Bühler does not explicitly employ a triadic relationship. However, his conception of linguistic fields makes his approach complementary by its focus on the coordinating functions of language (what he calls the *representational* function of language but I refer to as *demonstrative* because representation is not necessarily called for in deixis [Ramsey, 2007]). Representation has become associated with states of affairs in truth-conditional semantics, which Bühler (2011) opposes on epistemological grounds. Hanks (2005) has extended Bühler's notion of linguistic fields by incorporating Bourdieu's concept of the field of practice, aligning it with the community of practice framework, the central organizing structure for this study.

The triadic semiotic theory differs from the dyadic theory in an instructive way for a psychological theory of meaning-making. The triadic theory incorporates the Kantian distinction between sensations, perceptions and concepts. Sensations are the direct experiential data that come from our senses—the unprocessed raw data—whereas perceptions are processed data, meaningfully rendered. They are information for our cognitions that tell us about the world. Conceptions are abstractions from experience; they are further removed from direct sensation and perception and result from higher cognitive functions that form the basis of mathematical and linguistic reasoning. The Kantian insight is that notions of extension in time and space are not inherent in sense data and that our perceptions are the product of cognitive processes interpreting the

manifold data presented to our senses. This stance is widely accepted in the fields of cognitive linguistics (Evans & Green, 2006). Bühler's (2011) fields thus would form part of our perceptual apparatus, organizing and structuring and making interpretable our physical and social worlds. Similarly, cognitive linguists generally accept that a certain set of cognitive *primitives* organize our perceptual field (Evans, 2005; 2015), while also arguing that concepts are involved in a reciprocally determining fashion in organizing and structuring the perceptual field and forming the basis for new concepts through creative applications of metaphorical and analogical reasoning processes.

A triadic semiotic theory has corresponding implications on epistemological grounds. For a theory of linguistic meaning that relies on a correspondence theory of truth (Davidson, 1984), statements are true with respect to states of affairs. Whereas in a performative approach to communicative competence, linguistic meaning relies on a pragmatic theory of truth. Statements are true with respect to situations, which are cognitive constructs. Such a performative approach adopts a coherentist stance on the epistemology of language. Meaning is negotiated in interaction, hence what true and meaningful in a situation is decided upon by the participants. Participants rely on coherence relations like consistency, and regularity to enforce situational understanding. In the coherentist perspective, correspondence between representations is achieved through semiotic mediation and not with respect to an external reality.

The Guiding Metaphor

The guiding metaphor (Lakoff & Johnson, 1980) of this thesis is the concept of wayfinding or navigating. Participants in a seminar are akin to explorers negotiating their way in unknown territory. The case will be made here that negotiating meaning in the seminar exhibits dimensionality in similar fashion and employs reasoning processes based on physical dimensions of time and space, for example, in notions of semantic distance, and logical sequence, to organize discourse. The idea of space has long since been recognized as an important organizational feature of cognition and language

(Keating, 2015) and there is some neurological evidence for the spatial organization of language and discourse (Chilton, 2010). Abstract discourse spaces (Chilton, 2014) provide a *geometric* approach for combining cognitive operations in modal, temporal, and spatial reasoning. More further afield, in mathematical logic and computer science, topological spaces have been applied to modal, epistemic, justification, and spatial logics (Artemov & Nogina, 2008; Hartmann, 2013) as well.

Others (Green & Bloome, 1997; Tuyay, Floriani, Yeager, Dixon, & Green, 1995) have argued that learners are like ethnographers studying a culture, and what I'm proposing is not much different. In the context of the graduate research seminar, I believe that the wayfinding metaphor is analytically helpful in attempting to fully characterize the classroom discourse because it comes prepackaged with certain topological (or geometric) notions of distance, cardinality, locality, and boundary, that have important consequences for the coordination of symbolic content in intersubjectivity. Azevedo, Di Sessa, and Sherin (2012) have employed a similar metaphor in the mathematical classroom.

Wayfinders, like ethnographers, have access to maps and guides, and they are tasked with assimilating the territorial organization for themselves, *making the strange familiar*, to subvert the ethnographic maxim. A territory, however, is more than a geographic organization; it is a human construction. The explorer must do more than familiarize themselves with the territory, they must also become acquainted with the natives, so to speak, as they must also become versed in its social organization—the ways the social and the territorial are inseparably intertwined (Hanks, 2005). A territory is also a culture because it and its inhabitants are reflexively defined by the other, and there are analogue processes at work in assimilating a territory and in becoming a cultural member. They both modify the participant's perceptual experience, what Heidegger (1927) identified as the difference between *at-handness* and *for-handness*, to describe the way that material or psychological tools function to extend both our ability and our cognition. In a sense, we become the hammer as the hammer becomes part of us. This

Heideggerian distinction is at play in the cognitive linguistic perspective on linguistic modularity—where language is conceived as a tool that extends our cognitive abilities. Thus, our language function is deeply embedded in our non-linguistic cognitive make-up and inseparable from the rest of our cognitive apparatus—although there may always be some discrete functions that remain purely linguistic.

Mercer (2008) has called for the temporal analysis of classroom discourse, but it is worth remembering that time is a dimension of experience along with space, and in a very real sense time is inseparable from space. We organize our experience along these dimensions and we use both to organize conceptual and perceptual phenomena as they come prepackaged with notions of space, cardinality, location and boundary.

The role of the instructor in higher education is often described as being a guide (Aulls & Ibrahim, 2011). A guide and an interpreter do the work of teaching us a territory or introducing us to a culture. There is a language to territory just as there is a language to culture (Geertz, 1976), one that we must learn to participate in the life of the territory or culture. These languages have an important semiotic dimension too, in that symbols are iconic (Bühler, 2011); their meanings are embedded in objects, rituals, attitudes and ways of being. Territorial signifiers are not necessarily semantic because they don't necessarily contain propositional content. Thus, teacher as guides teach the signs that are used to orient and coordinate meanings and concepts, so that students may participate in the culture of practice.

In Pierce's triadic semiotic theory, the sign mediates between the object and the interpretant, and the three interoperate and dynamically influence the interpretation of meaning. This is something that the analytical philosophy of language tradition has not managed to successfully incorporate into its semantic theorizing, which by and large take a realist position—even Kamp & Reyle's (1993) discourse representation theory does not properly distinguish between physical and conceptual fields (Chilton, 2014). This tradition hews to the perspective that there is a direct connection between language and

the world, and that the truth-value of our utterances are a function of states of affairs. Thus, the territory has two existences. It exists as a physical reality but it also exists as a social reality. The topography is the overlay that renders geographic and topological features meaningful. Discourse and activity have a similar interaction, that is, discourses provide a meaningful overlay to social activities as they are coherently related to the shared definitions of situation that provide a translation device, a way to encode and decode meanings in perceptual and conceptual fields.

To push the analogy further, the signs of territory and culture help us to orient ourselves and to find our way from point A to point B. These signs can be organized systematically into maps, that can provide us with an overview of the organization of the territory to facilitate our conceptualizations and representations. These conceptions and these representations enable us to perform any number of symbolic manipulations and diacritically signal meaning by exploiting figure-ground relations that empower us as we learn to navigate the territory, to adopt the territory and make it our own, and be remade in the process.

Wenger (1998) conceived of a *landscape/geography of practice* in terms reminiscent of the Gestalt school's concern for figures and ground (Bühler, 2011). Wenger (1998) speaks of boundaries and peripheries and relations of locality, proximity, and distance. Here are two relevant passages from his *Communities of Practice:*

> As communities of practice differentiate themselves and also interlock with each other, they constitute a complex social landscape of shared practices, boundaries, peripheries, overlaps, connections, and encounters. . . . First, the texture of continuities and discontinuities of this landscape is defined by practice, not by institutional affiliation; second, the landscape so defined is a weaving of both boundaries and peripheries. (p. 118)

> Constellations define relations of locality, proximity, and distance, which are not necessarily congruent with physical proximity, institutional affiliation, or even

interactions. . . . Practice is always located in time and space because it always

exists in specific communities and arises out of mutual engagement. . . . Yet the

relations that constitute practice are primarily defined by learning. As a result,

the landscape of practice is an emergent structure in which learning constantly

creates localities that reconfigure the geography. (pp. 130-1)

Wenger (1998) goes on to argue that adopting a field and a culture of practice is also fraught with difficulties. There are problems of delineating fields, fields are contested, transgressed, defended, reduced and expanded. Membership is never guaranteed; membership is tied to power, status, and cultural particulars. Adopting a territory means also staking out a position and learning to defend it.

A guide-interpreter's work is to translate the field and the culture of practice meaningfully. This is accomplished by pointing out important features and landmarks, providing an overview of how the territory is organized, and walking their party along the main pathways, encouraging members to attempt to navigate on their own, to try using the instruments for interpretation at their disposal and to apply their knowledge and know-how to solving problems. My analytical task is to show how wayfinding is negotiated in communicative interaction. That is, my task is to demonstrate to what extent students adopt the language of field and culture of practice and to what extent the instructor and invited guests act as guides and interpreters in the graduate qualitative research seminar that is the setting of this study.

Importance of the Study

The present study will advance our understanding of how meaning is negotiated in the seminar. Meaning is certainly important in any linguistic interaction but it is central to understanding how participants negotiate their understanding in the qualitative research seminar. Moreover, the knowledge basis required by the seminar is held to be more important than in K-12 discourse such as conventional sequential analyses have studied to date. Little to no guidance is available on how to capture

negotiation of meaning in the context of the seminar and we need objective and comparable data to model understanding in communicative situations like the seminar. Negotiation of meaning cannot simply be assumed because it is the central activity of the seminar and not a by-product or peripheral or subordinate to another activity. By necessity, the study will range over topics in semantics, pragmatics, sociolinguistics, and cognitive linguistics with the goal of establishing the basis for studying meaning negotiation in situ and in vivo—as it happens.

Classroom discourse analysis can describe the seminar instructional model by furnishing a performative account of the seminar as a communicative accomplishment (Hymes, 1972). Seminars have not been the subject of many discourse studies and very few have studied the relationship between learning and discourse in seminars. The study of seminar discourse can also further our understanding of the interactional basis of learning through confronting the semantic complexity exhibited by seminar-type discourse, wherein unlike primary and secondary school settings, discussion in higher education settings is both displaced, abstract, and often the primary object of classroom activity in near entirety. In other words, it is rarely subordinate or instrumental to an accompanying activity. The study of seminar discourse presented here makes important contributions to the scholarship of classroom discourse: (a) Advancing our understanding of interaction in instructional environments can help advance the study social learning; (b) Advancing our understanding of the epistemology of language can help improve theorizing about language; (c) Advancing our understanding of the performative aspects of human language use can help improve natural language processing and understanding, through the refinement of communicative situation models, and thereby, advance the field of human-computer interaction (Schuman, 1987).

In sum, the goal of a broad theory of competence can be said to be to show the ways in which the systemically possible, the feasible, and the appropriate are linked to produce and interpret actually occurring cultural behavior. . . . (Hymes, 1972, p. 286; italics in original)

Chapter 2: Literature Review

The first section distinguishes the seminar from other learning environments. In the second section, I review the empirical research on the seminar and argue that the seminar is a community of practice involved in the negotiation of meaning. Subsequently, I discuss the theory and empirical evidence that supports the investigation of deixis use in the negotiation of meaning. In section three, I discuss how ongoing shared understanding is negotiated in interaction through deixis and argue that a pragmatic perspective grounded in intersubjectivity entails a semiotic definition of context that can account for the way multiple meanings are reconciled in sign systems.

Classroom Discourse Analysis in Higher Education

A vast literature on classroom discourse has been produced over the last few decades, which has been the subject of a few reviews (Gee & Green, 1998; Hicks, 1995; Howe & Littleton, 2013) and is now regularly included in many handbooks since Cazden's (1986) seminal entry. Indeed, the subject now merits its own handbook (Markee, 2015). However, very little discourse research has been conducted in the context of the graduate research seminar.

Previous discourse studies of learning in higher education. Fewer studies that explicitly study how learning occurs through discourse (see Aulls, 1998; 2002) have been conducted in higher education settings than primary and secondary classrooms. Moreover, only a few discourse studies have performed in the context of seminars in higher education (Aguilar, 2004; Basturkmen, 1998; 2002; Lajoie et al., 2006; Ma, 2004; Northcott, 2001; Weissberg, 1993). Many more have focused on interactional competence and participant structures for establishing norms for effective discussions (Lemay, 2014). Studies of discussion-based teaching in higher education are more numerous yet vary widely in

methodologies and units of analysis. Of those studies that employ discourse analysis methods, units of analysis include, for instance, sentence (Bures, Abrami, & Schmid, 2010), message (Groth & Burgess, 2009), dialogue (Atwood, Turnbull, & Carpendale, 2010), events (Dennen & Wieland, 2007) and even instances of critical thinking (Wickersham & Dooley, 2006), among many others.

Although there are good reasons to conduct studies at the level of the turn or the message, the size of the chosen linguistic unit affects the granularity of the analysis. Larger units can mask underlying structures that remain concealed to the analyst. These underlying structures can significantly impact more macro-level processes. Linguistic processes underlie and greatly affect our interactional competence and yet naturalistic studies of interactional competence have largely been limited to message units and speech turns.

Absent from the literature are studies that try to relate sequential activity to the semantic grounds of interaction. This is likely for purely methodological practicality because focusing on sequential level analyses of our communicative competence (Hymes, 1972) is more feasible given the practical demands of conducting qualitative research studies in general and classroom discourse studies in particular. This is especially true with regard to the kind of close textual reading required by a linguistic analysis of discourse. However, an important dimension of learning and instruction is making connections and such connections are performed linguistically in instructional interactions and can be studied accordingly. To date, there have been very few attempts to show how participants make connections in the co-construction of discourse. This appears necessary in the context of the graduate research seminar because verbal interaction is the primary mode of communication within this learning environment and the discourse itself is displaced and abstract, which requires that utterances be contextualized through speech (as opposed to being addressed by situational factors).

Some assumptions and constructs in discourse analysis. Cazden (1986) provided an important first synthesis of the burgeoning field of classroom discourse analysis, that laid out the foundations from anthropological linguistics, socio-linguistics, and ethnomethodology. She presented a set of assumptions and constructs derived from published and unpublished papers and interviews, paraphrasing results from Green's (1983) summary of studies funded by the National Institution of Education in 1978. These results, included below, are still relevant today—these findings are relatively general and we find that they can apply to the context of higher education as well.

- Face-to-face interaction, between teacher and students and among students, is governed by context-specific rules.
- Activities have participation structures, with rights and obligations for participation. Contextualization cues are the verbal and nonverbal cues (pitch, stress, and intonation; gesture, facial expression and physical distance) that signal how utterances are to be understood, and inferring is required for conversational comprehension. Rules for participation are implicit, conveyed and learned through interaction itself.
- Meaning is context specific. Each occurrence of a behavior is not functionally equivalent, and messages can serve multiple functions.
- Frames of reference are developed over time and guide individual participation. Frame clashes result from differences in perception developed in past interactional experiences. Overt clashes are observable to participants and researchers, but covert clashes requiring a finer level of analysis can also contribute to negative evaluations of student ability.
- Complex communicative demands are placed on both teachers and students by the diversity of classroom communicative structures, *and teachers evaluate student ability from observing communicative performance.* (Green, 1983, Table II and pp. 174-186; quoted in Cazden, 1986, p. 436; emphasis added.)

Participation structures in primary school and in higher education. In Mehan's (1979) ethnomethodological studies of classroom discourse among primary school children, changes in children's levels of participation are tracked over time. Although the participation structure can be said to exist for the teacher from the outset, as he noted, the students must learn the participation structure, as it cannot be assumed an equal psychological reality for the participants. The observation that students are not always aware of the structure or functions of talk has been made elsewhere (See for instance, Mercer, 1995; Wells & Arauz, 2003).

> While one can say that the structure is a psychological reality to the teacher from the beginning, not so to the children. Mehan tracks their progress as they respond more appropriately (in timing and form) as well as correctly (in content) to the teacher's questions, and as they become more effective in getting the floor with student initiations. In short, they learn to speak within the structure he describes. It is important to say "speak within the structure" rather than "learn the structure", because the children may be learning the meaning of local cues, such as the teacher's posture and intonation, rather than the structure of the speech event as a whole. (Cazden, 1986, pp. 436-437)

The same ought to be true about the graduate research seminar, albeit with minor modification. Graduate students can be said to be proficient in the participation structures of the classroom—their advanced academic status necessitates it—however as graduate students engaged in legitimate peripheral participation (Lave & Wenger, 1991) they are learning the participation structures of the disciplinary field. Whereas the primary school students are learning to speak within the structure by learning to respond more appropriately and more correctly to the teacher's questions, and to get the floor with student initiations, the more advanced graduate students have already mastered this. They must, however, learn the cues of the disciplinary practice's participation framework—not just the meaning of local cues—because aspects of shared repertoire will be shared by the larger disciplinary field. Participation structures refer to the interactional organization of

the activity; participation frameworks refer to the set of understandings invoked in interactional activity. This means learning not only to speak within the structure but also, for the most proficient, to learn the structure. The participation structure that informs the seminar is paralleled in other structures such as conferences and meetings that occur in the field of practice as well, and mastery of these forms can, and often does, function as outward signals of expertise.

A final point of divergence, discourse has been found to be rare in secondary education; real discourse in these settings being composed of authentic questions, and uptake (Nystrand, 1998; Nystrand, Wu, Gamoran, & Zeiser, 2003). However, this may be due to the prevalence of traditional teaching that makes heavy use of the I-R-E (Initiation-Response-Evaluation) or the question-with-the-known-answer (Macbeth, 2003). Yet, it is widely accepted that discourse(s) are embedded in activity, as discoursing is a means to achieve specific ends (Wells, 2002; 2007), and discussion is the primary means of interaction within the seminar. Likely the choice of instructional activity ultimately constrains the kind of elaborative talk that has been identified as productive from an instructional standpoint (Mercer, 1995; Nystrand, 1998). Indeed, Wells (1993; 1999; 2007) has argued convincingly that the I-R-E can be used productively in the context of dialogic inquiry. Thus, in a graduate qualitative research seminar where students are tasked with developing their own qualitative research project and are engaged in conceptual and methodological discussions to aid in this design work, we should expect much more discourse. And indeed, as the analysis will demonstrate, that is what we find.

Some methodological guidance for the study of seminars. Cazden (1986) highlighted two important pieces of methodological guidance that can be traced back to the ethnomethodological literature, negative instances and nonverbal cues. First, when normal communication fails, negative instances often prompt communication repair, and can bring to light the unspoken and taken-for-granted elements of the participation structure that, "when a pattern is broken, provide a natural experiment for testing hypotheses about participation structure" (p. 438). Second, nonverbal cues are very important for young

children learning to speak within participation structures; there is no reason to doubt that they are any less important to older participants. As researchers, we ignore nonverbal cues at our own risk.

Some may doubt that these contextualization cues are recoverable by the analyst and, indeed, our reconstructions are limited to the interactional traces at-hand but as Gumperz (1982) writes:

> Elusive as members' judgements seem, . . . assumptions and strategies on which they base their interpretation in conversational settings are amenable to analysis. Inductive methods which, like the descriptivists' techniques of sentence analysis, *consider the various contextual frames and perspectives in terms of which verbal signs can be perceived, grouped together and interpreted may thus yield important results.* (p. 36; emphasis added)

Following is a final piece of methodological guidance from Cazden (1986). Discussing Dore and McDermott's work on contextual interpretation, she wrote:

> The presence of this work, with its meticulously demonstrated grounds for interpretation, should make all discourse analysts pause on two questions. In general, how adequate are the grounds for our interpretations? More specifically, have we adequately considered the multiple meanings that any surface language form can have? (p. 438)

Considering the multiple meanings that the same utterance can have, an important aspect of verbal communication is the negotiation of meaning. Meaning negotiation requires that the participants at least agree on a provisional meaning, one that can evolve with the interaction. Thus, intersubjectivity (Bakhtin, 1986; Rommetveit, 1985; Wells & Arauz, 2006) and common ground (Clark, Schreuder, & Buttrick, 1983) are necessary conditions of communicative or shared understanding. Ensuring intersubjectivity is an

important instructional goal in classroom interactions not only for communicative understanding but also for perspective growth. As Wells & Arauz (2006) wrote:

> Not only do children not always understand what they are told and so need to engage in clarifying dialogue to reach the desired intersubjectivity, but frequently they also have alternative perspectives on a topic that need to be brought into the arena of communication and explored in more symmetric dialogue in which there is reciprocity in the roles of speaker and listener, and equally, an attempt by each to understand the perspective of the other. (p. 387)

In the context of the graduate research seminar, discussions incorporating multiple perspectives can also help to clarify the meaning of concepts that can be fairly abstruse, and the sharing of experience can ground discussions in real-world examples, and provide other points of view that can shift our understanding.

If we conceive the seminar as an interactional accomplishment (Hymes, 1972), the attainment of the goals set out by the participants implies a level of intersubjective understanding, and must be considered as an important feature of the performative dimension of seminar discourse. Agreement in meaning is evidenced through each participants' tacit approval by contributing contextually appropriate moves in sequence. In a graduate research seminar, participants are discussing research programs and projects from distantly related fields. The participants have divergent knowledge bases, and thus do not have the same interpretation of the semantic basis for the utterance for the simple reason that they do not have the same access. As analysts we must remain aware of the multiple meanings that can be (and often are simultaneously) communicated by any utterance, and we must hew closely to the negotiated (and accepted) meanings made available to all the participants through the sequential arrangement of adjacency pairs (Sacks, Schegloff, & Jefferson, 1974) or triples, (Mehan, 1979). The presence of intersubjectivity means that a species of consensual epistemology governs local interactions, where what is accepted as true by the group is what is agreed upon in

interaction. The analyst's job is to be sensitive to the conditions for intersubjectivity and ground the analysis as far as possible in the language of the participants (Corbin & Strauss, 1967).

That multiple meanings and perspectives prevail in the seminar begs the question what is accomplished through the interaction? The simple answer is that the content covered in the seminar is important for attaining the outcomes of the course. In the case of the present study, the course was organized around the design of qualitative research proposals. The shared understanding that is negotiated in interaction is meaningful to the participants because it is understood that their participation is expected to help them achieve their goal (of learning how to conduct qualitative research). It is in that sense that we can claim that the seminar is an interactional accomplishment. And it is in that sense that we can inquire about the performance of learning, knowledge, skill, etc., in verbal interaction because these performances are meaningful for the participants as they are intended to help them achieve their objectives and attain the outcomes set by the instructor. Taking this performative perspective on seminar discourse, it becomes salient to inquire how their performance in the seminar is a signal of their expertise, or competence, in this domain. Or to what extent do the roles adopted by participants inform about their definition of situation, and in turn, the sophistication of their understanding? Goal orientations are an important organizational device for negotiating meaning, as it is helpful to be in the same page, and to at least to agree on the subject of negotiation. Similarly, participant structures are organized around common goals, and failures can often be traced back to contradictions in activity definitions (Engeström, Miettinen, & Punamäki-Gitai, 1999). Thus, focusing on the sequence only gives part of the account. One must be sensitive to how the interactions help participants achieve the goals that structure and inform their participation within situations.

Common knowledge and ground rules in the seminar. Classroom talk, like any communicative exchanges, appears to follow certain ground rules (Cazden, 1986; Edwards & Mercer, 1987; Sachs, Schegloff, & Jefferson, 1974). This implies that the participants have,

at a minimum, implicit knowledge of the participation structures and the rules for engaging in interaction. If, as is often noted, these rules are context-bound, then the question becomes how do participants cooperatively determine the rules that govern this interaction? Likewise, if there is some determinant that transcends local interactional situations, then how do participants come to recognize and know when to submit to specific participation structures? Because, as noted by Edwards and Mercer (1987), the rules of classroom talk are also rules of interpretation (p. 47), questions and the canonical I-R-E can have different meaning depending on the circumstances (See Macbeth, 2003; Wells, 1993; for an extended discussion).

As Edwards & Mercer (1987) wrote:

Most of the questions that teachers ask do not, in the most straightforward sense, seek information. They are part of the discursive weaponry available to teachers for controlling topics of discussion, direction pupils' thought and action, and establishing the extent of shared attention, joint activity and common knowledge. (see Edwards and Furlong 1978; Hammersley 1977; Mehan 1979; MacLure and French 1980; p. 46)

This is also true for the graduate research seminar; the main objective is not necessarily the transmission of information (because the participants are expected to already have a certain level of expertise). However, it is quite likely that the joint activity in which participants are cooperatively engaged requires shared attention and common knowledge. Questions (and other turns) likely operate as interpretive cues to help the participants make sense of the meanings being negotiated.

The fact that a question can be interpreted differently depending on the circumstance is because the question can accomplish *or perform* something different (a speech act in Austin's (1963) and Searle's (1969) sense) in each case. Thus, the utterance ought to be construed as a verbal action by a speaker intending to effect a change in behavior or perception in the receiver (Searle, 1969). In this sense, words are a vehicle for

conveying intentions and construing meanings. As spoken utterances are very often underdetermined, we must infer intentions from the context following specific rules of implicature (Grice, 1989; Levinson, 2001). As Gumperz (1982) put it:

> Conversational inference is part of the very act of conversing. One indirectly or implicitly indicates how an utterance is to be interpreted and illustrates how one has interpreted another's utterance through verbal and non-verbal responses, and it is the nature of these responses rather than the independently determined meaning or truth value of individual utterances alone that governs evaluation of intent. (p. 154)

In the context of the seminar, what is accomplished ought to be demonstrable from the sequential arrangement of speech turns that constitute the classroom discourse because the interpretation of speech acts by the participants reflexively determines the subsequent turns and the activity. Gumperz (1982) wrote:

> The point is that at the level of conversation, there are always many possible alternative interpretations, many more than exist at the level of sentence grammar. Choice among these is constrained by what the speaker intends to achieve in a particular interaction, as well as by expectations about the other's reactions and assumptions. . . . *Interpretations are thus negotiated, repaired and altered through interactive processes rather than unilaterally conveyed.* (pp. 159-60; italics mine.)

Indeed, the same cues available to the participants are available to the analyst. Thus, the question facing the analyst becomes, what actions are accomplished through speech turns in the graduate research seminar? Yet simple turn based analyses will not suffice to explain what is accomplished in interaction, because what is accomplished in a graduate seminar is realized discursively, as participants perform speech acts that enact operations in a shared ideational field (see discussion of Hanks (1992; 2005) and Bühler (2011) below). Such discourse moves extend beyond variations in sequential arrangement, and are meant to effect meaningful (semantic) change by semiotic means. In other words, a discourse analysis of a graduate seminar with the objective of understanding learning in

interaction will necessitate a linguistic analysis to connect the content of what is said to its verbal performance to understand what is accomplished through seminar discourse and how it might contribute to learning. Gumperz (1982), once again:

> A basic assumption is that this channeling of interpretation is effected by conversational implicatures based on conventionalized co-occurrence expectations between content and surface style. That is, constellations of surface features of message form are the means by which speakers signal and listeners interpret what the activity is, how semantic content is to be understood and *how* each sentence relates to what precedes or follows. (p. 131)

The main difference confronting the analysis of the discourse in graduate research seminar compared to the primary (and, to a lesser extent, the secondary) classrooms resides in the protracted and complex nature of the speech turn in the higher education context. Indeed, one turn is often composed of many subordinate speech acts that perform multiple operations at once. These speech acts require the participants to engage in complex cognitive operations for coordinating frames of reference for the maintenance of intersubjectivity conditions, for example, planning utterances to provide contextualization cues and common knowledge to ensure interpretability by the other interlocutors. In primary schooling contexts, discourse is often oriented to object in the physical environment or supported by forms of iconic representations (cf., Bühler, 2011). However, as we advance through the years of schooling, discourse becomes more displaced and abstract, as in the case of the graduate research seminar. The discourse may be supported by other means of communication: texts, PowerPoint presentations, etc. These are, however, largely symbolic representations of *discursive objects.* For instance, you would be hard pressed to represent the notion of validity iconically, a concept so central to the field of qualitative research methodologies.

Edwards and Mercer's (1987) evidence suggests that displaced communication was untypical of much of classroom talk in the primary classrooms they studied. Although some

researchers had previously criticized the discourse of primary classrooms as displaced and abstract, Edwards and Mercer (1987) dissented. As they wrote, "We can speak concretely about remote things, and abstractly about present circumstances" (p. 60). Indeed, the lessons analyzed were overwhelming focused on their own content and activity, as dictated by the teacher, to the exclusion of anything else. As they wrote:

> The lessons themselves created contexts of talk and experience which overwhelmingly predominated over any sorts of knowledge or experience derived from outside the classroom . . . . It appears that, by relying heavily on contexts of shared experience and discourse which were generated within the lessons themselves, the teachers in our sample were able to ensure that all of the talk, instruction and explanation, questions and answers, were founded on a self-contained body of knowledge that was potentially available to everyone. Perhaps this was understood, if only intuitively, to be the soundest contextual basis on which to build joint understandings. (p. 71)

> This was further supported in their study by an examination of repair instances where "external inputs to the lesson were discouraged. Acceptable inputs from out-of-school experience were invariably those to which everyone, or at least several pupils, could relate. . . . Anecdotal events and stories were the norm for this sort of displaced reference" (pp. 72-3).

Given the extent that the talk in the graduate research seminar is about events and activities that occur outside of the seminar or about conceptual notions, the talk stands to be contextually displaced and, given the subject matter (qualitative methodologies), rather abstract. Thus, we should expect that the discourse of the graduate research seminar employs discursive means and devices to create and maintain interpretive contexts in the absence of shared experience and knowledge. If participants cannot assume common knowledge or experience, the onus is on the speaker to furnish a context through contextualizing statements.

Edwards and Mercer (1987) also described how talk acts to structure and guide joint activity. Through the sample transcript of a teacher leading her class in the molding of clay pots, talking through demonstration achieves multiple ends: first, it serves to orient joint attention; second, it serves to highlight the significant aspects of activity; and third, it provides a common vocabulary for communicating and arranging their joint understandings and actions. As they wrote:

> What began as a physical context of joint activity later came to serve as a shared mental context of experience and understanding. Having gone through the demonstration together, and having established how to talk about it, teacher and pupils could begin to exchange understandings with words alone. (p. 80)

In the graduate research seminar, the same can be said to occur although in this case the primary mode of activity is semiotic, where demonstrations occur primarily in verbal interaction. Moreover, participation structures in the graduate research seminar can also dictate a dialogical frame where multiple perspectives intermingle, further adding to the cognitive load.

Quality of talk. Mercer (1995) reminds us of Barnes and Todd's (1976) insight that classroom discussion as a discourse genre must meet a certain explicitness criterion, which we do not have to meet in normal everyday conversation, and have a shared understanding of the activity and the goals of their joint engagement.

> Relevant information should be shared effectively, opinions should be clearly explained and explanations examined critically: that knowledge should be made publicly accountable. Barnes and Todd argue that the successful pursuit of educational activity through group work depends on learners (a) sharing the same ideas about what is relevant to the discussion, and (b) having a joint conception of what they are trying to achieve by it. (p. 364)

Mercer (1995) argued that becoming educated means becoming able to follow the ground rules, stating that rendering the ground rules for discussion explicit can lead to improved motivation and performance for students (p. 364). Participation structures and ground rules are quite similar constructs, especially when one considers that the ground rules are often implicit as is the case with participation structures. However, participation structures stress coordination of participant roles and activities in situations and are contextually determined whereas the notion of ground rules ought to be accessible across speech situations and contextually invariant, as they determine the felicity conditions of communicative competence. In a graduate research seminar, it is likely that both ground rules and participation structures impact how the participants conceive of the interactional situation (Goffman, 1959; Goffman, 1974).

Mercer (1995) presented a typology of classroom talk developed in primary school classrooms, that has also been applied in at least one study in a university setting (Atwood, Turnbull, & Carpendale, 2008) and that could potentially be applied to the graduate research seminar. For Mercer (1995), "Talk . . . is a social mode of thinking, a tool for the joint construction of knowledge by teachers and learners" (p. 374). He argued that (i) particular ways of interacting enable particular social modes of thinking; (ii) that these modes of thinking are developed in particular kinds of collaborative relationships; and (iii) these collaborative relationships are shaped by participants' culturally-based definition of situation (p. 369). Mercer (1995) presents three types of talk: disputation, cumulative, and exploratory. These are not meant to be descriptive or neatly dichotomous categories but analytic categories that typify the ways the children in their sample talked together, and that are distinguished from the systematic categories of other approaches to classroom observational research. More importantly still, for Mercer (1995), these three forms of talk represented "embryonic models of three distinctive social modes of thinking, models which could help us understand how actual talk (which is inevitably resistant to neat categorization) is used by people to think together" (p. 369).

Given their embryonic nature, and the participation framework of the graduate seminar, it is not clear that these three talk types could distinguish seminar discussions because cumulating knowledge is not necessarily an overriding objective of graduate seminars—Atwood, Turnbull, & Carpendale's (2008) work in undergraduate education notwithstanding. It is possible that the seminar discourse exhibits certain types of talk. Or, more fundamentally, talk in the seminar may be of a certain kind. In the case of a graduate qualitative research seminar, the seminar discourse may share the qualities of a disciplinary discourse or practice, and conversation, more than a traditional classroom.

Construction of schooled discourse repertoires. In an ethnographic perspective, Green and colleagues in the Santa Barbara Discourse Group explored the construction of schooled discourse repertoires. School discourse repertoires refer to the knowledge and behaviors required for participating in school community and accessing academic content (Kantor, Green, Bradley, & Lin 1992, p. 132). Compare this to the notion of a disciplinary discourse. In their study, the authors show how, over time, participants construct classroom discourse strategies that are situated and local. These discourse strategies do not only define the ground rules of communicative competence but they also determine the norms and expectations for membership in the group (Kantor, Green, Bradley, & Lin 1992, p. 135). These same processes are likely at work as the students learn to participate in the discourse of qualitative research.

The analysis demonstrates how interactional analysis (material and activity dimensions; see below, Multidimensional discourse analysis) over time and over participants can reveal how participants adopt discourse resources (schooled repertoires) and learn the contextualization cues. Their analysis also shows that an event does not occur in isolation, but rather is tied to the overarching classroom discourse and is embedded in recursive and iterative patterns of participation that combine to create the participation framework and lend meaning to both the activities and the community itself (Kantor, Green, Bradley, & Lin 1992, pp. 142-3). It is equally likely that the graduate research seminar also exhibits patterns of engagement and a shared repertoire that do more than

determine appropriate modes of participation but also determine membership in the classroom community conceived as a community of practice (Wenger, 1998).

In this perspective, instruction can occur covertly, dictated by shifting roles and patterns of participation. Kantor et al (1992) demonstrate how negotiating/renegotiating meaning and rules as a form of meta-talk does not necessarily entail discussion; a teacher can assert/reassert rules and meanings and may do so to advance the pedagogical agenda.

> When . . . students began to participate in ways the teacher deemed more socially and academically appropriate, she changed her way of participating and acting. This shifting relationship reflects her pedagogical goal-have students learn to contribute to group in particular ways, not merely increase the amount of talk. (Kantor et al, 1992, p. 147)

In the graduate research seminar, direct instruction is supplemented and coordinated with group discussions. In such discussion-based approaches, instruction is organized through the choice of topics and by leading the discussion, modeling appropriate responses, asking probing questions, elaborating/evaluating on student remarks, etc. These are all moves that share an instructional dimension. Examining role shifts (Donin & Frederiksen, 2015) can signal important information about the underlying pedagogical goals of the seminar and the students' progress towards adopting the disciplinary discourse as Fuller (2003) has found that the use of discourse markers varies between roles and across contexts. Role shifts in the seminar environment are likely associated with shifts in expertise as well. As one becomes more competent, one can take on more responsibilities. And conversely, being able to take on certain tasks or adopt certain practices is often taken as a sign of competence.

Multidimensional discourse analysis. The study of classroom discourse in an ethnographic perspective (Gee & Green, 1998) takes the situation as the main unit in a broad-reaching analysis covering its material, activity, semiotic, and sociocultural dimensions. These dimensions are inextricably intertwined and reflexively determining.

The relationship between these four dimensions is complex, and requires equally extensive methods to capture its manifold nature and so, unsurprisingly, classroom discourses have rarely been studied in such a detailed manner. But taking the exchange as the basic unit of analysis foregrounds the material and activity dimensions at the risk of occluding situational effects on learning and interaction (Lemay & Aulls, 2017) from the semiotic and sociocultural dimensions, that reflexively determine our definition of situation (Gee & Green, 1998). That's not to say that interactional analyses focusing on the material or activity dimensions don't have their place. Classroom interactional structures such as dialogues (Howe & Littleton, 2013; Littleton & Mercer, 2011) and student-centered methodologies (Baeten et al., 2010; Soter, Wilkinson, & Murphy, 2008) have been extensively studied and have provided quite a lot of information about how classroom interactions can influence learning. Yet these studies readily admit the situative character of classroom discourse influences the organization of its material and activity dimensions.

Classroom interactional analyses have shown that students who engage in the co-construction of the classroom discourse have better outcomes than those who passively receive instruction. Students are in turn more engaged by asking more questions, taking up other students' comments, and building on their classmates' contributions. We also know that the structuring of the classroom discourse as well as specific interactional arrangements can have positive outcomes, as does the teaching of discourse strategies like argumentation, questioning, and scientific and philosophical inquiry methods. Yet we still don't quite understand the mechanisms that underlay these convergent phenomena, for example, what aspects of the material or activity environment contribute to the observed learning effects, what role do sociocultural models play in communicative understanding, or how is learning mediated by the semiotic activity? These kinds of questions are better suited for deeper analysis not unlike those envisioned by Gee & Green's (1998) MASS methodology or Mercer's (2004) sociocultural discourse analysis.

An important aspect of situations are the roles adopted by participants in a communicative interaction (Goffman, 1961; 1959). Roles in classrooms capture one

important contrastive dimension of instruction, namely the difference between instructor, and student. Indeed, roles are integral parts of instructional situations. Anderson and Burns (1989) present a situated theory of instruction that captures the way that instruction involves more than just what the teacher does. In their model, instruction is the result of many factors, some of which are only obliquely controlled by the teacher. We can dress a picture of these roles from the classroom discourse literature however the contrast of the roles has never to my knowledge been explicitly addressed. There have been descriptions of roles by practitioners and by student participants, but these have been based self-reports (Aulls & Ibrahim, 2011). The analysis of the roles elicited from the participants demonstrate that roles analysis can distinguish between instructional approaches as an increase in the number and diversity of roles were associated with inquiry approaches than with traditional approaches. I argue that roles exhibit specific interactional speech patterns and contribute differentially to the negotiation of meaning in seminar interaction.

Sociocultural discourse analysis. Mercer (2004) discussed a methodological approach he calls *sociocultural discourse analysis* that focuses on the functions of language in thinking and learning in social interaction. A sociocultural approach stresses the role of culture in human activity, and the interrelated nature of thinking, learning, and communicating. In this perspective, knowledge is jointly constructed in social activity. "Communicative events are shaped by cultural and historical factors, and thinking, learning and development cannot be understood without taking account of the intrinsically social and communicative nature of human life" (pp. 138-9). A sociocultural perspective is uniquely concerned with the Vygotskian (1978) notions of the *intermental* and *intramental* planes, namely that what exists in the mind first arises in social activity.

However, Mercer (2004; 2008) states that there are few studies that have attempted to relate the content, quality, and, what he terms, the temporality of interactions to student outcomes (a notable exception being the work of Kumpulainen & Wray, 2002). For Mercer (2004) studying the co-construction of knowledge can also advance our knowledge of the

functions of language itself because "such joint knowledge-building is an essential requirement of conversational interaction" (p. 139). In the graduate qualitative research seminar, joint knowledge-building is likely a key activity in the progressive adoption of a disciplinary discourse.

Citing Gee and Green (1998), Mercer rightly notes that reflexivity poses significant methodological challenges for the discourse analyst (p. 140). Reflexivity refers to the way that situations are dynamically constituted through language; what happens in interaction affects both retrospective and prospective interpretations of situation. I add to that Gee and Green's (1998) notion of cultural models, another important facet of the MASS system. Cultural models are both local and global, and the way they are invoked and the ways participants respond to them influence the framing of understanding and the context of the communication situation (this requires that the analyst take an emic perspective on the speech situation to understand from the perspective of the participants).

For Mercer (2004), the task of sociocultural discourse analysis, if we hope to understand how talk enables joint intellectual activity, is to capture the mechanisms for negotiating meaning in interaction. Likewise, Mercer (2004; 2008) posits that learning in social interaction exhibits two intertwined aspects: the historical and the dynamic. The problem appears to be how can we account for the cumulative nature of discourse in the moment-to-moment of communicative situations? For Mercer, sociocultural discourse analysis presents an approach that can reconcile interactional approaches with linguistic study by integrating insights from both fields incorporating the study of lexical (and syntactic) devices for creating cohesion (and coherence) to understand the functions of language in joint intellectual activity.

> Through a sociocultural discourse analysis we are able to examine and assess the linguistic process whereby people strive for intersubjectivity. We can see how they use language to introduce new information, orientate to each other's perspectives and understandings and pursue joint plans of action. Various methods for studying

talk also deal with these concerns. *But the methodology I have described here also enables those processes of communication to be related to thinking processes and to learning outcomes* [emphasis added]*.* In this way, we can examine what is achieved through involvement in discussions, in classrooms and elsewhere – and perhaps offer constructive advice about how discussions can be made more effective. (Mercer, 2004, p. 166)

This conjecture, that thinking processes can be examined through a close linguistic study, is a central assumption of the cognitive linguistics project and it informs the methodological choice of incorporating a deictic analysis in this study of the negotiation of meaning in the graduate research seminar in the present study. Deixis in speech is the privileged syntactic means to negotiate and manipulate objects and ideas in a conceptual space.

Although Mercer's (2004) sociocultural approach has much to recommend it, it remains a predominantly interactional approach to discourse analysis. As Gee and Green (1998) make clear, the coordination of individual thinking processes in social interaction— the intramental and the intermental—is mediated by language but importantly, this occurs on two planes, the semiotic and sociocultural dimensions. The coordination of perspectives in intersubjectivity is both a linguistic and a social act. In other words, coordinating interactions through kinds of talk is a kind of performance itself and can be studied as such. But communicative understanding entails a mutually shared definition of situation (Goffman, 1959). This situated perspective has important consequences for learning as it translates the sophistication of their understanding, as evidenced by Mercer's (1995) typology of talk, namely, that different patterns of speech are associated with different levels of understanding. The content of speech is at least as important as the form of the interaction, because the linguistic coordination of concepts is evidence of the cognitive manipulation of ideas exhibited in speech and it is the sophistication of the performance of associated patterns of talk and learning that distinguishes the expert from the novice. In either case, a more comprehensive analysis of the discourse of the graduate seminar must

coordinate the material and social activity with the semiotic, and the sociocultural dimensions.

Discourse and the speech turn as unit of analysis. As argued above, a great deal of classroom discourse research has been focused on the speech turn but this predominantly sequential approach appears to be limited because on its own it is not fine-grained enough to capture the interactional complexities of graduate-level discourse.

The speech turn is an interactional unit that is present in talk between people. A turn is broadly defined by its boundary characteristics (Bloome, 2005). In other words, a turn is an utterance by a participant in a linguistic exchange that is marked by its beginning and end. Studies of conversation analysis have identified rules or norms governing typical forms of interactions. Our familiarity with the linguistic and interactional forms specific to a communicative situation defines our interactional competence (Hymes, 1972).

In classrooms, talk and activity are sequentially organized conditionally relevant adjacency pairs (Sacks, Schegloff, and Jefferson, 1974) or triples (Mehan, 1979). What precedes in a conversation produces a "slot to be filled," for example, questions demand answers, etc. Classroom talk is sequentially organized through three-turn adjacency relations. Initiation-response-feedback triples (also known as initiation-response-evaluation or I-R-E) can be chained into longer sequences consisting of one primary and one or more complementary triads (Nassaji and Wells, 1998). Sequences of triples will be grouped into topically related sets (Mehan, 1979). However, it is unclear that the I-R-E will be able to cover the interactional context of the seminar given the complexity and the multiplicity inherent to speech turns in this environment, or even that questions, responses, and evaluations predominate over other forms of turns.

Speech turn analysis is complicated by the fact that one utterance can hold multiple speech act values, that is, perform many actions. Within the same utterance—below the sentence level, so to speak—specific linguistic devices exist that hold their own speech act values (Hanks, 1992) or they can serve dual functions, both linguistic and interpersonal

(Basturkmen, 1998). For instance, demonstrative pronouns serve a referential function in talk. They serve to orient participants to features of the discourse and the context, such as people, ideas and things present or temporally and/or physically distant. It is precisely the ubiquity of demonstratives that makes them the glue that binds discourse. These speech acts operate in a more restricted range, are more readily identifiable by the grammar, and, hence, more quantifiable. They can better serve to distinguish between the functions and roles that discourse plays in the context of learning.

Speech turn analysis can function without a syntactic and semantic description of the utterance, but without a unit of analysis that connects the semiotic and the sociocultural to the interactional (material and activity) dimensions, classroom discourse analyses will remain fundamentally incomplete because classroom discourses have both an interactional and a cultural reality. Or, in more familiar Vygotskian terms, language is both the tool and the object of learning; language both structures the learning environment and is the primary mode of classroom learning.

Comparison of two levels of speech act analysis. Here is a passage that illustrates the difference in granularity when we code speech acts at the speech turn or at the grammar of the statement. As stated above, the utterance can contain multiple deictic moves, each analyzable in speech act terms. Only considering a very restricted range of deictic devices (*this, that, these, those, here, there, now, then*) and not considering anaphoric (in blue) uses (which I will argue further on are examples of focus-shifting deixis along with Cornish (2011)), we find that one extended speech turn consists of at least two dozen deictic moves (in red and blue), each of which can be considered a speech act in its own right. By analyzing the targets of these ten deictic moves, it can easily be seen that they are being used to connect the present speech situation to other speech situations and texts (understood as the products of communicative interactions). In this instance, those other texts include different researchers' approaches to and definitions of *multicultural awareness*. Thus, it becomes quite clear that in order to capture what is accomplished as discourse in a graduate research seminar and not simply what is accomplished in

interaction we need a grammatical level analysis of speech in interaction because discourse construction occurs at the linguistic level minimally through the deployment of deictic resources. Deixis allows us to capture the actual functional sequence of linguistic communication, in other words, what moves are made to negotiate meaning and co-construct the discourse in interaction. Table 1 below, illustrates the difference between a speech turn level of analysis and a deictic level of analysis.

Table 1
Comparison of Two Levels of Speech Act Analysis

Date: 03-02-05

Recording: 1 of 3

Recording duration: 0:8:31–0:11:18

Activity: Recent PhD graduate presenting her grounded theory research

Speech turn: Elaborated comment

Topic: Operational definitions

Deictic moves: 23

Transcription
Speaker: Just for the sake of some definitions there is some debate on how to define multicultural, some believe that it should be a race based definition so that the societal hegemony which is the differences of status that are given to people of color versus people who are not of color, become clear in the mind and seen and then there is some people who define multiculturalism as inclusive meaning it can include other things other than race such as social class, ability versus disability. . . . different body sizes, sexual orientations etc. And so there's quite a lot of debate within multicultural literature about how do we define it, and for the purpose of this research study I defined it inclusively. I looked at multiculturalism to be beyond race. . . . but including race as well but there's a primary thing that

my participants spoke a lot about race but they also spoke about sexual orientation, they also spoke about social class, things like that ok. Multicultural knowledge is understanding the impact of the socio-political system on different cultural roots and also, to understand how culture affects things like personality formation, vocational choices, help seeking behaviors among clients, appropriate versus inappropriate interventions that we might use on clients, so having knowledge about all those things is what constitutes multicultural knowledge. Skills are being able to possess a wide range of verbal and non-verbal responses that are culturally appropriate for different cultures, for different groups, kinds of groups, and also the willingness to seek consultation when needed. Multicultural awareness is being aware of one's own cultural values and how it impacts the work that we do as counseling psychologists. This included efforts that the counselor takes to understand themselves as a person but also as a counselor within a broad range of. . . . the context of culture. Culture is relatively knowledge is relatively new to the field of psychology; it has only been in the last 15-20 years that we have even started talking about it and writing about it within psychology. Our discipline has developed and endorsed theories that are primarily based on white, middle class male heterosexual perspectives of normality. And because of this it has been unrepresentative and often harmful for different cultural groups and this has led to things that I listed here like misdiagnosis and errors in treatment, decreased empathy on behalf of the counselor for the client, and also the underutilization and early termination on behalf of minority clientele.

Educational speech acts. In a seminar, many things are accomplished through talk. We perform specific educational acts (instruction, evaluation, etc.) in social interaction. Educational speech acts are informative and performative interactional goal-oriented

sequences. They include such things as: dialoguing, telling, explaining, questioning, critiquing, modeling, paraphrasing, marking relevance (highlighting), elaborating, arguing, persuading, agreeing–disagreeing, affiliating–disaffiliating, and relating, etc.

Following Searle (1969), I argue that speech act implies an intention to accomplish a goal. This has certain implications for my forthcoming analyses. For instance, the speech act *marking relevance* entails an evaluative judgment on behalf of the speaker for the benefit of the listener. Marking relevance, to paraphrase means: *This is important (to what? to whom?)*. It signals an explicit statement of a relation perceived by the speaker. It is an inherently didactic move in the context of classroom discourse. That it can signal an adoption of a didactic posture is of interest in understanding the participants' trajectories within a community of practice framework (Wenger, 1998).

Shearer (2009) and Burbules (1993) discussed speech acts in educational contexts but their notion of speech acts is limited to dialogic exchanges. As a result, it cannot fully account for what is accomplished in a graduate seminar. Dialogues in the graduate seminar are not ends in and of themselves; they are also a means. We perform many more educational speech act than building shared understandings through classroom dialogue as Shearer (2009) and Burbules (1993) would have it. Thus, to understand the role of talk in classrooms we must go beyond a too narrow conceptualization of classroom talk as dialogue but one that can capture the shared knowledge building and other performance forms that can occur through the discourse.

Summary. The study of seminar discourse appears warranted as it distinguishes itself in many ways from primary and secondary classrooms, which have overwhelmingly been the focus of research to date. Seminar discourse is distinguished as being contextually displaced and abstract. This study adopts a perspective that is in line with Gee and Green (1998) ethnographic approach as well as Mercer's (2004) sociocultural approach. Participants negotiate meanings in the seminar discourse. A deictic analysis offers more granularity than conventional speech turn analysis, and deixis appears involved in the

negotiation of meaning. In Section II below, I review the research literature on seminars, and argue that the seminar can be conceived as a community of practice in which participants are engaged in legitimate peripheral participation (Lave and Wenger, 1991; Wenger, 1998).

The Seminar as Community of Practice

In this brief review on the literature on seminars, the guiding questions for this review will be:

1. What kind of seminars exist?
2. What kinds of empirical studies have been conducted in graduate seminar-style courses?
3. What does the literature say about teaching and learning in qualitative research courses?

How are seminars described in the literature? An earlier article on the nature of the seminar describes the seminar as "a forum to discuss scientific problems and as an exercise in communication" (Laidler, 1971). Yet another earlier description places the emphasis on shared research (Morris, 1975). Seminars come in different flavors. A basic typology would include: first-year or freshman student seminars for college transitions (Cuseo, 2015) and graduate school (Lammers, 2001); professional development seminars for faculty (Regan-Smith, 1994) and practitioners including teachers (Kroll, 2004) and teaching assistants (Dotger, 2010); academic seminars, including content area seminars, and capstone seminars; those that focus on career development, research, writing, or presentation skills (Adams, 2004; Gaillet, 1996; Hammett & Collins, 2004; Shostak, et al., 2010); and pedagogy or teaching methods (Geddis, Lynch, & Speir, 1998; Trautner, 2014).

In an article for *Teaching Sociology* that sparked a discussion on the ends of the graduate (area) seminar, Steen, Bader, and Kubrin (1999a; 1999b) argued that there hasn't been much research interest on graduate level study because of two enduring myths: (i)

that graduate students are naturally motivated and professors need not expend too much effort on instruction, and (ii) that seminars make up such a small part of what graduate students learn in graduate school that it obviates the need for pedagogy. The article is based on a cursory reading of the literature and does not appear to extend much beyond the realm of anecdote. Nonetheless it represents a rare attempt to provide a typology of graduate seminars.

Steen, Bader, and Kubrin (1999a) place the graduate seminar on a continuum of instructional approaches, from teacher-centered to student-centered, and enumerate four main approaches: the lecture format, the professor-led discussion format, the student-led discussion format, and the read-and-present format. As they see it, the lecture format does not encourage students to engage in academic discourse, and it places graduate students at a significant disadvantage because they do not have the opportunity to express themselves orally, challenge ideas, or engage in critical thinking.

As they see it the discussion formats often lack focus, and where the students take the lead, they often lack the requisite pedagogical content knowledge (Shulman, 1998) to draw out the important points or address misconceptions. In their estimation, the read-and-present format is the least beneficial of all because connections are not drawn between the concepts discussed in each presentation. Moreover, time management is often a major issue.

Steen, Bader and Kubrin (1999a) identified the main problem with graduate seminars in sociology as "the failure of instructors to play a central role in structuring the class" (p. 169). They cited Sullivan's (1991) distinction between the goals of undergraduate and graduate education as a likely contributing factor to instructors' reluctance to take greater control of the class, namely that undergraduate education is aimed at the reproduction of knowledge, whereas graduate education is aimed at the production of knowledge. Sullivan (1991) suggested that graduate programs ought to apprentice students into the practice by gradually increasing their autonomy, which the authors

endorsed. However, they found little difference in teaching practice between graduate and advanced undergraduate courses. The lack of guidance on the part of the instructor often means that the level of academic discourse rarely reaches the levels of analysis, synthesis, or critique.

Steen, Bader, and Kubrin (1999a) argued that instructors must take an active role in seminar instruction, that they ought to have clear goals for discussions, provide guidelines, and summaries, that can help develop pointed questions, and an outline of discussion to keep the class from veering off topic.

Eisenberg (1999) dissented with the view that graduate programs train generalists, but rather advocated for developing intellectual rigor in the next generation of scholars. In her estimation, the goal of the area seminars (special in-depth study of specific topics) is to develop substantive knowledge in selected specialized areas. For her, the primary goal of the seminar is to impart information and not to train students in academic discourse. Although Eisenberg (1999) agreed that instructors must make efforts to design an effective instructional experience, she pointed to a number of ways that instructors can develop intellectual rigor without having to fit into an ideal-type instructional approach. Clearly there is little agreement on the ends of the graduate seminar despite the fact that all the commentators agreed that seminars are important.

Fittingly, Hauhart and Grahe (2010) presented their results of a survey they undertook of psychology and sociology departments of universities in the western United States in order to document the variety of senior seminars and capstone programs. As a capstone to this discussion in *Teaching Sociology* a number of articles outlining professionally-oriented seminars have appeared in the intervening years, including Shostak et al.'s (2010) discussion of the teaching of research methods in multi-pronged departmental initiatives.

What kinds of empirical studies have been conducted on graduate seminar-style courses?

Reports. A majority of studies fall into the category of practitioner reports on instructional models and approaches. A smaller and more recent development are empirical studies focusing on the nature of teaching and learning in the seminar. In this area, ethnographies have been conducted, as well as discourse analysis, qualitative and mixed (interviews, surveys) inquiries on student and teacher perceptions of effective instruction, productive discussions, expectations.

Of the many articles on seminars that fall in the category of self-report on instructional models and interventions, most are self-reports of practice and don't provide empirical data or supporting evidence beyond personal recollection, supported by extant documentary evidence. For instance, Blake and Scanlon (2013) described a near synchronous online seminar for collaborative learning, and Domizi (2013) examined the use of micro-blogging to support the creation of a community and to enhance learning in a weekly graduate seminar on teaching and pedagogy. Hoggan and Militello (2015) reported on the development of a year-long extracurricular professional seminar for doctoral students to foster reflection and community building. Henderson et al (2008) conducted a self-study of their qualitative research course. Using ethnographic autobiography, the participants explored their emotions and experiences along four themes: learning by risk taking, learning by doing, learning by working together, and learning by reflection. Salzman & Snodgrass (2003) reported on a year-long action research seminar and its positive effects of teacher-researchers on their self-perceptions as competent consumers and producers of educational research. Delyser (2008) and Delyser et al. (2013) reported on a qualitative research seminar for graduate students in human geography. Blank (2004) reported on the experience of teaching qualitative data analysis to graduate students and Poulin (2007) described an introductory qualitative methods course for graduate students in counselling psychology. Cordner, Klein, and Baiocchi (2012) reported on a collaborative project involving graduate students in the design and teaching of qualitative methods workshop-style course. Interestingly, Hunt, Mehta, and Chan (2009) wrote from the perspective of graduate students about their experiences of conducting qualitative research.

Instructional approach. There are a few graduate seminar studies focusing on pedagogical or instructional approaches that have attempted to validate their methods or strategies. Adams (2004) found positive effects of peer modeling in increasing self-efficacy for seminar presentations. Geddis, Lynch, & Speir (1998) reported on their attempts to develop a *scholarship of pedagogy* through self-study. Harris and Myers (2013) compared three instructional models for field-placement seminars, a traditional, a hybrid, and a webinar model, finding no difference in student grades but a preference for the traditional model in local placements and for the webinar model in distant placements. Regardless of the model used, they find that reciprocity among participants was an important factor for the success of the seminar. McMullen (2014) reported positive findings of students' perceptions of understanding, application, and synthesis from the integration of student-led seminars and conceptual workshops in a teacher education class. Similarly, Pelton (2014) found increased self-efficacy and reduced anxiety following a teaching seminar for graduate students in sociology. Smollin and Arluke (2014) found that graduate students have a lot of anxiety toward teaching. The authors argued that the findings indicate the need for system-level changes to better support graduate students in their first-time teaching positions.

Minhas, Ghosh, and Swanzy (2012) compared teacher-led lecture and student-led seminar formats over a two-year period, finding that peer-led seminars resulted in increased final examination scores over lecturing. However, the authors argued for an approach that combines both lecture and peer-led seminars on the basis of student preference. It is common in the literature to confound teaching orientation with instructional approaches, however nothing about either instructional situation precludes the use of either discussion format. Although it is true that a lecture may often be content-centered, it is not necessarily so; neither does a seminar need necessarily be student-centered. A lecture can be student-centred just as a seminar can be content-centered.

These studies all share a reliance on self-report and focus on teaching innovations. Thus, are only of a limited interest to our present concern, which is to attempt at describing

seminar discourse. Below, I will review in greater depth those more empirically-oriented studies that have attempted to study the seminar as an instructional situation, or as a particular learning environment.

Descriptions from surveys and direct observation. In the few more empirically-oriented studies of the qualitative research seminar, Wright (2007) explored how graduate students as novice researchers made sense of data and theory building in a qualitative perspective. Borochowitz (2005) used autoethnography to grapple with the resistance to qualitative epistemology and the limits of reflexivity at each stage of research. Below, I will review studies that make use of survey and direct observation in their attempt to describe the seminar as an instructional situation.

Jaarsma et al. (2008) and Spruijt et al. (2012; 2013; 2014; 2015) reported on the development of a questionnaire about teaching and learning in the seminar. Jaarsma et al (2008) found that effective learning was highly correlated with student perceptions of teacher performance but negatively related to group interactions. The authors interpreted this as resulting from poor alignment in the instructional design between teaching and assessment and the organizing of group processes.

Spruijt (2014) provided the following definition of the seminar:

A seminar is a learning session facilitated by a content expert during which a group of some 25 students discusses questions and issues emerging from assigned readings, with the underlying idea being that students learn through confrontation with problems of practical relevance. (Jaarsma et al, 2008, quoted in Spruijt, 2014, p. 16)

She defined the roles of the teacher and students as follows:

The role of seminar teachers is to stimulate and facilitate the active learning process as content experts and stimulate interaction among students and with the teacher.

The students are expected to actively contribute to the discussions. (Spruijt, 2014, p. 15)

The objective of seminar learning is to promote active and deep learning by providing interactive student-centred sessions in which students are challenged to discuss questions and issues relating to subjects of practical relevance. (Sruijt, 2014, p. 46)

Spruijt (2014) framed the importance of the seminar in terms of the active learning movement. However, seminars are as old as the university system itself. It would seem somewhat anachronistic to justify seminar approach retroactively on the basis of contemporary readings of the socio-constructivist literature. Socio-constructivist theory could be used as an explanatory framework to account for seminar learning, however, the reasons for the prevalence of the seminar method must be found elsewhere.

She framed the active learning approach within a constructivist perspective and summarized its pedagogical guidance as follows:

In brief, learners should be actively involved. They should be encouraged to activate prior knowledge, elaborate and apply deep learning as this leads to a more comprehensive and richer understanding and better use of knowledge. In order to be able to interact in an in-depth discussion during a group session, a student needs to be well prepared which leads to a particular knowledge level. This demands a certain level of student self-directedness. The student should play an active role in planning, monitoring and evaluating his/her own learning process. Students should be encouraged to be aware of their prior knowledge and to regulate or direct their learning processes. (Spruijt, 2014, p. 13)

Deeply engaging with intellectual content is one aspect of group learning. Another important aspect of group learning is the motivational aspect; working in groups with a teacher and stimulating assignments may enhance an intrinsic interest in the

subject matter. Motivation may also be enhanced if learning is undertaken in a professionally relevant context. Besides stimulating motivation, learning in context facilitates the transfer of knowledge as well. Another aspect of group learning is that the social interaction in groups might help in acquiring collaborative and communication competencies that are needed for a veterinary and for a medical professional. (Spruijt, 2014, p. 13)

Defining the seminar in terms of active learning short-circuits the analysis before it can begin. The seminar is an interactional form that is privileged in higher education but prescribing active learning methods does not explain why the seminar is privileged in the first place. The seminar is not one cohesive instructional method as Spruijt (2014, p. 25) claimed. As noted, a seminar involves a small(er) group led by a content expert. There is great range of activity that can occur within those bounds, including but not limited to lectures, guest speakers, round tables, dyads, plenaries, and workshops. As the literature reviewed in this section amply demonstrates, there is no one cohesive approach to seminar instruction. Further, it is unclear that learners in a seminar are consistently actively involved, deeply engaged, and self-monitoring in planning, monitoring, and evaluating their own learning as claimed by Spruijt et al. In the context of trying to understand seminar learning, this is problematic because seminar learning is described in terms of *ought* rather than *is*.

This point is further supported by Jaarsma's et al (2008) finding that although seminar learning promotes a student-centred approach to learning according to the instructors, their findings on students indicated the contrary. Students rely heavily on teachers for organizing and structuring learning, and find that group interaction makes only a limited contribution to achievement. Seminars ought not to be shoe-horned into an active learning approach without scrutiny because a seminar is not a method, it is a participation structure, and one that is relatively agnostic to instructional approach because any number of approaches could in principle submit to it. Another confounding factor is that the seminar instructors had largely completed faculty development activities

on interactive teaching and the students and the teachers were aware of the educational philosophy of the curriculum, which had the avowed goal of promoting active participation and group learning (See Sprujit, 2014, p. 80).

This is further reflected in the study design, where the main research question was "How do students, teachers and context contribute to the effectiveness of seminar learning in a hybrid undergraduate veterinary curriculum?" Yet the five specific research questions demonstrate that the focus is not in understanding the seminar as participant structure in its own right but the seminar as a form or method of active learning. As a study that relied heavily on self-report, we have to conclude that this is not a study of seminar learning but a study of teacher and student perceptions of seminar learning as a form of active learning.

1) Which aspects influence seminar learning according to students?
2) Which aspects influence seminar learning according to teachers?
3) What are the relations between factors that relate to seminar learning?
4) How do factors that relate to seminar learning predict students' academic achievement?
5) How do factors that relate to seminar learning explain the teaching performance in seminars? (Spruijt, 2014, p. 17)

Questions 1 and 2, addressed in chapters 2 and 3 of Spruijt (2014) as separate studies, are also reported in Spruijt et al. (2012) and Spruijt et al (2013) respectively. These studies employed a focus group format to probe students' and teachers' perceptions of effective seminar teaching.

Transcripts were coded and a number of inductive categories were generated (Hsieh & Shannon, 2005; Miles & Huberman, 1994). For students' perceptions, the main categories were: seminar teacher, student, seminar questions, facilitating methods, seminar group functioning, preparation, schedule, and assessment. For teachers' perceptions, the main categories were: seminar teacher, students, preparation, group functioning, seminar goals and content, course schedule and coherence, and facilities.

Teachers' and students' views were quite consistent between themselves and other studies on small-group learning (unsurprisingly because the seminar as participant structure is confounded with the actual instructional approach favored, i.e., active learning, at this institution) (Spruijt, 2014, p.35, p. 60). It is worth noting that where the students and the instructors differed in perceptions of the seminar situation is precisely in terms of the roles they adopt in that context. Hence, teachers are more conscious of the choice of goals and content of the seminar, whereas the students do not question these aspects but rather focus on the methods and structures that facilitate learning,

> The results showed that teachers' views and those of the students differed, particularly with regard to 'seminar goals and content.' Teachers emphasized the significance of the suitability of subjects for seminar learning and of clear seminar goals, while students did not question the selection of seminar subjects but focused on the structure of seminars and methods used to facilitate learning. Whereas teachers scarcely discussed various facilitating methods within seminars, students stressed the value of dividing the group in subgroups. (Spruijt, 2014, p. 60)

Questions for students (p. 38):

First session: What is your best experience during a seminar? What is your worst experience during a seminar? What makes a seminar effective? • Which aspects influence seminar learning? • What would you do when you were director of education to enhance learning during seminars?

Second session: What makes for an effective teacher? What makes for an effective group? What is your ideal group size? • What makes for effective seminar questions? • What facilitating method of a seminar most enhances learning during a seminar? • What could enhance preparation? What would be an ideal course schedule for improving seminar learning?

Questions for teachers (pp. 48-49):

First session: What are the goals of seminar learning? • What aspects influence seminar learning? • What are reasons why seminars do not always work?

Second session: What is the role of the seminar teacher? • What makes for an effective seminar teacher? • What makes for a safe learning climate? • What makes for effective preparation to improve seminar learning? • What would the ideal schedule for effective seminar learning look like? • What makes for effective seminar questions? • What can be done to activate the students during the seminar? • What would you recommend to enhance seminar learning?

In Spruijt et al (2014, chapter 4; 2015), the Utrecht Seminar Evaluation (USEME) 57-item questionnaire on seminar learning was used to predict student achievement. Principal factor analysis resulted in four factors: teacher performance, seminar content, preparation by students and interaction within seminar groups. Students' academic achievement was predicted by prior achievement scores and, to nearly an insignificant extent, group interaction. The fact that only prior achievement scores appear to robustly predict student achievement in this context highlights the limits of self-report measures to adequately capture interactional phenomena that for the most part is transparent to our perceptions of daily lived experience. To summarize, it appears (a) that the factors reported by teachers and students as influencing their perceptions of learning do not predict their learning significantly compared to prior student achievement scores, and (b) that student and teacher perceptions do not seem to distinguish between seminars as participation structures and seminars that adopt an active learning instructional approach. If that is indeed the case we are forced ask what is seminar learning and if and how does it differ from other kinds of learning? These kinds of questions require a closer analysis of seminar phenomena, and demand methodologies that are capable, to some extent, of bracketing assumptions of what the instructional goals of the seminar are in order to study the seminar as an interactive performance. To understand what counts as seminar learning, we must first understand what is common to seminar situations.

Seminar discourse quality. Though several studies focused on discourse in the seminar, none have attempted to reconcile interactional and linguistic levels of analysis necessary for a performative analysis of the seminar as an interactional accomplishment. An early example (Philips & Powers, 1979) found that student-led portions of seminars had higher rates of participation in terms of responding to questions. Other studies examined the presence or absence of certain discourse moves (Jaarsma et al., 2009) or the relationship between discourse and student beliefs (Decker, Kunter, & Voss, 2015). Gibson, Hall and Callery (2006) studied topic shifts in face-to-face seminars by a close study of turn-taking. Lajoie et al. (2006) compared the discourse in two seminars' online collaboration from a cognitive apprenticeship perspective. Luo (2005) conducted a qualitative study of the online interactions between native and non-native English speakers in a *mixed-mode* seminar. Northcott (2001) compared interactive lecturing styles within the context of an MBA program and identified different ways of including student contributions in the discourse. Coward and Miller (2010) explored the experiences of East Asian students participating in graduate seminar discussions. They highlight the mediating role of the activity structure on their ability to participate. In a close analysis of seminar discourse, Waring (2002) explored the "dispreference" for expressing non-comprehension and alternative discourse strategies invoked by graduate students engaged in learning to become independent practitioners and Prior (1997) studied the practice of writing in graduate education as a process of disciplinary enculturation. Although Billings and Fitzgerald (2002) explored the extent that dialogic principles were enacted in seminar discussions. De Klerk (1995a; 1995b) explored gender differences in speech patterns in seminars. However, this work focused solely on the participation in seminar discussion, specifically on floor winning and floor holding patterns among participants. The studies describe assertive interactional environments where students and tutors compete for the right to speak. Unfortunately, the lack of content analysis did not permit us to see how these patterns contributed to the construction of the shared discourse by the participants, for instance, whether the overall discourse evinced an exploratory, a cumulative, or simply a disputative form of talk, to use Mercer's (1995) typology.

Jaarsma, et al., (2009) surveyed students' and teachers' perceptions on the desirability of certain discursive moves such as exploratory questioning, cumulative reasoning, and handling knowledge conflicts, and then analysed video recordings of classroom interactions. They found that these things did not occur very often despite being desired by participants and that the teacher was responsible for the great majority of the interactions. This was interpreted as resulting from inadequate preparation of both teachers and students for group interactions. However, this is in-line with findings going back to Barnes and Todd (1977): that teachers are responsible for upwards of 75% of classroom talk.

A small strand of research has sought to qualify seminar speech as a special kind of interactive environment, describing it in terms of speech genres (Aguilar, 2003; Weissberg, 1993) or in terms of patterns of turn structure (Basturkmen, 1999; 2002). In seminar-style situations, the I-R-E—the predominant instructional sequence in many classroom environments—does not account for the bulk of interactional sequences because different activity structures are present and structure the classroom discourse in distinct ways. An example of this is the round-table discussion, or the peer presentation, which prescribes specific sequential turn-taking arrangements. These and other differences would appear to distinguish the seminar as a distinct interactional environment, quite apart from other classroom environments.

Graduate qualitative research courses. In 2007, issues in teaching and learning about qualitative research methods and methodology was the focus of the Second Berlin Summer School for Qualitative Research Methods. Breuer & Schreirer (2007) take up and extend these discussion points. There are many studies that report on instructional practice in the qualitative research course. Reported evidence ranges from self-report to student perception and student exemplars.

Discourse analysis in the graduate seminar. In the only other discourse analysis of qualitative research seminar to date, Ma (2004) presented a comparative case study

comparing experience of a discussion-based graduate qualitative research seminar of three Eastern and three Western students. Grounded in the work of Vygostky and Bakhtin, and taking a situated perspective, identity and discourse were taken to be constituted in interactions that focus, articulate, and expand understanding. Echoing Britton (1990), participation in dialogic interactions was defined "not only a means to learn, but means learning itself." Quoting Bakthin, "[d]ialogism is the characteristic epistemological mode of a world characterized by heteroglossia" (Emerson & Holquist, 1981). For Ma (2004), discussion helps students engage with more difficult texts; seeing from different perspectives helps them better understand and resolve problems.

Ma (2004) contrasted the Confucian and the constructivist learning models, and was careful to distinguish the Confucian model from the transmission model because of the Confucian expectation of unvoiced engagement. The main question was "How do culturally and educationally shaped experiences affect students' learning stance and how they perceive and articulate their learning experiences?" As it was unclear how dialogic engagement varies in discussion-based seminar for qualitative research methods as disciplinary discourse, this study compared Eastern and Western students as "culturally different learners."

Ma (2004) reported different participatory stances from reflective listening through internal dialogue, using field notes, journaling, and audio-video recordings of eleven class meetings (nearly half of which were transcribed) as data sources in order to describe course activities, learning methods, and the interplay of cultural, linguistic, and cognitive elements to understand participatory learning in real class setting in cross-cultural perspective. Additional tape recorders were used to capture small-group discussion because focal participants were never all in one small-group discussion at once. Three separate interviews (semi-structured #1 and #3, and second ½ reflection on written work, ½ written response) were used to probe focal students' perceptions. Open-coding using constant comparison (Glaser & Strauss, 1967) was employed to reduce the data.

In this study, the central argument is that "Inquiry-oriented talk with oneself helps to engage and extend one's thinking, as overt discussion with others does" (p. 57). Hence, silent participation is to be distinguished from passive (non)participation. This raises a few questions: If "talking it out" is useful, why don't more people do it? If people find talking useful, why do they not assume others will find it useful? Do quiet participants contribute to the ultimate shape of understanding reached by the group? What are the implications of the inner voice for dialogic learning?

Ma (2004) suggested again that the dialogic process is different for youth and highly literate adults but I don't see how learning strategies and skills is different from clearing up confusions, and bouncing off ideas and interpretations. Learning strategies for participation in classroom discourse apply to disciplinary discourse as well—if anything it is a matter of degrees. Other than reading, writing, and discussion activities, the author makes the case that reflective listening is also an important activity within the seminar. All participants were engaged in reflective thinking in some way. Ma (2004) distinguishes between two modes of utterances: prepared thought and ideas-in-progress. Some students liked to think out loud, and others preferred to only articulate well thought out ideas.

> Thus, even though Sunhee read the materials, and thought and understood some of the key issues, she just did not feel she had the opportunity to share her views publicly. Instead of participating visibly in the discussion, she was having a kind of one-person dialogue with herself. (Ma, 2004, p. 104)

For the Eastern students, unfamiliarity, difficulty challenging theoretical discourse, and low proficiency in English created barriers to their verbal participation. Whereas, for the Western students, participation in the classroom discourse was taken to be necessarily verbal. However, he found that teacher-led discussion decreased, and student-led discussion increased as students became more proficient and gained more responsibilities and opportunities for initiating or leading discussion.

Two participatory stances identified by Ma (2004) are *dragonflying* and *diving into an issue*. Dragonflying, or the act of alighting on a topic only briefly and then movinge on to another, occurred more often in small-group discussions, more anecdotal and casual interactions. Diving into an issue, occurred primarily when the instructor was present to guide the discussion.

The question not addressed was how these participatory stances relate to learning and to what extent are they interrelated. As, prima facie, not all topics can be addressed to the same extent and in the same depth, nor are the goals of the interactional activities the same across all contexts, it is unclear whether one participatory stance is necessarily less educationally desirable than the other. Topics in classroom discourse exhibit a non-trivial hierarchical structure, as some topics are more important than others. If understanding the interrelationships and connections between topics are educationally valuable, then the work of dragonflying or diving into an issue are not just two participatory stances but two ways of relating to the notional course content.

Ma (2004) concluded that if social interaction can happen otherwise than through explicit verbal means, then visible and audible interactions may not be the sole criterion for learning in seminar situations. All stances were not necessarily counter to the socio-constructivist view of learning in social interaction. This is an important insight, one that puts the problematic of studying learning through the analysis of classroom discourse in question because only verbal utterances can be studied overtly. Reflective listening is not directly available to the classroom discourse analysis and can only be obtained through indirect means such as retrospective reports. Indeed, this constrains the analysis because only those participants who make verbal contributions to the discourse can be studied for their contributions to the co-construction of the shared classroom discourse.

Seminars within the communities of practice framework. There is a persistent notion that in seminars students ought to know as much as the instructor. However much students and instructors may interact in more collegial ways in seminars compared to

survey courses, their interactional roles are fundamentally different. In the seminar—understood as a progressive induction into a disciplinary practice—the instructor can be perceived as guiding students through a field of practice, showing the way, pointing out significant features, orienting, etc. The students, on the other hand, are actively tasked with assimilating the organization of the field, and make progressively greater attempts at using the new repertoire in an acceptable disciplinary fashion.

The literature on the seminar reviewed above focused largely on two aspects of academic practice: first, on research, but, increasingly, on teaching as well. These two fundamental aspects of the practice of academic research also dovetail with two other seminar types relating to job placement and the workplace. Some, as Hoggan and Militello (2015) do, explicitly stated that the goal of the seminar is to develop an intellectual community of scholars. Combined, it would seem rather obvious that one of the main purposes of the seminar format is the induction of students into the *community of practice*. Indeed, Bogdan (1983) rather pointedly discussed the relative merits of teaching ethnographic research methods formally or through apprentice relationships. Using educational ethnography, Lynch (2012) explores the construction of community within classrooms and schools through the translation of critical theory to practice.

Wenger (1998) argued a community of practice need not be reified as such by its participants, and hence, he listed a number of indicators that such a community of practice as formed. I will use these indicators to demonstrate how the existing literature pertaining to the seminar relates and fits into the community of practice framework.

Hence, for Wenger (1998) a community of practice may exhibit the following characteristics:

1. sustained mutual relationships – harmonious or conflictual;
2. shared ways of engaging in doing things together;
3. the rapid flow of information and propagation of innovation;

4. absence of introductory preambles, as if conversations and interactions were merely the continuation of an ongoing process;

5. very quick setup of a problem to be discussed;

6. substantial overlap in participants' descriptions of who belongs

7. knowing what others know, what they can do, and how they can contribute to an enterprise;

8. mutually defining identities;

9. the ability to assess the appropriateness of actions and products;

10. specific tools, representations, and other artifacts;

11. local lore, shared stories, inside jokes, knowing laughter;

12. jargon and shortcuts to communication as well as the ease of producing new ones;

13. certain styles recognized as displaying membership; and

14. a shared discourse reflecting a certain perspective of the world. (pp. 125-6)

The seminar as learning environment provides a context for sustained mutual relationships—harmonious or conflictual (#1). As an example of shared ways of engaging in doing things together (#2), Keiny (1994) discussed a postgraduate Teacher Thinking Seminar, where teachers were engaged in group reflection using their own practical knowledge to work through instructional dilemmas.

The seminar is suited to the rapid flow of information and propagation of innovation (#3). Meretsky and Wood (2013) discussed an innovative blended-learning seminar model combining experts, practitioners, and students in an authentic learning environment approximating real practice. Students benefited from participating in the interactions between experts and practitioners. Peressini and Knuth (1998) compared the discourse in a professional teaching seminar and in the classroom practice of one participating teacher's high school mathematics course.

The very nature of the seminar—regular and repeating, programmatic, fixed number of participants—warrants absence of introductory preambles, as if conversations and interactions were merely the continuation of an ongoing process (#4), very quick setup of a problem to be discussed (#5), and substantial overlap in participants' descriptions of who belongs (#6).

The seminar as a mode of legitimate peripheral participation (Lave & Wenger, 1991) means the participants are fundamentally concerned with knowing what others know, what they can do, and how they can contribute to an enterprise (#7). Wright's (2007) exploration of how novice researchers learn to make sense of data and theory building in the qualitative research seminar points to the nascent interest in establishing the pedagogical content knowledge (Shulman, 1986) that can help instructors as more expert practitioners more easily adopt the repertoire of the community of practice. Whereas Waring (2002) and Ma (2004) explored how novice researchers employ discourse strategies as they reflexively construct their identities as independent practitioners with regard to each other and the repertoire of practice.

Waring (2002) was also concerned with mutually defining identities (#8) as were Castello, Inesta, and Corcelles (2013) who described PhD writing seminar from a socially situated and activity theory perspective. They focused on the development of the students' identities as members of the academic and disciplinary communities in order to understand how students regulated their academic writing activity. The educational intervention helped students overcome contradictions in the construction of their identities as researchers and writers, helping them to see the process of writing as a work in progress instead of final product. Jellinek (2007) discussed how a psychiatry residents' seminar helped facilitate the residents' emerging professional identities. Rouzie (2001) discussed the developing professional identity using the concept of liminality.

Seminars have also been used to develop participants' ability to assess the appropriateness of actions and products (#9). Lehmann (2010) reported on a seminar

series to instruct psychiatry residents to teach, and finds the program increased residents' self-efficacy for teaching aspects of psychiatric practice to medical students.

Seminars, and especially methods courses, are often focused on the appropriation of specific tools, representations, and other artifacts (#10). Kvarfordt et al. (2014) surveyed social work students' perceptions of an 'agency-based' field seminar integrating a research proposal as part of the course requirement, finding many of the same benefits of actually implementing research. Millstein (2005) wrote about a capstone seminar in social work where students were encouraged to articulate a vision of social work that integrated their knowledge, skill, personal values, and prior experiences into a coherent professional philosophy.

A seminar as a micro-culture develops its own local lore, shared stories, inside jokes, knowing laughter (#11), jargon and shortcuts to communication as well as the ease of producing new ones (#12), as well as making implicit certain styles recognized as displaying membership (#13). Kucan (2011) examined the process of writing a literature review as an example of professional practice. Gardner (2008) conducted a qualitative study of the socialization processes in graduate programs at two institutions in the goal of making graduate school more inclusive and stemming the increasing attrition rates at American graduate schools.

Finally, participants in a seminar co-construct a shared discourse reflecting a certain perspective on the world (#14). For instance, Kroll (2004) presented a case study of an advanced seminar in child development examining the development of an understanding of constructivism and the integration with the students' developing ideas of teaching, learning, and knowledge within the course.

As Wenger stated (1998), communities of practice may make up a *constellation of practices* for many reasons. They may be considered for:

1. sharing historical roots;

2. having related enterprises;

3. serving a cause or belonging to an institution;

4. facing similar conditions;

5. having members in common;

6. sharing artifacts;

7. having geographical relations of proximity or interaction;

8. having overlapping styles or discourses; and

9. competing for the same resources. (p. 127)

For these reasons at least, the graduate qualitative research seminar can be viewed as part of a constellation of practices that make up the academic research community (Wenger, 1998). Though each seminar course may develop into its own local community, each is connected globally to the field of academic research and the specific disciplinary traditions and practices making up a field of research. Thus, we must be cautious about overgeneralizing claims about the varieties of discourse that can populate the seminar. Moreover, the situated perspective embodied in the communities of practice framework emphasizes the fact that cognition is embedded in social realities and are inseparable and reflexively determined in social interaction.

Summary. In summary, few discourse studies have been conducted in the graduate research seminar and none have attempted to studied what is accomplished through seminar discourse. Upon review of the research on the graduate seminar and using Wenger (1998) criteria, we conclude that the graduate research seminar can be conceived of as a community of practice where the participants are engaged in legitimate peripheral participation. As befits the study of communities of practice, we will be concerned with how participants negotiate meaning in interaction. As we will see below, deixis is a linguistic resource at the participants' disposal for negotiating meaning as it is a privileged means of signaling meaning diacritically and coordinating understanding.

Deictic Analysis and Competent Performance

If the negotiation of meaning characterizes the community of practice, instruction is fundamentally about making connections, and making connections in language occurs through deixis. In the graduate research seminar conceived as a community of practice, the development of a shared understanding of the discipline arises through the co-construction of a shared discourse. Such co-construction or coordination of perspectives occurs through deixis, which is achieved primarily through linguistic means. In principle, the same deictic resources should be available to all the participants. However, the differential roles and competence levels should dictate differential patterns of engagement in the co-construction of the shared discourse, and, hence, a differential deployment of deictic resources in this context as well. As Staats and Bateen (2010) argued: "Analysis of indexical language may, therefore, become a useful tool for researchers who wish to trace pathways of shared knowledge and to give evidence of the collaborative nature of the discursive construction of knowledge" (p. 42).

For the semanticists and linguistic priority camp, the message and hence the point of the seminar is to be found in the *content* of the course. Thus, Teubert (2010) posited:

> A university seminar session discussing a poem would hardly focus on potential links between words, phrases and other units of which the poem in question is made up, and their links to a shared reality. Rather, it would draw parallels between the poem and other poems, and it would look for interpretations of this poem, or other comparable poems, as found in the literature. The setting of the seminar situation and even the interpersonal relations between individuals taking part in this speech situation are much less relevant than the negotiation of the content itself. What has been achieved at the end of the session is an interpretation of discourse-internal content, not a link with the world outside. (p. 148)

Teubert (2010) situated speech situations on a *cline* (SFL; a linguistic field), distinguishing between primordial, on the one end, the immediate shared social reality, and

increasingly more literate speech situations, on the other, where the meaning (truth) of an utterance has to be interpreted as text. Primordial speech situations would, thus, be characteristic of oral societies, whereas in literate societies, primordial speech situations coexist with literate speech situations. Teubert (2010) further questioned the extent to which primordial speech situations would be transformed by the presence of texts in literate societies. Reality is mediated by our symbolic language, that is, in Teubert's words, our speech is only about discourse-internal objects, and we simply don't have access to discourse-external reality. In the context of a seminar, the speech situation is a literate one but it is more reliant even on the interpersonal dimension than Teubert's description allows. What is accomplished in a seminar is not to be exclusively found in the content. A seminar moves beyond simply making connections when it provides a forum for students to engage in behaviors specific to the academic discourse community and allows students to demonstrate their burgeoning expertise.

If we want to understand what happens in seminars we need to understand how connections are made in verbal interaction within the seminar. An adequate explanatory account will include a sequential analysis because part of that understanding is accounting for its occurrence, but it will also require a performative account, because it is equally important to understand what is accomplished through interaction. Basturkmen's (1999) analysis of the discourse of a graduate MBA seminar found that the majority of student-led discussion was about the exchange of information. Though she recognized that students are active participants in the construction of knowledge, she never examined what exactly students are constructing through their discourse, and consequently, the analysis never moved beyond the surface transactional features of the exchange to inquire into the purposes and the accomplishments of the discussions. In doing so, it would have become clear that although the surface features are that of eliciting, informing, and directing, the participants use the discourse to further personal and practical goals, namely demonstrating expertise in the target domain (although she does note that composite (complex) moves may signal a speaker's expertise). Indeed, this is borne out in the deictic analysis, as more complex deictic moves are performed by the more expert instructor and

presenters, who carry much more of the discourse as result. Further, Basturkmen (1999) recognized that turn prefaces may signal illocutionary force and can be misleading—for example, prefacing a criticism with a question—and yet she did not question the limits of the methodology employed. A question can perform many different acts within an interaction. Limiting the analysis to surface interactional features can distort the underlying situation or fail to capture it in sufficient complexity. Granted, this is an EAP study with the explicitly avowed objective of contributing to the language content of an academic-speaking syllabus and not a discourse analysis of learning in interaction. However, it does show how methodology can limit the analysis. By using a methodology developed for analysis in elementary school settings (i.e., Sinclair & Coulthard, 1975), the complexity of the moves is lost, specifically the functional or performative dimension is ignored. A turn-based analysis developed using a transactional view of classroom-based discourse interaction as information-exchange, fails to capture the situative nature of the co-construction of discourse as a component of participation in a community of practice. The exchange of information is not the only goal of the seminar. Being sufficiently knowledgeable is a precondition for participation. Rather, the seminar offers an instructional environment for the performance of the practice as a form of legitimate peripheral participation—in Basturkmen's (1999) case, that of participating in the community of MBA graduate students.

Deixis, discourse, and context. For the purposes of this study, there are three concepts that need to be properly elucidated: those of discourse, context, and deixis. As discussed earlier, discourses, globally, are semiotic resources that enact sociocultural models for organizing our collective experience. However, discourses are produced and reproduced locally, and thus, they exhibit certain interactional features. An important assumption that I base my study on are the dual notions that a discourse (the object that results from the activity of discoursing) exhibits (i) coherence in content and (ii) cohesion in form (Halliday & Hasan, 1976; Swales & Canale, 1983). Cohesion is the internal relations within sentences that connect sentences together and allow them to be chained into more complex structures. Coherence is the relational structure of a text to other texts. On the

surface, it organizes microstructure elements into an interpretable macrostructure. But coherence is not an internal relationship; comprehension depends on complex web of signification as well. Macrostructures result from a complex interplay of inferences and references. In comparison, speech is essentially underdetermined and requires filling in gaps to be understood; because communication relies on signs, our words serve to point things out in the real world and in the world of ideas.

My position follows that shared by cognitive linguists, inspired by the Foucauldian view. As Fauconnier (1981) wrote:

> Discourse, under this view, is in no way a sequence of sentences or propositions, but rather a separate mental construction triggered by sentences, context, assumptions, etc., and performed by a speaker, or by a listener. Communication, as opposed to discourse, involves partial matching and negotiation of these mental constructions. (p. 85)

Similarly, following cognitive linguistics, I take the position that there is not an independent semantic-linguistic inventory that hold meanings that the mind accesses independently, but rather that there are conceptualizations that can be accessed by the language system. This does not mean that there is no language module, only that it is not encapsulated in the Fodorian sense but embedded and linked to other cognitive abilities (Chilton, 2014). In the cognitive linguistic tradition, it is useful to think of language as a tool that expands our already latent abilities. And like a tool, it grinds down; which is why the mind rarely breaks down catastrophically from specific linguistic deficits. Certain neurological deficits may impede compositional ability, or lexical associativity, but perceptual functions may still be preserved. This modified argument for linguistic modularity restricts the bounds of what can minimally be considered the modular functions of the language system, and presents a language module that is bound up in all the other brain modules. In this sense, it would seem more instructive to imagine language

functions as prostheses or bionics, built upon and extending the mind's more primordial systems.

For instance, it appears increasingly clear that language and spatial reasoning are intimately bound together. Chilton (2014) uses the concepts of space and force in his presentation of the deictic space model to represent linguistic reasoning in cognition across three dimensions of modality, temporality, and spatiality, defining the deictic space—an approach owing to Kamp and Reyle's (1996) discourse representation theory and Fauconnier's (1985) theory of mental spaces. Language is particularly well attuned to the negotiation of space and it should come as little surprise that this perceptual apparatus is generalized to reasoning linguistically about abstract conceptual spaces. The specific functions embedded in the language system for negotiating spaces are called deixis, literally 'pointing.'

Deixis refers to the semantic and pragmatic features of talk that connect utterances and link discourse to context (Hanks, 1992). Deixis is the subset of the class of indexical that select features of speech situations. In this study, I focus on the set of demonstrative pronouns (*this, that, here, there, now, then, these, those*) rather than other forms of deictics that serve referential functions in the discourse itself (i.e., determiners, anaphora, and clitics) or that signal egocentric orientations (*I, me, mine, she, he, it,* etc.). Deictics are a form of what Gumperz (1982) called *contextualization cues*, which include all forms of verbal, gestural, semiotic, and signals used by speakers to mark the relevant features of a speech situation. According to Hanks (1992),

> Verbal deixis is a central aspect of the social matrix of orientation and perception through which speakers produce context. Many communicative effects are fused with or achieved through indexical reference . . . the indexical-referential structure of *this* or "here" is a formally condensed case of the more global interplay between grammar and discourse, which is central to communication as an interactive phenomenon. (p. 71)

Felicitous communication can be considered contextualized communication (Grice, 1975). To achieve communicative understanding, we must rely on an extensive set of contextualization cues (Gumperz, 1982) in our interactions. In discourse production and comprehension, we must contextualize our utterances-texts and situate ourselves in relationship to other utterances-texts. We must literally place our text with other texts. Context can be defined as the set of all semiotic features of a situation employed in the interpretation of a given utterance, or as Erickson & Shultz (1981) put it: "social contexts consist of mutually shared and ratified definitions of situation and in the social actions persons take on the basis of these definitions" (p.148). As we will see below, a mentalistic account of context runs into intractable conceptual problems. Only situations have context, they can be textual or interactional situations, but minds don't have contexts and shoe-horning contexts into situational-mental models distorts the underlying facts. Computationally and evolutionarily, it makes little sense to have a homeomorphic representation of situation, when the situation itself is available to our senses, because we ourselves are part of those situations. Likewise, an argument from parsimony can be levelled against the notion of context models. According to Van Dijk (2008; 2009), context models represent only relevant features of situation, but all features of a situation can by definition be made relevant—situations themselves are always meaningful—and modeling all the (relevant) features of situation when the situation itself is at hand is computationally wasteful. Context is the element that is agreed upon as meaningful in the situation and thus it is subject to negotiation and revision from moment to moment. Thus, anything that can be attended to can be rendered meaningful, and can in principle be nominated for discussion or can be brought to bear as a contextual determiner in the ongoing interaction. Contexts, so defined, can be studied as complex shared semiotic constructs negotiated in interaction. Context exists intersubjectively, though each participant may have their own goals and their own personal meanings that influence their interpretations of the communicative situation and the shared communicative understanding that results, that is, has both a semiotic and semantic dimension. Participants must take account of the present context in their interactions, and must orient their perspectives and frames of reference in

their verbal utterances (following the Gricean (1975) maxims) to be successfully understood. And once again, it is worth repeating that the linguistic functions of deixis are the privileged means by which we negotiate our shared definitions of situation, or contexts.

Although studies of deixis have explored cohesion and coherence in text (Halliday & Hasan, 1976; Hasan & Halliday, 1989), linguistic functions (Fillmore, 1976; Jakobson, 1960), the problem of demonstration and reference (Davidson, 1984; Kaplan, 1989; Récanati, 1993; Wettstein, 1984), the multimodality of speech (Stukenbrock, 2014), cross-cultural comparisons (Hanks, 1990), the constitution of interactional space (Goodwin, 2000; Hanks, 1992), none to my knowledge have studied deixis in the constitution of an ideational space such as that co-constructed in a graduate research seminar. Such an ideational space has been referred to as the intramental zone (Mercer, 2008), common ground (Clark & Brennan, 1991), common or shared understanding (Edwards & Mercer, 1987), and intersubjectivity (Rommetveit, 1985; Wells & Arauz, 2006).

Indexicality in mathematics discussions. In their studies of mathematics discussions, Staats & Batteen (2009; 2010) contended that shared knowledge and context are constructed and maintained through the use of indexical language, of which deixis is a subset. Staats & Batteen (2010) wrote,

> [W]e describe mathematics students' use of indexical language to form dynamic contexts of knowledge within their classroom. We suggest that indexical language is the central feature of language that allows students to construct mathematical ideas through collaborative discussions. Analysis of indexical language may, therefore, become a useful tool for researchers who wish to trace pathways of shared knowledge and to give evidence of the collaborative nature of the discursive construction of knowledge. (p. 42)

Context and discourse are linked through deixis in speech. Discourse comprehension is mediated by the deictic links that connect utterances and contexts in speech situations. Without a context, an utterance can often be interpreted in multiple

ways. A context in a sense fixes the meaning of an utterance. Although this insight does not resolve the problem of miscommunication, it provides a resolution mechanism (Mehan, 1979). By drawing attention to certain contextualization cues, a speaker can attempt to repair the conversation and make salient for the hearer those contextual features that are meaningful and relevant to the speech situation at hand. It is in this sense that we speak of communication as an interactional accomplishment (Hymes, 1972). To the extent that communication succeeds, we can assume intersubjectivity in the interaction by the presence of contextualization cues and conversational repair mechanisms for error reduction.

The indexical ground of deictic reference. The material and the activity dimensions are connected to the semiotic and sociocultural dimensions through the operations of deixis that connect the semantic and pragmatic through the language grammar itself. I categorize the functional components of deixis following Hanks' (1992) organizing scheme, as communicative, characterizing, relational, and indexical (p. 48). In this study, I am mostly concerned with the communicative functions of deictics. These include presentative, directive, referential, and phatic functions.

> The communicative functions of deictic types are speech act values that specify what kinds of act are performed in routine proper usage of the deictic. Presentative designates the kind of act illustrated in ["Here, take it."]. Directive designates the act performed when one speaker points out a referent, as in "There it is (look!)." The referential function is the contribution of deictics to acts in which referential objects are individuated, as in [You and I could meet here Tuesday. {. . . . }] The term Phatic is the standard label for what speakers do in managing their contact with interlocutors . . . Expressivity is the foregrounding of a speaker's own involvement in an utterance, including subjective evaluation, special emphasis, surprise, admiration, etc. (Hanks, 1992, pp. 49-50).

Indexicality is the central organizing feature of language, and it is "precisely what constitutes language as an essentially context-bound, interactively organized phenomenon" (Duranti & Goodwin, 1992, p. 44). I would go so far as to say that language itself is fundamentally indexical (cf., Koyama, 2009). Pragmatic categories are encoded directly in the grammar itself (Hanks, 1992, p. 48) and nominal reference, though they have the appearance of stability of form and coherence of representation, actually hide a great deal of variation and change. This is an age-old conundrum going back at least to Plato's *Meno.* People have puzzled over the stability and the invariability of the Forms or Ideas, and have struggled to explain the immanence of ideas in the face of the impermanence of things. More recently, philosophers of language have debated how to incorporate referential functions in formal semantic systems and have encountered the problem of false beliefs first discussed in Plato's *Theaetetus*. However, cognitive linguistic theorists going back at least to Bühler (2011) have argued that our language system is inseparable from our perceptual apparatus. Recently, cognitive linguists have found support for the notion that certain primitive concepts form the perceptual basis of our linguistic ability (Evans, 2005; 2015). Moreover, pre-linguistic populations have described experiencing the perceptual world as a stream (Pinker, 1994). As many have argued (Heidegger, 2010/1927; Husserl, 1960; Merleau-Ponty, 1962; Plato's *Theaetetus*; Strawson, 1959), our ability to individuate objects in our perceptual field is extended through language. In this light, the assumption of the singularity of reference is unjustified. Rather, reference would appear to index physical and ideational fields that overlay a continuous perceptual stream (Bühler, 2011). Individuation results from a composition operation, based on the "creative" combination of episodic and declarative memories. Individuals take shape in the intersection of multiple indexes. The problem of the semantic basis of deictic reference will be taken up further in the Discussion.

Hanks' study of deixis among the Mayan people provided the impetus for a systematic presentation of the deictic functions in language. Deictic functions are determined by the sequential organization of interaction. Context is interactively

constituted through figure-ground relations and crucially, deixis, like context itself, is determined in the relative symmetry of the speech situation.

Hanks (1992) stated that:

[E]ach deictic category encodes a relation between the referent and the indexical framework in which the act of reference takes place. Thus, a single deictic word stands for minimally two objects: the referent is the thing, individual, event, spatially or temporal location denoted; and the indexical framework is the origo ("pivot" or zero-point relative to which the referent is identified (the speech event in which the act of reference is performed, or some part of this event). . . (p.51)

However I take a Piercian stance, and define the minimal relationship as triadic, involving an object, a sign, and an interpretant (Pierce, 1906). Our words no matter how basic do not have privileged access to the world. The interpretant contains the origo and as thinking-acting agent orients through the act of reference to the objet—but the reference is mediated by the sign relation that indexes a host of contextual information from the pragmatic (attitudes, beliefs, etc.) to the semantic-syntactic (what is being predicated of the object). This is doubly important because deixis is also an interpretive act; it is saying *take the world in this way* as well as having a constitutive function, it provides the grounds for contextual interpretation. Hanks (1992) speculated at the primacy of the egocentric or subjective orientation of deixis because in theory there could be alternative indexical pivots, for example, logocentric, person-centric, event-centric, etc. (p. 52). A triadic relationship obviates the reason: if deixis is an interpretive act, it entails a personal-subjective orientation as interpretant, even with non-egocentric indexical origo.

Hanks (1992) conceptualizes the deictic function in a figure-ground relation. Deixis situates the referent (object, denotatum) in relation to the indexical origo (agentic perspective) as the ground. This has the advantage of highlighting focus in contextualizing statements (Cornish, 2008). It also stresses that context (as figure) is coordinate with and derives its salience from the ground that serves as an ever-present backdrop of the figure.

The background, like the color field of Gestalt psychology, renders the figure meaningfully (Bühler, 2011). The ground and figure exist in a dynamical relationship, and is subject to reconfiguration in evolving interactional situations. For Hanks (1992):

> [W]hat is basic to deixis is the access (cognitive, perceptual, spatiotemporal) that participants have to objects of reference in the current speech event. Access, like awareness, is an intensional arc from participants to objects, and this inherently orients deixis towards the denotatum. (p. 60)

What orients in access is the intentional arc from the participant to the features of the communicative situation, not what the objects denote in and of themselves (cf., Frege, 1892, in Martinich [2008]). However, Hanks (1992) goes on to say that discreteness, individuation, definiteness, and singularity are characteristic of the figure, whereas, "diffuseness, variability, and [the] background character of the indexical origo are due to its being, in fact, the grounds upon which the referential figure is defined . . ." (p. 60-1). But the indexical origo is fixed by the egocentric perspective. What is diffuse and variable about the indexical origo is what it actually indexes, and this goes as much for the subject as for the object. Indexing is a composite process that operates at multiple levels in a dynamic fashion to shape and reshape the interpretive conditions of the communicative situation (frames, contexts, implicature, etc.). We conventionally think of the indexical operating on the subject, but the same operations are commonly performed on other thinking-acting agents, when we impute certain indexical categories to their actions and behaviors, for example, gender, ethnicity, culture, politics, and so on.

As a rule, the greater the symmetry in speech situations, or the degree of common ground, the greater the opportunities for individuated reference (Hanks ,1992). The more asymmetric the speech situation, the greater the need for utterances to carry the contextualizing load, for instance, through using non-deictic lexical descriptions. In other words, the less common ground, the greater the need to explain and elaborate statements. Therefore, successful deictic reference implies a high degree of common ground. In the

interactional environment of a graduate research seminar, to the degree that each student is engaged in individual pursuits, we should see a higher incidence of contextualizing statements, such as explanations and elaborations because not everyone is privy to the details of each other's research projects.

Hanks (1992), and to a greater degree Hanks (2005), placed the operations of deixis within abstract linguistic spaces, that he referred to as *fields* following Bühler's (2011) seminal work. Although Hanks (1992) put it in terms of *participant access* and listed a number of fields such as spatial, perceptual, cognitive, and participant relative domains, such as, socio-, ego-, alter-, and other-centric, Hanks (2005) presented a theory of linguistic fields much closer in line with Bühler's (2011) version. Bühler divided the cognitive-linguistic field in two, the *Symbolfeld* and the *Zeigfeld*. The symbolic field is constituted by an ideational world of concepts and the indexical field is constituted by the physical world of objects. Bühler also posited an imaginary indexical field for the negotiation of abstract spaces. For Bühler (2011), language has three semiotic functions, expressing internal states, orchestrating actions, and representing states of affairs. What exactly is a state of affairs and how exactly it is represented in language is still a matter of controversy today. In the Discussion, I will argue that states of affairs referred to in language are coordinated through coherence relations with internal representations of situations and verified through our shared perceptual framework as a condition of intersubjectivity. This position is in line with semantic minimalism (Borg, 2004; 2012; Corazza, 2004) and cognitive linguistics (Evans & Green, 2006).

To the dual notion of fields presented by Bühler (2011), Hanks (2005) proposes the addition of social practice fields (Bourdieu, 1993). Considerations of social practice fields overlap to a certain extent with Goffman's (1974) notion of interpretive frames because both provide frameworks for defining situations. Whereas Goffman's situation is construed as logical prior to language, Hanks (2005), following Bühler (2011) conceived of the situation in semiotic terms. Whereas interpretive frames are more local, social practice fields correspond to the social organization of people oriented in and to practices and have

a stronger cultural-historical tenor, as social practice fields persist across time and space. Social practice fields correspond to the ways of being and seeing that are specific to a group, that orient members in specific ways to the discourses, knowledge, norms, beliefs, and attitudes made manifest by recurrent and habitual engagement in activities and practices. These orientations further dictate positions, modes of engagement, and power dynamics.

In a graduate research seminar where students are engaged in legitimate peripheral activity approximating the practice of the qualitative researcher, the classroom discourse can be characterized as the discourse of doing qualitative research. In Basturkmen's (2002) study of meaning-making in seminar contexts, she argued that more complex interactions characteristic of negotiating meanings allowed ideas to emerge and enabled participants to clarify and elaborate on them. The co-construction of texts (i.e., discourses) in the classroom seminar would therefore appear to constitute an important function of the seminar. As Hanks (2005) pointed out: "The capacity to produce certain kinds of discourse may be a form of social capital and contribute to power or authority, just as access to certain positions may require mastery of the kinds of discourse they require" (pp. 192-3). Thus, the mastery of discourses of practice may be sufficient for membership in a community of practice (Wenger, 1998), but the capacity to produce certain kinds of discourse will be controlled by power structure dynamics determining authority and voice within the community itself. For instance, many professions and trades self-organize to ensure oversight and barriers to entry through the codification and standardization of professional knowledge in order to provide quality assurance to clients and labor protections to members.

Deixis is a general semiotic resource; it is omnipresent, and much like grammar itself, it is an agnostic linguistic device. The fact of the relative absence of conceptual information, and its role in the interactive constitution of participation frameworks, allows deixis to be used to coordinate (articulate) the present speech situation with broader social fields through what Hanks (2005) called *embedding* but what amounts to reflexivity (cf.,

Gee & Green, 1998) because they result from the negotiation and juxtaposition of different levels of meaning (models, discourses, 'mental spaces', etc.). As Hanks (2005) wrote,

> Embedding converts abstract positions like Spr, Adr, Object, and the lived space of utterances into sites to which power, conflict, controlled access, and the other features of the social fields attach . . . Through embedding, the meaning and force of deictic expressions are actually reshaped by the field to which they articulate. (p. 194)

This short quote speaks to the different levels at which deixis operates. Participants use deixis to maintain a shared context of understanding. As a semiotic operation, deixis is used to convey information at many levels, including power and authority, in terms of exclusion, and subordination, but that are also deeply involved as a central means for the negotiation of meaning through syntactic operations of transitivity, making heavy use of deixis to coordinate ideas in mental space.

Deictic speech acts are properly speech acts because they are intended to effect a change in another (which can also be cognitive or linguistic operations because deixis is present in the symbolic field as well). The performative-pragmatic function of deixis is evident from the fact that deictic speech acts can be fully substituted and eliminated without loss of semantic meaning, when such meaning can be read from other (i.e. linguistic) signals. Seen as speech acts, demonstrative pronouns (as a subset of deictic markers) are linguistic signals functioning as contextualization cues. Rather than being superfluous to the discourse, or simply being devices for cohesion or coherence, as some would have it, they carry an additional performative value for the discourse, providing interpretive signals to participants in order to guide the ongoing maintenance of understanding.

When we accept that language itself is performative and that we do much more than communicate a singular intent-meaning through communicative interaction, we can begin to fully appreciate the contributions of deixis to the coordination of speech and action in

meaning. To imagine the negative case, demonstratives can be avoided but speech would be much more convoluted because they are semiotic devices for pragmatically embedding aspects of context into speech that would otherwise have to be invoked through other means, for example, elaborations, gestural movements, and other forms of contextualization cues. Demonstrative terms—the pronouns proper—often don't add more meaning by themselves, but as pragmatic markers they carry instructions for interpretation. Thus, they are of central importance for the cooperative negotiation of meaning in communicative interaction by invoking features of context and hewing to Kaplan's (1989) context rule, that is, that one should not repeat what can be deduced from the surrounding communicative situation. The context rule is a logical entailment of Gricean cooperative principle and maxims of quantity, quality, relevance (relation), and manner.

Varieties of Hanks' (1992) deictic functions could serve different instructional functions in the classroom. A form of presentatives could serve to point out important aspects of the topic of study somewhat like pointing out landmarks. Directives could serve to orient students to the discussion and activity in certain ways to help them better assimilate the content like providing a roadmap. Referentials, which identify relations between concepts, serve as benchmarks or provide a sense of scale. Phatics serve to guide students' attention by highlighting certain aspects by marking relevance or agreement/disagreement, which, in a sense, can give a sense of the topology of the field, where the problems or sites of contestation are to be found.

Within the context of the graduate research seminar, we will see through the results of the analysis that demonstrative pronouns are employed in four deictic speech acts that are used in distinct ways and combinations to achieve the instructional ends of maintaining intersubjectivity or shared understanding. The deictic functions characteristic of the seminar are: orienting, positioning, coordinating, and situating. Orienting refers to the act of establishing locality within a field with regard to topological (main ideas) aspects, with respect to the figure (Bühler, 2011) (E.g., *This field is primarily concerned with this question*,

There is this notion that. . . .). Positioning means making judgments on the basis of those topological features (E.g., *That's an important point*; *I (dis)agree with that*; *I situate myself within this tradition. . . .*) Coordinating means organizing actions and objects within the space (E.g., *First, ask yourself that question, then. . .*; *The question that I'm focusing on here. . . .*). Situating means establishing locality in terms of boundary conditions with respect to the ground (Bühler, 2011) (E.g., *This field is divided into two main camps/is focused on this aspect*; *There is some overlap here*; *The boundaries between these two disciplines are unclear.*) These typically instructional deictic acts are not defined separately or in opposition to Hanks' (1992) scheme. In fact, they can be viewed as a variation on the themes he identified. I choose these definitions because they are more descriptive of the acts constitutive of the underlying phenomena. Orienting and situating have aspects of presentatives and directives in different combinations, positioning is composed largely of phatics, and coordinating, of directives. Yet none of Hanks' acts in any combination fully capture the judgments in establishing boundary and locality (as criteria of community of practices [Wenger, 1998]) in a mental space.

One overriding issue concerning the study of deixis in interaction is how much of deixis in discourse is motivated by cohesion and coherence relations and how much is determined by individual speech preferences. We will see that cohesion and coherence do not explain all uses but we can sketch out the answer now by saying that in terms of cohesion and coherence, there is over-determination of meaning in many instances. This apparently violates the parsimony condition (Grice, 1975), that is, much more could be left unsaid, so they must serve a function other than just making connections. But all those connections are meaningful when conceived as speech acts. They do more than make connections: they shift focus (Cornish, 2011), they perform operations in the deictic field (Hanks, 1992), and they index social-pragmatic information (Ochs, 1992). This deictic markers are interpretive instructions telling the receiver how to decode the speaker's intent. (The full illocutionary force is not contained in the grammatical marker but in the full deictic statement). The point is that the choice of using deixis is not just an accident of discourse. Using deixis is an intentionally meaningful act that has pragmatic value for

communicative understanding. The deictic markers introduce syntactic-semantic operations, existential statements, evaluative statements, comparative statements, etc. Although all could be formulated otherwise than having recourse to deixis, it is often impractical to do so, especially when participant access and symmetry in the speech situation are given. Whether or not it is for convenience, cognitive or linguistic structure or some other reason, deixis in speech is employed meaningfully. The choice of deixis over some other grammatical formulation actually carries meaning in the situation by introducing syntactic and semantic operations.

Summary. In the preceding pages, we discussed how deixis functions as a linguistic resource for the negotiation of meaning and we examined its potential for the study of learning in social interaction. The underlying perspective on deixis is based on Bühler's (2011) seminal *Sprachtheorie* that contrasts with certain foundational assumptions of the analytical tradition, about the relationship between truth and representation, and language and meaning. In the Discussion, we will consider the results of the present study of seminar discourse in light of some recent critiques of the problem of (i) representation and (ii) reference in the cognitive sciences. I will argue, following Ramsey (2007; 2016), that representations come in many different flavors, and that an uncritical use of representation leads to flawed interpretations. Representations come replete with assumptions about the relationship between the cognition, and reality, which need to be made explicit, if we are to make sense of the negotiation of meaning in interaction.

Cooperatively Maintaining a Context for Intersubjectivity

Theorists have sought to assimilate the context to everything from the situation, to the activity, to the individual's mental model (van Oers, 1998). Divided broadly amongst two camps, there are the cognitivists who argue for the role of mental models in maintaining the interactional context in the mind and the situated camp who argue that context is determined by aspects of situations or activities. I argue that Bühler's (2011) theory of linguistic fields can help to reconcile the two perspectives by positing a deictic

field that incorporates aspects of the physical surround, situations and activities to varying extent are organized in time and space—they have extension—and modality, in the symbolic field that is properly the realm of linguistic objects. In Bühler's (2011) theory, it is the semiotic interaction within the two fields, provided by the rules of syntax, that permit the semantic operations underlying linguistic reasoning.

In the following section, I argue that contexts are best understood as complex semiotic objects. I will offer some tentative distinctions between different kinds of contexts, and review some representative theoretical perspectives. In so doing, I will sketch out the implications of maintaining a context in a graduate research seminar that will frame the presentation of the discourse moves below (See Chapter Four: Results). Context may indeed have individual cognitive representations but as features of communicative situations, they are best understood as semiotic objects employed in the maintenance of shared understanding and the negotiation of meaning.

Context can be construed on linguistic grounds as a complex semiotic construct accessible to participants in any given communication situation. A semiotic perspective on context is useful in understanding how contexts need not be explicitly invoked to direct activity, and how it can be accessed through both verbal and non-verbal cues including any number of prosodic, paralinguistic, code (semantics, syntax, register), and lexical elements. A semiotic definition of context also covers other kinds of context, as it is their inherent meaningfulness that unites them all. Context is linked to our mental representation of situation, however, a semiotic definition, also has the merits of accounting for the reflexive interplay between the situation and the participant, and it does not put the individual above the group as contexts are shared (albeit imperfectly) by participants in a situation. Further, it also allows for the ways that cultural models, participant structures and frameworks are brought to bear on participants' mutual ratification and definition of situation. Contexts as complex semiotic objects are what is available to the participants and can be invoked by participants through contextualization cues and statements for cooperatively maintaining shared understanding.

Perspectives on context. Context is a controversial term. Much has been written about it (see the reviews in Van Dijk [2008], and Van Oers [1998]) and what seems clear is that there is little agreement as to what it is. Definitions run the gamut from situated to cognitivist perspectives and have been defined in terms of situations, activities, and mental models. And although it seems no one can agree on how to define it, there is general consensus that it influences the interpretation of communicative interactions.

Admittedly there are different kinds of contexts: socio-economic, online vs. face-to-face, etc. Aulls (unpublished manuscript) reviews theories of context and groups them by theoretical background: (i) human memory, (ii) human action, (iii) teaching and classroom culture, (iv) environment, (v) activity, and (vi) situation. For Halliday (2003), these are all communicative contexts. We can broadly distinguish between activity contexts, communicative contexts, and social and situational contexts, as communicative and situational contexts make different interpretive demands depending on how much contextualization can be carried by the situation, and how much must be implied through the discourse. Activity contexts have subordinated discourse in support the activity, whereas in communicative contexts, the activity is focused on the discourse itself. These contrasts appear more analytically fruitful than simply distinguishing between physical and mental contexts because it shows how contexts vary in regular ways yet all share a semiotic function. Further, it shows how both the physical and the mental contexts function the same way by ascribing meanings to objects and highlights how they might vary in communicative demands depending on shared access (symmetry) in communicative situations.

All these definitions of context have a shared semiotic nature, as all contexts derive their sense from their inherent meaningfulness. Now, some acts can be accomplished in words, and for other acts it might vary according to situational demands. But there are some acts that have no linguistic correlate. Although they may not be immediately expressible in words or somewhat ineffable, they all carry meaning in terms of social practices. Kinship ties are examples of meaningful relations that are not easily summarized

in words, because they vary greatly from person to person even though the basis relation is definable on a socio-biological level. Likewise, contexts are not just intellectual constructs but also have social and moral consequences (power structures defined through interaction; Duranti & Goodwin, 1992, p. 230).

Cazden (1986) is representative of the situated perspective as she defined contexts as "the situation as the speaker finds it" (p.435) and as the implicit rules governing situations, but recognizes that contexts are cooperatively maintained by participants and reflexively determined. Thus, there is a great deal of variation in contexts even within the same situation. For Cazden (1986), the analytic task was to identify the contextualization cues (Gumperz, 1977) that mark changes in activity, the cues that mark them, and the participation structure that governs the activity (p.437). In definitions of context, we can hew to the pragmatic truth maxim, namely that what is true is what is useful.

In the same perspective, Goodwin and Duranti (1992) summarized succinctly one of the main insights of ethnomethodology and conversation analysis: "In order to sustain and elaborate the events they are engaged in, participants must display to each other their ongoing understanding of events while simultaneously interpreting in a relevant fashion the actions of others" (p. 192). This short statement is suggestive of the performative dimension of maintaining a context for communicative interaction wherein our utterances communicate a content and an intent but also serve to constitute the interactive grounds of their own interpretation, thus including prescriptions of normative behavior, including participation frameworks, that support the delineation and determination of the field and the rules of action.

Participants demonstrate their ongoing understanding of social events, actions, and utterances by collaboratively maintaining the context of situation and coordinating frames of interpretation that render our activities meaningful or interpretable. This reflexivity is in part determined by sequential organization, conditional relevance of adjacency pairs, and recipient design (Mehan, 1979). As what is given in a situation is not necessarily relevant to

the ongoing understanding of social action, participants use cues and norms of interaction to guide understanding—norms that can be evidenced in the invocation of repair sequences when felicity conditions are not met. Thus, the very normative conditions of communicative interaction and context are determinant of a participant's communicative competence and inform their conduct in the practical field of socially-oriented activity as well. To join in a group discussion, you need to know the rules to be able to follow them, whether in a classroom or in professional community. Hence, what ought to be evidenced through a close study of apprentices in verbal interaction is their developing mastery of the rules and norms of disciplinary discourse. A performative analysis ought to be sensitive to how a context cooperatively maintained by participants for what it can tell us about competent performance in specific settings.

An oft-repeated definition in the educational literature is that "social contexts consist of mutually shared and ratified definitions of situation and in the social actions persons take on the basis of these definitions" (Erickson & Shultz, 1981, p. 148; Gee & Green, 1998; Hicks, 1995). However tacit these definitions are, or common-sense (Goffman, 1974), contexts are marked by a high degree of inter-subjective agreement or shared understanding. What counts as meaningful or relevant in a particular situation, only does so through the consensus of the participants, consensus that is dynamic and reflexive, subject to revision in the moment-to-moment changes arising in sequential interactions. A great deal is implied by situations, and participants' actions stand as tacit acceptance of the rules and norms of interaction. Similarly, contexts are often ratified tacitly by the participants' turn-appropriate bids and other moves for maintaining intersubjectivity.

For Goffman (1974), focusing on everyday interaction, context is what is going on in the situation. However, for the analysis of classroom discourse this is not immediately apparent because a strictly sequential analysis could not capture what is happening in the seminar. Most of the action occurs in the ideational field. In the physical field of the graduate research seminar, bodily movements—including gestural communication—are kept to a minimum. In this instance, what is going on is the seminar discourse itself. What is

going on is a communicative activity that is occurring through the collaborative construction (meaning negotiation) of a shared understanding.

For Edwards and Mercer (1987), context is mentalistic. Talk is overwhelmingly concerned with its own inherent content and activity and the contexts created predominate over any knowledge or experience from outside. Displaced references are limited to common knowledge (see displaced contexts in Edwards & Mercer, 1987, pp. 69-78). Edwards & Mercer (1987) emphasize the continuity afforded by context, following George Herbert Mead's (1934) emergent present, as discussed in Griffin and Mehan (1981). In the seminar, context is no less important though discussion forms the principle instructional activity and much of the discourse is unaccompanied by ancillary activity. As the Results will demonstrate, contextualizing statements can be used to maintain shared understanding in the absence of situational cues. The results also show that displaced references are not limited to common knowledge in the seminar, by virtue of the use deixis in contextualizing statements for orienting shared understanding. In the seminar, contextual continuity is the responsibility of the speaker who must make their utterance intelligible to participants whom may have asymmetric access (knowledge of the topic), and the speaker employs deixis to direct the collective attention of the group.

Although classroom discourse is grounded in instructional activity as a social practice, it is not necessarily the physicality of the joint activity that enables a shared understanding. In the earlier years, it may indeed prove to be the most appropriate means of maintaining shared understanding among children. However, the context afforded by joint activity is still a semiotic object where meanings are attributed through signs to the activity and the interactions. The talking through of demonstrations (joint attention and significant aspects), and the provision of a common vocabulary (Edwards & Mercer, 1987) are the interactional features of the reflexively constituted context of the speech situation. They are semiotic means to direct and guide attention, whether those be afforded by situational cues or through linguistic means. In either case, in joint physical or intellectual activity, the teacher situates and guides students to the appropriate interpretations in

order to build shared understandings through the use of contextualization cues, including deixis, and this whole activity of teaching is based on signs from beginning to end.

Van Dijk (2008) argued that context is the relevant features of situation and that it is represented in mental models, writing: "Contexts do not represent complete social or communicative situations, but only schematically; those properties that are ongoingly relevant" (p. 19). However, relevant features change as conversations progress and the entire set of relevant features of a situation cannot possibly be represented mentally, that would mean holding a different relevant set for each turn as the conversation evolves. Context, defined as the conjunction of semiotic fields that are meaningful in an interactional situation include ipso facto all relevant features of situation not simply the moment-to-moment context. Participant access to a communicative situation obviates the need to maintain all the relevant features of situation, because those are defined by availability in the communicative context. A context construed as a semiotic object reconciles both the participants' embodied representations of situations as well as their internal cognitive representations. And helps to clarify that contexts are what is shared by the participants, and mutually agreed upon and negotiated in interaction. It also accounts for the way that contexts are updated through moment-to-moment interactions. As shared contexts can diverge from an individual's representation of situation, yet their shared significance can be cooperatively maintained by participants through bids for negotiating meaning. Thus, contexts are not to be found in the environment or the mind alone. And they are not simply the sum of the sequence utterances, nor are they to be found in the individual's mental representation of situation. They are semiotic objects that provide contextualizing cues from the ideational field, for example, including attitudes, stances, beliefs, knowledge, and in the physical field, for example, including organizing concepts like time, space, and location. In sum, contexts are composed of semiotic objects that are indexed by participants engaged in interaction. There is some evidence for this in the apparent variability in situation models (Zwaan & Radvansky, 1998) and in discourse representation (Chilton, 2011). Contexts are situated and negotiated in interaction and thus can vary greatly between situations but also between repeated occurrences.

Context as complex semiotic object. The argument for taking context to be a complex semiotic construct is grounded in our shared human experience, our shared cognitive-perceptual apparatus, the meaning potential of language, and the rules of pragmatic inference and implicature.

As Goffman points out at the outset of *Frame Analysis* (1974), the everyday common sense world is a particular kind of reality, one that permits human communication. That is, human communication is enabled by the fact of our experiencing the world in a particular way and in a similar fashion—or by convention (Wittgenstein, 2003). Goffman (1974), following Schutz, wrote:

> We speak of provinces of *meaning* and not of subuniverses because it is the meaning of our experience and not the ontological structure of the objects which constitute reality . . *. For we will find that the world of everyday life, the common-sense world, has a paramount position among the various provinces of reality, since only within it does communication with our fellow men become possible. But the common-sense world is from the outset a sociocultural world, and the many questions connected with the intersubjectivity of the symbolic relations originate within it, are determined by it, and find their solution within it.* (p. 4; emphasis added.)

For Duranti (2006):

> *These are all modes of being that we must be able to have some kind of experiential access to in order to describe them. We owe such accessibility to the most basic type of intersubjectivity, which is activated through the social ontology of intentional acts* (emphasis added). We come to formulate hypotheses regarding what others are up to because their being in the world is always a social way of being in the world and, as such, it is on display for each other first and foremost but also for the analyst later. (p. 37)

This being-in-the-world or *facticity* of existence (Heidegger, 2010) is the condition of the human experience. The human experience is conditioned by temporality and spatiality but we also experience space and time as meaningful concepts, which we individuate and imbue with significance, just as we ourselves are determined by a relational matrix in interaction with objects and agents within that space. For instance, conceiving an object as a tool, radically changes its mode of apprehension. It ceases to be simply something in the environment and becomes, in the Heideggarian sense, an extension of our capacity for action. The facticity of the human experience is the precondition for human communicative understanding, and by extension, language. The fact that we recognize the subjectivity of others' perceptual experience is the grounds for our intersubjective understanding. For Schultz, the cognitive style of everyday life included: specific tension of consciousness (attentional awareness), epoche, spontaneity (working), experience of the self as working self, sociality (intersubjectivity), time-perspective (durée) (quoted in Goffman, 1974, p.6) but this is by no means a complete list. For starters, we should add embodiment, but we could also add agency, imagination, reason, and appetite. This shared perceptual experience is the grounds for intersubjective understanding.

Language has meaning potential "as sets of options, or alternatives, in meaning that are available to the speaker-hearer" (Halliday, 2003, p. 323). Likewise, contexts have meaning potential by virtue of their availability (givenness) in the situation. This is clear when we consider that an utterance can call on the context to signify in many different ways, as it is the participants' shared definition of situation (Goffman, 1959) that determines the salience of certain features of context over others. Context, like language itself, is a set of affordances for communicating meaning, but meaning is not inherent in the signs themselves. Fixing meaning is the operation of a thinking, acting agent and is achieved through coherence relations of similarity, consistency, and regularity, between participant frames (Goffman, 1974). Thus, the meanings are inherent to the sociocultural world (and are made up of cultural models), but the signs that we use in the negotiation of meaning are used to signal intentions and meanings. They are not inherently meaningful without an interpretant (afforded by the situation and the individual participants).

Discourses in context. According to van Dijk (2008):

[t]he fundamental function of context models is to make sure that participants are able to produce text or talk appropriate to the current communicative situation and understand the appropriateness of the text or talk of others (Fetzer, 2004; Van Dijk, 1977; 1981). In this sense, a theory of context would be one of the aims of a pragmatic account of discourse. It explains how language users adapt their discursive interaction to the current cognitive and sociocultural environments. Such a theory also makes explicit the usual felicity conditions of illocutionary acts and the appropriateness conditions of politeness and other dimensions of interaction (Austin, 1962; Searle, 1969). Hence, an explicit theory of context at the same time provides a solid basis for various approaches in pragmatics. (p. 16)

But these aspects relate to sociocultural models, and are not inherent in contexts. In Van Dijk's (2008) view, communicative activity is constrained to the production of talk, when talk is often used to accomplish other goals. This raises questions about how the purposes of discourse are related to the content of discourse. In the community of practice perspective, discourses are understood as practices, which again begs the question, how does a discourse function in interaction and how must it be represented to us? It is far from obvious, that a mass of propositions could capture a discourse, nor that it would be sufficient to explain the functions of discourses as practices enacted by communities. As argued in a recent special issue in *New Ideas in Psychology* (Jan. 2016), where the place of representations in cognitive psychology is critically appraised, we can ask ourselves, whether semantic representations are necessary or sufficient for understanding and negotiating meaning in discourse. Given asymmetry in speech situations, it is rare that participants would share the same semantic basis (differences in expertise, experience, language ability, etc.) Yet a modicum of intersubjectivity and joint activity are possible despite large variances in internal models.

Moreover, there are aspects of situations that can come to bear on the interactional context, that need not have a linguistic representation as such. For instance, the identity of the participant performing an elaboration in a seminar matters for the way the performance will be interpreted. An elaboration by the teacher may count as instruction but an elaboration by another student may not because the roles and expectations differ. They do not have the same authority (claim to expertise). Thus, utterances as contributions to the co-construction of the discourse will be afforded different weight. These different weightings would have to be represented semantically to fully capture a discourse propositionally and including a semantic description of context invites a regress. Further, it is unrealistic to hold that each participant would represent the discourse in the same way because the representation would call on a host of idiosyncratic cognitive factors (prior knowledge, experience, attention, memory, language, culture). The fact that a certain degree of intersubjectivity can be assured to the degree that participants understand each other (follow the rules of conversation, initiate repair sequences, etc.) is of a provisional nature, always subject to revision. This is the advantage of the semiotic definition, because it does not imply a fixed meaning. The meanings of the signs are always subject to revision by participants. It is clear that not everyone will remember the same events the same way. Yet spoken and written artifacts of discourse abound and a discourse can be reconstituted from traces. Even disagreements can be resolved by appeal to artifacts and walking through the event, by exercises in collective remembering (*You said this, then I said this*). What remains in these spoken and written traces also holds meaning potential (Halliday, 2003). Analytically speaking, this means that the sequential arrangement of utterances can be reconstituted from traces, but the discourse will always be more meaningful than the sum of its individual utterances because the discourse itself has meaning potential. This meaning is not contained in its traces, but in what the discourse signifies; in the connections it makes to other texts and other situations. It seems improbable that a propositional representation could ever fully capture a discourse. As with language more generally, it is the fact of its combinatoriality and its under-determinedness that allows it to

function as vehicle for the communication of linguistic meaning; like language itself, the discourse is a collection of signs.

Context models. Van Dijk (1999) distinguished between three types of mental models: event, experience, and context. For Tileaga (2011), context models involve the notion of control, a notion that covers "the complex sociocognitive processes and interactions involved in the construction, use and strategic ongoing adaptation of context models" (p. 133). Context models are dynamic situated participant constructs represented as mental models in episodic memory, which act as a cognitive interface with the social structure. According to Van Dijk (2008), contexts are:

- Subjective participant constructs. Participant constructs or subjective definitions of interactional/communicative situations. Special case of the view that social situations are social constructs and only as such can influence human conduct.
- Unique experiences. "Featuring the ad hoc, embodied experiences of ongoing perceptions knowledge perspective opinions and emotions about the ongoing communicative situation."
- Mental models.
- A specific type of experience model. Our ongoing construction of everyday experience.
- Context models are schematic; schemas allow for fast interpretation, are dynamic and combinatorial. "Each (fragment of a) communicative situation may give rise to a different combination, configuration and hierarchy of these categories."
- Contexts control discourse production and comprehension.
- Contexts are social; intersubjective agreement of subjective representations, "contexts are both personal and social."
- Contexts are dynamic.
- Contexts are often planned.

- Contexts cannot be reduced to text. (pp. 16-7)

As this list demonstrates, aspects of situation are included with aspects of cognition. Context may indeed be an interface between the two but it is important not to conflate the two. Van Dijk (2008) argued that contexts are aspects of situations that are represented in mental models. Hence, it is situations that are planned, and mental models that frame and control discourse production and comprehension.

> Context models and their properties remain largely implicit and presupposed. They influence talk and text in indirect ways that only under specific circumstances (problems, errors, misunderstandings) are made explicit in talk and text itself. . . . Where necessary, contexts are signaled or indexed, rather than fully expressed. Their properties often need to be inferred from structures and variations of discourse as used in different social situations, and this is what both recipients and analysts do. . . . Despite the usually implicit nature of contexts, contexts may also be discursive. In everyday conversations as well as in many types of institutional talk, implicit or explicit reference may be made to other, previous, text and talk. (p. 19)

Thus, a graduate research seminar should count as an explicit context, one that is essentially discursive, that is, the context is squarely in the ideational field, and the context must be verbally maintained by providing contextualizing statements.

For three context theories (Hanks, 1992; 2005; Sperber & Wilson, 1989; Van Dijk, 2008), relevance is posited as the resolution mechanism, though the actual determination of relevance differs for each theory. All three intentionalist theories suggest a knowing-acting agent and define context in cognitive terms, though they vary to the degree that relevance is determined by the agent. For Hanks (2005), there were two primary sources of relevance:

> . . . what is going on in the present actuality of the utterance and what comes with the social embedding of the deictic field. The first includes the speech-act context,

the sequential context, the move the speaker makes in uttering the deictic, and the immediate spatial, perceptual, conceptual, and corporeal situation. Here relevance emerges over the time course of the turn in the most immediate and "local" sense. The second source of relevance is the embedding of the deictic field in a broader social field that extends far beyond the present. It matters a great deal to the effect and felicity of deictic utterances where, when, and to and by whom they are uttered, where each of these conditions is defined socially. Social fields can constrain or even determine the reference of deictic tokens. (p. 196)

Van Dijk (2008), for his part, wrote,

Relevance not necessarily conditional effect or even immediate consequence, but rather in terms of fit between conditions and consequences . . . Thus, in a way that is similar to the way people are able to understand an infinite number of (possible) sentences or discourses on the basis of a grammar and rules of discourse, they are able to understand a (theoretically) infinite number of social situations. What is "communicatively relevant" in such situations is the kind of information that fits in a context model and its socially, culturally shared categories. Thus, context models are like grammar of social situations. (p. 79)

At issue is whether context models can be fully expressed at all. And that appears to be far from settled. According to Ramsey (2016), mental models notoriously face the problem of content indeterminacy:

The problem is that isomorphisms are cheap as any given map or model is going to be structurally similar to a very wide range of different things . . . While elements of models may function as representational proxies during various sorts of cognitive operations, exactly what they represent is impossible to determine by merely focusing on the "structural" properties of the model or map itself. (p. 8)

The problem with reducing context to mental models on the basis of relevancy alone is that relevancy can only account for what is already in the model and does not account for updating new information—barring the addition of a theoretical *k-device* (Van Dijk, 2008)—but that only displaces the problem because what is relevant requires a criterion against which to compare non-relevance, which itself requires a larger model of the situation. And it is notoriously difficult to formulate general production rules for situation models (Zwaan & Radvansky, 1998) for the same reason that context models fail on the relevancy condition, and that is that both context and situation are reflexively determined in interaction (Gee & Green, 1998). What is relevant, or what is the focus in the discussion is reflexively determined by the participants to the communicative interaction. Hence, what is relevant is the context for the interaction, but equally the context determines what is relevant. Of course, this only substitutes one notion for the other and does nothing to answer the question of how such notions are cooperatively maintained in interaction.

Zwaan and Radvansky's (1998) review of situation models stressed the multidimensionality of models, concluding that five dimensions of situations seem especially relevant: time, space, causation, intentionality and protagonist. Van Dijk (2008) added events (and their relations, such as causation) and actions (and intention and causation) in addition to spatiotemporal setting and protagonists (Van Dijk, 2008, p. 65). But why stop there? We need theories of mind in order to make sense of another's frame of mind. We need indexes of attitudes, beliefs, ways of seeing and being as well. The list of possible dimensions is potentially unlimited. Thus, what is represented to an embodied agent, who can rely on the meaning potential of a communicative situation to make inferences for interpreting utterances, need not be more than what perceptual awareness already commands within the perceptual and conceptual ideational fields. In the interest of parsimony alone, it is not necessary to posit a mental model where the interpretive situation is available and deductions and inferences can be performed post-hoc. Beyond a strictly minimalist semantics (Borg, 2004; 2012) it is hard to see exactly what needs rather than can be modeled cognitively for communication to succeed. Where deixis is concerned, its study can provide some corroboration because it shows how the symmetry of a speech

situation affects the deployment of linguistic resources. The more asymmetric a situation, the greater the reliance on deictic functions in order to properly orient participants' interpretive understanding, the more has to be communicated verbally.

In summary, there are two main shortcomings to the context model: (a) as anything that can be attended to can be rendered relevant, anything that can be attended to needs to be available to the model, and (b) as anything that can be attended to can be ascribed multiple meanings by different individuals acting for different purposes, these multiple meanings also need to be available. Context models based on a relevancy criterion need to be able to represent all possible combinations of word meanings and contextual information for diacritical contrast (Bühler, 2011) in order to account for the unlimited number of meanings that could possibly be conveyed through discourse. Anything that can be attended to can be rendered meaningfully in discourse. These two shortcomings are due to the primarily linguistic-semiotic nature of discourse. It is the discrete combinatorial system of language and the polysemic nature of word meanings that permits the multifariousness of discourse. As these are features of our general linguistic competence, it seems hard to motivate the need for unique context models simply on the grounds of parsimony alone. This is not to say that some form of mental models may govern our communicative competence through representations of situations and concepts, but it is far from clear that that representations of discourse and context take on propositional form governed by a relevancy condition. It appears increasingly likely that our attentional awareness forms a sort of cognitive map of our *perceptual* reality upon which cognitive and linguistic operations can be performed (Chilton, 2014). In which case, language would operate more as functional mapping between domains than an isomorphic mapping of some ontological reality.

As Ramsey (2016) suggests:

If we think of mental representations not as indicators but instead as something more like elements of maps, models or simulations, then we can at least get the

outlines of a story about how a part of the brain could actually function in a representational manner. Models and maps involve elements that serve as proxies or surrogates of aspects of the target domain. They allow systems to engage in what Swoyer (1991) has called "surrogative reasoning" focusing on the properties and relations in one sort of environment, the map or model environment, and then inferring analogous properties and relations in a relevantly similar environment. (p. 9)

The map analogy carries over to linguistic representations. However, the main stumbling block, as in naturalizing semantics (Dilworth, 2009), is in attempting to directly link linguistic representations to the world, when they only relate indirectly through mapping to discourse structures. Discourse structures are socially conventionalized systems of meaning that overlay the world through a triadic relation between sign, signified, and interpretant. This triadic relation evinces a coherentist epistemology because it is more complex relations than a correspondence theory of truth can capture.

It would appear that there can be no full representation of situation without, at a minimum, the perceptual notions of spatiality and temporality. Our mental representations of situation, to the extent that they exist, are completed by our shared knowledge of situation as well as the facticity of experience. Communicative situations are only rendered meaningful by virtue of the relations between experiential and semantic grounds.

I have argued that context is best understood as a complex semiotic object based on an availability and not a relevance condition. Context is grounded in the communicative situation, encompasses the mental representation of situation, and the sequence of fleeting signals that mark interactions and make up events and activities. Context finds its peculiar embodiment in language as a pragmatic resolution device, it serves as shared mental shorthand allowing us to reference meaning, through the verbal, gestural, and other contextualizing cues, signs and signifiers that we use to represent physical and ideational constructs, for instance, ideas, beliefs, attitudes, and discourses. A semiotic definition of

context overcomes the traditional semantic-syntactic bias by extending the definition of context to include non-semantic meanings, including, emotions, feelings, intuitions. As Garfinkel (1967) observed, interactants can never be explicit (detailed) enough in conversation to convey their meaning completely, thus, some combination of background knowledge and practical reasoning is necessary to fill in the blanks (Gordon, 2011). Contexts are the semiotic resources that are at the disposal of parties to a communicative situation, for signaling meanings and intentions.

Summary Conclusion

The preceding chapter covered issues related to the negotiation of meaning and the co-construction of a shared discourse in a graduate research seminar and covered topics in linguistic anthropology, ethnomethodology and sociolinguistics, semantics, semiotics, and cognitive linguistics. Considerations of reference and demonstration hold for the condition of intersubjectivity that must be assumed in the study of verbal interactions for negotiating meaning in a shared ideational space through the primary communicative mode of deixis. The preceding provides sufficient ground to realize the meaning of verbal utterances in social activity by harnessing the power of contextual reference in language.

Chapter 3: Methodology

Logic of inquiry

This study attempts to characterize the performance of communicative competence within a graduate qualitative research seminar conceived as a community of practice (Wenger, 1998). As members of a community of practice, participants negotiate meanings and show their understanding in interaction in seminar discourse. An important part of meaning negotiation involves the coordination of perspectives that is performed in deixis (Hanks, 1992). The performance of deixis appears to be an integral part of learning to participate appropriately in groups and potentially can tell us about what counts as learning in these settings here characterized here as performed (Goffman, 1959; 1961; 1967) competence.

I conjecture that the recreation of the classroom discourse in terms of its performative, sequential, and deictic structures can provide a sufficient characterization of a graduate seminar as interactional accomplishment to explore the extent to which a graduate seminar functions as legitimate peripheral participation in a community of practice. Participants demonstrate their competence in many ways in a classroom but verbal means are privileged in seminar meetings. Of course, students are still required to submit written assignments and complete readings given the asymmetric division of labor between instructor and student. As the instructor is often responsible for a good deal of the discourse in class, assignments and readings provide a counterpoint, and are the students' responsibility for the enactment of the discourse.

Discourses are practices, embodied in situations. Becoming a member of a community of practice means adopting the (semiotic and sociocultural) repertoire of culturally appropriate modes of thinking and being. As Gee and Green (1998) argued:

A logic-of-inquiry that draws on them [the three perspectives of discourse, learning, and social practices (ethnomethodological, dialogical, and sociolinguistic/ethnographic perspectives)] will view each local group as a type of community of practice in which members, through their face-to-face interactions (discourse as activity, as well as other forms of activity), construct the very patterns of practice that define the community. Thus, as members interact across time and events, they are continually defining and redefining what counts as community through the norms and expectations, roles and relationships, and rights and obligations constructed. Within such communities of practice, individual members are afforded access to particular events and spaces; thus, they have particular opportunities for learning and for acquiring the social and cultural processes and practices of group membership. (Gee & Green, 1998, p. 148)

In the *Handbook of Ethnography*, Manning (2001) argued that semiotics and semantics requires a systematic ethnography to produce connect signs, systems, and meanings. What I attempt here is a systematic approach to the ethnography of the semiotics and the semantics of the graduate research seminar. This is accomplished by a close analysis of the deixis by the participants to coordinate their thoughts and their actions in shared semiotic activity, which occupies a shared semiotic space, aspects of which are commonly referred to as context, discourse, intersubjectivity, etc.

As Lave and Wenger (1991) wrote:

It is thus necessary to refine our distinction between *talking about* [emphasis added] and *talking within* [emphasis added] a practice. Talking within itself includes both talking within (e.g., exchanging information necessary to the progress of ongoing activities) and talking about (e.g., stories, community lore). Inside the shared practice, both forms of talk fulfill specific functions: *engaging, focusing, and*

shifting attention, bringing about coordination, etc., on the one hand; and supporting communal forms of memory and reflection, as well as signaling membership, on the other [emphasis added]. (And, similarly, talking about includes both forms of talk once it becomes part of a practice of its own, usually sequestered in some respects.) *For newcomers then the purpose is not to learn from talk as a substitute for legitimate peripheral participation; it is to learn to talk as a key to legitimate peripheral participation* [emphasis added]. (p. 109)

A discourse is inherently more ordered than a sequential analysis can capture because it is also ordered spatiotemporally in episodic and semantic memory. It is thematically structured and sequentially ordered. Discourse is distinguished from other forms of verbal interaction such as the conversation or the dialogue by both the form *and* the content of the talk. Discourses are both activities and texts. We need an analysis that is sensitive both to the structure and the content of the classroom talk. Individual discourses, much like individual courses, exhibit a particular structure, and a specific thematic content. This is what minimally distinguishes discourse from conversation or dialogue and one course from another. Discourse is not simply a form of talk but can be thought of as an ongoing collective conversation.

In communities of practice, discourse is taken in the Foucauldian sense as a way of construing the world and coordinating engagement in practice (Wenger, 1998, p. 289). If we want to understand the contribution of discourse to learning, we need to capture both the interactional structure and the thematic content of the learning activity because discourse is not simply an interactional reality but also a cultural one.

Roles in the graduate research seminar. The comparative analysis focuses on the instructor and the presenters, who together are responsible for the great majority of the talk. Comparing the instructor and the presenters allows us to compare relative experts as they model talk about their practice. The students' status as legitimate peripheral participants allowed them to engage in discussion about their emerging practice (in the

third class), whereas in the first two classes, they engaged the experts trying to better understand their perspective (discussing about practice vs. discussing within practice).

Thus, there are three main roles in the three classes studied: instructor, presenter, student. Three varying levels of expertise, from center to periphery. Students are more tentative in their references to course concepts. Presenters show a better command of these concepts, though the instructor retains the title of expert and other participants defer to them. To the extent that participants use deixis to different ends, the deictic functions vary systematically according to their role, and we can track their progress from the center to the periphery. Students employ deixis in asking questions and in providing tentative solutions to problems whereas presenters use deixis to support arguments. The instructor, meanwhile, uses deixis to guide instruction. This approach is also supported by Hanks (2005):

> What is needed, instead, is a way of describing how the positions that make up any deictic field are configured according to the social field and what relationship these positions bear to language at the levels of situated utterances, deictic types, and whole deictic systems. We need to know how interactants take up those positions and occupy and vacate them in ordinary practice and how the field varies under social embedding. (p. 196)

The MASS System. A situation is the location, place and time of a communicative event that is framed by social practices (Goffman, 1974) and can be described in terms of goals (intentions), participants (roles), and acts (activities). Situations can re-occur, hence becoming normalized through repeated instantiation, and formalized into participation structures (Green & Wallat, 1981; Mehan, 1979). Participation structures are the social organization of talk and interaction, that provide rules, norms, and routine schemas for a particular communicative situation. Interactional competence depends on the adoption of often implicit rules, norms, and understandings necessary for full participation in a discourse community. Classroom events are communicative events that are composed of

discourse and activity organized for learning (Aulls, 1998; 2002). An *event* is analogous to the notion of *episode* (Van Dijk, 2008; 2009). Events, or episodes, provide the situational means to learn through legitimate peripheral participation in a community of practice—effectively, learning by doing (Dewey, 1938).

In their Material, Activity, Semiotic, and Sociocultural (MASS) system, Gee and Green (1998) distinguish between four interconnected aspects of situation. The semiotic is the medium of interaction, it enables the material and activity dimensions by connecting it to the sociocultural, which lends meaning to the whole. The semiotic is the transmission medium for communicating meanings. Utterances are semiotic devices for communicating meanings. It is important to note that meaning are not inherent in the utterance, and the same goes for the activity, or any of the material artifacts that constitute the situation. Meaning result from the interactions of all four dimensions. This methodological distinction means that the semiotic and the semantic are two different aspects of communicative situations. In practice, we can examine how participants exchange (or negotiate) meanings through semiotic means, without having to construe first how participants derive meaning from such signals because those result from other concurrent material, activity, and sociocultural processes.

Research Design

Research questions. The questions that guided the study are the following:

i)   How do participants employ deixis to negotiate meaning in the graduate research seminar?

ii)   How do participants' use of deixis vary according to the roles they adopt in the graduate research seminar?

Context. The context for this study was a Qualitative Research Methods course from the winter 2005 term.

Participants. The class was composed of eight students plus the instructor and invited guests.

Data source. The data source consisted in the audio-video recordings of 10 of 13 class meetings. The first three classes were not recorded as the participants got accustomed to the class routines. Of the 10 remaining classes, two were corrupted and were removed and the two last classes were discounted because the group presentations (that were scheduled to occur) were not recorded and made up most of the duration of those class meetings. We were left with three consecutive weeks of recordings that captured most of those class meetings. The three classes formed the basis of the present study. They represent a purposive, convenience sampling and provide the necessary data points within and between the roles of instructor, presenters, and students across three situations to compare their use of deixis.

Units of analysis. There are three main units of analysis: turn, topic, and deictics, along with the secondary units of activity and event, as befits the study of situations as the basic unit of analysis. An advantage to grounding speech acts in deixis is that it helps from a methodological perspective to reveal them in a consistent and systematic fashion and, analytically, it renders speech acts a lower inference category.

Dimensions of Analysis. Discourses are units of topically related interactional sequences cohesively bound and coherently ordered. The fact that discourses exist both as pragmatic and semantic objects has major implications for the study at hand. Learning also has both a semantic and a pragmatic dimension: we learn both knowledge and know-how. Discourse and learning are naturally comparable, across both their form and their content. Hence, in the context of a seminar, a discourse analysis of learning must be fine-grained enough to capture the knowledge, skills, and the attitudes of the enacted curriculum and to demonstrate how the students differentially adopt these notions through the emergent discourse as they become members of the qualitative research discourse community. But this is a task that can quickly spiral out uncontrollably. Thus, the present study chooses to

focus on the semiotic dimension and specifically the way that participants coordinate their thoughts and actions in the seminar discourse in order to focus the study and make the analysis tractable.

Procedure. The analyses, based on Aulls' coding scheme (unpublished manuscript), includes:

(i)   Interaction analysis, to reconstruct the speech events;

(ii) Content analysis, to reconstruct the course design; and

(iii) Deictic analysis, to reconstruct the discourse by connecting talk and activity across speech events;

(iv) Comparative analysis, on the basis of the preceding analyses, to assess participants' contributions to the emergent discourse in three classes on the basis of the activity structures, interactional patterns, and thematic development of the course.

In Table 2 below, I have included a conceptual matrix representing the analytical procedures, levels and units of analysis, and some variable values as exemplars.

Table 2
Conceptual Matrix of Analytical Procedures

Level of Analysis	Unit of Analysis	Variable Values	Analytical Method
Activity	Topic	Course content	Content analysis
Interaction	Speech turn	Question, answer, elaboration, comment, uptake	Speech turn analysis
Utterance	Deixis	Demonstrative pronouns (this/that, here/there, now/then)	Deictic analysis

The choice of results provided, especially the frequencies, are motivated first by a desire to present a detailed view of the deictic speech acts performed during these three seminar classes. Secondly, to compare the use of deictic speech acts by speech turn, and thirdly, to compare the use of deictic speech acts by speaker. Subsequently, in a closer analysis, we will review how the demonstrative pronouns are used to perform deictic speech acts to organize thoughts and actions in the seminar discourse and how deixis is influenced by participant role.

Fully accounting of all the variability in the data, in an ethnomethodological perspective, is the task of the analyst. Thus, a condition of the internal validity of our coding system is that it accounts for the full variability in the data. There is no room for error in the application of our analytical model because, along with the field of ethnomethodology, I assume that goal-oriented actions, or intentional communicative behavior that succeeds is the hallmark of our communicative competence and that all interactions are inherently meaningful and any error or miscommunication should be resolved in interaction.

Other forms of reliability checks could augment the validity of the claims and the approach outlined here. A quarter of the segments were analyzed by two different coders and inter-rater reliability is estimated as 80%. Likewise, intra-rater reliability is estimated as 90%. Membership checks could certainly provide an additional modicum of validity. However, there is an important nuance here in that I'm not qualifying the content of the participants' speech. Second, the codes are analytical, not the language of the participants, and the participants would not be able to say one way or the other whether my meaning was correct unless I first taught them my coding system. Thirdly, and related to the second point, the codes are performative, they describe what is accomplished by an utterance (or part thereof) with reference to the overall discourse. Thus, inferences can be verified by comparing adjacency pairs in the interactional sequence, and through coherence relations between what is said and what is done.

Demonstrative pronouns. The subset of pronouns (this, that, these, those, here, there, now, then) is selected because of the ubiquity of this class of words and their essential functions in deixis. They do not cover all instances of deixis, indeed following Hanks (1992) scheme, they fall only into the communicative sub-class of deictic functions, but their usage appears necessary for maintaining intersubjective understanding in the displaced and abstract communicative context of the seminar. Furthermore, it must be noted that the demonstrative pronouns do not carry the speech act value. As linguistic resources, the deictic function operates semiotically, indexing meaning by way of a communicative act. As with all indexical terms, they carry instructions and how to derive meaning from the communicative exchange—saying *take this utterance in this way*—and are of crucial importance for the study of the negotiation of meaning in social interaction. This finds its analog in the important distinction drawn between the semiotic and sociocultural dimensions of Gee and Green's (1998) MASS system.

Deixis/turn ratios. It is helpful to compare deictic use to speech turns because, (a), the number of turns is an imprecise measure, for instance, there are interjections that occur within turns that should not count as their own turn; (b) speech turns vary in complexity and duration; and (c), deictic speech acts can provide a better estimate of the complexity of a speech turn.

A difficult analytical problem is finding a way to identify and compare the quality of speech turns, in other words, the utterance content. One way to approach the problem is rather to ask how can we capture the actual import of the utterance for the interaction? It is easy enough, within the seminar, to identify the explicit objectives of presentations because participants are pretty good at conveying their goals (and the seminar tends to meet the explicitness criterion (Barnes & Todd, 1976). Similarly, we can identify speech turns, by sequential analysis, in terms of the functions they play for advancing the discussion (i.e., a turn within its sequence, such as a response, that functions as a disagreement). This results in comparison of global effects of local moves, for instance, how many information requests versus how many disagreements? However, neither tells us about the actual quality of the

turn, its content, its meaningfulness for the participants, nor the role that it plays towards in the negotiation of meaning and the construction of the shared discourse.

Deixis/turn ratios give a good estimate of the complexity of the speakers' contributions, because they are used for many grammatical functions such as: to introduce relative clauses, to indicate, to coordinate ideas, and to (re)introduce new concepts. Moreover, deixis/turn ratios can be used to compare relative distribution of discourse load in a class. They have the virtue of being straightforward enough to calculate as well as being informative (as a measure of the complexity of the speaker's talk). Terms can have semantic complexity (cf., semantic weight Martin, [2013]) but a thought can be complex even if the words themselves are not. The deixis/turn ratio shows the work that is occurring in symbolic (i.e., cognitive) field through the coordination of ideas in a shared (abstract) deictic field.

Some may object that deixis does not add anything more than a conventional close textual-content analysis can furnish. However, I believe that the close grammatical analysis provided by this multi-pronged approach is necessary to reconstruct the discourse *as both performance (activity) and text*, in order to adequately describe what occurs in a seminar, primarily due to the fact that discussion is the primary mode of activity. An important part of this semiotic activity is carried through the syntax, which necessitates a grammatical-level analysis. As we are focusing on the performance of semiotic interactions, we can avoid getting bogged down in a full propositional description.

Focusing on deixis is a theoretically informed methodological decision because deixis is a ubiquitous device for negotiating meaning in interaction. It provides more granularity than speech turns and it provides a systematic way to approach the morass of linguistic analysis. As I believe the analysis will demonstrate, deictic analysis is also capable of capturing some of the semantic complexity of speech in interaction. Establishing how meaning is negotiated in practice through deictic means appears as a necessary pre-condition to establishing how discourse is co-constructed and performed by seminar

participants in interaction. In other words, reconstructing discourse (and by extension, assessing learning through discourse) requires a linguistic-level analysis but propositional analyses are too unwieldy and topic-level analyses are too unfocused. The intertwined and inseparable semiotic and semantic dimensions provide a way forward in the study of the performative means of establishing shared discourses, practices, and intersubjectivity more broadly. Deictic analysis appears sufficiently focused for the study of the negotiation of meaning as deixis is one of the privileged means by which we achieve collective understanding.

Chapter 4: Results

Descriptive Statistics

The results are divided into three broad sections. The first section presents a summary picture of the course design and instructional process. The second presents frequency counts and non-parametric tests as descriptive statistics to give an overall picture of the data in terms of demonstrative use, speech acts, and deictic speech acts by participant role. The third section presents the overall participation structure in term of an analysis of interactional patterns performed over the three class meetings studied here. Excerpts of transcripts are analyzed to illustrate certain deictic functions in seminar interaction.

The main deictic functions identified in the analysis include: demonstrating, defining, marking relevance, describing scenarios, referencing, and resolving differences. Others could include: explanation, comparison and contrast, reasoning by analogy, etc. I argue that these are situated instances of the more basic moves: orienting, positioning, coordinating, and situating. These more basic moves in combinations provide heuristic tools for negotiating meaning in seminar interaction. With the examples below, I will attempt to show, demonstrating is a mix of orienting, coordinating, and situating. Marking relevance is a mix of positioning and orienting. Describing scenarios is a mix of orienting,

coordinating, and situating. Referencing is a mix of situating and coordinating, whereas resolving differences makes use of all four basic moves.

The Seminar: Advanced Qualitative Research, 416-687, Winter 2005

The graduate seminar studied here was the course *Advanced Qualitative Research 416-687* offered in McGill University's Faculty of Education, in the Winter 2005 term. The course calendar description was as follows: "Origins of qualitative methodologies in sociology, psychology, and education in relationship to: (a) ideology, (b) epistemology, and (c) methodology. Focus data reduction and field methods."

The course was designed and delivered by a professor (now retired) in the Faculty of Education. The instructor conserved extensive notes and traces from the course, in addition to having made video recordings of nine of the twelve classes. The first three classes were not recorded while approval was sought from the student participants and two classes were lost due to corrupted data files for a total of seven recorded classes amounting to a total of 12 hours and 49 minutes of recorded classroom discussion available for transcription.

The 2005 course was substantially revised to orient the course toward the preparation of a qualitative research study. The course was designed for doctoral and master's students intending to conduct a qualitative research study as part of their thesis requirements and who already had some previous exposure to qualitative research methods from past courses or research experience. The course adopted a design framework within which students planned a qualitative study within one of the five traditions of qualitative research outlined in Creswell (1998) and were provided opportunities to try out data collection or analysis on a small scale. The course primarily focused on methodological issues rather than ideology and epistemology, however inseparable methodological issues and the latter topics prove to be.

The design of the course was framed by activity theory and social constructivism yet it fits very nicely the description of a learning environment of a community of practice (See Wenger (1998), pp. 225-278). The design emphasized planning and reflection as instrumental steps in the process of becoming a qualitative researcher, conceived as a sociocultural process of adopting the language and practices of a specific community of practice. It is contended that the dual processes of planning and reflection enacted through the structured development of a qualitative research proposal and supported by classroom discussions based on weekly assigned readings and exercises promoted deeper processing and elaboration of the conceptual content on the students' behalf within a design framework oriented to the applications of practice.

The seminar was primarily delivered through class discussions oriented to issues of qualitative research methodology, however the course also included some lectures and presentations by invited guests who had themselves carried out qualitative studies. In the seminars featuring guests, the discussions focused on the experience of doing qualitative research—the lessons learned, and tips for the successful completion of a qualitative study—through the lens of their completed (and successfully defended) research projects. The instructor's intention was to provide authentic peer models who had completed a qualitative thesis and/or presented work at a professional conference to provide illustrative examples from the field of qualitative research. This is aligned with the kind of apprenticeship but also the modes of belonging that are enacted in communities of practice (See Wenger, 1998, p. 100, pp. 181-187).

Specific Learning Objectives (adapted from the Course Syllabus)

Students were expected to:

1. Satisfactorily complete ten written exercises from chapters 2-11 of Creswell (1998). These ten exercises counted for 40% of the course grade.
2. Compare two of the five methods studied in detail (employing Creswell [1998]) using one research article for each method to illustrate how they were alike or

different and including references to at least one book on each method. Assignments were expected to be approximately six pages in length, written in APA style, with one page of references. The two research articles consulted were to be printed and attached to the submissions. This assignment counted for 20% of the course grade.

3. Engage in a self-study on how well they believed themselves to be suited to carrying out research in each tradition from both an affective and cognitive standpoint. This assignment was expected to be about three pages in length and counted for 5% of the final grade.

4. Turn in one draft version and one final copy of a research proposal developed throughout the course, meeting the criteria for the research design and methodology selected, ensuring that the proposal meet the ethics standards of their field and that appropriate and sufficient validity conditions were met. The final research proposal would be of variable length, but would follow APA guidelines. This term project was worth 20% of the final grade.

5. Finally, class "behavior" or participation in the classroom discourse counted for 15% of the course grade and was evaluated with the following prompts:

   a) For each class, complete the assigned reading and be prepared to discuss ideas, concepts, and relationships presented in Creswell (1998).

   b) Share responses to exercises completed each week in group or class discussion.

   c) Actively participate in small group and whole class discussion (especially of written responses to exercises) using good communication skills such as:

      ▪ Staying on topic,

      ▪ Building on others' ideas,

      ▪ Giving reasons for your ideas,

      ▪ Asking questions of peers and the professor,

      ▪ Using new concepts you have studied in a "What if" manner during discussion, and

      ▪ Being a patient and careful listener who gives others time to express their ideas.

The Development of the Course During the Semester (adapted from the First Lecture)

Basic course organization. The course largely followed the structure outlined by Creswell (1998) "because of its excellent design." According to the instructor, "it distinguished itself from all the other qualitative research textbooks available to the instructor at the time by offering an orderly and coherent treatment of the five *most often* used qualitative traditions of inquiry in published research in education and psychology." Creswell (1998) provided the requisite knowledge to make an informed choice of inquiry tradition while simultaneously planning a qualitative research study.

The class read one chapter per week from Creswell (1998) (refer Table 3 below for the course schedule) and completed the corresponding writing exercises. Then, they interacted using the forum function of the WebCT® course management platform for structured discussion in student pairs. The goal of these online discussions was to prepare students for the weekly in-class discussions and presentations.

The sequencing of the readings and exercises directed the students step-by-step through the process of developing a qualitative thesis proposal while simultaneously guiding them through a structured comparison of the five qualitative research traditions. Week-by-week, students acquired new knowledge relevant to the planning of their study, from selecting the research question, framing the study and selecting a qualitative research tradition, to choosing among data collection and analysis procedures, and planning the narrative structure of the study. Further, it was hoped that the written responses to the assigned exercises and the WebCT® discussions would be the catalyst for valuable contributions to the weekly teacher-led class discussions. Basing himself on current empirical work on classroom discussion, the instructor attempted to promote a routine discussion format for the weekly meetings. From his reading of the literature, the following guidelines (verbatim) were selected for supporting higher-level thinking during discussions:

1) The first item of discussion would be clarifying key concepts and major ideas in the chapter. All class members bring different prior knowledge to the course and it essential that a common understanding of the course material be sought for the orderly development of the classroom discourse and of student learning.

2) The second item would be comparing Creswell's (1998) ideas and conceptualizations to those of other experts. This offers the opportunity to broaden each person's understanding of qualitative research practices through by encountering multiple perspectives.

3) The third item would be applying concepts and ideas being studied in the course to issues students were facing in designing their own studies.

4) The fourth would be considering possible solutions to the issues raised by specific students within their selected tradition.

5) The fifth and final item would be restating what was learned through the assignments and through the discussions.

Here are the roles and expectations of the course, according to the course outline:

- The instructor was expected to: (i) lecture or offer workshops on methods on the weeks there are no guests; (ii) give feedback on students' written work; (iii) act as a moderator of discussions; (iv) prepare critical questions based on the required reading for students to respond to; and (v) share resources with the class.

- Students were expected to: (i) complete the weekly assigned reading and activities before class; (ii) actively participate in small and whole group discussions; (iii) seek-out and share with the class resources other than those that are required reading; (iv) make a comparison of two self-selected research methods; and (v) produce a viable proposal for a qualitative research study.

- Guest presenters were expected to: (i) present an overview of their study in twenty minutes; (ii) spend forty minutes presenting the main results of the study; (iii) discuss the experience of conducting a study in a selected research tradition

including both problems and insights; (iv) recommend resources to consult; and (v) answer student questions about the specifics of the methodology.

Table 3 below presents the course description over the thirteen-weeks.

Table 3
Course Schedule

Week	Description
1	Introduction to the course; Chapter 1 Introduction.
2	Chapter 2 (pp. 1-27); Exercise 1, p. 26.
3	Chapter 3 (pp. 27-45); Exercise 1 and 2; Survey all the studies and thereafter return to them in discussion and as needed to anchor concepts and ideas.
4	Chapter 4 (pp. 47-72); Five Qualitative Traditions of Inquiry; Biography, Phenomenological study and case study are compared; Exercise 1.
5	Chapter 4; Grounded Theory and Ethnography are compared; Preview one book from "Additional readings" in your study's inquiry tradition and prepare a brief overview to share with others and to answer this question "How could this resource help in further developing your proposal?"
6	Chapter 5 (pp. 73-91); Philosophical and Theoretical Frameworks: The five traditions compared; Exercise 2; Discuss one theory relevant to your proposed study as well as when you might use it during your research, bearing in mind Creswell's suggestions.
7	Chapter 6 (pp. 93-107); Focus the Study; Exercise 1 and 2.
8	Chapter 7 (pp. 109-137); Data Collection; Exercise 1 or 2.

9 & 10   Chapter 8 (pp. 139-166); Data Analysis and Representation; Exercise 2.

11   Chapter 9 (pp. 167-191); A Narrative Report; Exercise 1 and 2.

12   Chapter 10 (pp. 193-218); Standards of Quality and Verification; Exercise 2.

13   Chapter 11 (pp. 219-229); "Turning the Story" and Conclusion; Exercise 1 or 2. Present your finished product to your classmates in small groups.

The Qualitative Research Proposal. These are the guidelines (Table 4) that were presented to the students in order to guide the development of their proposal. According to the instructor, these were the main points that he believed needed to be addressed for an adequate proposal and would provide a good basis for organizing discussions on how to improve areas that were weak or in need of elaboration or rethinking. These guidelines would serve as the basis for the evaluation of their final completed proposals.

Table 4
Qualitative Research Proposal

Research Question

1. Research question should be explicit and clear – Additional questions you are interested in should directly tie-in to the main question.

2. Research question must be situated within a particular theoretical perspective.

3. Research question must be linked to previous empirical findings.

4. Optionally, a new theory may be developed based on the data/patterns/themes that emerge (grounded theory).

5. Research question should be unique, novel & compelling – It could be that it addresses a gap in the literature, proposes a new way of looking at the issue, helps us understand an

issue that is not well understood but the question has to make a distinct and new contribution to the field.

6. Choice of research question should be supported by a strong argument – How will it contribute to the knowledge base of instructional psychology?

7. Ultimately, the research question should have implications for *learning* or *learning and instruction*.

Literature review

1. Mix of empirical findings & theoretical arguments.

2. Literature over the past two decades should be reviewed to provide a sense of the pattern of results from empirical studies – Find studies that address the same issue you are addressing.

3. How do you relate the results of research when the studies have used different methodologies or different theoretical perspectives?

4. Literature review must also have a theory framework (using one or more theories) that organizes the empirical research and should demonstrate how your proposed research tests or expands that theory in some way.

5. Research proposal must follow a similar structure to that of a thesis but does not entail a *detailed* description of previous studies or analysis of relevant theories.

Methodology and Design Issues

1. How do you ensure the validity of your results? How is the methodology organized to account for threats to the validity of your study?

2. Develop a strong argument for why you are using qualitative methodology to answer the research question. Next, explain in detail, why you are using *a particular kind of*

methodology (Case study, phenomenology, grounded theory, ethnography, biography, etc.) as opposed to another kind of qualitative research.

The Classroom Discourse. The qualitative research seminar was created with the objective of helping students develop their own qualitative research proposal and was organized around the key concepts involved in developing a research proposal. Questions of phenomenon, paradigm, epistemology and ontology, the interrelationship between fact and theory, and theory and method, and validity as well as the different stages of the research process from questions and design to data collection methods and analytical approaches, and finally writing and reporting qualitative research form the topical structure of the course. But the overriding theme is the notion of validity in qualitative research studies. The students are tasked with developing a viable qualitative research proposal, and the recurring theme is present throughout the course discussions, whether they be about comparing paradigms, formulating research questions, or conducting field research, the students' concern for appropriate conduct in qualitative research, the viability and the validity of their proposals and studies, are evidently related to the task structure of the course and the combined effect is of making validity the central theme of the course.

Near the end of the course, the instructor writes in his teacher's log that he regrets that the students hadn't taken responsibility for the class discussions as he had hoped. He relates how he shared this regret with the class only to be disputed by the students, that the students responded "by saying I should not feel this way. Moreover, they are getting chances to ask me things they need to know on their own research and other students are giving them feedback if not in class on break or otherwise outside class." Clearly the expectations of the instructor and the students regarding the class discourse were different. It might be tempting to leave it at that but this particular incident is telling and worth examining in more detail.

In the historical context of the adoption of socio-constructivist perspective on the nature of learning, certain assumptions and conclusions about teaching practice and the classroom were made. Active learning refers to best classroom practices in higher education inspired by a socio-constructivist philosophy of learning. To the extent that active learning is cohesive and coherent set of recommendations, one can say that (i) students learn best if they are actively engaged in their own learning and (ii) students ought to take responsibility for their own learning (Baeten, Kyndt, Struyven, & Dochy, 2010). Many theorists have taken this to mean that the classroom must be organized around activities that engage students by placing them in social-interactional contexts and designing courses through constructive alignment (Biggs, 1996) by creating tasks and evaluations that require students to become more responsible learners. In this context, a certain normative dimension on instructional activities arose that conceived as teacher-centered (bad) or student-centered (good). Hence teacher-led discussions were suspect and student-led discussions were ideal. But this is a simplification and there is a recognition today that teaching and learning include a repertoire of activities and strategies akin to a toolbox where each tool serves a different purpose depending on the needs and objectives of the instructional situation including the class profile, the course topics, and even the classroom environment itself. The instructional activities are only one part of student assessments of the effectiveness of the teacher's instructional approach. In other words, a teacher can lecture and still have a student-centered approach because the approach must be considered a function of the global situation including the choice of topics, strategies, activities, assessments, as well as the teacher's personal characteristics (Anderson & Burns, 1989; Aulls, 2004; Aulls & Ibrahim, 2012; Redden, Simon, & Aulls, 2007). Thus, a course aiming to develop student qualitative research proposals is unquestionably a student-centered classroom regardless of the frequency of student contributions to the classroom discourse relative to the teacher's or any invited speakers' verbal contributions.

In this case, the instructor may have felt that students had not participated more actively by increasing their turn frequency in whole-class discussion and thus felt that the

discussion had not been as successful as it could have been. The students' responses, however, clearly demonstrate that they felt they had ample opportunity to contribute meaningfully and to discuss the things they wanted to discuss. Much of the class discourse was oriented to their own research projects; and that is the essence of student-centered approach. But beyond the whole-class discussion, there were frequent opportunities to work in pairs on classroom activities and over the online course management platform. Each participant met with the instructor at least once to discuss their qualitative research proposal outside of class time, and they received feedback promptly and consistently on their assignments.

Moreover, as the analysis of the discourse shows (and the course's explicit design) that classroom discussions all revolved in one way or another around their developing proposals, which is indicative that classroom discussions were only one manifestation of the classroom discourse, and could not be a substitute for it. Student activities inside and outside the classroom affected the conditions for discussion (not to mention the explicit tasks and directions set-out by the instructor). These tasks and activities, including reading, research, reflection, and problem-solving—all facets of an active learning approach—contributed to learning and enabled and extended the classroom discourse itself. In a structured classroom environment, classroom discussions cohere within an interrelated system of negotiated meanings directed by the instructor but maintained by the whole group. Each activity and each discussion is made meaningful within the complex interactions that come to define the classroom culture. The classroom discourse is the gestalt; indeed, it is even more than the sum of all the texts produced in these interrelated activities. Inventorying the topic coverage and course structure, including seminar activities, readings, and assignments, which each contribute to the classroom discourse by providing context to the discussions, could give us insight into the classroom discourse. However, this is only likely to ever be an incomplete reconstruction because each participant brings their own personal histories and thus the sum effect will always be greater than the parts. At a minimum, this reconstruction ought to be considered a basis for

intersubjectivity—the readings and activities that all members were expected to have completed and assimilated as a condition of their participation in the seminar.

First Class. In his lecture notes for the first class, the instructor gave reasons for conducting qualitative research in education and counselling and types of research conducted. He also explains that he chose Creswell (1998) because the textbook unites epistemology and ontology to method in discussing the choice of conducting qualitative research. As he writes, "The student researcher must be able to be comfortable with the pressures of paradigms and keep the phenomenon and the development of new understandings about it as the aim for a sound doctoral or master's thesis."

In the first class, the instructor collects extensive information about the students' experience conducting qualitative research, their familiarity with questions of epistemology and philosophy of science, and their views of themselves as inquirers. As a first assignment, the instructor asks students to read Denzin and Lincoln, Kuhn, and Guba and asks them to reflect on the nature of paradigm and "How might one's beliefs about reality and what counts as knowledge influence the research method/design we choose and the strategies we employ to inquire?" To further elaborate on the assignment question, he gives the examples (verbatim) of post-positivism and post-modernism:

> Post positivism and post modernism embrace the view that knowing is constrained by one's own interpretation of concepts, relationships and events based on one's own experiences. How might this view be related to the design, enactment, and interpretation of qualitative research?

> Post positivist world views appear to support the notion that knowledge is restricted to the local-culture-groups the individual finds herself among while positivism embraces that valued knowledge must be universal and generalized beyond the local. How do we cope with what appears to be conflicting and competing inquiry paradigms?

In-class and Online Discussions. A portion of the classroom discourse took place online through the discussion forum module of WebCT®, a classroom management web portal. The course was rooted in a theory of dialogic interaction, inspired by Vygotskian socioconstructivism and the instructional theory of Anderson and Burns (1989), which shares a family resemblance with Alexander's (2008) dialogic teaching model. The justification for conducting the class in this fashion was summarized for the students in the course handout entitled *Weekly On-line and in class discussions* as follows:

> On-line and in class discussions work hand in hand as a support system that aims to maximize our efforts for studying qualitative research. Learning is rooted in dialogical interaction. We learn better when we explain what we think to each other. This interaction lets us reexamine our thinking via feedback and comments. The on-line discussion provides us the artifacts that allow us to revisit and reanalyze our thinking. It helps us to produce better learning outcomes, for example, higher quality assignments. The class discussion extends the scope of involvement, so that we can receive more ideas to improve our understandings.

The purpose of the discussion was to assist students in developing their understanding of qualitative research theory and practice through an extended interaction with another student as conversational partner. Discussions were organized around guiding questions selected by the instructor and oriented to the readings, primarily from Creswell (1998). Discussions were expected to take anywhere between three and six hours of time and required student dyads to organize their interactions outside of class.

This plays out in the discussions. In one instance, students discuss at length the pros and cons of using the case study methodology and how it relates to phenomenology. They also discuss problems of access and their relationship as researcher and participant. In the end, they are concerned with issues of representation of their findings, and discuss at length the merits of the narrative report in qualitative research.

There were eight discussions in total, some being assigned on a bi-weekly basis. The eight discussions were structured as shown below in Table 5:

Table 5
Weekly Discussion Questions

Week	Chapter
4&5	Ch. 4 Five Qualitative Traditions of Inquiry (pp. 47-72)

> 1. Compare and contrast Biography, Phenomenological study and case study (Week 4), and with Grounded Theory and Ethnography (week 5)
>   - After defining each approach, send the definitions, and answers to these questions to your conversational partner.
>   - What are the main concepts of each approach? What are their characteristics?
>   - Are they different? How different are they? What are the differences? Why do you think they are different?
>   - Are they similar? What are the similarities? In what way they are similar? Why do you think they are similar?
>   - How are they used in current research?
>   - Which approach will you use for your research? Why? What kind of issues will you encounter? How will you deal with these issues?
>   - Discuss the presented ideas with your conversation partner for drawing a conclusion based on consensus.
> 2. Bring the conclusion for class discussion.

| 6 | Ch. 5 Philosophical and theoretical frameworks: The five traditions compared (pp. 73-91) |

1. Send answers to these questions to your conversational partner. Critique the selection in relation to the appropriateness to your partner's research. The goal is to help your partner clarify the selected framework.

   - Which theory will you select for your research?
   - Against what criteria do you make your selection?
   - What are the key concepts of the theory?
   - How do these concepts link to one another for formulating a framework for your research?
   - How does this framework support your research?

2. In the class discussion, explain your partner's framework, and the differences and similarities between your and your partners' selected theory.

7   Ch. 6 Focus the study (pp. 93-107)

1. Send answers to these questions to your conversational partner. Critique the presented focus in relation to the appropriateness to your partner's research. The goal is to help your partner clarify the focus, the research questions, and the relationship between them.

   - What is the focus of the study?
   - Why do you want to study it?
   - What are the key concepts of the focus? (Define the concepts)
   - How do these concepts relate to one another? (Define the relationships)
   - What research questions will you generate from this focus?

2. Explain your partner's research focus for class discussion.

8   Ch. 7 Data Collection (pp. 109-137)

1. Send answers to these questions to your conversational partner. Critique the data collection stage in relation to the appropriateness to your partner's research questions. The goal is to help your partner clarify data collection, and its relationship to the research questions.

   - What kind of data are you going to collect?
   - Why are these data relevant to answering your research questions?
   - Who will the subjects or participants be?
   - What should be done to collect data from them?
   - How will the data be collected?
   - How do these data collection methods relate to your theoretical framework, and sustain answers to your research questions?

2. In class discussion, explain your partner's data collection process, the differences and similarities between yours and his/hers.

9&10   Ch. 8 Data Analysis and Representation (pp. 139-166)

1. Send answers to these questions to your conversational partner. Critique the data analysis process in relation to the appropriateness to your partner's research focus and questions. The goal is to help your partner structure and to clarify data analysis process.

   - What do data analysis and representation mean? (Define the terms)
   - How will you structure the data analysis process? Why do you analyze the data the ways you structure?
   - What type of data representation will you use? Why?
   - In what ways you will organize or structure this representation?

- How does your theoretical framework sustain this data analysis and representation and sustain answers to your research questions?
- Explain your partner's data analysis process for class discussion.

11   Ch. 9 A Narrative Report (pp. 167-191)

1. Send answers to these questions to your conversational partner. Critique the presented ideas of his/her narrative report. The goal is to help your partner clarify the process and structure of writing a narrative report.
   - What is a narrative report? (Define the terms)
   - What are the characteristics of a good narrative report?
   - What are the differences between a narrative report and other types of research reports?
   - What elements will you include in your narrative report? Why do you include them?
   - What kind of challenges will you have in writing a narrative report? How will you deal with these challenges?
2. Explain your partner's data analysis process for class discussion.

12   Ch. 10 Standards of Quality and Verification (pp. 193-218)

1. Send answers to these questions to your conversational partner. Critique the presented ideas about standards of quality and verification. The goal is to help your partner clarify the process of verification, and to understand how to achieve standards of quality for his/her research.
   - What are standards of quality and verification? (Define the terms)

- What are the characteristics of standards of quality?
- What are the relationships between standards of quality and verification?
- Why verification is important to your research?
- What do you need to verify?
- How will you conduct verification throughout your research processes?

2. For class discussion, explain your partner's verification processes, and how is yours different from and similar to your partner's.

13   Ch. 11 "Turning the Story" and Conclusion (pp. 219-229)

- Send your finished proposal to your conversational partner. Critique it and help your partner improve this proposal before class presentation.

Descriptive Statistics Across all Three Classes

The following frequencies highlight the consistency across the three distinct class events (as constitutive of the seminar situation enacted here) and corresponding activity structures. Demonstrative use does not vary much across the three classes, although we see distinct patterns of variations across participant roles. The presenters and the instructor make greater use of deixis than the students; and elaborations, and to a lesser degree comments, exhibit the greatest deixis/turn ratios. Questions and responses exhibit much less complex structures and thus lower frequencies of deixis potentially because questions and answers require a degree of specificity, which does not lend itself to the complex constructions that involve deixis to a greater degree.

Compare the high-ratio between the frequencies of speech acts to deictic acts. We observe that in the context of higher education seminars, different discourse structures

prevail than in elementary and secondary classrooms. It appears that coding for speech turn is not fine-grained enough to capture what is accomplished in the seminar discourse. Indeed, each speech turn often contains more than one speech act (question, response, elaboration, comment, etc.) and often multiple deictic speech acts (situating, orienting, positioning, and coordinating). Thus, the speech turn itself proves to be an inappropriate level of analysis to fully capture the differences in speech. The increased frequency of deixis compared to speech turns alone warrants further study only just to discover what the extra granularity can offer to the study of interactional situations.

Chi-Square tests for the table below are significant, indicating that there is indeed a difference in the uses of demonstrative pronouns across these three classes. It appears that there is a differential deployment of deictic resources occurring for the different activity structures presented by each class studied. Reporting chi-square tests provide a means to compare actual and expected frequencies in the tables reported below. The validity of the chi-square test rests on the assumption of the independence of observations, while we cannot completely rule out individual differences, the regularity in the frequency of demonstrative pronouns use across the three classes suggests that these are independent linguistic features and thus their frequencies can be compared through non-parametric means.

Table 6
Frequency of Occurrence of Demonstrative Pronouns in three Classes

	Feb 3 Totals	Feb 10 Totals	Feb 17 Totals
That	640	526	416
This	195	162	113
There	118	143	101
Those	45	23	13
These	44	47	29

Now	179	147	116
Then	72	92	44
Here	30	30	14
Totals	1,323	1,170	846

Referring to Table 7 of demonstrative pronoun use by role, there is a distinct difference in the complexity of the turns performed by the students compared to the presenters and the instructor. It is also important to note that there were different guests for the Feb 3 (Presenter A) and Feb 10 (Presenter B) classes that account for some of the variations in results. This could be due in part to individual differences in language use, however, these results, combined with a close reading of the discourse, will show that A's presentation exhibited specific differences in deictic speech act use that sets her presentation apart in terms of how she coordinated complexity in her speech. Presenter A situates her research to the literature, but Presenter B does not engage with the literature to the same extent, rather she recounts her research process in a protracted narrative. Feb 17 runs shorter than the previous classes that accounts in part for the lower totals but it is also marked by a different activity. There was no invited speaker that week, and the class largely engaged in discussion-based activity around the formulation of their research questions for their final projects. It is interesting then to note the differences between discussion format, between the presentations of Feb 3 and Feb 10, and especially with the more dialogical format of Feb 17, which despite the greater amount of interaction, the overall frequency of deixis is much lower and the student rate of deixis (Table 7 below) only slightly higher than during the presentations. Incidentally, it is the question and answer periods on the presentation days that exhibit markedly less deixis compared to the presenters' talk as well.

Table 7
Ratio of Demonstrative Pronouns by Speech Turn for Participant Roles Across Three Classes

	Feb 3 (Presenter A)	Feb 10 (Presenter B)	Feb 17
Presenter (A & B)	8.82	4.51	—
Instructor	5.19	4.49	4.22
Students	1.37	1.36	2.09

Frequencies of speech turns by participant role demonstrate regular patterns dictated by the activity structure, however, it is difficult to discern these patterns in the frequencies below. In fact, all three classes (minus presenters on Feb 17) are nearly indistinguishable in terms of turn allocation, likewise for speech acts across speech turns, especially when we consider the time actually allocated to each turn. However, turns are not equal across the three roles. Although students generally had more turns than the presenters and the instructor, their turns were markedly less complex (in terms of deixis ratios) and correspondingly of shorter duration. Although Presenter B had more turns than Presenter A, the ratio of deixis was nearly twice as high for Presenter A. Presenter B's presentation was marked by more interruptions for questions and ensuing dialogues. Whereas B's presentation was more dialogical, A's presentation was more monological. And rather unexpectedly, Feb 17, which was mostly dialogical, as it focused on the activity of formulating research questions, had fewer speech turns. This is explained by the fact that turns also exhibited this large contrast between fewer but longer protracted turns by the instructor interspersed with many very short turns similar to Presenter A in style (See Appendix 1 for the distribution of deixis across speech turns). Indeed, A's presentation had a similar structure to the instructors' because she shared an instructional goal to recount her experience and give advice to the class about conducting qualitative research (and specifically grounded theory). Beyond that, this table offers little more meaningful variation between and within speech turn categories. Thus, it appears that a speech turn approach alone lacks the granularity to capture meaningful variation in the seminar discourse, or what is accomplished in and through the seminar discourse.

Table 8
Frequency of Speech Acts Across Three Classes

	Feb 3	Feb 10	Feb 17
Comment	120	72	54
Directive	8	8	10
Elaboration	32	49	48
Question	55	69	76
Response	57	81	72
Total turns	272	279	260

Table 9
Frequency of Speech Turns by Participant Role Across Three Classes

	Feb 3	Feb 10	Feb 17
Presenter (A & B)	83	124	—
Instructor	86	107	136
Student	106	91	130
Totals	275	322	266

The distribution of speech acts (Table 10 below) provides a more detailed picture of the seminar discourse. We again observe a discourse that is dominated by the speech acts performed by the presenters and the instructor, yet we also notice distinct patterns of use across participant roles. Presenter A makes a lot more comments overall relative to the other kinds of speech acts. These are rather long in duration and syntactically complex, which isn't captured by the speech act analysis here but is captured in the deictic analysis below. On the other hand, Presenter B asks comparatively more questions and provides less answers than would be expected. This is accounted by the kind of presentation that she

made as she was performing a dry-run of her doctoral defense and was seeking feedback from the group. Relatedly, it is also interesting to note that on average the instructor performs more elaborations and asks more questions than would be expected simply by chance. This is indicative of his teaching style, which can be characterized as a variant of the Socratic method, where questions are intended to further students' reflections on some aspect of the topic of discussion. He issues concomitantly less comments and provides less responses, which is also in keeping with the Socratic spirit. Of course, the instructor is meant to give instruction and so it is unsurprising to note that he furnishes the bulk of the directives as well. Further supporting evidence for the overall instructional approach can be found in the comparison of the actual to the expected speech acts performed by students. In keeping with the project-based inquiry approach (enacted here as a form of legitimate peripheral participation) students ask more questions, provide more answers, and elaborate more on each other's statements, as they try to understand and participate in qualitative inquiry.

What of the patterns of deixis characterize the class discussion on Feb17? We can say that these classes differ because of their different activity formats, because the goals of the presenters are different than those of the instructor or the students. The instructor's Socratic variant asks questions or reflection, a lot of the hard work of the activity occurs reflectively or intra-mentally. The context is internal and so there is much less discussion needed. The arguments are carried by the individual participants depending on their different goals; re-assessing after every turn, every utterance for internal meaning (within their own participation frame).

Table 10
Frequency of Speech Acts by Participant Role Across all Three Classes

	Presenter A	Presenter B	Instructor			Students			Totals
	Feb 3	Feb 10	3	10	17	3	10	17	
Comment	43	44	26	13	28	48	15	26	243

Directive	1	1	7	11	10	0	0	0	30
Elaboration	7	29	22	24	40	3	3	9	137
Question	7	11	16	29	39	32	44	37	215
Response	21	43	15	22	16	21	31	54	223
Totals	79	128	86	99	133	104	93	126	

Table 11

Chi-Square of Speech Acts by Participant Role Across Three Classes

Actual

	Presenter A	Presenter B	Instructor Avg	Students Avg	Totals
Comment	43	44	22	30	139
Directive	1	1	9	0	11
Elaboration	7	29	29	5	70
Question	7	11	28	38	84
Response	21	43	18	35	117
Totals	79	128	106	108	421

Expected

	Presenter A	Presenter B	Instructor Avg	Students Avg	(Observed) Totals
Comment	26	42	35	36	139
Directive	2	3	3	3	11
Elaboration	13	21	18	18	70

Question	16	26	21	22	84
Response	22	36	29	30	117
(Observed) Totals	79	128	106	108	421

$\chi^2 = 673.0057815$ ($p < 0.001$)

As can be observed in the table below, the great majority of deictic speech acts are orienting. This is explained by the overarching need in the seminar situation to contextualize one's utterances within the seminar discourse (which is generally displaced and abstract). When deriving codes inductively, we should concern ourselves with such regular discrepancy between codes. However, upon further reflection there are good theoretical grounds for the greater frequency of orienting moves. The actual variation within orienting-type moves is quite low, because a very common move is the focus-shifting use of *that* marking the introduction of a relative clause; focus-shifting is an inherently orienting move embedded in the syntax—further testament to its ubiquity.

Table 12
Frequency of Deictic Speech Acts by Participant Role Across Three Classes

	Presenter A	Presenter B	Instructor			Students			Totals
Situating	116	105	58	47	22	22	16	13	399
Orienting	313	231	173	215	121	50	52	46	1201
Positioning	62	43	56	49	51	23	20	21	325
Coordinating	163	141	106	74	43	27	12	11	577
Totals	654	520	393	385	237	122	100	91	

Further details of the discourse can be gleaned from a comparison of the frequencies of deictic speech acts across participant roles in the table above (See also,

Appendix 2 for the charts of the frequency of deixis by role across the three classes). As we can see Presenters A and B make up a greater proportion of deictic speech acts compared to the instructor and the students. However, we do note different patterns across participant roles as well. Presenter A makes more deictic speech acts than Presenter B across all categories, further evidence of the qualitative differences between their presentations. On the other hand, the instructor (on average) makes a comparable number of orienting and positioning moves but comparably less situating and coordinating moves. As for Presenter A, she makes less positioning statements than would be expected. On the other hand, Presenter B makes more situating and coordinating and less orienting and positioning moves than expected. The instructor makes less situating and coordinating moves than the presenters on average, yet more orienting and more positioning moves than expected. Students make more positioning and less coordinating statements than situating and orienting on average. These different patterns of deixis to some extent result from the different goals adopted by the participants in the seminar discourse. Whereas a presentation of grounded theory appears to involve all four types of deictic speech acts equally, a presentation of a narrative study appears to require comparably more situating type statements. Given the instructor's adoption of a coaching style, it is unsurprising to note more orienting and positioning moves than expected as he is engaged in directing attention and pointing out important details. A somewhat unexpected and novel finding is the increased use of positioning moves on the part of the students. This can be attributed in part to the type of discussions that occurred where students were involved collaboratively in the process of understanding and participating in qualitative inquiry in a mutually-encouraging manner.

Table 13
Chi-Square Test of Deictic Speech Acts by Participant Role Across Three Classes

Actual

	Presenter A	Presenter B	Instructor	Student	
	Feb 3	Feb 10	Avg	Avg	Totals

Situating	116	105	42	17	280
Orienting	313	231	170	49	763
Positioning	62	43	52	21	178
Coordinating	163	141	74	17	395
Totals	654	520	338	104	1616

Expected

	Presenter A	Presenter B	Instructor	Student	
	Feb 3	Feb 10	Avg	Avg	(Observed) Totals
Situating	113	90	59	18	280
Orienting	309	246	160	49	763
Positioning	72	57	37	11	178
Coordinating	160	127	83	25	395
(Observed) Totals	654	520	338	104	1616

χ^2= 1838.349589 (p < 0.0001)

As deictic speech acts are an agnostic linguistic resource (Hanks, 1992), we notice different patterns of use in the way these speech acts are used. Table 14 below presents the 16 combinations of the four deictic speech acts (situating, orienting, positioning, coordinating) and the four main phoric relations (endophoric, exophoric, anaphoric, cataphoric). Endophoric means relating to the text. Exophoric, external to the text or metalinguistic. Anaphoric signals a backwards reference, whereas cataphoric signals a forward reference. We find that different combinations effectuate different deictic operations in the seminar discourse. Anaphoric and cataphoric relations are used for cohesion (Halliday & Hasan, 1976), whereas endophoric and exophoric relations are used

for contextualizing meaning. Thus, there are species of deictic phoric relationships that are used consistently for one or another type of operation. For instance, a *singular proposition* (Kaplan, 1989), or an existential signifier, will often be expressed with a cataphoric situating or orienting move, for instance, *there is an* x, *that is* y, *those are* z. These are conventionally treated as semantically empty in syntactical analyses; however, these have a performative value in the interaction that cannot be overlooked. Whereas a value judgment will often be marked by its anaphoric relation, for instance, *that's good/right*. Other common deictic operations include, subordinating and connecting clauses/ideas (ana/cata-phoric coordinating moves) and performing instructional moves (ana/cata-phoric coordinating and positioning; endo/exo-phoric situating and orienting moves).

We note distinct patterns in use for each participant role, as Table 14 demonstrates quite succinctly, the different participants are accomplishing different things with their utterances and within the overall seminar discourse. Presenter A makes more endo/exo-phoric situating moves than Presenter B who makes comparably more ana/cata-phoric situating moves. Once again, this is interpreted as resulting in part from the nature of their inquiry, grounded theory vs. narrative inquiry, but also as a result of their different presentation formats. Presenter A's being characterized by a focus on situating her audience in terms of the research field but also metalinguistically in relation to the communicative and instructional situation. Presenter B recounts a research process and her presentation relates her story through the sequential use of situating moves for signaling anaphoric and cataphoric relations. As a result, Presenter A commits many more endo/exo-phoric orienting moves than Presenter B, who makes more cataphoric orienting moves, further differentiating the two in terms of their performance.

Whereas the instructor and students make a proportionally comparable number or ana/cata-phoric orienting and situating moves, the instructor makes a proportionally greater number of endo/exo-phoric orienting and situating moves.

Compare Presenters in terms of their ana/cata-phoric positioning moves, which are reversed. Presenter A makes a proportionally important number of coordinating moves than all others. This is taken as further evidence of the important contrast between what the two presenters accomplished through their different presentations. Thus, we begin to see a class of activity where the participants adopt different goals which they accomplish through different patterns of deixis. Arguably, the different goals they adopt is a function of their sense of their identity and the trajectory the adopt as members within the community of practice (Wenger, 1998) and hence, a function of their developing expertise. In that sense, the participants' performance of deixis within the seminar could potentially be interpreted as a facet of their developing competence but this is for further study.

Table 14
Deictic / Phoric Relationships Across Three Classes

	S-Cata	*S-Ana*	*S-Endo*	*S-Exo*
Presenter A	64	12	28	11
Presenter B	60	16	21	7
Instructor Avg	17	10	2	13
Students Avg	8	5	1	4
	O-Cata	*O-Ana*	*O-Endo*	*O-Exo*
Presenter A	31	220	49	10
Presenter B	75	139	9	6
Instructor Avg	44	87	16	23
Students Avg	16	27	2	4
	P-Cata	*P-Ana*	*P-Endo*	*P-Exo*
Presenter A	15	38	8	1
Presenter B	27	11	4	0

Instructor Avg	9	32	0	9
Students Avg	4	15	1	3
	C-Cata	*C-Ana*	*C-Endo*	*C-Exo*
Presenter A	138	23	1	0
Presenter B	94	42	4	0
Instructor Avg	37	23	1	10
Students Avg	12	4	0	2

More comparison tables were computed to examine the regularity between demonstrative pronoun use and deictic speech act. Appendix 1 includes frequencies for demonstrative pronoun use by participant role and by speech act, as well as speech act and deictic speech act by participant role. Collectively they describe a pattern of participation where the bulk of the discourse is carried by the presenters and the instructor. Presenters and instructor perform more comments and elaborations, whereas students make less use of deixis (and less complex turns) but ask more questions and offer more responses. It is interesting to note that they also make more comments than average, which describes a pattern of overall engagement in discourse activity, as they ask appropriate questions, offer cogent responses, and make sensible comments. Although their participation may be peripheral, they are fully engaged as demonstrated by their, albeit, less frequent but no less important participation in the discussion-based seminar activity.

Instructional Sequences

When examining the patterns of speech turns across the three classes (See Appendix 1) it is immediately clear that I-R-E are not a regular feature per se in seminar-style instructional discussions. Instead, we find a comparatively important number of comments and elaborations, indicating an entirely different style of classroom discourse. I-R-E is a heavily teacher-centered sequence, where the teacher figures predominately in the

atomic (Nassaji & Wells, 2000; Sinclair & Coulthard, 1975) or primary (Mehan, 1979) sequence. That is, the teacher initiates and evaluates in all the slots in both the primary and all the secondary/subordinate sequences. In the seminar, the prevalence of adjacency pairs (instead of triples) indicates a discourse that more closely resembles conversation (Sacks, Schegloff, & Jefferson, 1974).

A few stray observations:

1. There are not many evaluations because there are not many questions with known answers being asked (MacBeth, 2003).

2. Where questions have an evaluative component, third slots include information seeking questions, or commentary and feedback—not right or wrong evaluations—but forms of critiquing. As a form of uptake (Nystrand, 1997) in the conversation, they often occur as interjections rather than officially-sanctioned conversational turns.

3. Response slots are by and large dominated by students but they aren't directed to the instructor (because the instructor is not overtly evaluating the validity of the student statements) but to the whole class because anyone can (and does) follow-up. However, we find that the teacher is almost the only one who interjects in the seminar discussion. As we observe that the instructor and the presenters dominate the discussion, the right of interjection is likely a function of control over the discussion. Whereas the instructor does not apologize for interrupting because he/she tacitly controls the conversational sequence, having been the one to initiate it and also by virtue of their role/moral status, we find that students are often very deferential when posing questions or offering comments. It is expected that where a student interjects, we would find some contextual cue signaling an apology for interrupting.

I-R-E sequences do occur especially on the third class where there was no presentation and the activity was taken up with the formulating of students' research questions for their final project. But as mentioned above, the overall evaluation slot is

better understood as an uptake condition that can be a question, response, comment, or an evaluation. The uptake condition can be observed as the continuation of the topic-task binary sets across multiple sequences (and over sustained periods). Given the above, it seems appropriate to conjecture that the uptake condition is a characteristic of discussion-based seminar activity, for instance, the roundtable format (see below) could be defined as a special case of the I-R-U seminar sequence, where the U is a recursive function of many I-R sub-sequences.

The uptake slot in the seminar I-R-U holds an implicit request, to whoever is nominated by the initiator, to follow-up. The end of these sequences is explicitly signaled by the task-topic initiator (generally the instructor) by the pronouncement of a new directive.

Thus, it appears that a seminar discussion has more in common with conventional conversational sequences than the standard analysis of classroom talk has observed in primary and secondary classrooms. The rules of turn taking for the seminar are similar to those of conversation (Sacks, Schegloff, & Jefferson, 1974). Bidding is distributed. The teacher is not always the one to nominate. In fact, self-nomination is very common (as an embedded feature of the I-R-U sequence).

Below are a few discussion formats that re-occurred. They are the round-table, the plenary and the presentation/discussant format.

Round-table format. One sequence that is close to the I-R-E is the round-table format and involves the teacher posing a task that each student undertakes in turn. It looks like this:

- o TDir
  - ▪ S1R
    - • TC(El)
    - • S2C

- • . . . .
  - ▪ S2R
  - ▪ S3R

T = Teacher; S = Student; Dir = Directive; C = Comment; (El) = Embedded elaboration; R = Response.

There can be many subordinate sequences just as in conventional instructional exchanges, however, there are few triples and even pairs are rarely explicitly responsive to the directly preceding statement. Rather, the discussion presents a highly structured conversation that flows, where each participant speaks in turns of variable duration, but often following some pre-established pattern as seen above. You end up with a recursive type function where the sequence cycles through each participant who takes his/her turn, succeeded by a brief period where others can bid or be nominated by the teacher. Once this brief plenary is passed, marked by a shift in focus (contextual cue), the next participant replies to the teacher's initiating turn and the cycle repeats itself.

Plenary-type discussions. Plenary-type discussions can be understood as less structured versions of the round table discussion format. The teacher or presenter will give directives for the discussion (often following a lecture or protracted explanation) and students will be invited to bid for turns but generally will not be nominated (beyond normal expectations for student participation).

Presentation format. Another common sequence involves a lengthy turn by one participant, interspersed with few interjections (made primarily by the teacher) and/or followed with a plenary-type discussion.

Embedded Turns

One striking characteristic of speech turns in a seminar discussion is the ubiquity of an elaboration in conjunction with a comment, question, or response. These elaborations are interpreted as contextualizing statements, to aid in the comprehension of the

participants' contributions (cf., Clark & Brennan's (1991) notion of grounding in communication).

The conditions for common knowledge that might normally hold in a conventional classroom, where the discourse is joined with a separate concurrent activity, cannot be assumed in the seminar, where the discourse is both displaced and abstract. In these situations, students are forced to provide more background information so that their utterance may be fully understood by their colleagues. Basturkmen (1999) identifies this as the varied components and structures of elicit moves with additional acts such as causals, restates, qualifies, and additives. However, she further argued that students must provide justification for their move through elaboration (pp. 69-70).

Combinations of subordinate elaborations with a main speech act in the same turn by the same speaker constitutes an explanation, which could be defined as any two or more adjacent pairs of an elaboration coupled with another turn committed by the same speaker. Analytically, explanation could replace the comment (elaboration) embedded turn. Another interpretation could be that most comments and elaborations can simply be understood as uptake, but this doesn't tell us about how the turn functions in the interaction, and thus cannot differentiate turns here because, as discussed above, successful seminar discussions require that participants join in the discussion even in peripheral roles such as student. Hence, comments and elaborations can be viewed as instances of uptake. I argue that uptake does not add anything more and singles out aspects of turns that all turns must exhibit by necessity in this context given that the seminar discussion studied here is more akin to conversation (and follows the rules of conversation) than the canonical I-R-E (which proves rare in this classroom environment), such that the sequence may be captured by adjacency pairs alone. Finally, it could be objected that positioning moves such as *that's important* and other phatics ought to be construed as evaluation turns. However, these are often not turns but interjections, which are directed to the disciplinary knowledge. In that sense, they are orienting or positioning moves invoked by adjacent

moves in the discourse, and are not specifically evaluations of the content of the students' responses in any epistemic sense.

Deixis

This study analyzes the use of deixis in a graduate qualitative research seminar along the following dimensions:

- Grammatical function: Determiner, demonstrative, relative pronouns.
- Textual function: Endo-, exo-, cata-, ana-phoric relations.
- Deictic speech act: Situating, orienting, positioning, coordinating functions.
- Target of reference: Variable.

Often, targets of deictic reference had to be inferred from the reconstructed discourse because they weren't explicitly mentioned. When they were implied by the discourse, they were coded as signaling endophoric relations. When they were implied by the situation, they were coded as signaling exophoric relations. Demonstratives also occurred as part of nominal expressions (E.g., *Take that by the handle*).

The relative pronoun *that* functions to shift the focus of the utterance (Cornish, 2008) such that the introduced relative clause moves to the head of the sentence. This is similar to Oishi and Fetzer's (2016) treatment of expositives—supplemental information-bearing clauses or discourse-structuring functions that have perlocutionary effects triggering a (re)contextualization of locutionary and illocutionary force. The use of *that* as a relative pronoun is its most common use in seminar discussions, which is interesting because it is not a use accompanied by a pointing gesture external to the speech structure and thus not of the paradigm form of a demonstrative (Kaplan, 1989). It is not a bound variable, not used anaphorically, nor is it a pure indexical in the Kaplanian sense either. If there is any pointing, it is to another part of the utterance itself and hence only directly referent in some metalinguistic way. However, it is of a clearly demonstrative character because of its implicit appeal by the speaker to the listener saying: *here, take* this*, and*

interpret it like this. It poses an especially interesting challenge to theories of reference that seek to associate singular terms with objects in the real world (e.g., Kaplan's true demonstratives). In fact, broadening our scope, it is clear from the thematic analysis that the great majority of uses of *that* had discourse-based referents—when they weren't being used to refer metalinguistically to the situation. And even though the members had no difficulty discussing and coordinating activity using these terms, it is unclear that they shared the same understanding of what the term meant, or referred to, because the instructor's more expert knowledge gives him a different perspective and a different authority than the students. Yet these are not empty or incomplete reference, they are simply abstract syntactic referents. In this context, the term used derived its meaning in relation to the shared discourse. This appears to violate Kaplan's (1989) second principle such that demonstratives are directly referential because there is no stable individual to which to refer beyond the term agreed upon by convention and the meaning employed by a particular speech community (Wittgenstein, 2003). This is more in line with Kripke's (1980) strong, rigid designator thesis that demonstratives refer in all possible worlds even when the individual-object does not exist or when participants hold different knowledge imperfectly.

In this study, *this* and *that* were the most commonly used demonstrative pronouns. Their prevalence is explained by the profusion of deixis for so many other discourse functions, over and above, marking cohesion relations. It appears that the deictic speech acts, situating, orienting, positioning, and coordinating, are very important to the organization of speech in the seminar discourse and the negotiation of meaning and appear to fully account for the set of occurrences of demonstrative pronoun use across all three classes. In the community of practice perspective, we could say that a central function of the seminar discourse would be to orient and position students within the field of qualitative research. In this context, the discourse of qualitative research presents as a highly structured (high number of semantic relations, performed in deixis) and stratified (expertise; insider/outsider) disciplinary practice, with the students mostly adopting a peripheral role. Yet with the promise of becoming insiders and of performing like them.

There was sometimes repetition of deixis for emphasis, but others for hesitation and false starts. An estimate of repetition can be calculated by comparing the actual occurrence of demonstratives to the total frequencies of deictic speech acts. Of course, repetition in deixis can serve a purpose as it can serve for marking emphasis (Hanks, 1992). One common repetition was the locution *that that* but this can be understood deictically as a coordinating and orienting statement, as it often used as a substitute for *that which*.

Those who led the discussion employed more deixis not just because they spoke more frequently, but because they made more connections. It is possible to speak without the use of demonstrative pronouns, and yet we choose them because they are a useful shorthand. Furthermore, demonstrative pronouns are used in deictic acts that invoke cognitive operations. Thus, demonstrative pronouns are not just more efficient nor do they simply provide the glue to discourse, they actively contribute to the co-construction of the discourse through the negotiation of meaning. Indeed, we find that the use of this class of words often increases the conceptual complexity of the utterance and not the opposite.

A point of clarification, it is not the demonstrative pronoun that carries the performative act, because we know very well that these words have placeholder values (Kaplan, 1989). Rather, these are preferred means of explicit signaling and as actions they have a performative value. For instance, they can tell us about what is introduced and also how it is introduced and how it is to be manipulated. Again, there are other ways to formulate utterances, and as seen, there are many instances where it would be simpler and more efficient to formulate the utterance otherwise. Thus, deixis must be doing something more. In the seminar discourse, the four broad functions of deixis are:

1. Situating, co-occurs with a ground;
2. Orienting, co-occurs with a figure;
3. Positioning, co-occurs with a value; and
4. Coordinating, co-occurs with an action.

Below is a cross-section of types of deictic uses of the pronoun *that* taken verbatim from the course transcripts. As can be seen, it is indeed the utterance that is introduced that carries the force of the deictic speech act. These can be classified in more than one category but only because they are presented here out of textual context.

1. Does that make sense? (C)
2. I didn't get that? (O)
3. May I comment on that? (C)
4. Does that answer your question? (O)
5. That's important. (P)
6. I think you made that pretty clear. (P)
7. Is that why? (P)
8. And all that? (O/S)
9. So that was one thing. (O)
10. Is that it? (O/P)
11. That makes sense. (P)
12. That's the answer I was looking for. (O)
13. I didn't understand that. (O)
14. And that we really want to discuss. (P/C)
15. That's kind of what I'm thinking. (P)
16. If you think of it that way. (P)
17. I think that's a great idea. (P)
18. That way. (O/C)
19. Say that again now? (C)
20. Is that appropriate for this class? (P)
21. My problem with that now. . . . (P)
22. Clearly we have to deal with that issue. (P/S)

Figure 1. *A cross-section of types of deictic uses of the pronoun that.*

Below are some of the primary ways that the demonstrative pronouns studied were used within the seminar discourse:

a) *Now* was used nearly always to signal a change in activity; S.

b) *This* was used primarily for emphasis; O.

c) *There* was often used to posit, i.e., to mark an existential signifier; situating.

d) *That* had the most varied uses, see Figure 3 (above), e.g., "I didn't get that." ; S, O, P & C.

e) *These/Those* were often used for cohesion, i.e., marking anaphoric relations; O.

Patterns of Deixis

Situating, orienting, and positioning in the ideational field. In the segment below, Presenter A, a recent graduate of counselling psychology presents her research that employed grounded theory to develop a theory of multicultural awareness among counselling psychologists. Her presentation focused on her methodology and insights she gained from the process. Her presentation has a heavy conceptual load, which is apparent in her frequent use of deictic expressions to situate, orient, and position her discussion in the field. Demonstrative pronouns are highlighted in red and blue. (Blue words represent coordinating deictic speech acts).

Table 15
Situating, Orienting, and Positioning in the Ideational Field

Topic: Research questions and preliminary definitions for study

Activity: Presentation of a ground theory research study

Video transcription tape: 03-02-05 1 of 3

Time	Transcript	Turn	Index	Deixis

6:32- 8:07	Presenter A: And so the title of my dissertation was "A qualitative study into the development of multicultural awareness of white counsellors." And I was interested in this being a counselling psychology student, because awareness was something that we didn't know a whole lot about. When we train counsellors to be competent multiculturally we know a lot about how to train them to develop knowledge about multiculturalism, and skills about multiculturalism but we don't know how to affect their attitude, how to help them gain awareness and be open to different cultures and different people. And so, that was why we made awareness the focus and we also did not have a whole lot of information from the practitioner themselves, the little we did know about awareness was from the supervisor's perspective or from the trainer's perspective. We hadn't gone out there and talked to people themselves and say "hey how'd you do it? How did you get from here to there?" And then being a white clinician myself and having more multicultural, situations, I myself was living challenges and pent up challenges that I wanted to understand better and also white clinicians are said to come about multicultural	C(El)	And I was interested in this //	O
			that was why we made awareness the focus //	O
			We hadn't gone out there and talked to people themselves //	S
			How did you get from here to there? //	C
			And then being a white clinician myself //	S

	awareness more difficultly than, someone who was from say a minority background because it's closer to home for somebody who is from a minority background than say for a white clinician, white clinicians are, it's easier to overlook matters in culture because white is such a status quo that it became interesting for me to find out well if it is harder for white people then how do they do it? Being a white clinician myself I wanted to know how to do it and so it became the topic of my thesis.		then how do they do it //	S
8:08- 8:29	Presenter A: My main research questions were "How do white multiculturally competent counsellors perceive and describe their multicultural awareness development" and I also asked about the emotional climate during this development, it is said to be very conflict related, and so if it did exist for these clinicians that I was interviewing, that the tension did exist, how did they experience it and how did they handle it. I was very curious about that.	C(El)	I also asked about the emotional climate during this development //	C
			if it did exist for these clinicians //	C
			I was very curious about that. //	P
8:31-		C(El)	there is some debate on	O

11:18	Presenter A: Just for the sake of some definitions there is some debate on how to define multicultural, some believe that it should be a race based definition so that the societal hegemony which is the differences of status that are given to people of colour versus people who are not of colour, become clear in the mind and seen and then there is some people who define multiculturalism as inclusive meaning it can include other things other than race such as social class, ability versus disability. . . different body sizes, sexual orientations etc. And so there's quite a lot of debate within multicultural literature about how do we define it, and for the purpose of this research study I defined it inclusively. I looked at multiculturalism to be beyond race. . . but including race as well but there's a primary thing that my participants spoke a lot about race but they also spoke about sexual orientation, they also spoke about social class, things like that ok. Multicultural knowledge is understanding the impact of the socio-political system on different cultural roots and also, to understand how culture affects things like	how to define multiculturalism //	
		then there is some people who define multiculturalism as inclusive //	S/S
		And so there's quite a lot of debate //	O
		for the purpose of this research study //	O
		there's a primary thing that my participants spoke a lot about, //	O

personality formation, vocational choices, help seeking behaviors among clients, appropriate versus inappropriate interventions that we might use on clients, so having knowledge about all those things is what constitutes multicultural knowledge. Skills are being able to possess a wide range of verbal and non-verbal responses that are culturally appropriate for different cultures, for different groups, kinds of groups, and also the willingness to seek consultation when needed. Multicultural awareness is being aware of one's own cultural values and how it impacts the work that we do as counselling psychologists. This included efforts that the counsellor takes to understand themselves as a person but also as a counsellor within a broad range of. . . the context of culture. Culture is relatively knowledge is relatively new to the field of psychology; it has only been in the last 15-20 years that we have even started talking about it and writing about it within psychology. Our discipline has developed and endorsed theories that are primarily based on white, middle class male heterosexual perspectives of normality. And because of this it has been unrepresentative and often harmful for different cultural groups and this has led to things that I listed

things like that ok //	O
so having knowledge about all those things //	S
This included efforts that the counsellor takes //	O
And because of this [. . . .] and this has led to things	P
I listed here .. //	S

here like misdiagnosis and errors in treatment, decreased empathy on behalf of the counsellor for the client, and also the underutilization and early termination on behalf of minority clientele.

| 11:18-12:12 | Presenter A: And so increasingly theorists are urging that we make multicultural competence an ethical mandate within the discipline. And as this dialogue has been growing we've been asking the question: If we need to have it how do we develop it? And the most widely, researched means of developing multicultural competence up til now has been course work. We have a captive audience when we have a class right so let's train them in multicultural competence and let's give them pre and post testing to see how they do. This work has been very strong and it has taught us a lot about how students and trainees incorporate multicultural knowledge and multicultural skills however, it has largely ignored the component of awareness, it has not focused its attention on how to affect the attitude of the counsellor so much as the knowledge and the skills. And so this is one of the critiques on course work. | C(El) (Ev) | And as this dialogue has been growing //

 This work has been very strong //

 And so this is one of the critiques on course work // | O

 P

 O |

12:13- 13:43	Presenter A: Constantine and Croteau, Constantine is in New York and Croteau is in Michigan, both of them have separately done quite a few research studies on empathy, and getting counsellor trainees to process their own experiences of where they have, may have felt oppression in their lives, and to understand that pain and relate it to the pain of others, and have found some positive results in this area in terms of their multicultural competence overall as well, so developing the counsellors own empathy, seems to be related to multicultural competence. And then Delos and Taylor who are researchers in the. . . I'm suddenly losing the area that they're in, transformative learning, they're very widely known in the area of transformative learning talked about early critical experiences in which one was exposed to seeing how the world is not the same kind of place for some people as it is for others. Just to give you an example from my own research one woman spoke about growing up in St Laurent where there was lots of different cultures, lots of different languages, and having grown up among that area and seeing that some of her friends	C(El)(Ev)	and to understand that pain	O
			// and have found some positive results in this area	S
			// And then Delos and Taylor	S
			// where there was lots of different cultures	S
			// having grown up among that area	S
			// because of that	O
			// by these transformati	O

	didn't necessarily have the same opportunities as she had because of social class she very early on became aware of multiculturalism because of that so those early critical experiences by these transformative learning theorists, have thought to be related to multicultural competence and this was supported in my research as well.	ve learning theorists	
		// this was supported in my research as well //	P
13:45-

14:34 | Presenter A: Awareness development is conflictual, it's painful to explore where we have been oppressed where we've been marginalized in our life it's hard to look at that but it's even harder to look at where we may have marginalized other people. Whether we've known about it or not known about it to take stock of those is very difficult and particularly for counsellors because counsellors view themselves as helpful people, we're fair individuals we're nice people and then all of a sudden we have to look at when we haven't been so nice or when we have hurt other people, it's very difficult to do. And so multicultural awareness development, if it requires that we take a painful glance at where we have been hurt and where we have hurt others then that conflict is very. . . something we need to talk | C(El)(Ev) | it's hard to look at that // | P |
			to take stock of those is very difficult //	P
			then all of a sudden //	S
			then that conflict is very. . . . something we need to talk about //	S/O

	about how are we are going to negotiate with counsellor trainees.			

14:36- 15:15	Presenter A: And the last thing I want to say about that is that it's impossible to have been raised and socialized in this community in this society not having internalized stereotypes about different groups, it's impossible that we be rid of them and so no matter who you are as a counselling psychologist we have internalized some of these ideas, and so you know to take stock of those and to realize that they're there and how they influence some of our thoughts about what we think is normal versus not normal behaviour is very difficult to do. And as such awareness may be the most crucial and yet the most difficult part of multicultural competency development and it's the part we know the least how to foster.	C(El)	the last thing I want to say about that //	P
			socialized in this community	S
			in this society //	S
			we have internalized some of these ideas //	O
			so you know to take stock of those //	O
			to realize that they're there //	O

In the subsequent discussion, Presenter A performs a series of situating acts that ground her discussion and demonstrate her command of her field of practice.

Table 16
Situating in the Ideational Field

Topic: Research questions and preliminary definitions for study

Activity: Presentation of a ground theory research study

Video transcription tape: 03-02-05 1 of 3

Time	Transcript	Turn	Index	Deixis
6:21	Presenter A: and then these are theoretical contributions which I'm thinking we should address after questions. . . this is very counselling psychology focused (Instructor: Okay)	C(El)	this is very counselling psychology focused //	S
			these are theoretical contributions which I'm thinking we should address //	S
			and then	S

Defining a problem. In this class meeting, the students are invited to discuss their research questions. This student here is discussing her difficulty defining the problematic that her research topic is meant to address. She hopes to study the subjective experience of dieting or losing weight. What follows is an interesting exchange collectively defining what the problem is (weight gain), and which model to use.

Table 17
Defining a Problem

Topic: Subjective experience of weight gain

Activity: Discussing formulation of problem

Video transcription tape: 17-02-05 1 of 3

Time	Transcript	Turn	Index	Deixis
	Student: My problem with that now is what is it going to mean that they are doing something about their weight? And who am I looking at. . . So the viewpoint is something that I'm grappling with. Who the participants will be? Is it somebody that has done something all their life or is an obese person and how would that be defined and their doing something about their weight or one day. . . I have a lot of questions. . .	El(C)	My problem with that now //	O/S
			how would that be defined //	S
40.00	Student: The phenomenon itself. . . is there. . . . It encompasses everything there, it just that I have to operationalize what it means. . .	(C)	everything is there //	O
	Instructor: Why do you feel that's necessary? What would within our tradition are you tell you that's it's necessary, you're working within. . .	Q	Why do you feel that's necessary? //	P
	Student: To define the phenomenon that I'm talking about so what is the phenomenon that I'm talking about. . . One day one month. . .	R		

41.00	Instructor: Mm-hm Are there any measures out there that help you sort of look at boundaries of people that are in the territory? So we might consider a lot of variability. . . maybe we want that variability. . . says there is a questionnaire, people that have weight problem they go to a counselor. . . Are there, alcoholics anonymous, there is kind of a definition. . . . The idea that everyday of my life, this isn't something that going to be pass. So do we have something like that for women that. . . they have a weight problem and that they have a history. . . . Do we have any measures of any kind?	El(Q)	Are there any measures out there //	S
			we want that variability //	P
			says there is a questionnaire //	O
			Are there, alcoholics anonymous, there is kind of a definition //	S
			this isn't something that going to be pass. //	P
			something like that //	O

42.35	Student: Well, there's measures of the trans-theoretical model that I brought before is that when you are into action that means that you have already undertaken a behavioral change and you have maintained. . . whereas when you are preparing to do something you may have tried the behavior once but you've not sustained the behavior	R	there's measures of the trans-theoretical model //	O
			that means that you have already undertaken a behavioral change //	O
	However the more I read about body image and patriarchal issues, and how you define (inaudible) that becomes more political as well. . .	C	that becomes more political as well //	S
43.00	Instructor: Have you looked at the model that it's a very general model they use in counseling that goes from the pre-contemplation to contemplation stage to finally making a decision. . .	Q	that it's a very general model //	O
	Student: Yeah, . . . trans-theoretical model	R		
	Student: Okay. And it only defines behavioral changes no affective changes no, it's only after. . . a behavior is done	C		

	Well change is the whole gamut from pre. . . to you don't have the problem anymore. . . questionnaires that are meant to evaluate what stage you're in	R		
	Instructor: Do they evaluate the ones that you're looking at?	Q		
	Student: Yeah?	R		
	Instructor: Yeah, okay good.	R		
44.30	Instructor: That does give you a kind of, demarcation, . . . So there must be quite a few people in the management	C	That does give you a kind of , demarcation, //	S
			So there must be quite a few people //	S
	Instructor: And there's also self-perception. . . you'll ask people in North America women that are 5'5" and 125 pounds. . .	C	And there's also self-perception //	S
45.45	Instructor: Suppose though you could code the fact that they have this perception and you could place them along this continuum and you could also gather factual information that describes the extent of this	El	they have this perception //	O
			Place them along this continuum //	S

	problem. . . so you could look at it with respect to a norm (Student: BMI.) Yeah. . .		describes the extent of this problem //	O
47.00	Instructor: I'm stretching myself because this is an area that I know nothing about. . . but what I'm trying to say is that we have a set of figures and facts, we have a norm about what to expect for healthiness	El	because this is an area //	S
47.40	Instructor: So you could characterize these people against a norm as well. . . So you got their perceptions and you could code on actual norm . . . . which characterizes the cases and there may be other clinical issues (Student: yeah) that shows up as well. . .	El	these people against a norm as well // cases and there may be other clinical issues //	C S
48.20	Instructor: Um so I can see a 2-dimensional coding system. . . which gives you comparison and contrast	C		
48.39	Instructor: Now stopping there, . . . where are you going to get your sample? And where's your sample coming from Are you part of the clinic. . . .	Q	Now stopping there //	S

Demonstrating. The tables below present three instances where the presenter is responding to questions from the group after having completed a dry-run of their thesis

presentation. The purpose of the question period is two-fold: to help clarify the subject-matter for the audience; and to provide feedback to the presenter so that she may improve on her presentation.

The first three tables (Tables 18 to 20) show students requesting clarifications from the presenter to deepen their understanding of the presentation, and, quite likely, to give her some critical feedback so she may fine-tune her presentation for her upcoming defense. In Table 18, the class discusses the definition of learning used by Presenter B in her thesis. Table 19 presents a discussion the meaning of motivated bias. Table 20 presents an exchange concerning theory selection in Presenter B's narrative thesis work. Note the prevalence of situating and positioning statements in these conceptual clarifications that are offered. These signal a defensive stance that includes making claims and taking position on a contested topic.

Table 21 shows the instructor requesting information for the edification of the class. He induces Presenter B to make explicit the relationship between her choices of theory and her methodology as a manner of responding to questions about theory selection. It is an instructional move to highlight an important aspect for the class, one that had not been explicitly touched upon up to that point. Table 22 shows how disagreement is contested in deixis. The instructor and Presenter B have an exchange about their differences in conceptions about the expression "going native". Note the similarities between this open contestation and the conceptual clarification. These require appeals to situating and positioning moves.

Table 18
Discussion for Conceptual Clarification I

Topic: What is learning?

Activity: Thesis dry-run and question period

Video transcription tape: 10-02-05 2 of 3

Time	Transcript	Turn	Index	Deixis

1.41	Student: I don't know if this is a silly question or not but would it be. . . (Presenter B: No silly questions.)	Q	I don't know if this is a silly question //	P
	Student: Well we'll see. Would it have been possible to not find learning in the way that you've defined it and the way the evidence. . . is it a possibility?			
	Presenter B: Well I had no operational input from where I was, I was reading the literature, I was reading studies written by teachers that were the products of collaborative action research where you have an academic and a teacher working together. Academics writing with their own research on practice, teachers writing about their own practice but not in collaboration with anyone else. And for me, I lot of it just didn't constitute research, it was just a report, so I had to find a definition of learning that I could say there's evidence of this thing. Mezirow doesn't say there has to be change there has to be reintegration in which this person becomes comfortable, this equilibrium goes away and actually I discussed this with my team member, Professor R, and she said "Well why do you	R(El)	I could say there's evidence	S
			of this thing.	O
			Mezirow doesn't say there has to be change	S
			there has to be reintegration	S
			in which this person becomes comfortable,	O
			this equilibrium goes away and actually	O
			I discussed this with my team member, //	O

have to see evidence of change? There can be cognitive change without something that people see". And I said because I want academics to see that teachers are changing their practice for the better. And I want principals to see that teachers are changing their practice for the better. Teachers have to be accountable to academics or to the academic community because the academic community I believe should be in schools doing research and they certainly have to be accountable to the administration. So that was one thing. So maybe I was skewing what I was doing, with my definition, but that was the reason why I did it

There can be cognitive change //	P
So that was one thing //	O
that was the reason why I did it //	P

3:27   Student: Would you be able to say to [P2's co-researcher] "I don't see if you've learned?"

Q(El)/R

Presenter B: Would I be able to say to [P2's co-researcher] "I don't see that you've learned?"

Student: I don't think you've learned, like I don't see. . . . like would you, as her friend, would you have been able to say. . .

3:43	Presenter B: Well I was able to say that some of the things that she said were learning didn't constitute learning. . . We did have those discussions in the member checks. Now she was talking about how she was taking social science courses for her undergraduate degree. When we did our teacher training it was a three-year program because they were desperate for teachers, and then so she went back to school, and she was taking sociology and history. And she didn't know what the professor was talking about, she thought validity had something to do with getting her parking ticket stamped and she thought a lit review was something that you did after you've read a novel and she was talking about this as being evidence of learning and I said "no that's not evidence of learning, if you had said that you had gone beyond thinking that a lit review are something you do once you've read a novel, or validity is something different than having your parking ticket stamped." So we did have those conversations, but I wasn't looking for non-evidence of learning in here, I was looking for evidence of learning. I didn't bring out the parts	JR(El)	We did have those discussions //	O
			and then so she went back to school //	S
			She was talking about this as being evidence of learning //	O
			no that's not evidence of learning //	P
			So we did have those conversations //	O
			I wasn't looking for non-evidence of learning in here //	S
			I didn't bring out the parts where there weren't evidence of learning //	S

where there weren't evidence of learning. I did use that verbatim chunk though, that parking ticket, to show that that was different than what she was doing when she was working with professor Kingsley when creating this inward classroom.		I did use that verbatim chunk , that parking ticket //	O
		to show that that was different //	P
		when creating this inward classroom. //	O
5:04	Presenter B: Does that answer your question? It's not a silly question, I think it's an excellent question Student: I think so. . . . I think it would be a difficult situation to actually be in if you couldn't see her growing Presenter B: Well I would have said that. If that had been the conclusion at the end of my study that would have been my conclusion. But then I would have had to have said well now what am I going to do?	JQ/SR (C)/JE l	does that answer your question? //	C
			Well I would have said that //	P
			If that had been the conclusion at the end of my study //	P
			that would have been my conclusion //	P
			But then I would have had to have said //	S

	well now what			S
	am I going to do?			
	//			

Table 19
Discussion for Conceptual Clarification II

Topic: Motivated bias

Activity: Thesis dry-run and question period

Video transcription tape: 10-02-05 2 of 3

Time	Transcript	Turn	Index	Deixis
10.20	Student: One question about the validity, you mention the motivated bias right and see like in this case for me I think you choose [P2's co-researcher] like for purposeful sampling. Presenter B: Sorry what? Student: The purposeful sampling. Presenter B: The purposeful sampling. Student: I'm wondering is there like the motivated bias is to all of these kind of samples?	Q/R/ El/R/ El	I'm wondering is there like the motivated bias // is to all of these kind of samples? //	P O
10.48	Presenter B: Umm. . . well, let me think. I guess that may be that may be true even	R	that may be true //	P

	though for my masters monograph I used purposeful sampling and you know it was a. . . yeah, there was a motivated bias there too, I guess maybe you could generalize and say that motivated bias could be a factor.		there was a motivated bias there too //	S
11.09	Student: But if you can get information from these participants, I don't think it should be biased.	C	from these participants //	O
11.19	Presenter B: Well again that other study was driven by politics as well. . . just I don't know.	C	that other study was driven by politics //	O
11.36	Instructor: If I understand your question. . .	El		
11.39	Presenter B: I think maybe it's a trade-off [Student]. You know if I can be up front and say these are my politics, these are my biases but I can try to keep them in check and I can make things public, I can expose as much of my method, and [P2's co-researcher]'s voice can be out there as much as it is. Then that's a trade off, and the trade-off is for getting it out there.	R(El)	these are my politics, //	P
			these are my biases //	P
			[P2's co-researcher]'s voice can be out there	S

	And I think that it's important that this story is told.		as much as it is. //
			Then that's a trade off //	O
			for getting it out there //	S
			it's important that this story is told //	P
12.12	Instructor: You did make it explicit why you chose her. You heard that part right? Student: Yes. Instructor: Ok.	El/C	You heard that part right? //	C
12.24	Presenter B: Our experiences were similar, we started off similar, she was registered as a student at Bishops at that point and there was a graduate student from McGill who was then on faculty at Bishops so she called me and said "this is a course that you should come and audit."	El	at Bishop's at that point //	O
			and there was a graduate student	S

			who was then on faculty //	S
			this is a course that you should come and audit //	O
13:30	Student: For this I don't think it's a problem because for my only idea for why is it biased is because if you say this is biased, all the motivated biases will show up in purposeful sampling. Because when you have purposeful sampling you always have bias because that's where you want to get your information from. So… I don't know if this is always the point, having to always mention in your validity part, cause… it's my first time to see it here in this study to mention motivated bias.	C(El)	for this I don't think it's a problem //	P
			if you say this is biased //	C
			because that's where you want to get your information //	O
			if this is always the point //	O

Time	Transcript	Turn	Index	Deixis
			it's my first time to see it here in this study //	S
13.20	Presenter B: I don't want to leave myself open to criticism of bias. I want to be upfront that there is motivated bias. I'm defending claims to validity, and if I leave it out. . . then I can be attacked. If I put it in. . . I can still be attacked but at least I put it on the table.	C	I want to be upfront that there is motivated bias //	P
			then I can be attacked. //	P
13.38	Student: Mhm. Mhm. That makes sense.	C	that makes sense //	P

Table 20
Discussion for Conceptual Clarification III

Topic: Choosing your theories

Activity: Thesis dry-run and question period

Video transcription tape: 10-02-05 2 of 3

Time	Transcript	Turn	Index	Deixis
16.53	Student: One more question, sorry: How did you choose your theories?	CC		

17.01	Presenter B: I chose theories that help me explain my own learning, I was trying to understand my own learning within self study. So I chose theories that allowed me to understand the learning that I was doing.	R		
17.14	Student: Ok. So then you used those theories to explain [P2's co-researcher]'s like. . . ?	Q/R/ R	So then you used	S
	Presenter B: Yep		those theories to explain [P2's co-researcher]'s like..? //	O
	Student: Ok. Thank you.			
17.25	Student: What if different theories emerged by studying [P2's co-researcher]?	Q		
	Presenter B: I'm sure I could have explained [P2's co-researcher] using Knowles' theory of adult development, I'm sure there are other theories that would apply. It was a question of consistency, theoretical validity, I was trying to be able to make that claim as well. And so it didn't make sense to use Mezirow to explain me or to use Knowles for example to explain [P2's co-researcher]. . .	R(El)	I'm sure there are other theories //	P
			I was trying to be able to make that claim as well. //	C

17.54	Student: So you just wanted one lens. . . .?	Q(El)		
17.57	Presenter B: Well it's multiple lenses I think, I'm looking at adult narrative inquiry, teacher research in self-study, then within the adult life I went a little bit into cognition and problem solving, skimmed a theory about problem solving.	R(El)	then within the adult life I went a little bit into cognition and problem solving //	S
	Student: But I mean in terms of theory Presenter B: I see them all coming together in self-study in my own self-study. All of these theories came together. Student: Well yeah the self-study but then in [P2's co-researcher]. . . Presenter B: Well I took the theoretical framework that emerged as I looked at my own self-study and tried to find a formal theoretical perspective to fit it into and then I chose to use the same theoretical perspective framework for [P2's co-researcher]'s story. For consistency.		All of these theories came together. // and then I chose to use the same theoretical perspective framework //	O S
18.42	Student: When you were analyzing [P2's co-researcher]'s interviews and you used your model, is it possible to miss the information?	Q		

18.54	Presenter B: Oh there's lots of information there that I haven't touched on. I could mine that data over and over and over again.	R/ C/ El	Oh there's lots of information there that I haven't touched on. //	S
	Student: Oh ok.			
	Presenter B: I did the open coding, I followed Strauss and I used the same procedure for each data set and I used the same deductive coding scheme based on Mezirow for the deductive analyses. . . For theoretical consistency.		I could mine that data over and over and over //	O
	Student: Oh ok. Just for the purpose of the (?)		I'm sure there are lots of other perspectives I could have used to look at the data //	P
	Presenter B: I'm sure there are lots of other perspectives I could have used to look at the data.			
	Student: Thanks.			
19:00	Presenter B (to Instructor): For the sake of linearity, validity, consistency. . .	R(Dir)		

Table 21
Demonstration for Instructional Clarification

Topic: Theory informing methodology

Activity: Thesis dry-run and question period

Video transcription tape: 10-02-05 2 of 3

Time	Transcript	Turn	Index	Deixis
21.50	Instructor: Can I ask you a question?	Q/R/ Q(El)	You've done this study now //	S
	Presenter B: Certainly.			
	Instructor: You've done this study now and, it's taken an extended period of time. It's ended up with a very rich description of yourself as well as of [P2's co-researcher], two professionals, over a fairly long period of time. In [P2's co-researcher]'s case, it's her life history. How do you decide. . . how to look at learning? We've sort of gone over the notion that yeah learning is definitely going to be there right so you didn't expect to not see learning so what have you learned from that, well we've said you're describing in a body of different ways so you're helping somebody more richly understand what it means when teachers learn, how they learn. But how did you decide? You know, you could have stuck strict to the narrative, just the story, and done a contrast with this story but		learning is definitely going to be there right //	P
			so what have you learned from that //	O
			There are things that were reported here that were very, you know, moving. //	S
			somebody at this late part of their career //	O
			who goes through this kind of emotional upheaval, //	O

you chose to use other kinds of windows to look at learning. It's obviously very complex, somebody's life and what they're learning, it's very complex. There are things that were reported here that were very, you know, moving. Very moving, somebody at this late part of their career who goes through this kind of emotional upheaval, that's very moving, to me that's a real estimate of learning that you can come up with that at that point in your life, that you're willing to cope still through some sort of goal. So that's a narrative part that to me was very powerful in terms of thinking about learning. Some of the other ways you looked at learning were not, you used a variety of them, why did you decide, I mean how did you choose?		that's very moving, to me //	P
		that's a real estimate of learning //	P
		that you can come up with that at that point in your life, //	O
		So that's a narrative part //	O
		that to me was very powerful //	P
24.00	Presenter B: The various perspectives? Instructor: Mhm. Presenter B: Because they resonated with me when I was looking at my (?) and when I was writing out my own	JQ/ MR/ JR(El)	that there are other ways, //	S
		but you know those didn't fit with me //	P

self-study, that there are other ways, you know I used Knowles as an example, but you know those didn't fit with me, I didn't feel like I was developing, I went through this huge transformation that Mezirow describes at the epoch of learning so that worked for me, and then I tried to understand how that worked and then I saw something about schema theory and so that resonated for me. Problem solving is related to my classroom all the time when I'm writing up so that one made sense to me too, and because it was a narrative, narrative was an obvious one. And why so many different ones. . .	I went through this huge transformation // C So that worked for me // P and then I tried to understand how that worked // S so that resonated for me // P so that one made sense to me too // P

24.42	Instructor: Why a card-sort?	MQ(Dir)
24.46	Presenter B: Because I wanted to get back to [P2's co-researcher]'s schema, I wanted to understand what was going on in her head in terms of her conceptualization of herself as a teacher or a researcher and for me a concept map is the closest I can get short of an MRI to knowing how she's wired in terms of her conceptualization of herself.	JR(El)

25.05	Instructor: So your theories about learning then led you to invent or take tools that you felt would be harmonious with or get at—represent—various aspects of those things.	El	So your theories about learning then led you to invent or take tools //	C
			various aspects of those things. //	O
	Presenter B: Mhm, and also to provide access to people working from various perspectives, like somebody working for the adult learning period perspective can learn something from [P2's co-researcher]'s story, someone working in a narrative inquiry frame can learn something from [P2's co-researcher]'s story, people encouraging teacher to do actual research can learn something from [P2's co-researcher]'s story.	El		
25.44	Instructor: So your sense of audience then might have influenced that to some degree?	Q/ R/ Q	So your sense of audience then might have influenced that to some degree //	C
	Presenter B: Absolutely, oh absolutely. Yeah it's the whole bridges thing: working the river, I'm working both sides of the river all the time.		That's what she's talking about //	O

Instructor: Ah yeah. Have any of you read Mark Twain? On the river? That's what she's talking about, working both sides of the river, from Instructor Twain.

26.11	Instructor: Just for the edification of the class, that's the answer I was looking for. I was looking for her to first say what theories she knew as meaningful in terms of learning and then she chose tools, instruments, to focus on those ways of representing learning, as ways of assessing or measuring learning in this context. I was looking for her to be able to respond at that level, and not in the opposite direction. And by the way at these kinds of exams, at this point, when she goes into this, I tell all my students, I'll tell you this I said "this is a conversation with colleagues, when you have arrived at this point you are now in a potential conversation with colleagues" and so in these conversations you should try to hear what they are saying and if you don't understand them you should ask them again, can you phrase that another	C(El)	that's the answer I was looking for. //	P
			then she chose tools, instruments, //	S
			in this context. //	O
			I was looking for her to be able to respond at that level //	P
			And by the way at these kinds of exams, at this point, //	S
			I'll tell you this I said //	C
			this is a conversation with colleagues, //	S

way? If they ask you something that you really think it's too off the point you are trying to make you should tell them that. And give them a chance to ask you another question. And you should try to be able to monitor: "Are you finished speaking? Awesome because now I can speak" or vice versa you know. It's a chance to just celebrate something that you spent three, four years on and to begin this intellectual conversation in a very formal way. You've been doing it all along anyway, but this is the time to formalize it. This is sort of the passing if you will, gotta pass somewhere. But you know I'm still looking for things because there are things I believe in. There are assumptions I make because of what I think research is, so I'm looking for some reification that I'm not out there someplace where I shouldn't be you know? That I should be here, we should make decisions that make sense and that we're talking the same language. So when I said I'm looking for an answer like this, what I mean is: that

when you have arrived at this point you are now in a potential conversation with colleagues //	S
you should tell them that. //	P
and to begin this intellectual conversation in a very formal way. //	O
but this is the time to formalize it. //	O
This is sort of the passing if you will //	P
I'm not out there someplace where I shouldn't be you know? //	S
That I should be here //	P

makes sense to me in the conversation, what she said.	So when I said I'm looking for an answer like this, //	O
	what I mean is: that makes sense to me in the conversation, what she said.	P
	"When she goes into this" //	

Table 22
Deixis in Disagreement

Topic: "Going native"

Activity: Thesis dry-run and question period

Video transcription tape: 10-02-05 2 of 3

Time	Transcript	Turn	Index	Deixis
7.20	Presenter B: [Instructor], would an example be the sociological studies the ethnographic studies where the researcher went native and shared the reality. . . and became a participant in the community so it's a reality that is shared. . . Wouldn't that	R	Wouldn't that be an example? //	O

	be an example? It's not black and white. (Instructor: right) and it's not completely subjective (Instructor: right).			
8.10	Instructor: Um. (pause) That example for me doesn't quite work. The reason for me is that once I've gone native, I've lost my role as researcher completely and if I'm interpreting things I no longer see my audience anymore, because my audience is my community that I'm a part of. So the audience community that I was once part of I am no longer a part of anymore.	Ev(El)	That example for me doesn't quite work. //	P
9.00	Presenter B: But you might go back to it to represent.	C		
	Instructor: Oh no if you go native you don't go back.	Ev(El)		
	Presenter B: No I mean living in a community and then going back to report on the community.	C	then going back //	S
	Instructor: But she didn't go native.	C		
9.30	Presenter B: In principle no.	C		
	Instructor: I mean there have actually been I've read —Presenter B: I mean people	C	there have actually	S

disappearing into the jungle that's not what I meant—it's the truth that does happen. (Student: really?) Presenter B: that's not what I meant, I was thinking about people that moved into institutions. . . and at least in one case they wouldn't let him out, they wouldn't believe that he was a researcher.

been I've read //

that's not what I meant //   P

Instructor: Well the way you're thinking about it then yeah I would accept that because the idea is that you get close enough that you really are accepted as part of that community but you are still being able to record those patterns that the native person can tell you about them because they're part of them . . . . at the same time you come close enough to have had internalized another culture deeply that would be an example here of post-positivism in the sense that, what? go ahead.

C(El)

Well the way you're thinking about it then yeah I would accept that //   C

as part of that community   O

being able to record those patterns //   O

the native person can tell you about them because   S

	they're part of them //
	that would S be an example here //
Presenter B: in the sense that it's an ontological shift— C	
Instructor: does that example speak to you? Q	

Abstract vs. Physical Deixis. In the interactional environment of the seminar the primary mode of deictic reference is in the abstract ideational field. Here is a rare passage wherein the group collectively orients to a physical artifact, here a table from Creswell (1998). It is notable that despite the use of a physical artefact, the primary mode of deixis is still abstract because the chart being discussed is itself a semiotic object summarizing very complex notions in very little space—charts that require a great deal of conceptual or *semantic unpacking* (Martin, 2013).

In this one example of physical reference, the object in question, a schematic propositional representation, was presented both as a piece of paper and a PowerPoint presentation. But it is not a problem of reference because the collective object was the *schematic* representation that was inscribed in two places. The paper and the screen, in and of themselves, are not the objects of reference. They are inscriptions—signs—that designate the schematic representation. The content of which is held intersubjectively by the group, albeit imperfectly.

Table 23 and Table 24 below contrast the deixis in the physical and the ideational field (Bühler, 2011). Table 23 demonstrates quite explicitly how deixis can operate completely in the ideational field, as in a discussion of post-modernism, which takes place almost wholly in the ideational field. Table 24 shows physical deixis to a shared classroom artifact, in this instance, a table summarizing different ideological perspectives in the philosophy of science. Note that, although the discussion is ostensibly about the table, even here, the discussion occurs primarily in the ideational field, such that the participants are so much discussing the table as what the table means.

Table 23
Abstract vs Physical Deixis I

Topic: Post-modernism

Activity: Class discussion of shared artifact

Video transcription tape: 10-02-05 3 of 3

Time	Transcript	Turn	Index	Deixis
3.20	Instructor: If you move it now, post-modernism, we're now saying 'there's not one reality' we're saying it could be a variety of different things, it could be masked, there could be that there is no such thing as one reality, there could are multiple realities, and if we get to chaos theory, we're not even beyond that a little bit, okay? Which gets more complicated, um. And what are we saying about epistemologies there? In	C(El)	we're now saying 'there's not one reality' // there could be that there is no such thing as one reality //	S P

terms if we're post-positivist what are we saying about epistemology? (inaudible) it's almost there right. It's not completely interpretive (inaudible) it's not completely interpretive in the sense that we can share meanings but we can never completely share the same understanding. . . . . That's pushed over even further to constructivism	there could are multiple realities //	P
	we're not even beyond that a little bit //	O
	And what are we saying about epistemolog ies there? //	S
	it's almost there right //	S
	That's pushed over even further to constructivi sm //	O

Table 24
Abstract vs Physical Deixis II

Topic: Post-modernism

Activity: Class discussion of shared artifact

Video transcription segment: 10-02-05 3 of 3

Time	Transcript	Turn	Index	Deixis
	Instructor: What I'm getting at, if you look at the top here, what he's calling ideological perspective. . . is a combination of ontology epistemology and in our case methodology if we look at ourselves as research and this top category sort of describes the boundaries of how we would go about building knowledge. . . while at the same time preserving a community. . . the ideological comes in and it must be there because it's what moves you from one stance to the next. . . So critical theory, if you hit the ontology of it social political economic, the epistemology, value-mediated ideology right? Value-mediated. . . It's motivated in terms of political issues, issues of power, we are biased. We may be dealing with minority issues. . . . In a democracy. . . if that's the case why are there iniquities. . . .	C(El)	if you look at the top here //	S
			this top category sort //	O
			it must be there //	S
			if that's the case	O
			why are there iniquities //	S
	If you move across that to constructivism, what's happened here is the philosophy has taken a strong hold. Notice there is no strong	Q	across that to constructivis m //	O

social or political dimension, is there an ideological dimension?		what's happened here //	S
		Notice there is no strong social or political dimension //	S
		Is there an ideological dimension //	S
Student: . . . there is a political agenda, or a social agenda—	R	There is a political agenda //	S
15.00 Instructor: There is a difference there. Not a clear line, a gray line, but there is a difference. . . For example, if I'm trying to explain learning from a Vygotskian, who was writing from a clear Marxist period, . . . It is a different way of looking at it than say an intelligence perspective, say about individual differences,	Ev(El)	There is a difference there. Not a clear line, a gray line, but there is a difference //	S
Instructor: It's incidental that Vygotsky was in Russia. . . So when you talk about learning form a social constructivist position what	C(El)	That's what a social constructivist	S

you're talking about is that we can learn from social interaction better than a really well prepared lecture or from a book. I mean the hierarchical presentation of the material in a book is much better than a dialogue, but then how can you say that a dialogue is better… That's what a social constructivist wants to look at. … If you can say as an individual tonight 'yes I have gotten a new insight that never would have happened if I was reading alone' then maybe you can say 'there is something to this social constructivism' because the other side of it is radical constructivism which looks at that not being a possibility at all that we can never ever go beyond our own selves as individuals and being able to process information. I can never view or know beyond my own experience kay?

wants to look at //	
alone' then maybe you can say	S
there is something to this social constructivis m	P
which looks at that not being a possibility at all //	O

Now okay so social constructivism has that social, it's talks on collaboration, … the flavor of the language is more um emotional   C

so social constructivis m has that social //	S

Student: Are you saying that social constructivism is not necessarily activism in the sense? (Instructor nods)   Q

Instructor: That's what I'm saying but I am also acknowledging there is that clan association. . . but it is quite different than dealing with issues of power directly. . . (Student: Thanks that's helpful.)	R(El)	that's what I'm saying //	P
		there is that clan association //	S
		that's helpful	P

Describing Scenarios. Describing hypothetical, counterfactual, prospective, and imagined scenarios relies heavily on the use of verbal deixis to make apparent the connections between ideas and in ordering them. The segments below take place nearly completely in the ideational field (only one deictic statement refers to the physical field).

In the following segment (Table 25), the instructor brings it back to the student's original question about an ethnographic study (rerouting/tying up loose ends). He is also illustrating the process of both approaches, probably with the intent of stressing how much more feasible the case study is (giving advice through extensive illustration). In Table 26 and Table 27, we have two examples of deixis deployed in the conceptual walk-through of a procedure. Table 28 presents an example of giving instructions. Note the prevalence of coordinating (and orienting) statements as features of activity-oriented speech for the maintenance of shared understanding of the collective activity.

Table 25
Describing a Study Design

Topic: Doing ethnography versus case study

Activity: Discussing a student's research proposal

Video transcription tape: 17-02-05 3 of 4

Time	Transcript	Turn	Index	Deixis

17.22	Instructor: It's a very good question and you could if you wanted to you could intentionally bring into your sample as one of our visitors did, remember Presenter A? She brought in some people of color intentionally in order to be able to contrast to see if their feelings or experiences were different from the other people so you might intentionally try to get, after you find out what networking means, you can determine well these are the kids that are not networked, so you're really trying to go through friends to find people that have let you into the community to find somebody that's not networked so to speak, to be able to interview them. Now you asked me: is this an ethnographic study (Student: Right.) I think, you're doing a master's degree right? (Student: Yeah.) now well if I were you I would probably want to make this a case study because it's not as ambitious as an ethnographic study, an ethnographic study requires you, you know, to be in the field for nearly a year. It's not going to be any quick getting in, it's expansive, you spend a lot of time out there, you know just getting to know people and contacts and getting out there and working from one sort	Ev(El)	well these are the kids that are not networked //	O
			now you asked me: is this an ethnographic study? //	S/O
			I would probably want to make this a case study //	P
			I'm sorry I can't get any further than this //	C
			that's all I'm responsible for //	P
			I can do this casually by walking into a store and starting an interview	O

of contact to another until you really are kind of in the community, it could take you three months, without collecting one bit of data, just getting in. Um whereas a case study might be working through a particular, maybe two agencies, I think you mentioned to me that it clicked with you that you had this friend that was a social worker right? (Student: Yeah.) Ok so maybe there are, I'm sorry I can't get any further with this but like if there were a YMCA in the area and kids hung out there, and the social worker knew certain kids that she had as clients, then you could start there interviewing some of her clients but through the interview you snowball, you ask are there other kids that I could interview and then you actually go to the Y and you interview people that were there you know that direct the Y, who observe these kids, who run programs for them and you could get more than one perspective. So you've got the child's, the Filipino adolescent's perspective and then you get perspective through different people in the community, social workers perspective, the YMCA directors perspective, parents in the community that you can see. So through

with the person on the cash register, yeah, you can do that. //

So if I were you that's what I would do //   P

and you really have to go into the field, you'll take some field notes in doing this. //   O

can you imagine that? //   O

you're saying it's only this geographical area, that's all I'm responsible for //   O

these multiple perspectives you can then triangulate whatever you're told by the kids networking means, and you can bound your study, because you're saying it's only this geographical area, that's all I'm responsible for and I'm going to work different members of the community at different levels, we're still going to ask the same questions, I can get it through interviewing, I do not have to hang around forever. You know I can do this casually by walking into a store and starting an interview with the person on the cash register, yeah, you can do that. So if I were you that's what I would do and I think if you tie it to the empirical quantitative results that your supervisor has, somehow in the context of what we're talking about, that it would be very valuable to your supervisor. To help validate whatever data that they, she? He? (Student: She.) She has and it will make this study of a size that you can manage nicely in a timeframe work. You can collect your data in two months or so, analyze your data for two months, write it up in you know three months, do your literature review, and there you're finished. All done, as opposed to just having your data, which is what

you spend a lot of time out there, you know just getting to know people and contacts and getting out there and working from one sort of contact to another //   C

you mentioned to me that it clicked with you that you had this friend that was a social worker right? //   O

like if there were a ymca in the area and kids hung out there //   O

would happen in an ethnographic study. And it demands a lot more time writing, because you have to write everything out, you observe and you're there, and you really have to go into the field, you'll take some field notes in doing this. Can you imagine that? (Student: Yes.) Ok, uh enough? Have we done you enough? (Student: Yes it's fine.)

you could start there interviewing some of her clients but through the interview you snowball // — O

people that were there you know that direct the Y // — O

do your literature review, and there you're finished. All done, as opposed to just having your data // — C

you observe and you're there, and you really have to — O

go into the

field,

Table 26
Walking Through a Procedure I

Topic: Open-coding

Activity: Presentation of a grounded theory study on multicultural awareness

Video transcription tape: 03-02-05 1 of 3

Time	Transcript	Turn	Index	Deixis
26:58 - 27:05	Instructor: Yeah, just give them a. . . they'll do open coding together but they won't do axial coding right now. (Presenter A: Ok.) Umm, tell them a little bit about what it is.	R (Dir)		
27:06 - 27:29	Presenter A: Open coding was probably the lengthiest part of all the coding within grounded theory, there are three levels of coding in grounded theory: open, axial, and selective as you see that's up there, and open coding is really just taking your raw data and starting to, what do you call it when you start to shrink it down? . . . . We had this great word for it.	Ev (El) (Q)	there are three levels of coding // as you see that's up there // We had this great word for it //	S C O

Time	Transcript		Parsed	
27:28 - 27:30	Instructor: Data reduction (Presenter A: Reduction thank you I like that word.) There it is.	R	I like that word //	P
			There it is. //	O
27:30 - 29:58	Presenter A: Your first level of reduction, they say in the text, so I was reading lines of data, lines of interview and saying "what is the main idea here, what is the main idea from this paragraph or from this excerpt or when this person is talking". . . . And so I would end up taking a page and forming that into two ideas, say a page of interview would be two ideas and you want to use the participants' wording as much as possible during the open coding procedure, so say somebody was saying to me, for instance many of my interviews start off with "Well how did you develop multicultural awareness?" and my participants would often say "Well you know, it's really big, you know it's hard to talk about because it's really complex I'd have to go way back and tell you about this in my life" and so things like "multicultural awareness development is complex" or "it's hard to talk about, it's hard to pinpoint exactly where it first began" those became some	El	from this paragraph //	O
			or from this excerpt //	O
			Or when this person is talking //	O
			forming that into two ideas //	C
			tell you about this in my life //	C
			those became some codes to begin with and I started to see that those codes, //	O
			that kind of a code //	O

codes to begin with and I started to see that those codes, that kind of a code from interview 1 had a similar code with interview 2, do you see where I'm getting at? And so I literally took my word processor and chunked those pieces out – I called them chunks—and took them out as excerpts and then cut them and then put them on the living room floor, and then in axial coding procedure—and this is where I'm gonna tell you later you need a lot of space to do this, my living room floor was full of paper—and so these pieces that said you know "It's hard to talk about I don't know exactly where it began," all those pieces of paper I would read them and I would say "this is similar to this" and put it in that pile and "this is similar to this" and put it in that pile, and so I had a lot of piles right I had 98 codes that ended up coming together and then in the axial coding procedure I would end up taking those 98 codes and saying "these are very related I know these 10 codes, I know this is maybe around the top, maybe this one is up there beside it and this is underneath it because that's a

chunked those pieces out //	C
and then cut them //	S
and then put them on the living room floor, //	S
and then in axial coding procedure //	S
and this is where I'm gonna tell you later //	C
you need a lot of space to do this //	P
I would say "this is similar to this" //	S
and put it in that pile //	O

subcategory it came afterwards, this came first then that came afterwards" What can I give you as an example: one of the things that my participants often talked about was growing up feeling different, having felt different themselves led to a sensitivity, it lent to an ability to understand, and so I started having piles of examples of feeling different, excerpts of data where clients er participants were telling me about, areas in their life where they felt different and that was in this pile

and then in the axial coding procedure I would end up taking those 98 codes //   S

 these are very related I know these 10 codes, //   S

I know this is maybe around the top, //   S

this one is maybe around the top //   S

Maybe this one is up there beside it //   S

this is underneath it //   S

that's a subcategory it //   S

Time	Transcript	Turn	Index	Deixis
			this came first then that came afterwards //	C
			and that was in this pile //	O
29:29 - 30:14	Instructor: Which is called dimensionalising (Presenter A: How do you know that word?) Ehh, cause we did it, you're elaborating on those concepts or categories. . . yeah its called dimensionalising.	El	How do you know that word //	P
			you're elaborating on those concepts or categories	O

Table 27
Walking Through a Procedure II

Topic: Open-coding

Activity: Presentation of a grounded theory study on multicultural awareness

Video transcription tape: 03-02-05 1 of 3

Time	Transcript	Turn	Index	Deixis
51:40:00	Instructor: Yes, oh yeah, you get used to working in it, once I sat down with it, it took me a couple days and then it was	R(El)	and then it was very fluid very easy //	S

very fluid very easy to go back and forth. And it does manage your data well, organizes things, it makes it easy to say, while I had bits of pieces of paper during my open coding I worked on my living room floor that way, because I needed to see things visually and that was easier for me once I had all of my data coded. I should back up a little bit: during the open coding procedure you code the first five interviews that way where you're literally taking chunks of data and you're naming it, naming and category, you code the first five interviews that way you just read and go oh ok that's called feeling different, and that's called emotion, and that's called, and you just start to go through it a lot more quickly that way, and then you get to a part of your data where you say hold on I don't have a code for this, I didn't develop anything and I haven't come across this, you can start a new code very easily within the program and go back to your other interviews reread them and code those on, for instance one of the things that came up with me was power, I had not initially coded for that in my first 5	I worked on my living room floor O that way, // and that was P easier for me once I had all of my data coded // you code the C first five interviews that way // you code the C first five interviews that way // say hold on I O don't have a code for this, // I haven't come O across this // go back to your C other interviews

interviews, and later on I started to see instances of that so I went back to the previous interviews and did find instances of the term power. What that means is that when you're working with a client who is of different social status than you, we accord different levels of power to different social statuses as well and we were talking about how that plays out in a counselling session and how they used that, and so I called that power, anyways within ethnographer you can easily go back and recode, adjust your definitions based on the new excerpts that you've found.	reread them and code those //

	I had not initially coded for that in my first 5 interviews, //	O
	What that means is that when you're working with a client //	P
	we were talking about how that plays out in a counselling session and how they used that, and so I called that power	P

Table 28
Giving Instructions

Topic: Research questions sharing activity

Activity: Presentation of a grounded theory study on multicultural awareness

Video transcription tape: 10-02-05 2 of 3 B

Time	Transcript	Turn	Index	Deixis
0.00	Instructor: I think the format that we're going to deal with is that you guys have interacted with each other about these questions. And I think, that if we use the format we can move around the table hearing about how everybody would respond to like the first question now remember not everybody is aware yet of your research plan, I am but not everybody, so if I ask the first question "which theory will you select for your research" well you two have interacted about that with your partner so you might want to take that by the handle and say well, you know I think I'm doing this kind of study or I'm not sure yet, so it's very difficult for me to deal with this question, but having done that I'm sort of leaning in this direction and I'm thinking about this design and someone else says I know I'm doing this design ok and we've knocked this around and this is sort of where I'm coming from with this, these are the ideas I have, let em out, boom, we'll move on to the next person.	El(C)	you guys have interacted with each other about these questions. //	C
			so you might want to take that by the handle	O
			I'm doing this kind of study //	O
			It's very difficult for me to deal with this question //	P
			but having done that I'm sort of leaning in this direction //	O
			we've knocked this around and this is sort of where I'm	O

			coming from with this //	
			these are the ideas I have	S

Marking Relevance. In this segment (Table 29), the presenter and the instructor both take a strong position in favor of analytical memos. This is a particularly striking example of a very common instructional move using a deictic statement to underline the importance of a particular statement or idea. Relevance is marked with positioning deictic speech acts; this segment also includes an explanation of how to use analytic memos, which make use of coordinating and orienting statements (compare with Table 26 and Table 27 above on walking through a procedure).

Table 29
Marking Relevance and Explication for Emphasis

Topic: Analytic memos, peer debriefers

Activity: Presentation of a grounded theory study on multicultural awareness

Video transcription tape: 03-02-05 1 of 3

*Pronouns highlighted in blue are coordinating statements

Time	Transcript	Turn	Index	Deixis
22:56 - 23:47	Presenter A: I used analytic memos as a procedure for qualitative research. Have you heard of analytic memoing, so far? Kay really important, I memo to myself about the content and the process of the interviews, I did this immediately following the interview and then when I was checking the interviews for	El(Q)	I did this immediately following the interview //	C
			then when I was	S

accuracy after they had been transcribed and I was listening to the interview again—you end up listening to your interviews a lot by the way—so each time I was listening to it if I had any new ideas then I would memo to myself as well. And these are used as a tool to, you know, to allow you to reflect upon some of the assumptions you might be developing and also to give you some sort of context to interpret the data. There's some things that are said, out of context that are very difficult to understand but if you've written about the context in the interview and you can go back to it, you can interpret that piece that quotation from the client a lot more accurately if you have that context.		//checking the interviews //
		then I would memo to myself // · S
		these are used as a tool // · S
		There's some things that are said // · O
		you can interpret that piece that quotation from the client a lot more accurately if you have that context // · P
23:48 -	Instructor: If you didn't write that down, I would, that really is a good tip. . . you should write that down for yourself because it's very	Dir(Ev)	If you didn't write that down // · O

Time	Transcript	Code	Unit	Type
24:07	important to do that, it depends on the level of detail that you need to be sure of your accuracy but it really does enhance your detail as well, it's well worth it.		that really is a good tip //	P
			you should write that down //	P
			it's very important to do that //	P
24:08 - 26:39	Presenter A: Oh yeah. You end up using those memos quite a lot. . . . Part of my data analysis was to use peer debriefers and this is something I used throughout the entire length of my study at the very beginning when I was first conceptualizing my idea and what I wanted to do, I called experts in the field, and this is something that I was going to provide as advice tonight: if you're interested in an area of research and there are people out there who are writing about this and you like their writing call them, call them and say "I love what you're doing and this is what I'm interested in could you give me a few minutes to talk?" and people were so generous, I spoke to nine different people in I think the second year of my PHD and they gave me so many ideas of where I could go they shared information with me that I could not have gotten through articles or	C(El) (Dir) (Ev) (El) (Ev)	those memos //	O
			this is something //	P
			there are people out there //	S
			writing about this //	O
			this is what I'm interested in //	P
			the experts that are out there //	S

through library searches, and they were more than generous and so I urge you to use the experts that are out there and talk with them, you know I would even ask them questions about "If you got to do this research project what would you ask participants?" And I got a lot of my interview questions that way, some of my questions that I would not have thought about on my own but that I was able to get because they had so much experience, I mean I found that to be such an important and beneficial tool to have and then be sure to follow up and thank them afterwards as well send a thank you card, because if you end up remaining in that field they end up being great contacts for you for future networking as well, and so do keep that in mind. Peer debriefing was also used during the analysis of my data in which I would often come to Dr. Aulls or come to my professor and just say you know "I'm struggling with this idea" and having somebody to talk it out with helped clarify where I was going, you have an enormous amount of data when you are doing qualitative research and it is incredibly complex to see all of the connections at once in your mind and so to have somebody to bounce off ideas with is so helpful and it's also I mean for validity's sake it	If you got to do this research project // O And I got a lot of my interview questions that way // O and then be sure to follow up // C because if you end up remaining in that field // O do keep that in mind // C "I'm struggling with this idea" // O you end up talking about that // O

gives you an opportunity to make sure your interpretations are accurate, that you can actually support them with the data because when you end up talking about that with your peer debriefer they will say "Ok well let me see the mean, give me the, where all the data that tells me, that where you're going with this is actually accurate" or "show me where you're getting this idea from" so you end up showing your memos you end up showing your data ok so it's a great tool for validity as well.	where you're O going with this // where you're O getting this idea from //

Disambiguating references. Direct referentialists (See Récanati, 1993) argue for singular propositions being the target of demonstrative reference, in other words, that understanding a referential term means being able to identify its reference (object). However, the referential terms found here are decidedly non-singular. It is also clear that the participants agree on the (undisputed) reference, even though not all the participants share the same understanding of the content of the reference. Participants' reference hazy and fluid concepts; it would be hard enough for the participants to negotiate the actual focus of the reference, let alone provide a corroborated account of its description (though there would certainly be a good deal of overlap between them). This stems from the additional problem of interpreting the actual illocutionary force of the statement, which is related to the attribution of intentions more generally, because intended meaning is not necessarily the same for the speaker as it is for the receiver. Yet both meanings are liable to be acceptable interpretations to either participant in so far as the communication can be said to succeed, that shared understanding is maintained, or that the communicative goal is accomplished. Of course, any misunderstanding can always be resolved in the ensuing interaction. In the following tables, we can observe how the maintenance of common

ground (intersubjectivity) is performed in interactions that occur in the abstract field (see Tables 23 and 24 above for deixis in the ideational versus the physical field).

In the segment below (Table 30), deixis is used for demonstrative reference to a physical support in the class. The student's research question is being projected so everyone can read it. However, the discussion quickly veers into the abstract. Despite there being no physical representation, participants continue to employ the same deictic devices to refer to what is now assumed to be common knowledge to all members. Compare with Tables 31 to 33, where reference is to a common ideational ground.

Students manage to keep research questions in mind while proceeding to revise and clarify the intention and the purpose of the proposed research project. As can be seen, most of the turns function as explanations, clarifications, or justifications of intention. Deixis is deployed to support their positionalities, to connect their utterances sequentially, and to orient the others' focus to the features of the discourse object, which they construct as a shared mental representation.

Table 30
Reference to Physical Representation

Topic: Research questions

Activity: Defining problem

Video transcription tape: 17-02-05 2 of 3

Time	Transcript	Turn	Index	Deixis
3.30	Instructor: There is [Student's] question right there with the little arrow is, let's move to that for a minute (Student: I see—) Does that still stand in	C/Q	There is [Student's] question right // there with the little arrow is	S

	terms of wording? (Student: Yeah) "What are Chinese students and Canadian teachers' conceptions of meaningful learning?"		let's move to that for a minute //	O
			Does that still stand in terms of wording? //	P
3.50	Student: The second question [Student] is a sub-question? The first one is your overarching question (Student: Yes) . . .	Q		
4.08	Instructor: If I reworded that and said "What are Chinese students' and Canadian teachers' experiences of meaningful learning?"	Q	If I reworded that //	C
4.35	Student: If you talk about experience, it's not just focused on beliefs, that changed the question.	R	that changed the question //	P

Table 31
Ongoing Reference to Common Ground, i.e., Intersubjectivity

Topic: The experience of meaningful learning

Activity: Discussing research questions

Video transcription tape: 17-02-05 2 of 4

Time	Transcript	Turn	Index	Deixis
	Instructor: How are you going to start talking to them about this? How are you going to be asking them?	Q	How are you going to start talking to them about this? //	C
5.00	Student: Um well I think I will ask their experience first... then go deep into their beliefs...	R	then go deep into their beliefs //	S
	Instructor: Are you going to be asking about their beliefs about effective teaching first (Student: Yes) through that move to the notion of meaningfulness...	Q	through that move to the notion of meaningfulness //	C
5.20	Student: Yes how do they understand meaningful...	R		
	Instructor: Yeah within the context of say "these are effective (Student: Right.) instructional experiences" yeah	U	'these are effective (Student: Right) instructional experiences' //	S
	Student: I want to ask a question, are you looking at, is your main focus on the teacher or students or is there an equal focus on both?	Q		

	Student: I think an equal focus on both, just now I talk to [Student] I will put in another dimension, I will put in the Chinese teachers so basically I will compare professors Canadian professors and Chinese professors and Chinese students studying in Canada. . . . So there is another dimension. . .	El(R)	just now I talk to [Student] // So there is another dimension //	C S
6.30	Student: If you make an equal focus. . . are they really two separate entities or are the linked? (Student: I think—) So it's not the two, wouldn't that be different in some respects?	Q	wouldn't that be different in some respects? //	P
	Student: Yeah that's why I started as the rough comparison in the study	R	-that's why //	P
7.00	Student: . . . wouldn't you have to do four students that stayed in China? . . . it's getting bigger (laughs)	Q		
7.25	Student: You want to study the phenomenon of meaningful learning and effective teaching.	R		
	Student: Yes that's right and what is their understanding. . . .	C	Yes that's right //	P

7.45	Instructor: In other words we might have a Chinese student describe effective instruction from Kember um and then talk about what is meaningful of that effective instruction right?	El(C)-Q	and then talk about //	S
			what is meaningful of that effective instruction right? //	O
	Student: No, I think it should be a Chinese student talking about what is meaningful learning and effective teaching. . . from their experience.	R		
8.50	Student: In that case it would be direct (Student: Yes I think so.)	C		
	Instructor: So it's in both countries? (Student: Right.) So we're asking Chinese students in China this question and we're asking Chinese students in Canada this question. . .	Q-C		
	Student: And those Chinese students are being taught by Canadian non-Chinese professors? (Student: Right.) And the reason why you don't want to do student-to-student is because? (Student: Sorry?) Isn't it because you want to bring in the	Q	And those Chinese students are being taught by Canadian non-Chinese professors //	O
			what are you trying to	P

Time	Transcript	Turn		Deixis
	Canadian teachers' perception, what are you trying to accomplish there?		accomplish there? //	
9.50	Student: I want to try to bring the teachers, I can compare their perspectives (Student: Between?)	R		
	Student: So there's two studies here? (Student: Yes.) You're doing two phenomenological studies (Student: That's right; student laughs).	Q-R- Q-R	So there's two studies here // That's right //	S P
10.15	Student: That was going to be my question which is your choice of tradition? (Student: Right.)	C	That was going to be my question //	O
	Student: That's why you questioned it earlier. . .	C	That's why you questioned it earlier //	P

Table 32
Describing an Imagined Situation (Composite Reference to Multiple Occurrences)

Topic: Auditing

Activity: Presentation of a ground theory study

Video transcription tape: 03-02-05 1 of 3

Table 33

Time	Transcript	Turn	Index	Deixis

38:20- 39:37	Presenter A: So that was really positive but the other thing that was really nice about the audit procedure is she got me to see things that I didn't see were there. And this happened with two examples and one of them was I was very aware that conflict was existing, and I was asking for it even though I had said to myself I'm not going to have assumptions and I'm going to ask "what was the emotional climate like when you were developing multicultural awareness?" and I was being very open right so I'm not leading my participants well when I'm coding, all I saw was the difficulty. I didn't see the joy, and in those excerpts of data the person who audited for me said there's not all conflict, there's happiness there, there's satisfaction there, there's joy these people really love what they do, and I was like oh yeah I	Ev (El)(C)	So that was really positive //	P
			She got me to see things that I didn't see were there //	S
			And this happened with two examples //	O
			and in those excerpts of data //	O
			there's not all conflict, there's happiness there, there's satisfaction there, there's joy //	S
			these people really love what they do //	O
			oh yeah I didn't realize I did that, //	C
			see things you don't know are there //	S
			there's tension anyway //	S

didn't realize I did that, I completely missed it on the coding. And so the auditing procedure is really important to help you see things you don't know are there either because you're so, excited about one thing you find, cause I was like "right! The tension there!" cause my supervisor is going "Well I'm not convinced there's tension anyway" but all these people say there is tension there has to be I've experienced tension, I know it's there, and she's like "But I'm not sure it's there" so you can't just ask about the tension you have to be really open so when I'm doing my daily logs I'm like "great great tension tension all this tension" and then I didn't see joy, and so it was really important that I had my auditor tell me it was there. And that was a really nice part.	all these people say //	O
	there is tension there //	S
	I know it's there, and she's like "But I'm not sure it's there" //	S
	and then I didn't see joy //	S
	I had my auditor tell me it was there //	S
	And that was a really nice part //	P

Table 34
Describing an Imagined Situation (Continued)

Topic: Auditing

Activity: Presentation of a grounded theory study

Video transcription tape: 03-02-05 1 of 3

Time	Transcript	Turn	Index	Deixis
39:38- 40:00	Presenter A: The second audit that I did was after the axial coding and the selective coding, and when you're doing, I was talking about piles of data that you end up on your living room floor the other thing I had was my hallway wall was full of diagrams. And so I was taking this core and sticking it to this and I was unsticking this here and putting it here now because I don't think it belongs here anymore and I was changing my mind and my whole wall was full of diagram.	El	And so I was taking this core //	C
			and sticking it to this //	O
			and I was unsticking this here //	C
			and putting it here now //	S
			because I don't think it belongs here //	P

Disambiguating deixis

In the following table, the instructor and the students discuss the differences between case study and phenomenology and how one goes about choosing between the two. It is notable how deixis is used here by the participants to clarify their meanings and to disambiguate and distinguish between ideas that are conceptually similar. Note the high number of positioning moves, as participants make bids in the negotiation of meaning, to arrive at a shared understanding.

Table 35
Disambiguating Deixis

Topic: Case Study versus Phenomenology

Activity: Discussing difference between case study and phenomenology

Video transcription tape: 03-02-05 2 of 3

Time	Transcription	Turn	Index	Deixis
45:58:00	Student: Yeah, my, idea is that. . . we discussed in the break with Joy, and like, the difference between the case study, and, the other rest of the four studies seems like just a very, just, it's hard to find the very, very clear, strict boundary, because if we. . . if we just reduce the samples, it becomes, the studies and now, one thing somebody, shaking you head, the thing is that, more than that is, just, philosophical background you have to stick to, right? And I think this is, I'm always. . . about, what the role of the philosophical background, the role of the philosophical background in the phenomenological study, because for me, it's something that I should be keeping in mind, just the back of the mind, you, the principles you stick to, the theories, the philosophy you, will	C(El)	more than that is, just, philosophical background you have to stick to, right? //	P
			And I think this is, I'm always. . . about, what the role of the philosophical background //	P
			that's the. . . how to. . . the world, //	O
			then you can. . . to do the studies, //	S
			and I think that is something you should keep back in your mind. . . //	P

	believe, how many. . . you will. . . not just one. . . that's the. . . how to. . . the world, then you can. . . to do the studies, and I think that is something you should keep back in your mind. . . and beside that, I'm not quite sure where I can, apply these philosophies into the studies, because I think it's the principle that guides you to do the studies, yes? [long pause]		and beside that, I'm not quite sure where I can, apply these philosophies into the studies, //	P
47:53:00	Instructor: . . .So hard [laughter] One of the things that might help a question like this is, how can, the, insights of phenomenology, help up reach our end goals of understanding, where, the insights for some kinds of case studies. . . may not, need to be, enlarged, to help us reach the goal of understanding, there's more than one kind of case study, so maybe for some kinds of case studies it may be necessary to have a larger, and in that case, that the same goals are being met by having the larger. . . collective case study, which does take a larger number of people. So maybe it helps answer the question by asking that kind of	C(El)	One of the things that might help a question like this is, //	P
			there's more than one kind of case study, //	S
			and in that case, that the same goals are being met //	O
			So maybe it helps answer the question by asking that kind of question, //	P

	question, by saying what kind of ends are we meeting by having a larger N size, and then I think about the theory of it and the other side, and I say. . . where. . . research study, is the theory, essential, for case study versus phenomenology, I mean how many place does it occur, when you think about starting the work, I want to study this, right, and I want to think about, what other people have thought about, this, to make meaning out of it, does the theory come into it there, does theory come into it simply at an end point, that you want to be able to generalize to a particular theory because the phenomenon is related to a particular theory.		and then I think about the theory of it and the other side //	O
			, I want to study this, right, and I want to think about, what other people have thought about, this, //	P
			, does the theory come into it there //	S
50:00:00	Instructor: So where does theory, how pervasive is theory, in one, kind of, tradition or methodology, as opposed to another, so I would ask that question, that's it.	C	so I would ask that question, that's it. //	P
50:16:00	Student: . . . case study is the analysis of a system. . . time and. . . so, then I would have to question, what is the system in a phenomenon? . . .	Q	then I would have to question, //	P

50:39:00	Student: What do you mean a system?	Q		
50:41:00	Student: A case study is. . . so how does this apply to a phenomenon	R	so how does this apply //	P
50:51:00	Student: I don't see it as a phenomenon	C		
50:52:00	Student: Founded as a phenomenon, but I don't see it bounded in time or space.	C		
50:55:00	Student: No but, we're talking about the difference between the two. . .	C		
51:00:00	Student: You mean the phenomenon or phenomenology?	Q		
51:03:00	Student: Phenomenology is the study of phenomenon, so you try to understand the invariance structure of the phenomenon, so if we're making that there's not too much difference between case study and phenomenology, and you know, other than the other of participants, what do we do with this bounded system?	R/Q	there's not too much difference between case study and phenomenology //	S
			what do we do with this bounded system? //	P
51:30:00		C	That's what I was saying before, //	O

	Student: That's what I was saying before, now I'm not now I'm agreeing with you.		now I'm not now I'm agreeing with you //	P
51:33:00	Student: Sir, could I say again, I'm not quite sure, about your point.	C(Q)		
51:37:00	Student: The point is that there's more difference between case study and phenomenology than the number of participants. . . use of the literature, or maybe, informing, philosophy, I'm trying to understand if, there's no more difference than that, and I do understand that some people say that in phenomenology. . . case study, see then as well, what about if there's not that much difference, what happens to the idea of a bounded system?	C	The point is that there's more difference between case study and phenomenology //	S
			there's no more difference than that, //	P
			see then as well, what about if there's not that much difference //	S
52:22:00	Student: . . . for the case study. . . system, but for phenomenology . . . bounded system, because we both. . . experience this, people who. . .	C	because we both [. . . .] experience this, //	O
52:42:00	Instructor: Did you just give her an answer? I think you thought you gave her an answer, what was it that you	Q		

	gave her as an answer, what was his answer?			
52:54:00	Student: That it's not really about the system in phenomenology, because we both... experience this...	R	because we both [....] experience this,	P
53:00:00	Instructor: Because?	Q		
53:01:00	Student: Because it's written in the book, and ...	R		
53:08:00	Student: They focus on experiences, meaning of experience.	C		
53:10:00	Instructor: Right.	Ev		
53:12:00	Student: So let's get back to phenomenon, okay.	C		
53:16:00	Student: That's the point it's kind of a non-issue.	C	That's the point it's kind of a non-issue //	P
53:21:00	Student: If we take the example... in the book... the boundaries, just, we can look at as phenomenon... in that time, in that place, that is the boundary system, what I mean is that if you narrow the scope of phenomenology study, it could go to the case study, but you cannot do it by...	C	in that time, in that place, that is the boundary system //	S

53:54:00	Instructor: I wanted to jump into your example and say, if I did a phenomenological study of the participants that were there, the phenomena are here, okay? We still have the bounded study that's going on at exactly the same time but now I'm interviewing someone else, the same exact place. . . then, the issue is, there aren't boundaries around, around fear, in a sense, right? [pause] No, I think the random sampling in this town, this college town, and given the data from that case study, a lot of people would have been influenced by this, you know, some more indirectly that others. . . great, so the idea of, the experience, the essence of the experience, as being, the phenomena, you try to capture, call it anything you want, fear or whatever, but it's still the essence of the experience, which essentially, is embedded in a process, and, you can't, bound that. That's, goes beyond time and place. That's what I wanted to say, by you starting with	C(El)	if I did a phenomenological study of the participants that were there, the phenomena are here, okay? //	S
			but now I'm interviewing someone else, the same exact place [. . . .] then, the issue is, there aren't boundaries around,	S
			No, I think the random sampling in this town, this college town, and given the data from that case study,	S
			a lot of people would have been influenced by this	C

that context, that's how I imagined seeing the difference between the two, something that goes beyond time and place, even though two studies are carried out in essentially the same place, one is about a phenomena that goes beyond time and place, the other is very temporal, it's about a, it's bounded by time and space.	and, you can't, P bound that. That's, goes beyond time and place. That's what I wanted to say, by you starting with that context, that's how I imagined seeing the difference between the two

Comparing Roles: Instructor, Presenters, and Students

A certain allowance for individual differences in speaking patterns aside, it is useful to compare patterns of deixis across three unique participation frameworks to better understand how the roles adopted by participants influenced their performance of deixis in this setting.

Patterns of deixis appear to be determined by the participation framework, more specifically by the roles adopted by the speakers. Thus, the instructor can be seen to make use of deixis to situate and orient the discussion to the overarching discourse of qualitative research. When we compare the two presenters, we notice differential patterns of use, corresponding to the participants' different goals and the influence of communicative activities (although on the surface both appear as invited speakers, their aims are different, which is reflected in the different discourse patterns). Whereas Presenter A employs a greater number of deictic moves, and more importantly, employs deixis to situate and orient her discussion within the field of research, Presenter B employs deixis primarily to coordinate actions in a temporal perspective within her narrative. Comparing Presenter A

and Presenter B, their use of demonstratives appears to be different due to what they actually accomplish through their presentations. Presenter B recounts a narrative, and uses a lot of *and then* connectives. Presenter A recounts a grounded theory, and uses a lot of *this and that* comparisons. Presenter B might not necessarily be less expert but she hesitates more, makes a lot of false starts, and makes poorer use of deictic resources. Presenter B was not as structured (or explicit) in her connections either, often having recourse to endophoric links—references to related terms implied by the discourse but that were not explicitly stated before (anaphoric) or after (cataphoric) in any clear manner.

Two kinds of cognitive organization are presented in these two segments of discourse. On the one hand, Presenter A makes use of comparatives to organize the conceptual space for the class, whereas Presenter A makes use of temporal connectives to organize her discussion episodically. Presenter B leads the class along the path she followed, whereas Presenter A maps out the territory. These differences may not necessarily reveal varying levels of expertise but they do capture the work of positioning and situating that Presenter A accomplishes and Presenter B does not, and that appears as a marker of competent performance. This can partly be explained by the different activity foci. The instructor and Presenter A both perform instructional speech acts. Presenter A adopts the perspective of instructor throughout her presentation as she has the stated objective of giving advice from her experience of conducting a qualitative study. On the other hand, Presenter B is clearly interested in practicing her thesis defense presentation, she is more interested in presenting her research than sharing what she learned about qualitative research.

Participants' roles in the activity influences their patterns of participation in the discourse. We have two presentations by one practicing clinical psychologist and one PhD candidate, who are imparting their experience of conducting qualitative research. One a narrative study and the other a grounded theory study. The differences in their respective methodologies will, to some extent, constrain the kind of presentation they can make; one is much more theoretic in content than the other (even though both assert theory building

as a research goal). However, even when accounting for the difference in format, there remains a difference in activity focus, one on imparting knowledge, and the other on recounting experience. Presenter A makes a lot more instructional statements compared to Presenter B, and, significantly, the Instructor interjects with more instructional moves during B's presentation to both Presenter B and the class during and after her presentation.

Narrative recounting as an activity requires less complex connections (immediately preceding and immediately following) compared to conceptual explaining (more lateral moves, less sequential), for example, compare *this and that*, to *this, and then this, and then this*, *etc*. Conceptual explaining requires the performance of deictic speech acts that are arguably more sophisticated because they involve the juxtaposition of localities and boundaries in fields rather than orientating and coordinating oneself to and with conceptual objects and actions. These two discourse-based activities do require differential deployment of deixis that invariably frames the possibilities in the discourse. Although it would be rather unreasonable to assess a narrative study using the same criteria you would use for a grounded theory, the same goes for the presentations of these studies. Yet we can see how deictic analysis can provide a means for comparing what is being accomplished discursively between different forms of discourse-based activity. In light of the above, it is not unreasonable to expect a narrative account of qualitative research to include positioning and situating statements with regard to the field of practice as well.

Furthermore, it is worth noting that Presenter B does not exhibit the same command of qualitative methodology (Table 36 below). When explicitly called on to provide a definition of in-vivo coding, Presenter B's answer is given based on her particular experience and not with respect to the field of qualitative research as one might expect. It is a specific example that serves as a local definition, it is not of the accepted form of a more general definition nor does it adequately explain why one should choose to use in vivo coding as one might expect from a methodological definition. Note the use of deixis in the passage below. Thus, it would appear that deixis can differentiate between the conceptual complexity of utterances.

Table 36
Presenter B's Definition of In-Vivo Coding

Time	Transcription	Turn	Index	Deixis
14.15	Presenter B: When you read through and you're looking at the text and there's an idea, I was working at the level of the paragraph, so [P2's co-researcher] was talking about Nathan and Billy coming in stoned and their hair was gelled and pinned back with bobby pins, and she'd be talking about Maureen and she'd be talking about another and so the in vivo codes became students in her story. . . but it's using her language she'd say "the student the student the student." So it's taking out ideas or themes from the transcript that are in [P2's co-researcher]'s own language and then making, it was quite an extensive list of in vivo codes and then clustering them into categories. And so she talked about her values, so that became one of them, she talked about her students, her community, her colleagues, so *other* become another one, so another one, another one, another one into categories.	El	and there's an idea // from the transcript that are in [P2's co-researcher]'s own language // and then making, // and then clustering // so that became one of them	S O S S O

Note the absence of situating acts in the above passage. In this instance, the definition is offered up without any reference to the field of practice, relying only on orienting and coordinating statements. Further supporting evidence for the insufficiency of

this definition is found in the next turn, which offers an instructional repair instance, where the instructor supplements the presenter's definition by situating it in the field of practice. It becomes especially apparent how deixis helps to differentiate these two moves in performative terms, by contrasting the type of deictic acts performed below and in the preceding turn above, we can see that the instructor makes use of situating acts in his more complete definition of in vivo coding compared to the presenter's less adequate definition that does not.

Table 37

Instructor's Definition of In-Vivo Coding

Time	Transcription	Turn	Index	Deixis
15:13	Instructor: One of the issues [with open coding] is how quickly you go to your own language as opposed to keep these categories in their language that's why it's so important to distinguish that many qualitative researchers have used the word in vivo code to say it's literally directly their language and one of the things that you will find that I will (bangs on table) in here, is that you keep at least for the first round to two rounds of your coding that you work with their language only, and then you have to begin to draw inferences in order to be able to put these codes together, instead of having five thousand pieces you end up with fifty pieces. . . . So there's the definition	El	to keep these categories //	O
			that's why it's so important //	P
			that many qualitative researchers //	C
			one of the things that you will find //	O
			that I will (bangs on table) //	C
			(bangs on table) in here //	S

of it and, the history behind why it's an important concept.	is that you keep at least for the first round to two rounds //	O
	that you work with their language only //	C
	and then you have to begin to draw inferences //	S
	to be able to put these codes together //	O
	So there's the definition of it //	S

Situating acts are not always indicative of a more expert statement, however, it is likely the case that a more expert definition will make better use of situating acts because it is by virtue of the placement of an utterance within a field of practice that a definition should become practically intelligible. From a pragmatic standpoint, this is a criterion of value for practitioners, that it may be put to good use. Compare the above with Presenter A's definition of multicultural awareness below.

Table 38
Presenter A's Definition of Multicultural Awareness

Time	Transcription	Turn
8:31- 11:18	Presenter A: Just for the sake of some definitions there is some debate on how to define multicultural, some believe that it should be a race based definition so that the societal hegemony which is the differences of status that are given to people of colour versus people who are not of colour, become clear in the mind and seen and then there is some people who define multiculturalism as inclusive meaning it can include other things other than race such as social class, ability versus disability. . . different body sizes, sexual orientations etc. And so there's quite a lot of debate within multicultural literature about how do we define it, and for the purpose of this research study I defined it inclusively. I looked at multiculturalism to be beyond race. . . . but including race as well but there's a primary thing that my participants spoke a lot about race but they also spoke about sexual orientation, they also spoke about social class, things like that ok. Multicultural knowledge is understanding the impact of the socio-political system on different cultural roots and also, to understand how culture affects things like personality formation, vocational choices, help seeking behaviours among clients, appropriate versus inappropriate interventions that we might use on clients, so having knowledge about all those things is what constitutes multicultural knowledge. Skills are being able to possess a wide range of verbal and non-verbal responses that are culturally appropriate for different cultures, for different groups, kinds of groups, and also the willingness to seek consultation when needed. Multicultural awareness is being aware of one's own cultural values and how it impacts the work that we do as counselling psychologists. This included efforts that the counsellor takes to understand themselves as	C(El)

a person but also as a counsellor within a broad range of. . . the context of culture. Culture is relatively knowledge is relatively new to the field of psychology; it has only been in the last 15-20 years that we have even started talking about it and writing about it within psychology. Our discipline has developed and endorsed theories that are primarily based on white, middle class male heterosexual perspectives of normality. And because of this it has been unrepresentative and often harmful for different cultural groups and this has led to things that I listed here like misdiagnosis and errors in treatment, decreased empathy on behalf of the counsellor for the client, and also the underutilization and early termination on behalf of minority clientele.

In the upcoming excerpts, compare Presenter A and Presenter B's approach to the adoption of theory and how theorizing influences their study, particularly through the interpretation of their results. Presenter B chooses pre-existing theories to explain her results, whereas Presenter A formulates theory to capture the variability in their data. Presenter B justifies her choice of theory on the basis of its resonance within her self-study, whereas Presenter A justifies her theory with reference to other theories within her field of research. These divergent approaches to theorizing manifest themselves in different patterns of deixis in this performative context. Moreover, the grounded theory methodology also makes explicit the requirement of connecting to theory. Although both presenters are attempting to fill gaps within the scholarly literature in their respective areas of research, they display different modes of theoretical reasoning. Presenter B states that her desire is to understand teacher learning but it is in relation to her own learning (and her other study participant) that she develops her explanatory account. Presenter B recounts her process of choosing explanatory theories, and in so doing, she is tacitly justifying her actions on the basis of a personal or subjective appraisal of what counts as

valuable or important—what resonates with her. On the other hand, Presenter A explains her choice by situating her study within the field. Her formulation of theory is justified by the perceived needs of the field and the strength of her theory is validated by how well it captures the full variability of the phenomenon under study. Conversely, a narrative seeks the promotion of understanding life experiences.

Table 39
Presenter B: Theoretical Reasoning

Time	Transcription	Turn
24.00	Presenter B: Because they resonated in me when I was looking at my (?) and when I was writing out my own self-study, that there are other ways, you know I used Knowles as an example, but you know those didn't fit with me, I didn't feel like I was developing, I went through this huge transformation that Mezirow describes at the epoch of learning so that worked for me, and then I tried to understand how that worked and then I saw something about schema theory and so that resonated for me. Problem solving is related to my classroom all the time when I'm writing up so that one made sense to me too, and because it was a narrative, narrative was an obvious one. And why so many different ones. . .	R(El)

In the subsequent exchange sequence, the instructor draws out the presenter's methodological reasoning beyond choosing theory and method because it resonated with her. After this protracted exchange, he provides an instructional explanation to clarify his intention in following that line of questioning. Note the instructor's clarifying move that follows.

Table 40
Instructor: Clarifying Move on Theoretical Reasoning

Time	Transcription	Turn
26.11	Instructor: Just for the edification of the class, that's the answer I was looking for. I was looking for her to first say what theories she knew as meaningful in terms of learning and then she chose tools, instruments, to focus on those ways of representing learning, as ways of assessing or measuring learning in this context. I was looking for her to be able to respond at that level, and not in the opposite direction. . .	C(El)

Further on, the instructor also goes so far as to suggest a way to theoretically ground Presenter B's thesis research, which, as argued above, was not forthcoming from her presentation or the ensuing discussion. Note the student questions that prompt the instructor and their evaluation of the instructor's response. Here is confirmation (through instructional conversational repair) of the analytical result, namely that her presentation lacked situating elements that impeded participants' understanding but most importantly marks her performance as less effective than that of Presenter A.

Table 41
Instructor: Situating Move for Presenter B Thesis

Time	Transcription	Turn
34.54	Instructor: And you may not know it but narrative became a very important part of the history of education and the study of education when we began to look at the idea of teachers' practical knowledge. Practical knowledge is very valuable and experts don't always hold the knowledge of culture that teachers have from everyday practice. It needs to be recognized, and validated and validized (sic). But what that led to, was also sort of a well-spring of magazines that came out and	El

electronic journals etc. where people engaged in telling stories and Presenter A had a problem with that to some degree, there's a place for it but there's also a necessity to try to. . . offer evidence for your claims and well as provide an experience that people might be able to reach out and learn from. And we all know that you can be really moved by news stories and by novels etc. and you do learn that way but you can't really reflectively talk about that easily, how you interpret the story and how I interpret the story is going to be different right? It's going to be different in terms of how we interpret her data. But to talk to some degree about what is learning, how do you find it, how do you see it, how do you measure it, to put all those things there within the story is kind of what I think she's trying to do. She's trying to satisfy through these multiple perspectives, what to her doesn't sit right if you just take one angle and another and go along. And I wonder if—and this is modeling of saying that—if she could say that in a clear way, as she begins her work, do you think that that would be important for her? I mean it's her struggle it's why she's doing this

37.2	I didn't get it. . . I didn't understand.	Q
	What I just said?	Q
	No I didn't get like at the beginning, the whole narrative thing I just thought because I didn't know anything about it, but I didn't understand that.	R
	Just wondering is it possible? Are we able to have a defense, so say something so personal, that's the only thing I'm wondering but I think that would really help situate it.	Q

37.5   The answer is yes, because if it serves to set out where in the paradigm   R

you're coming from, then that's very pertinent to your reading

[Student]. If she situates herself, which I've done in a very common

language, but we can add to that in terms of where she situates herself

both her philosophy and ideology. And she's talking about both of those

in her presentation, but not all together at once, that it would be quite

appropriate as the grounding or the context for her work.

Compare the above, with Presenter A's motivation from the counselling literature
for a grounded theory of multicultural awareness below.

Table 42
Presenter A: Theoretical Reasoning

Time	Transcription	Turn
11:18- 12:12	Presenter A: And so increasingly theorists are urging that we make multicultural competence an ethical mandate within the discipline. And as this dialogue has been growing we've been asking the question: If we need to have it how do we develop it? And the most widely, researched means of developing multicultural competence up til now has been course work. We have a captive audience when we have a class right so let's train them in multicultural competence and let's give them pre and post testing to see how they do. This work has been very strong and it has taught us a lot about how students and trainees incorporate multicultural knowledge and multicultural skills however, it has largely ignored the component of awareness, it has not focused its attention on how to affect the attitude of the counsellor so much as the	C(El)(Ev)

knowledge and the skills. And so this is one of the critiques on course work.

| 12:13-13:43 | Constantine and Croteau, Constantine is in New York and Croteau is in Michigan, both of them have separately done quite a few research studies on empathy, and getting counsellor trainees to process their own experiences of where they have, may have felt oppression in their lives, and to understand that pain and relate it to the pain of others, and have found some positive results in this area in terms of their multicultural competence overall as well, so developing the counsellors own empathy, seems to be related to multicultural competence. And then Delos and Taylor who are researchers in the. . . I'm suddenly losing the area that they're in, transformative learning, they're very widely known in the area of transformative learning talked about early critical experiences in which one was exposed to seeing how the world is not the same kind of place for some people as it is for others. Just to give you an example from my own research one woman spoke about growing up in St Laurent where there was lots of different cultures, lots of different languages, and having grown up among that area and seeing that some of her friends didn't necessarily have the same opportunities as she had because of social class she very early on became aware of multiculturalism because of that so those early critical experiences by these transformative learning theorists, have thought to be related to multicultural competence and this was supported in my research as well. | C(El)(Ev) |

13:45- 14:34	Awareness development is conflictual, it's painful to explore where we have been oppressed where we've been marginalized in our life it's hard to look at that but it's even harder to look at where we may have marginalized other people. Whether we've known about it or not known about it to take stock of those is very difficult and particularly for counsellors because counsellors view themselves as helpful people, we're fair individuals we're nice people and then all of a sudden we have to look at when we haven't been so nice or when we have hurt other people, it's very difficult to do. And so multicultural awareness development, if it requires that we take a painful glance at where we have been hurt and where we have hurt others then that conflict is very. . . . something we need to talk about how are we are going to negotiate with counsellor trainees.	C(El)(Ev)
14:36	And the last thing I want to say about that is that it's impossible to have been raised and socialized in this community in this society not having internalized stereotypes about different groups, it's impossible that we be rid of them and so no matter who you are as a counselling psychologist we have internalized some of these ideas, and so you know to take stock of those and to realize that they're there and how they influence some of our thoughts about what we think is normal versus not normal behaviour is very difficult to do. And as such awareness may be the most crucial and yet the most difficult part of multicultural competency development and it's the part we know the least how to foster.	C(El)

Below is an example of a move that makes important use of deixis. It is a very complex move that makes important interpretive demands on the part of the listener. It is the full clarifying move by the instructor that was examined in part above. As can be observed, there are two unmarked topic shifts, compounded by repeated focus shifts that require a close reading to fully ascertain the intention behind this extended move, which in the final analysis, appears to operate at two levels, one is instruction on how to describe theory and method in your research, and two, how to manage interactions during the thesis defense. This segment continues and includes Table 40 verbatim (for context).

Table 43
Instructor: Complex Move

Time	Transcription	Turn
26.11	Instructor: Just for the edification of the class, that's the answer I was looking for. I was looking for her to first say what theories she knew as meaningful in terms of learning and then she chose tools, instruments, to focus on those ways of representing learning, as ways of assessing or measuring learning in this context. I was looking for her to be able to respond at that level, and not in the opposite direction. And by the way at these kinds of exams, at this point, when she goes into this, I tell all my students, I'll tell you this I said "this is a conversation with colleagues, when you have arrived at this point you are now in a potential conversation with colleagues" and so in these conversations you should try to hear what they are saying and if you don't understand them you should ask them again, can you phrase that another way? If they ask you something that you really think it's too off the point you are trying to make you should tell them that. And give them a chance to ask you another question. And you should try to be able to monitor: "Are you finished speaking? Awesome because now I can speak" or vice versa you know. It's a chance to just celebrate	C(El)

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something that you spent three, four years on and to begin this
intellectual conversation in a very formal way. You've been doing it all
along anyway, but this is the time to formalize it. This is sort of the
passing if you will, gotta pass somewhere. But you know I'm still
looking for things because there are things I believe in. There are
assumptions I make because of what I think research is, so I'm looking
for some reification that I'm not out there someplace where I shouldn't
be you know? That I should be here, we should make decisions that
make sense and that we're talking the same language. So when I said
I'm looking for an answer like this, what I mean is: that makes sense to
me in the conversation, what she said.

Excessive use of *that* as relative pronoun makes for complex and sometimes confusing statements. Misdeployment of deictic reference can also make for confusing or confused statements. Both require a greater number of inferences on the part of your audience (to figure out the target of the references).

Presenter B is much more reliant on the physical support of her presentation materials and she makes a lot of false starts. See, for instance, her description of her research design at the outset of the presentation. She is describing a visual representation of her design included in her PowerPoint presentation, part of the difficulty of reading the transcript is the reliance on the external support of the PowerPoint presentation.

Table 44
Presenter B: Description of Research Design

Time	Transcription	Turn
6.00	Presenter B: This is the design of my thesis, uh the horizontal arrow represents my self-study begun in 1999 and which is	C

ongoing and in which I am trying to make sense of myself as a teacher who is still becoming, um and myself as a teacher in a secondary school classroom but also myself as a beginning teacher educator here at McGill. Within my self-study there is an embedded case where I'm looking at the self-study of another teacher her name is [P2's co-researcher], and I've collected data with and for from her um for her uh narrative that is um a narrative report of her self-study, and then there were other data collections included and um take that structured conversation that followed the viewing of a video that she chose as being representational of her practice, a semi-structured interview and a card sort um which led to a construction of a concept map, the first three data sources were subjected to inductive analyses and all of them were ah um subjected to deductive analyses, more on those later. . . so I'm looking at teacher learning from multiple perspectives and I have a political motivation for this I've been perturbed all the while in doing my graduate studies by the gap between theory and practice.

In sum, it appears that Presenter A more closely resembled the Instructor in patterns of deixis as she did a lot more teaching in her presentation compared to Presenter B who did a lot more recounting. It is especially noteworthy that many positioning statements made by Presenter A could be considered instructional moves, for example, *that's important*, *write that down*, etc. Presenter A's concern for situating her research within her field of practice, and her aim of imparting knowledge, rather than simply presenting her research, brings her performance closer in kind to the instructor's role. These differences are highlighted by their differential deployment of deictic resources,

which I believe distinguishes her presentation from Presenter B's as the more expert performance.

Chapter 5: Discussion

This study employed a deictic analysis to study the negotiation of meaning in seminar discourse. The study demonstrates the power of deixis for studying learning in social interaction in classroom environments. One important result was the finding that different patterns of deixis appear to co-occur with roles in classrooms. This entails that deictic analysis has the potential to contribute to the study of role shifts (Donin & Frederiksen, 2015). Further, deictic analysis appears to be powerful analytical tool for the study of individual trajectories of learning (Mercer, 2008; Wenger, 1998) as participants move from the periphery to the center of the community of practice.

In this chapter, I will discuss the implications of the research findings with regard for the (a) the study of deixis in classrooms, (b) the study of roles shifts in learning, (c) the negotiation of meaning in intersubjectivity for the study of natural language understanding, and (d) the dual problems of representation and (e) reference in the cognitive sciences.

Deixis in Classrooms

Patterns of deictic speech acts capture the different roles played by participants in the seminar discussions. We observe different patterns of deixis according to the roles adopted by participants and according to their different goals in the interactional activity. We find that deixis is a feature of the competent performances of the instructor and the presenters as they employ deixis to a proportionally greater extent in their participant roles. More deictic speech acts are performed as a ratio of the number of speech turns performed by the instructor and the presenters than the students themselves. This strongly suggests that responsibility for the classroom discourse fell on the shoulders of the instructor and the invited speakers, and this even when the activity was a group discussion about the formulation of the participants' own research questions, ostensibly involving all

the participants equally. We find that question and answer sequences (including I-R-E sequences) are marked by considerably less frequent use of deixis.

It appears that the overwhelming majority of deictic moves were made with regard to discourse internal (endophoric) references. Comparably fewer deictic moves were made with regard to the situation or discourse external (exophoric). This demonstrates the extent to which discourse was carried on intersubjectively in shared understanding. Indeed, when correspondence in meanings is sought by the participants, it takes the form of questions-answer sequences. These alignment seeking efforts appear to require very little deixis, as they act as a resolution device for agreeing on meanings and not for coordination of perspectives.

This study inductively derived four categories of deictic speech acts common to the seminar discourse. These extend Hanks' (1992) typology as species of communicative moves for orienting participants to the ongoing communicative situation. These four communicative acts are: situating, orienting, positioning, and coordinating, which are in addition to Hanks' (1992) presentative, directive, referential, and phatic.

Situating moves have an inherently instructional dimension, they are used to invoke certain concepts and relationships or connections between ideas within fields. Hence, we see greater use of situating moves by the instructor compared to the students. Interestingly, we also see differences in their use by the two presenters, which speaks to their differential orientation to the presentation activity, in which one was sharing insights, lessons learned, and tips for conducting qualitative research, and the other was simply recounting her experience throughout her doctoral work.

Orienting is the most purely linguistic act, and can be viewed as a form of contextualization cue, because its purpose is to draw out the salient aspects of speech and to focus shared attention on specific concepts within an utterance (Cornish, 2008; 2011). Its significance for maintaining interactive focus means that it is no surprise we find orienting to be the most common form of deictic speech act within the seminar, because it

appears as one of the privileged means of ensuring intersubjectivity in communicative interaction.

Positioning is another deictic act that is strongly within the purview of the instructor and the presenters. Yet we find that students make important use of positioning statements as well. This finding about the students suggests strongly that, although their participation is more limited, students nevertheless play a part in the negotiation of meaning in the seminar discourse. Thus, positioning appears to be an important part of the students' legitimate peripheral participation, as it is likely a way for them to begin to demonstrate their competence in interaction as they learn to orient and to situate themselves within the field of practice. Positioning acts entails value judgments and are an important facet of competent performance in a community of practice. Disagreements and differences of opinion can occur and engender debate and sometimes conflict. In other words, making statements of affiliation or disaffiliation (Lee & Tanaka, 2016) through positioning acts is a way to express your identity and can serve as a first step as you move from a more peripheral to more active mode of belonging to the community of practice. Of course, one might take a strong stand while being ignorant of the history of the debate, but this kind of thing is expected to be corrected by the more expert parties to the discussion. Indeed, studies of effective teaching (Aulls, 2004; Aulls & Ibrahim, 2012) in higher education and some of the seminar studies discussed in Chapter Two (Spruijt, 2014) have reported that the effective teacher needs to manage discussions to resolve misunderstandings and probe deeper beyond superficial understanding.

Differences in uses of coordinating moves are apparent between the instructor and the presenters and between the presenters and they perform a higher number of coordinating moves than the students. This is likely due to the lesser utterance complexity of student turns. Students ask more questions and provide fewer elaborations. Coordinating ideas and actions almost by definition are the feature of more complex cognitive and linguistic operations where multiple concepts and often frames are being juggled. In a sense, coordinating acts are directives as well because they are requests for an

action or operation—in this case a cognitive operation—to be performed. As such, they are the counterpart to the primary instructional moves of situating and positioning.

Deixis and reference in the seminar. Deixis has been also used to study mathematics discussions, which provides a useful counterpoint to the present study. As Staats and Batteen (2010) argued that:

> Students use indexical language forms to conjecture, to coordinate mathematical speech with written inscriptions, and to reify or objectify mathematical knowledge. Without careful analysis of the indexical components of their meaning, the mathematical character of ordinary indexical language forms can go unnoticed. Taken together, these types of indexical language can account for much of the convergence and redirection of attention that is characteristic of collaborative mathematical learning. (p. 42)

There are three points to address: (a) there are indexical uses that are specific to mathematical speech and knowledge; (b) the analysis of indexical language in mathematical discussions helps reveal concealed aspects of learning talk, and; (c) indexical language accounts for the attentional coordination of collaborative learning.

These three points seem to be modestly confirmed from our analysis. Deictic analysis did indeed uncover hidden aspects of the communicative interaction, and specific patterns of interaction were revealed through our analysis, and they appeared to coordinate attention and activity to an important extent. However, there are some nuances that become apparent in a community of practice framework that are lost in their analysis. Most importantly, the main object-process at the heart of collaborative learning is meaning negotiation, not simply shared knowledge. Knowledge is an object, something to be signified, whereas deixis and indexicality inhabit practices of signifying; they are properly tools for meaning negotiation. Knowledge may be the result, but that's only one potential object of meaningful activity, reification in tools and participation within and through practice are others. The twin processes of reification and participation are at the heart of

our experience of meaning through collective practice (Wenger, 1998, p. 52). Hence, meaning is not static; it is a process that is constantly renegotiated through mutual engagement (Wittgenstein, 2003). Secondly, indexical language may coordinate and maintain focus and contextual relevance, however, meaning is not reified through indexical language but precisely through the juxtaposition and the relation of the figure to the ground that is operated linguistically through deixis. Indexicals cannot be reified but they can be deployed to manipulate and describe reified meanings.

In a community of practice framework, meaning is negotiated by the process of reification but also by participation in a community. In the Gestalt sense, the figure is meaningless without the ground. In other words, the community lends specific meaning through objectified knowledge and know-how but also through formalized activities such as objects, rules, procedures, etc. Thus, it appears that it is the duality of reification and participation (the figure and the ground, cf., Bühler, 2011; Hanks, 1992) that affords the possibility of using indexical language and not the other way around. Reification is possible through continuous mutual engagement in a community of practice, and participation makes possible the use of a reified language in the negotiation of meaning using indexical language (Wenger, 1998).

The upshot of this is that indexical language use is evidence of the continued negotiation of meaning in communicative interaction. Conjectures and reifications of knowledge may indeed result from coordinated deployment of indexical language in communicative interaction but they are not linguistically primitive. They are forms of shared knowledge that result from the continuous and ongoing negotiation of meaning. And as Wenger (1998) discussed it, meaning (and communities of practice) are defined in terms of boundary and locality conditions. And it is precisely these conditions that are negotiated in communicative interaction, which afford the semantic distinctions necessary to construct and maintain focus and contextual relevance through figure-ground relationships. As Hanks (2005) maintained, the indexical grounds of contextual relevance are determined through deictic reference (operating within semantic and social fields).

Deictic references are speech acts—they are performative acts—that negotiate meaning and maintain contextual relevance. In the present study, these performative contextualization acts took the form of four principal deictic acts, namely situating, orienting, coordinating, and positioning. Note that these acts take on their meaning from the juxtaposition of the semantic and social fields, as Hanks (2005) termed it, but analogously in the dual processes of reification and participation that operate in the negotiation of meaning in communities of practice, according to Wenger (1998).

Staats and Batteen (2010) examined entailment and presupposition, verbs of motion, and poetic structures, and reason that, in addition to social functions, these indexical devices are "used to propose conjectures, take position, to coordinate talk with written inscriptions, to express multiple representations and in several cases to compress or reify mathematical knowledge and know-how into symbolic form that can be manipulated independently" (p. 54). But their analysis fell short of demonstrating exactly how indexical language performs all these functions. To the extent that entailment and presupposition are present they are used to cooperatively maintain the communicative context. They are not readily identifiable on their own as conjectures without embedding in the social or cultural practice of mathematical reasoning. As illocutionary acts, the force of the conjecture lies in what is accomplished or performed in the interaction, in how it is taken by the group. Its force isn't inherent in the words used (Sbisa, 2012, p. 46). Similarly, poetic structures offer some handhold, so to speak, to guide participation and attention but only gain significance as mathematical, or reified, objects as embedded within the larger field of the disciplinary practice of mathematics.

Indeed, indexical language is a powerful analytical tool that can help uncover the sometimes incredibly compressed reasoning inherent in collaborative reasoning and problem solving situations, but it is imperative for the analyst not to confound the semiotic and the sociocultural aspects of indexical functions. Indexing operates through semiotic means, pointing, or referring to features of situations and discourses, but meaning is not inherent in these indexical signs—to the extent that there is meaning in an indexical, it is its

canonical or denotational meaning, the *I* of the subjective origo, or reified expressions of disciplinary language. On the other hand, cultural meanings—or models, following Gee & Green (1998)—are features of situations and discourses.

Thus, conjecture, and argumentation more generally, are cultural-linguistic practices invoked through conventional sign use. Indexical language, and deixis more specifically, function semiotically to index social practices and discourses (and reified knowledge) within situations. After all, entailment—or cataphora—is simply a grammatical feature of language, a way of ensuring cohesion and coherence through syntactic relations. Entailment may index a conjecture in collaborative mathematical problem solving discussions but only in relation to the cultural models that dictate appropriate modes of interaction within the predefined interactional parameters of the situation as presented to the participant frame. A conjecture can only be identified as such by reference to the overall situation of a mathematical problem solving activity and not by virtue of the grammatical features of language use alone. This may be obvious but it stands to be repeated because it places upper bounds on the analytical validity of indexical interpretations. The use of the indexical language is not co-extensive with its performative function in the communicative situation. In other words, the illocutionary force may be to perform a conjecture but the locutionary force of the statement is an entailment from one proposition to the next. Under my framework, a conjecture likely results from a sequence of deictic speech acts, such as orienting, positioning, and coordinating but it would be false to equate these with the conjecture because they are grammatical features of language, not mathematical objects.

Indexical language cannot be divorced from the situation itself as meaning is derived from indexical language functions on the basis of the ordered juxtaposition of contrasts in the semantic field (Hanks, 2005). This is crucially important from an analytical perspective if we hope to understand the functions of indexical language in communicative interaction. Indexical language is a semiotic shorthand that only makes sense with reference to cultural models and situations (interpretants, in Peirce's terminology or

contexts in more contemporary formulations). Keeping the semiotic and sociocultural functions separate helps to clarify how indexical language functions in the negotiation of meaning. Divorced from its illocutionary force, we can see more clearly how indexicality proceeds through contrasting oppositions, and hence, glimpse at a more primitive level how indexicality coordinates ideas and actions in a conceptual space through the field concepts of locality and boundary. Thus, indexical language can be used to perform a conjecture, but it performs that conjecture through the coordination of ideas and actions in a conceptual space, defined and delimited through deixis.

Deixis in the ideational field. For theoretical reasons, the study limited the deictic analysis to a small number of grammatical devices, namely the set of demonstrative pronouns (*this, that, these, those, here, there, now, then*). As Hanks (1992) pointed out, there are a great deal more deictic devices including the 'egocentric' personal pronouns as well as the whole class of indexicals (Ochs, 1992) that index social relations like gender, class, ethnicity, power, etc. But demonstrative pronouns are employed in communicative functions of deixis, and importantly, are involved in the negotiation of meaning.

Stukenbrock (2014) and Cornish (2011) evaluated the way deixis in imagined spaces compares with deixis in physical spaces (Deixis am Phantasma for Bühler; I prefer the term 'ideational' spaces for both because it stresses that the deictic operations are performed on linguistic concepts, whether they be employed in strictly physical or semantic fields). Stukenbrock's (2014) discussion also recalls Bruner's (1986) notion of possible worlds. She found that participants can shift along three dimensions (place, time, person) or they can perform whole-scale shifts from the immediate to the imagined. Cornish (2011) argued that it is precisely the morphological property of distal vs proximal deixis of demonstratives (along with the predicative component of the lexical NP) that enables demonstratives to play the structuring role that they do. Writing from a cognitive linguistic perspective, Chilton (2014) argued that deictic space models (DSMs), which he also calls discourse space models (2010), have three scalar axes: discourse distance, time, and modality. Time has two directions from t=0, the time of utterance. Discourse distance

points in one direction and allows relevance distinctions by representing the foreground-background distinction. Modality also points in one direction and represents epistemically in terms of speaker certainty. These are the basic discourse space or deictic space referents. Chilton (2010) acknowledged that there may be many more referent types involved for discourse processing but that these are the minimal required of an account of the ventral and dorsal pathways in visual perception and spatial orientation, corresponding to the distinctions between egocentric and allocentric spatial representations, and object recognition and coordination of actions in the perceptual stream in the ventral and dorsal pathways respectively. Moreover, they have the virtue of being cognitively primitive compared to Stukenbrock's (2014) substitution of person for modality, especially when we consider that origo displacement is a simple task under deixis.

It is important to note that deixis can operate with or without a physical correlate. This is important for the study of the graduate research seminar because it suggests that co-regulated perception in an imagined space suffices to contextualize interactions. As Stukenbrock (2014) wrote:

> Spaces, even when seemingly 'empty' in the sense that they lack a visual correlate of what is being pointed at, are rich with contextual information which can be used as a resource. In order to be used as a resource, the sedimentations in space – no matter whether they are visible or invisible, remembered or invented traces of past or future actions, actors, events and participation frameworks – must be made relevant or foregrounded. This is where the deictic procedure – both verbally and bodily instantiated – comes in: It functions to establish co-orientation and shared imagination between the participants. (pp. 76-7)

As Stukenbrock (2014) was careful to acknowledge, Deixis am Phantasma is more likely to happen on a continuum from the layering over the physical space to the whole scale construction of an imaginary space. As a special case of Deixis am Phantasma, the

discourse of the qualitative research seminar occurs in an ideational space, and uses the deictic poles of person, space, time, in a purely abstract fashion. In discourse, as in reconstructed or narrative speech, the poles of person, space, and time can be used to orient participants perceptually. Participants will use deixis to construct and populate an ideational space or field and use the deictic poles to organize discourse, for example, using distance to mark conceptual similarity and dissimilarity between ideas, using time to structure ideas, and using person to position oneself and to present a stance toward the ideas and modalities that populate the ideational space, or field. In the graduate research seminar, where discourse is displaced and abstract deictic operations are likely to be performed in a purely abstract fashion to construct and populate an ideational space.

At this juncture, I find the metaphor of wayfinding or navigation to be helpful in conceptualizing the coordination of social practice fields. The functions of deixis in the abstract are analogous to its functions in the physical domain. Just as we navigate using fixed points or references to landmarks and defining topographical features, we orient ourselves in ideational spaces with reference to common (or prior) knowledge and the identification of the main ideas. The discursive organization of a field of knowledge into (often hierarchical) conceptual-thematic structures (e.g., a concept map) provides an overview (i.e., the lay of the land) and enables the novice to quickly orient themselves to the major topics and issues in the field.

Deictic reference may well be omnipresent but it varies systematically across fields depending crucially on access. As discussed above, deixis depends on the symmetry of speech situations and power relations. Contexts are interactively constituted through deixis in communicative situations. To the degree that fields are constituted ideationally, deictic use will vary on the relative importance of space, perception, subjectivity, and positionality because "the determination of the object of the deictic depends upon the cooperation of the Zeigfeld with prior discourse, memory, common sense knowledge, and other features of the social setting" (Hanks, 2005, p. 195), which includes participant frameworks, communities of practice, and power relations.

Role Shifts in Learning

Donin and Frederiksen (2015) examined a tutor's role shift in the context of an undergraduate tutoring situation and describe the shift from modeling to coaching. Building on Dore (1977), they added organizing devices, and specific problem-solving actions to capture the conceptual basis of the tutoring moves, reasoning that learning a problem-solving task is instantiating an expert model. They described a methodology to capture the conceptual basis of discourse interactions. In their paper, they showed how the participants orient to high and low level procedures (which could be discerned from deictic analysis of contextualization cues) and proves to be an effective way to describe the role shifts undergone in a tutoring session where the scaffolding is gradually removed. This is perhaps sufficient for capturing know-how in relatively structured knowledge areas, but it is hard to imagine how it could capture fuzzier domains of practice, such as learning a professional discourse and how to perform as a qualitative researcher.

In their close study of tutoring interaction, they were able to demonstrate a role shift in the tutor's stance in the interaction. This necessitated a way to capture the organization of the semantic space because the sequential organization alone could only show how the moves were connected, not why the moves were made. The student and the tutor were working on a problem together, hence the moves were justified in part by their position within the *problem space* represented by a problem schema.

Donin and Frederiksen (2015) wrote:

What is interesting is how the problem schema, which is a key to how experts organize their knowledge in such domains, functioned to frame both the tutor's problem-solving actions and her sequence of conversational exchanges which she used to organize the content of her dialog with the student. Like the staging of events for an audience in a play, the order in which she introduced problem-solving procedures to the student was framed by the problem schema and determined by choices she made as she tailored her introduction of information about solving

problems in this domain for the student as she was tutoring. The tutor used her tutorial dialog with the student to show the student how to solve the problem while simultaneously explaining the underlying knowledge, reasoning and methods used to understand and solve the problem. Thus, the discourse interactions functioned to communicate conceptual knowledge and reasoning processes to the student in a context of understanding and solving the problem. (pp. 103-4)

In the seminar that was the subject of the present study, the use of resources, and the course design and organization acted as supports for the discourse and indeed guided the students quite explicitly through the development of their qualitative research proposals. These structural features of the course perform a similar function to the problem space in the Donin and Frederiksen (2015) tutoring example. As with the tutor in their example, the instructor's role in the graduate research seminar shifts with the changing instructional responsibilities, administration, teaching, counseling, etc. But more salient still are the shifts that occur in the moment-to-moment interactions when the instructor shifts from discussion participants, with more equal status, to content expert, where he might make a brief aside on a conceptual point for the edification of the class, or as instructor, where he deploys his pedagogical content knowledge (Shulman, 1986) to help students navigate some particularly thorny issue (relating to ontology and epistemology, for instance). These role shifts occur frequently and often are unmarked and are part of the multi-membership (Wenger, 1998, pp. 158-9) of the instructor as both a qualitative researcher and as professor of educational psychology. They are part of the multiple roles that an instructor undertakes in inquiry based learning settings (Aulls & Ibrahim, 2012).

In the graduate research seminar, the problem space is contiguous with the disciplinary field of qualitative research that is much less defined and less ordered than the problem space of a mathematics problem. In our study of the graduate research seminar, we did not define a problem space for the development of a qualitative research seminar. Although this might have been possible, the students' interactions were not just governed

by the activity of designing their qualitative research proposals but by the constant negotiation of meaning that characterize the dual processes of participation and reification in the community of practice. The interactions were much more complex and richer because their involvement in practice was intimately tied up with their identity development (Wenger, 1998). Rather than defining a problem space, our analysis explored how the participants' orientation toward the field of qualitative research through their selective deployment of deictic resources was indicative of the various roles they individually adopted in the moment-to-moment interactions within the seminar that in turn were indicative of their developmental level of competency.

In the community of practice, identity is a trajectory—it evolves—that is constituted in the dual process of identification and negotiation through three modes of belonging: engagement, imagination, and alignment. Both identification and negotiation have their own affordances and productive tensions within the different modes of belonging. In identification, we adopt meanings that come to define us, and in negotiation we can shape meaning and take responsibility for the group. However, engagement and negotiation are subject to power structures that attempt to control and limit participation and ownership of meaning—within *economies of meaning,* in other words, the special knowledge leveraged for power. Hence, we witness a clear distribution of the linguistic resources (in the economy of meaning) according to the role the agent is occupying in the discourse, from the most expert instructor and then presenters, to the participants, who are reliant on the instructor to define the activity and the modes of participation and who are not in possession (yet) of the disciplinary discourse—the shared repertoire of the disciplinary practice.

In the graduate research seminar, the roles and learning trajectories are constrained by the interplay of the modes of belonging and the type of participation that are available to the members. Wenger (1998) described five different types of trajectories: peripheral, inbound, insider, boundary, and outbound. In the seminar studied here, the course objective was to have the students produce a qualitative research proposal. This was done

with the goal of preparing students for the actual work of performing qualitative research and some did indeed go on to complete the studies they designed during the course. In retrospect, we can observe that these students were on inbound trajectories where they were on their way to full membership, whereas others might have been on insider trajectories, where their evolution continues with full membership within the community of practice.

If we are to judge on the single criterion of having actually performed the research study that they devised in the course, then most students could be said to have followed peripheral trajectories, because their participation never led to full engagement. Although, as professionals working in the social and health sciences, it is possible that their experience did have an effect on their professional identities—through the provision of "a kind of access to a community and its practice that becomes significant enough to contribute to one's identity" (Wenger, 1998, p. 154)—even if they did not go on to perform qualitative research.

Presenter A can be said to have an insider trajectory as she now works in her chosen field that is informed by the community of qualitative research and provides a fertile field of research in response. On the other hand, Presenter B could be said to be straddling both an inbound and a boundary trajectory because she works both as a teacher and a teacher educator and has a strong commitment to action research and teacher self-study.

The instructor is not obviously on a learning trajectory because his identity is established, though as a full member of the community of qualitative research as both a professor of educational psychology with scholarship and research programs of qualitative research in educational settings he can be said to be inscribing insider trajectories. The instructor and the presenters offer examples of paradigmatic trajectories (Wenger, 1998, p.156). These are trajectories that the students can aspire to.

The students' identities will be formed by their experience of participation (Wenger, 1998). The seminar, however, only provides a peripheral form of participation, albeit a

legitimate one, where students are provided with the opportunity to engage through imagination and alignment (negotiation) with other members who are inscribing various trajectories within the community. As Wenger (1998) pointed out, however, participation is controlled to some extent by the economy of meaning, by latent power structures, as well as the personal histories of the participants themselves and within the community itself. Hence, not everyone that engages with the community becomes an insider and not every student completing a graduate seminar in qualitative research goes on to be a qualitative researcher or a university academic.

The Negotiation of Meaning in Intersubjectivity

Bühler's (2011) description of linguistic fields presented a radically different perspective on human language and meaning-making. Bühler's (2011) semiotic approach describes a coherentist epistemology and stakes out a position for a linguistic ontology based on a triadic relationship between the world and our minds (collective intersubjectivity) where our perceptual apparatus extends into a semantic domain-space in terms of perceptual and conceptual fields. The perceptual givens like time (logical priority) and space (resemblance or semantic distance) and certain cognitive primitives provide the tools and the organizational framework for a reasoning space (Chilton, 2014). This perspective is at odds with semantic theories based on a correspondence theory of truth, which seek to develop a formal representational language. A correspondence theory of truth is insufficient for explaining the way human language functions for meaning-making. Under a coherentist epistemology, criteria for truth, in addition to correspondence, also include similarity, consistency, and regularity. These are arguably more important conditions in the way we negotiate meaning through language as actual correspondence with states of affairs (even modal states) isn't necessary for language communication (after a certain level of cognitive development has been reached by the child (Piaget, 1952).

By sharing the same perceptual framework, we possess a mental tableau to organize and to manipulate ideas, and to convey and negotiate meanings. Our perceptual framework

is capable of fine differentiations, which allows for any meaning to be translated by composing on this tableau; using our perceptual field to organize and render meaning to our semantic field overlay by manipulating ideas in mental space. But this is not the same as state of affairs, because the correspondence function is different. The perceptual field is what is coordinated as topology (with regular variation between perspectives) and not homology (between meaning and states of affairs). We do not all have the same access to the world but we share a basic perceptual apparatus with which we can form logical relationships such as truth and contradiction. Correspondence with states of affairs then is discourse-internal (Teubert, 2010)—reference is to cognitions of our perceptual state— although they may be different they are at least constant—rather than some objective (discourse-external) state of affairs. These cognitions lie within a certain coherentist framework where individual perceptions are broadly similar to each other and cohere to a regular whole experience, on which basis we can reason and act linguistically.

From our study, it should be clear that demonstrative use of pronouns is ubiquitous in classroom discourse. Yet it is unclear what of the state of affairs is to be represented here beyond the speaker's actual communicative intention to perform some transitive operation in speech. We only used a subset of pronouns in our study because their senses were relatively constrained, compared to the pronominal uses of *it* and because they were likely to be used exophorically (rather than anaphorically and endophorically), compared to possessives and determiners. Yet reference was almost exclusively discourse internal, having little direct reference to explicit states of affairs. Of course, adding possessives and determiners would provide a more complete picture of the coordination of concepts in speech, over the more basic S-V-O transitive structure, doing the work of predicating and communicating intentions. Some theorists of deixis tend to find it everywhere once you start looking and even though there clearly appears to be an important referential to language, this referential function is contingent on some kind of representational ability whether linguistic or cognitive. The exact relationship of language to concepts is an open question and active area of research (cf. Evans, 2015) and it's not clear to what shape that

representational ability takes cognitively. Indeed, some references only function metalinguistically or syntactically, as it appears that even where *that* is used in a conjunction, to introduce a relative clause for example, the grammatical function serves to foreground the nominal phrase as the head (Cornish, 2011). This can be interpreted as a local instance of sentential deixis, where the relative pronoun points to a part of the sentence, in this case designating it the head of the sentence.

Of course, deixis can be deployed in ways other than through the demonstrative pronouns employed in this study. Deixis can equally be accomplished with noun phrases (cf., Martin, 2013, on nominalization and grammaticalization in instructional contexts). These deictic noun phrases are used as coherence devices because they are used to tie texts together not just sequentially antecedent references.

Table 45
Bracketing*: Nominalization in the Seminar*

Time	Transcription
3:24	Student: It's bringing me back to what we were saying before where we might then be looking coding and seeing all the negatives and not seeing any-anything else. Which is not to say that they're an unhappy popu- that they're not an unhappy population, which may be why you were drawn to them in the first place I don't know but, it's just my feeling that. . . we should be. . . um what's the word now? Bracketing.
4:06	Instructor: . . . okay good um other comments about - we're doing fine, this is what I'm imagining we would do um. . . other comments about, likenesses or differences, these are very good questions, they are not easy to answer, the first question was very it's abstract, so you're gonna have to sort of work through it.

Student: Can I refer to um what we were just talking about. . .

Taking an information theoretical perspective, it is hard to imagine words doing much more than signaling intent and meaning. The actual cognitive work or heavy-lifting would seem to necessarily involve much more complex integrative and constructive processes including those perceptual processes that allow the individuation and segmentation of sensory input. Physical metaphors are present everywhere and deeply ingrained in our linguistic apparatus. Pattern-recognition may have lent life a powerful evolutionary advantage but motion, foreground-background, similarity and difference, are also employed as linguistic metaphors (Jakobson, 1960; Lakoff & Johnson, 1980; Lemke, 1990). However, these linguistic metaphors are so ingrained in language that they are often taken literally as well. Such that notions of being on top and below stemming from natural hierarchies have come to affect the way we unconsciously organize conceptual hierarchies.

Table 46
Intelligibility in the Communicative Situation

Transcription
Student: What or is it like social change that you're after or highlighting uh. . . you know the dietary um. . . regiment of the marginalized group something [inaudible] uh I guess those are things that [inaudible] or do you know?

The segment above presents a question that is hardly intelligible, even from the context, yet the discussant hardly pauses before she replies. It is sufficient because the utterance does not have to be intelligible to be meaningful, the context can be suggestive enough for the speaker's utterance to be interpreted and its implied meaning to be recovered from the signals. It is because the participants share a similar definition of

situation, that they can impute meanings to others' utterances, and not the other way around.

This is where Bühler's dual notion of symbolic and deictic fields become so important as well as Bourdieu's notion of practice fields. If we can imagine ideas as substantive objects, then the physical functions of deixis can be carried over from the physical world to the symbolic world. Deixis becomes not only a linguistic tool for orienting in the world but the same mental apparatus can be used to orient symbolic content in an abstract world constructed of shared knowledge, ideas, and beliefs. A description of these cognitive-linguistic mechanisms should be a happy development for socio-constructivist or cultural-historical learning theorists who conceive of intermental learning processes or inter-thinking in ways that are consistent with our description of the discourse processes in seminar interaction. The preceding analysis gives some description of how ideas are manipulated and discourses molded in social activity. Specifically, for community of practice, this suggests an area of inquiry to understand how the repertoire of practice is instantiated and invoked in mutual engagement in a shared enterprise.

Most philosophers of language analyze demonstratives semantically, however the present study demonstrates that that they are most often used performatively, to create the conditions of understanding and to form the context of interpretation. In the context of this graduate qualitative research seminar, demonstrative reference was used communicatively to orient participants in the discourse field (Bühler, 2011; Hanks, 2005). Deixis served phatic, referential, and directive speech functions to orient students to the discourse by highlighting and making connections between important concepts, and giving participants explicit instructions on how to perform certain tasks and activities.

As Cornish (2011) argued, it is insufficient to study deixis in the context of short texts for two reasons:

> . . . first, that it is not very revealing to examine either deixis or anaphora in isolation from the entire spectrum of indexical procedures available in natural languages: after

all, deixis and anaphora as well as the linguistic devices which serve to realise them in context are integral parts of a whole network of indexical procedures . . . And second, that indexical expressions – context-bound 'pointing' devices – only manifest their true values in the context of entire texts, whether spoken or written: indeed, they are intimately bound up with the structuring of the discourse that may be associated with a given text in some context. (p. 754)

Cornish (2011) argued for a scalar concept of deixis from the strictly deictic to the strictly anaphoric, with a middle *anadeitic*. This is clear from our present study just by taking *that* for example. Used as conjunction, it serves to stress the focus on the lexical NP in the head position, for example: *The thing that I want to say*. This study demonstrates quite clearly that this is a very common discourse device employed by participants to organize the discourse by maintaining focus in interaction.

For many (Hindmarsh & Heath, 2000; Kaplan, 1989) demonstratives function with a visual or a pointing gesture, this does not hold up in our data. This does not mean that there is no gestural communication, only that there is often no physical object to point to in a seminar situation. The classroom environment was sparse and devoid of the objects of study. The communication was oriented toward abstract notions of qualitative research. The only physical representations being in the notes the participants kept, and the readings they brought along to class. As can be seen from many examples discussed above, the primary use of demonstratives in a seminar is to construe the communicative situation by providing instructions for interpretation.

In Hindmarsh & Heath (2000) the activity (a British Telecom control center) involved the setting and physical resources in a way that is essential to the functioning of the activity system. The computer systems were integral to the group's operations. Insofar as deixis is a function of the performative uses of language and is itself an interactional accomplishment, it will be turned toward and employed in the functional realization of the group's activity. In this case, pointing and gesturing to computer consoles. In the context of

a graduate seminar, the activity is largely intermental (Mercer, 1995; 2008). Deixis is used to select and to individuate certain mental resources that are shared by the group. These shared mental resources, or common understanding (Edwards & Mercer, 1987), are achieved through collaborative activity and provide the grounds for future collaborative work.

Hindmarsh & Heath (2000) state that:

. . . a key resource used by referrers, when pointing out an object to another, is the ability to ongoingly assess the actions of others and how those actions display an understanding of the location and character of a particular visible referent. Mini-pauses, confused grimaces, perturbations in talk, repeated inspections, all may be oriented to by the referrers as displaying difficulties and can lead them to upgrade or elaborate their descriptions or instructions. The sequence will continue until the appreciation of the object is relevantly displayed with regard to the business-at-hand. (p. 1871)

In a seminar, participants can gauge each other's understanding and contextualize their comments as needed. They may not be attending to an artefact but to a shared mental resource. Strategies for repair may be more overt and consist of questions for clarification or elaboration moves. However, in both cases, a host of contextualization cues are available. On top of the list provided by Hindmarsh & Heath (2000), participants in a seminar may be cued by silence, limited uptake, or misconstrual of the sequence as well. It is well known that the perception of misapprehensions or misunderstandings precipitate repair sequences (Mehan, 1979), which interrupt the sequential development of talk until it is corrected and shared/common understanding can once again be assumed.

Hindmarsh and Heath (2000) stated that "common involvement in an activity provides the very resources through which participants can establish, and can ascertain whether they have established, some common referent" (p. 1875). that common activity need not be oriented to a physical space, it can be oriented toward an ideational one. In

which case, the need for physical gestures is obviated by the increased dependency on verbal contextualization cues. At this point, it is worth repeating that the virtual totality of the analyzed interactions consisted in embedded turns, where each speech turn included prefatory type remarks which elaborated on the main force of the turn—the turn's main function. The extra prefatory and explicatory statements do the work of pointing and gesturing in a semantic-conceptual space.

The Problem of Representation in Language

It has been common to use the metaphor of the mind as a computer in cognitive science, but this has often limited inquiry to its reality-representing function, ignoring that this function is only a subset of the full ideational power of the mind to imagine alternate states of affairs and to effect change in our world by conceiving of other possible worlds, to make things happen. Bühler (2011) anticipated the problems faced by the logical positivists (and those contemporary semantic theorists who focus on a formal language and exclude the situative character of language understanding) stating in no uncertain terms that any study of language which seeks understanding in the linguistic structures alone is but empty formalism.

Thus, for Bühler (2011) and others, sign re-presentation is not representation (contra Milikan, cf., Ramsey [2016] and the functional role and representational content problem of representation). Except for iconic sign uses, signs do not represent, they indicate. The sign itself does not carry meaning, it only indicates (Dretske, 1980). As Ramsey (2007; 2016) and others have argued, there are different genera of representation, "[s]o the level of generality intended for representational genera is that of logical versus iconic representations, thus broadly construed" (Haugeland, 1998, p. 171). These researchers identify a tension in the cognitive project which has become reliant on representational explanations but as Ramsey (2016) states

> What we need and what isn't provided by commonsense psychology is, more
> generally, the sort of physical condition that makes something a representational

state, period. In functional terms, we would like to know what different types of representations perhaps have in common, qua representation. (p. 6)

Accepting that our mental states are not strictly representational of state of affairs because we can imagine false or counterfatual states of affairs, then our perceptual impressions do not exist in one to one relation with the world or our intentions. When we hold an object in our mind, our mental representation is never complete, it depends on the at-handness or what it means to us at that time—its relevant features such that a hammer can be a hammer but it can also serve as a paperweight. Or Trump can simultaneously be a dunce, a fascist, and the savior of the Republican Party. These ways of seeing are not representational, they do not depend on descriptions, uses, or intentions, their meanings rather derive from their interrelations in complex semiotic constructs. Signifiers and signified dynamically influence and inform in recursive and recombinant interaction, hence, our representations (if we can be said to hold purely linguistic representations and not mental representations which combine both the conceptual and the perceptual) must be multiform and multifaceted to account for the complex semantic interplay of meaning.

The question about the relationship of language to reality is misconstrued because there is no direct link which does not pass through us first. Meaning is not to be found in the world. It is we, as knowing, acting subjects who ascribe meaning to it with our words and neither are words in the world, but only in our head. Words do not have privileged access to the world, only to our mental states. Choice of signs is arbitrary because it is we who imbue them with meaning through our use. Communication is a process of encoding and decoding messages however there is meaning inherent in the code, only the meaning we invest in it. It is contextual information which holds the interpretive key necessary to decode the message. The context fixes the meaning, but our meanings can still be multiple, that is they can imply more than one thing by virtue of the ambiguities inherent in language, ambiguities which we deploy as a communicative resource, for sarcasm, irony, double-entendre, or in any case where uncertainty prevails.

As representation is a term that is used in multiple ways (Ramsey, 2007), it is necessary to clarify certain nuances. The stances can be arranged in a two-dimensional space from the individualistic and mentalistic to the situated and embodied. On the one extreme, proponents claim that language presents to our minds a picture of reality, as was famously defended by the early Wittgenstein. The mental picture of reality thesis is the canonical example of individualistic and mentalistic representationalism. It is an essential feature of many information processing systems modeling cognitive behavior, (e.g., Kinstch & van Dijk, 1983; Newell & Simon, 1957; Shank & Abelson, 1977; etc.). Although the later Wittgenstein even more famously repudiated that conception of language function, his other famous formulation that meaning is use moves him more toward the opposite camp. Wittgenstein denied the possibility that there could be such a thing as a private language, which one can take to be as arguing for a socially-situated and cultural-historical definition of meaning, arguing against the notion that meaning was grounded in language. For Wittgenstein, the meaning of an utterance was not to be found in the semantic expression but in the use it was put to in a particular communicative situation. However, this is still a mentalistic picture—contextual information only bears on the fixing of the meaning. There are also a situated and embodied perspective, wherein meaning is use but cognition is embodied. Representation can be seen not as a picture held independently in the mind but as a projection of a conscious agent. Projections are schematic, incomplete, and take the features of the underlying apparatus—or mind—like shadows projected onto a wall, they are constructions in mental space that employ the perceptual field to orient and negotiate concepts to form meanings and intentions. Proponents of free enrichment, pragmatists that argue for the primacy of contextual information, I take as arguing for an embodied stance. For the free enrichment camp, meaningful resolution necessitates the full access to all the world and situational knowledge available to the participants.

Some different kinds of representation. Truth-conditional semantics is focused on a correspondence view and thus representations are evaluated in terms of correspondence between statements and reality. Whereas cognitive semantics studies the relationship between thought and language and takes a coherentist view, where meaning is

evaluated in relationship to conceptual networks (mental spaces) and thus representations are evaluated in terms of the coherence of their structural relationship. A third form involves a mapping or coordinating function between two spaces. If we take an embodied position, we can imagine a conceptual space that overlays our perceptual apparatus. What permits it to function as a semantic-conceptual space is its dimensionality, specifically we use time and space metaphors in conceptual reasoning.

Correspondence implies a one-to-one relationship and thus, we can speak truth *values*. Coherence takes a network view, it is the connections that hold between the nodes that matter. We can talk of semantic networks but truth will be related to more complex patterns of organization. Coordination implies a mapping and thus takes a topological view. Indeed, we can also speak of conceptual spaces, not just nodes within a network, but it terms of boundaries and localities. These nuances are important to keep in mind because they affect the way we ought to reason about cognitive processes in general, and about indexicality in language specifically.

The argument for a situated and embodied stance on representation are threefold. Not all speech is truth-evaluable, language is underdetermined, and implicature and contextualization cues are not amenable to singular reference or semantic resolution. In other words, there can be no one-to-one correlation between language and reality on the one hand, and between language and the mind on the other. In mathematical language, the problem is tantamount to trying to map a multi-dimensional space onto a lower dimensional one—there is necessarily information loss in the one direction and there is under-determination in the other.

At its heart, language is based on reference of more or less complexity. It is easy to see how names stand in for objects both real and ideational, but just as nouns stand in for objects, and verbs for actions. Modifiers, determiners, and propositions are the equivalent of a linguistic tool box to perform operations on objects and actions. Most if not all utterances can be decomposed into a set or series of deictic references. The establishment

of contrastives—the underlying function of deixis between the figure–ground distinction—precedes syntax, lexis, even phonetics. Even animals have language, to the extent that they can communicate intention (Koyama, 2009).

Not all statements are propositions or substantives that describe a real state of affairs. Other forms of statements include commands, phatics, expressives, because language is not simply about communication, it is a social tool for cohesion, order, cultural transmission, and collective action as well. For those like Teubert (2010) who take a coherentist stance on epistemology, all statements carry meaning by virtue of *discourse-internal* relations. It is not that it makes no sense to look for meaning in external relations, simply that it does not matter. External relations are judged to be in agreement with internal discourse relations by the speech community to the extent that there is a coherent organization between the two; there need not be a direct correspondence between our internal discourse relations and the external world relations. Our *shared reality* is not co-extensive with the physical reality, it overlaps but it over-extends. Its meaning is negotiated and agreed upon by thinking acting subjects. It is not limited to a strict account of what is, but what could be.

> What we see there is not just stuff or matter; it is, to a large extent, an assembly of conceptualisations of concrete and abstract objects, properties, states, processes and actions that owe their existence to foregoing negotiations forming the residue of our memories. Without people discussing them, there would be neither apples nor pears. It is this realisation that makes me so suspicious of what is commonly called truth. If there is no link between the non-symbolic reality outside of the discourse, and the symbolic content of the discourse, how could truth be an issue? (Teubert, 2010, p. 171)

The underdetermination of language proves to be advantageous because we do considerably more with words than a literal reading of utterances can show. We don't just communicate meanings, but intentions as well. Our language choices are also identity

statements, which say as much about us as we expressly communicate. Our language choices, independent of the content of our utterances, can signal political, cultural, and ethnic affiliations. They can articulate our positions through pragmatic cues. Far from being a hindrance, ambiguity in language is, more often than not, advantageous. Bruner (1984) argued that the power of narrative lies in its indeterminacy, its subjunctivization. Where it leads to confusion, we can employ techniques for conversational repair.

Furthermore, the power of implicature (Levinson, 2000) rests on our ability to impute more meaning to utterances, to read the intentions behind the words, to read between the lines. The power of empathy is this: it is being able to put yourself in someone else's shoes to understand what they are saying. Empathic understanding requires at least the ability to see things from others' perspectives. As Kant argued nearly 250 years ago, understanding results from equal parts imagination and judgment. Sensory awareness and perception can only provide an impoverished description of the world.

A mapping coordinates discourses with external physical reality through internal coherence relations in each space (perceptual and ideational) and conventional sign systems for translating between modes of presentation. Each mode has its own truth conditions (Récanati, 1990). A mapping or coordinating perspective on representation and reference can resolve the apparent contradictions (antinomies) between singular definite reference and the meanings expressed by linguistic representations. As perception is largely iconic, there would be no fixed reference outside perception, icons are verified by isomorphism or similarity between the sensation and perception. The point being that we always have a model against which to evaluate and complete propositional content because the lexico-syntactic content is embedded in the perceptual field (which is always already semantic as it contributes our conceptual logic). Context (as a complex semiotic construct) can therefore be understood as conjunction of perceptual fields between speakers, which perceptual fields would always already be mapped semantically in a shared mental space. Consequently, the main criterion for judging contextual salience would not be relevance

but availability. Indeed, situation models are attentional models (Zwaan & Radvansky, 1998) and everything in a situation can be attended to.

Translating what we perceive into words involves a significant loss of information from one mode to the other but, more importantly, perception is already organized by our brains. When we attempt to form an utterance to describe a particular scene, we believe we are referring to it as it exists. We are, however, only able to describe it as it appears to us, in the manner in which we perceive it. Our perceptual system organizes the sensory information into a scene that we can describe. The scene itself already has a content, albeit one that is best understood as semiotic because as Evans (1982) argued, we do not gain knowledge of our senses. The sensory information is given and inseparable from our experience of it. Thus, what we determine to be talking about is agreed on by mutual convention. Crucially, what we believe we are talking about may be the same object—we may agree on the term and its reference—but we may have wholly different conceptions of the object in question. We may both be talking about the same thing in some objective sense but it turns out to be rather spurious because it is not how the object is presented to me so much as what I take the object to be. Whether or not I know that *Cicero = Tully* is a question of knowledge and can be resolved by acquiring more information, however, what Cicero–Tully means to me will depend on the concept I hold of him. The reference to Cicero–Tully is to the conception we make of him. Our understanding of Cicero–Tully will be shared to the extent that we can negotiate what we mean by the use of this expression. We may come to agree that we are talking about the same person, yet wholly disagree on the qualities of the person (I may think he is an excellent orator and you may disagree.), neither of which ascribes anything to the actual personhood of Cicero-Tully because our linguistic-perceptual system has no access to the object in itself.

Using an abstract term such as *validity*, we can more easily accept that validity does not have an independent existence from a community and its practices. When we use the term we refer directly to the concept of validity, yet there is no such set of singular propositions which could exhaust the concept of validity. Whereas the mode of

presentation can dictate how we understand a reference, there is no such circumstance where two people would ascribe the same content to a reference despite the character and the mode being exactly the same. My *ego hic and nunc* (I, here, now) is not your *ego hic and nunc* but through coherence between our linguistic-perceptual systems, we can negotiate meanings and come to shared understandings, which are the conditions of intersubjectivity. However, this is an inherently ambiguous process. As Wenger (1998) put it:

> This inherent ambiguity makes processes like coordination, communication, or design on the one hand difficult, in continual need of repair, and always unpredictable; and on the other hand, dynamic, always open-ended, and generative of new meanings. The need for coordinating perspectives is a source of new meanings as much as it is a source of obstacles. From this perspective, ambiguity is not simply an obstacle to overcome; it is an inherent condition to be put to work. Effective communication or good design, therefore, are not best understood as the literal transmission of meaning. It is useless to try to excise all ambiguity; it is more productive to look for social arrangements that put history and ambiguity to work. The real problem of communication and design then is to situate ambiguity in the context of a history of mutual engagement that is rich enough to yield an opportunity for negotiation. (Wenger, 1998, pp. 83-4)

The trouble with many representationist accounts is the reliance on a truth-value. But perceptual processes are not broadly propositional, contra Dilworth (2009), because once they are propositional they have already become discursive, that is, they become embedded in larger frameworks of meaning. Dilworth (2009) wrote, "the indexing theory claims that our everyday understanding of intentionality can be explained in terms of a properly theoretically underpinned account of how we actually use our propositional knowledge to index our perceptual successes and failures" (p.12), but it is simply not the case that a propositional account is either sufficient or necessary for an explanation of

perception, no less meaningful communication. Inferences happen on an ad hoc basis—on a "need to know" basis—when additional information is needed to understand intent.

Ultimately, there is only one representation which is necessary and sufficient for translating and constituting meaning from signals and that is the embodied dynamic representation of attentional awareness. Thus, syntactic and lexical information can be interpreted as *naturalized* information, which can be derived from our embodied cognitive structure (see, for instance, Piaget, 1954). Semantic mappings are overlaid on our perceptual system; each map is different though the underlying space is the same, differing in level of precision, intended use, and idiosyncratic detail, orientation, etc. Hence, reference extends from our ability to individuate and categorize perceptual phenomena.

We have briefly considered the different kinds representations, and have argued that our shared perceptual framework provides the cognitive primitives (Evans, 2005) for our linguistic understanding. A situated, embodied perspective, on meaning-making suggests that meaning-making is not a strictly linguistic (i.e., semantic or syntactic) process but a holistic function of the interplay between perceptual and conceptual processes. Thus, linguistic representations are at best analytical devices, because the meanings ascribed to signs by interpretants are by nature oversaturated, that is, they can't ever fully be accounted by the signs; more meaning can always be imputed by the interpretant. The main outcome of such a triadic theory of sign-meaning is that intersubjectivity is a consequence of the triadic relationship between interpretant, the sign, and the signified.

The Problem of Reference in Language

Considering that in a communicative situation, what is said by any one participant can be interpreted any number of ways by the others (Gumperz, 1982, pp. 159-62), as we have seen, there are interactive mechanisms for conversation repair. However, for the analyst it becomes difficult to ascertain with any certainty what was said let alone what was understood. Establishing what is meant rather than what is said in the seminar is not straightforward. It is especially difficult to establish the semantic content of utterances that

rely heavily on deixis because not everyone can entertain the same semantic sense. In other words, word and utterances meanings do not just hold one strict sense but multiple individual senses because the conditions of intersubjectivity don't extend to everyone's subjective interpretation of the sense. Thus, the study of the discourse of a graduate research seminar runs headlong into the problem of reference, which has been extensively written about in the analytical philosophy of language.

To fully characterize the discourse of the seminar, it is necessary to establish the what is said. But the purpose of this study was not to reconstruct the semantic basis of the seminar in terms of its propositional content or its truth conditions. Rather, one of the main assumptions of the study is that it is not just the content of the participants' interaction that matters for their learning but also what is accomplished through their interactions. In other words, it is not just what they say it, but how they say and why they say it that counts for learning in a community of practice. So what participants refer to and the means they use to do so become central to the methodology. It is not just an interesting theoretical question but one that is central to a methodology seeking to establish the linguistic means of maintaining intersubjectivity in the co-construction of discourse.

I start from the basic constructivist assumption that the participants co-construct the discourse in interaction, which entails a certain modicum of shared understanding or intersubjectivity. I assume that discourse objects, similar to mental models (Johnson-Laird, 1982; van Dijk, 2008; 2009; Zwann & Radvansky, 1998), are maintained by participants in memory as hybridized mental constructions. These can access memory stores, for example, episodic memory and lexico-conceptual knowledge, and overlay our perceptual-awareness. This is a position which shares affinities with Fauconnier's mental spaces (1984; 1997), Récanati's mental files (2012; Murez & Récanati, 2016), and Chilton's deictic space model, and is against Fodor and Pylyshyn's (2014) contrarian anti-intensional position, as I believe that a naturalized intensional semantics is possible. Fodor & Pylyshyn (2014)'s neo-empiricist position is just a revised version of the correspondence theory of truth. I argue that meaningful percepts are concepts proper, and thus refer to a mental space that shares

a coherence relation with the physical world. The conditions of intersubjectivity don't extend to individual representations-constructions. Thus, my position is that it is the Fregean *sense* which needs to be revised and not the *reference*. As discussed in the previous section, linguistic expressions refer to concepts and percepts and are only related through triadic coherence relations with the world, for example, through sensory feedback. Hence, reference is, in a sense, fixed by our shared perceptual systems, in a shared *ontological space*, which permits a form of validation against which ground we can fix our meanings. Reference to some ontological reality beyond our perceptual-conceptual framework however, is simply not available to the language system.

As Harder (2008) writes:

Since we conceive of a particular entity as something that can be reidentified at a later time, we can impose an extra layer of order and stability on the ontological space we occupy by populating it with particulars: instead of a merely shimmering process of feature manifestations we get a universe that includes familiar objects to which we can relate and adapt. (p. 9)

In the philosophy of language, reference theorists have been broadly divided into the descriptivists and the direct referentialists. There are those that argue that referential meaning is attributed on the basis of some definite description, and those that believed that referential meaning is fixed to the individual referent itself, thus represented by singular propositions (which are the constituents of the referents themselves) exhibited by an identity function $X = X$. Strawson (1950) made clear the distinction between ascribing and referring singular definite terms, whereas Donellan (1966) cleared up the distinction between ascribing and referring singular definite descriptions. This is important because the difference relied on the existential status of the expression, in the case of ascriptions, there is an assertion about a particular state of affairs, whereas in the case of references, there is no such assertion, only an implication that such a referring expression can serve to

identify the object in question. In this sense, referring expressions do not affect the truth or falsity of the semantic content; these are not correspondence but coherence relations.

However, as has been pointed out by Récanati (1990), the character of directly referring tokens—the meaning of an indexical term—has been taken to express singular propositions (Kaplan, 1989) which are supposed to be the same across different uses, but runs into problems when trying to account for false ascriptions (or attitudes) like the belief that *Cicero* $\neq$ *Tully*. The direct reference solution has been to account for the difference by the fact that the two references are given under different *modes of presentation*. Hence, for Récanati (1990) it is this proposition under a certain mode of presentation, which is understood, or the mode of presentation itself (p. 701) which is the content of the attitudes expressed, because the psychological mode of presentation—the subjective first person—is to be distinguished from the conventional rule-driven linguistic mode of presentation, for instance, indexical terms.

It is common to argue that the meaning of an indexical expression cannot be understood without knowing the contents of the referents but an expression such as *I love you* is manifestly understandable even though the referents are unknown. This results from some confusion as to our understanding of meaning, which Strawson (1950) distinguishes as the (semantic) meaning of an expression, and its (pragmatic meaning) use on a particular occasion. Contextual information can provide much more detailed understanding, for example, the utterer, the intended recipient, the mode, the intention, etc. Indeed, it could turn out that the utterance is meant ironically, and that is not semantically encoded in the expression. In addition, it is unclear to what extent the ironic marker is even encoded in the context itself (see Wilson & Sperber, 1992, on relevance theory and irony). Although we commonly divide meaning into the semantic and the pragmatic and distinguish between what is said and what is communicated, both of these are actions performed by an intentional agent meant to effect a change in the receiver; both are speech acts in their own right. As the preceding study demonstrated, deictic uses of

demonstratives are intentionally performed referential acts; they provide cues needed to tease apart what is being communicated from what is said.

Another source of complexity within the semantics discipline is the presence of two ontological camps with largely differing goals and methods. As alluded to previously, there are those that advocate for a correspondence theory of truth who are largely involved in formalizing an ideal language (to the degree that accurately describe and differentiate between real states of affairs). On the other hand, there are those that advocate for a perceptual mediation, certain 'cognitive primitives' (Evans, 2005; 2015), a cognitive semantics (Jackendoff, 1982) or a cognitive grammar (Langacker, 1986), which lead them to advocate a species of coherentist epistemology as evidenced by their study of the faculties that underlie our ability to reason meaningfully about the world. The cognitive linguists postulate that our perceptual apparatus plays an important mediating role in our cognitive framework. Some, like Bühler (2011), liken our linguistic ability to a wholesale extension of our perceptual field and related motor functions like manipulating objects and navigating in space. The perceptual field provides us with the logical primitives (Strawson's (1953) individuals) to organize a perceptual-conceptual space.

Kripke (1980) and Putnam (1973; 1975), are two proponents of taking direct reference as rigid designators. Names are rigid designators, but where they stray is on how meaning is ascribed. Meaning is not causally determined, as meaning is not inherent in the symbol; any attempt to fix meaning permanently to a symbol is bound to fail because the symbol itself can vary in meaning, primarily due to lexical and syntactic affordances (*intensions*), but also because they encode intentions, which is the only way to account for malapropisms, or irony, which requires a charity-empathy condition on the hearer's behalf. Further, interactions happen on multiple levels, which a literal interpretation of speech alone cannot capture. Thus, meaning is construed intentionally by encoding and decoding signals from the environment, including linguistic signs. But signs themselves require an agent to be rendered meaningfully. In short, it does not matter what the sign means to a particular intentional agent. So long as the symbol can be ascribed a meaning which is

known to the participants in a communicative situation and can be verified through use by one agent to induce another to action or otherwise effect a change in his or her environment against his or her perceptual field, cf., Levinson (2001), Grice (1989) and Searle (1969).

Signs and meanings are multiple; thus translation or mapping itself is *complex*—it is not a one-to-one dyadic relation (correspondence) but one-to-one-to-one triadic relation (coherence) or more to the point, a many-to-many-to-many system of relations. One very complex world representation in a mental space through which we can derive meaning through figure-ground relations, employing linguistic tools such as deixis. As is borne out in this study, the general class of demonstratives are interpreted as pointers and not existential signifiers or singular propositions, because, participants were not primarily making truth statements but communicating intentions. The great majority of deictic use of demonstrative reference in the seminar were used for coherence and cohesion, not for ascribing. The great majority of deixis serve a performative function. Meanings are fixed in use as intentions and not truth statements. *Cicero is Cicero* uttered in a certain way can be more than an identity; it can direct an admonition, irony, hilarity, or something else even. It is thus that the actual import is not to be found in the sign, the object, or even the interpretation; both the Fregean sense and reference are multiple. It is the context that is singular; the context that disambiguates. Yet, even then, sense is not communicated so much as signaled. Sense is reconstituted from signals, construed from ascribed intentions. Some have objected to the introduction of intentionality in speech act theory (Levinson, 1983) because they can't be verified but intentionalities don't have to be true, they only have to be imputed because they can be verified in context. Intentionality is a fact of our being-in-the-world; it is an aspect of our intersubjectivity, and is a precondition of our communicative understanding. Thus, name-words do not denote by virtue of their being names. Denotation is only possible in relation to situations and texts. For example, Napoleon is a nice name for a dog because it is funny. It refers to both the emperor and the dog at the same time. That's what's evocative about poetic-metaphorical language. And, as some have demonstrated (Giora, 2007), multiple meanings are activated in the brain at the

same time. It is not the word's value then, but what the word signals in context that counts for either the semantic or the pragmatic meaning.

Récanati (1993) distinguishes between de jure (with respect to states of affairs) and de re (strictly cognitive) direct reference and argued that de jure reference is defensible on semantic grounds. But this does not require a correspondence relation to discourse-external states of affairs. What if not correspondence then? Surely de jure reference is still possible? De jure reference may indeed be about some external state of affairs, but even de jure reference will be by agreement between participants. Meaning negotiation can affect states of affairs or be consequential for the person's actions but none of this implies a correspondence theory of truth because statements are verified by our perceptual mode of being, which involves the coordination of meanings within physical and ideational fields against which linguistic facts can be deduced. Such networks of relations imply a coherentist epistemology, where consistency, regularity, similarity are relevant for a pragmatic theory of truth. Furthermore, there is no longer need for singular propositions, as argued by direct reference theory, because each term is represented in a field network of meaning. Thus, we observe a many-to-many sign (many-to-one-to-many) relationship, not one-to-one as stipulated by a correspondence theory. This is the coherentist picture. States of affairs are thus obviated by a pragmatic theory of truth that stipulates meaning in use (Wittgentstein, 1953).

Networks have more relationships than strict correspondence, and these are expressed through different validity claims in addition to correspondence between a representation and a state of affairs. Two networks can be compared on the degree of correspondence between points systems, but also can be judged on the degree of coherence (e.g., consistency, similarity, regularity) those systems into consistent wholes. Coherence between representations and networks offer a modicum of internal consistency for ensuring communicative success. Language also offers a pragmatic resolution device as any mismatch can be negotiated between interpretants. It is our agreement on definitions of situations, our shared cognitive makeup, that provide for understanding, especially for

telegraphic type communications where much meaning is to be inferred by the receiver on the basis of consistent shared representations, which don't have to be identical as long as these shared representations exhibit similarity, regularity, and consistency in relationships. Coherence in representations is negotiated through semiotic mediation. It is the regularity, similarity, and consistency in sign use that can ensure meaningful communication.

De jure statements may indeed be about specific states of affairs but these are never in any meaningful sense about the world as they are discourses about the world. The real meaning of the object lies with the interpretant. An object is endowed with meanings by interpretants and it is those meanings we negotiate; the object itself can only ever have an iconic value at best, which is why we don't need objects for thinking or communicating once we develop enough cognitively. Just as with numbers, we stop having to associate our representations with immediately accessible objects, e.g.., *three apples* simply becomes the number *three*. Objects are not quite signs. Though we can use them as signs they can also be used as icons, to which meanings can be fixed. It is easy to understand why objects would appear to belong to the nature of the sign. However, the sign does not have to have to bear any relation to a state of affairs to be meaningful. Truth is determined by agreement, in other words, by coherence relations, between perceptual and linguistic modes.

The fact is we can never subtract the interpretant from the equation. Meaning is imputed to signs by thinking agents. We share common perceptual access to situations that is coordinated and negotiated in communicative activity. Our statements can be verified against those perceptions of situation.

Thus, in terms of what meaning is negotiated in interaction, this study assumed that what is built in communicative interaction is determined by mutual definition of situation. The discourse is not ratified by correspondence with states of affairs, because discourses are in many respects independent of the immediate situation. In these situations, other criteria for verification and validation prevail. Thus, we did not assume that the discourse

be represented by each participant in some isometric manner, nor that shared understanding means the same understanding. Rather, by stipulating intersubjectivity we are claiming that certain coherence relations prevail between individual participants' definitions of situation and negotiated meanings on the basis of a common language system. A triadic system is properly a network, which also exhibits coherence and consistency as well as correspondence because our networks of meanings are mostly interchangeable, differing mostly by degree of complexity, though they may not be equal. It is on the basis of similarity, consistency, and regularity relations between our perceptual reality and language system that provide the basis for the negotiation of meaning. A certain degree of fuzziness in meaning is permitted, and can be easily resolved through conversational repair, for example, explanation, dialogue, remediation, etc. In this sense, correspondence is a sufficient but not a necessary condition for communicative interaction. These assumptions provide the basis for the study of the negotiation of meaning in the graduate research seminar.

Conclusion

Implications for Higher Education. This study advances our understanding of how seminars function and how participants contribute to the co-construction of the seminar discourse. The study characterizes learning in seminars in terms of trajectories of participation in communities of practice.

The study makes innovative use of deictic analysis to advance our understanding of how knowledge is co-constructed in social interaction by describing how communicative understanding is achieved through the linguistic coordination of concepts within the deictic field.

This study opens up a potentially rich field of inquiry to further our understanding of learning in social interaction by providing a mechanism to reconcile sequential-level analyses with the linguistic analysis of communicative situations.

Limitations. I did not consider the use of other pronouns like the ubiquitous *it,* which means that an important source of deixis in pronominal reference was ignored.

There was some repetition in deixis use, but it was rare. It does raise an issue that was not addressed in the study, namely, how do you identify boundary conditions in deixis? For instance, does repetition always entail a false-start, or are there contextualization cues (gestures, facial expressions, etc.) that prompt the repetition of a deictic move? Moreover, pronoun use is likely idiosyncratic to some extent. The present naturalistic study did not permit the kind of controlled experimentation to examine the extent to which deixis is governed by individual differences in speech. However, I can reformulate any sentence replacing every deictic expression with a nominal phrase, which suggests that deixis is more than just an idiosyncratic preference, as it greatly aids in simplifying utterance constructions. Moreover, it is widely accepted that pronouns, far from being useless, actually play a role in establishing cohesion and coherence.

As Stukenbrock (2014) pointed out, deixis should be placed on a continuum from the physical to the ideational and likewise, a proper analysis needs to be sensitive to the multimodality of communicative interaction, to fully appreciate the functions of deixis in interaction. In the seminar, which consisted largely in whole group discussions, only the verbal interactions were studied, and although this is analytically justified here, there is still a facet of the seminar discourse that was not included.

Working with traces also presents limitations. I had to reconstruct the discourse from the videotapes, and the course readings. However, I had access to the instructor and I took the class myself three years later, which helped in the reconstruction. This, discourse analysis was conducted in an ethnographic perspective (Gee & Green, 1998) but it is not an ethnography and should not be interpreted that way, although standards of reliability and validity in the qualitative data may not differ significantly (Lincoln & Guba, 1985).

I chose to focus on demonstrative pronouns but as the work on discourse markers and on prepositions shows, there are other ways to organize discourse in interaction.

Indeed, there is a great deal of data that was purposefully put aside to constrain the size of this study. To fully describe the seminar discourse and the linguistic resources for verbal interaction, it would be necessary to include all grammatical organizing devices to show all the positioning and orienting work that is accomplished in seminar discourse. Of course, the coordinating aspect of deixis would be more complete by including prepositions.

Deixis and discourse markers. Deixis should be distinguished from discourse marking. Discourse markers are features of relevance theory (Sperber & Wilson, 1986) and have been studied extensively in a number of fields (Maschler & Schiffrin, 2015), notably by Schiffrin (1987) from a sociolinguistic perspective. Discourse markers provide pragmatic cues for meaning resolution. Fuller (2003) found that the use of discourse markers varies with role and communicative context. Borderia (2008) argued that contrary to relevance theory predictions, discourse markers are often polysemic and often carry both conceptual and procedural information in the same marker. Borderia (2008) called for a reconsideration of the interpretation of discourse markers in relevance theory. Although deixis can be used as discourse markers, and share similar functions, deixis refers primarily to the orienting functions in language, whereas discourse markers refer primarily to the textual functions in language, and include the larger class of indexicals as well. However, the literature on discourse markers can be helpful for understanding how deixis functions in discourse (see Haselow (2011), on utterance-final then; or Cornish (2008; 2011), on the discourse functions of deixis). Because certain deictic terms can be used as discourse markers, it is important to keep clear the function the term plays in the discourse. An utterance initial *now* can be used to introduce a topic change and functions as a discourse marker; however, an utterance-final *now* may refer temporally to the present moment.

Deixis and anaphora. Deixis can be used to refer to previous statement ideas or those yet to come, commonly called anaphoric and cataphoric relations, respectively. Silverstein (2003) somewhat more expressively called these presuppositional and entailing indexicals. Halliday and Hasan (1976) also identified endophoric an exophoric relations, or relations within the text, and outside the text. These highlight the way texts are made

meaningful in relation to other texts, or *con-text*, and are particularly relevant to discourse studies. Deixis in discourse implies these textual relations but also extends to orientation in perceptual-conceptual (mental) space.

Future Directions. Future research should seek to apply deictic analysis to other educational environments and to include developing computational methods to automate the deictic analysis of communicative situations. The heavy use of deixis in the seminar situation warrants more study, not simply because it would appear to be a central organizing feature of the negotiation of meaning in this context. Studying deixis in the context of seminar also has the potential to help determine what is accomplished through seminar discourse by incorporating an utterance-level analysis.

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    2909.123.2.162

Appendix 1: Frequencies by Class Meeting

February 3

Table 47
Frequency of Demonstrative Pronouns by Participant Role

	Presenter A	Instructor	Students
That	325	238	77
This	126	56	13
There	73	37	8
Those	38	6	1
These	28	13	3
Now	82	69	28
Then	44	14	14
Here	16	13	1
Totals	732	446	145
Deixis / Role	8.82	5.19	1.37

Table 48
Frequency of Demonstrative Pronouns by Speech Act

	Comments	Directives	Elaboration	Questions	Responses
That	322	15	127	44	131
This	89	3	50	11	42
There	49	2	37	8	22
Those	23	0	12	1	9
These	21	0	11	3	9

Now	86	3	35	18	37
Then	33	4	12	6	17
Here	12	2	11	2	3
Totals	635	29	295	93	270
Deixis / Turn	5.29	3.62	9.22	1.69	4.74

Table 49
Frequency of Speech Acts by Presenter Role

	Presenter A	Instructor	Students	Totals
Comment	38	26	48	120
Directive	1	6	0	8
Elaboration	7	19	3	32
Question	6	15	30	55
Response	18	14	21	57
Total turns	70	80	102	272

February 10

Table 50
Frequency of Demonstrative Pronouns by Participant Role

	Presenter B	Instructor	Students
That	257	218	49
This	70	71	17
There	77	54	11
Those	11	10	2

These	31	12	4
Now	47	79	21
Then	58	17	17
Here	8	19	3
Totals	559	480	124
Deixis / Turn	4.51	4.49	1.36

Table 51
Frequency of Demonstrative Pronouns by Speech Turn

	Comments	Directives	Elaboration	Questions	Responses
That	152	20	188	55	113
This	52	9	64	18	18
There	46	2	50	15	31
Those	6	0	8	3	7
These	20	3	19	3	3
Now	33	8	52	13	41
Then	22	3	35	16	15
Here	8	1	12	8	1
Totals	339	46	428	131	229
Deixis / Turn	4.71	5.75	8.73	1.90	2.83

Table 52
Frequency of Speech Acts by Participant Role

	Presenter B	Instructor	Students	Totals

Comment	44	13	15	72
Directive	1	11	0	8
Elaboration	29	24	3	49
Question	11	29	44	69
Response	43	22	31	81
Total turns	128	99	93	279

February 17

Table 53
Frequency of Demonstrative Pronouns by Participant Role

	Instructor	Students
That	293	123
This	65	48
There	72	29
Those	10	3
These	25	4
Now	67	49
Then	31	13
Here	11	3
Total	574	272
Deixis/turn ratio	4.22	2.09

Table 54
Frequency of Demonstrative Pronouns by Speech Turn

	Comments	Directives	Elaboration	Questions	Responses
That	61	13	163	65	99
This	14	3	41	16	36
There	14	2	41	17	26
Those	1	0	3	4	5
These	3	2	13	1	6
Now	19	5	53	11	24
Then	6	2	12	6	17
Here	3	0	4	4	3
Total	121	27	330	124	216
Deixis/turn ratio	2.24	2.70	6.88	1.63	3.00

Table 55
Frequency of Speech Acts by Participant Role

	Instructor	Students	Totals
Comment	28	26	54
Directive	10	0	10
Elaboration	40	9	48
Question	39	37	76
Response	16	54	72
Total turns	133	126	260

Table 56
Frequency of Deictic Speech Acts by Participant Role

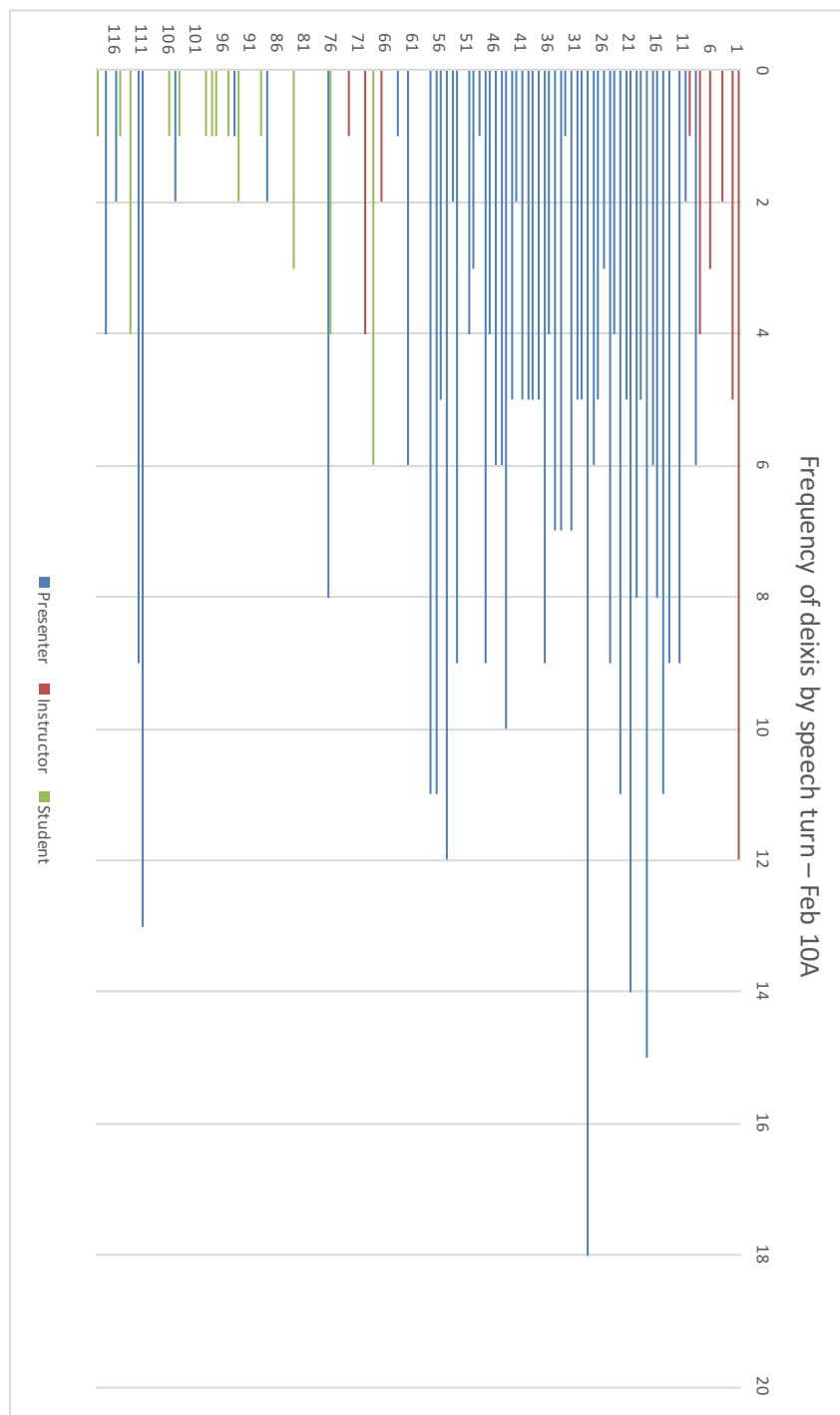|	Instructor	Students	Total
Situating	25	12	37
Orienting	124	53	177
Positioning	53	22	75
Coordinating	45	13	58

Appendix 2: Frequency of Deixis by Speech Turn

February 3
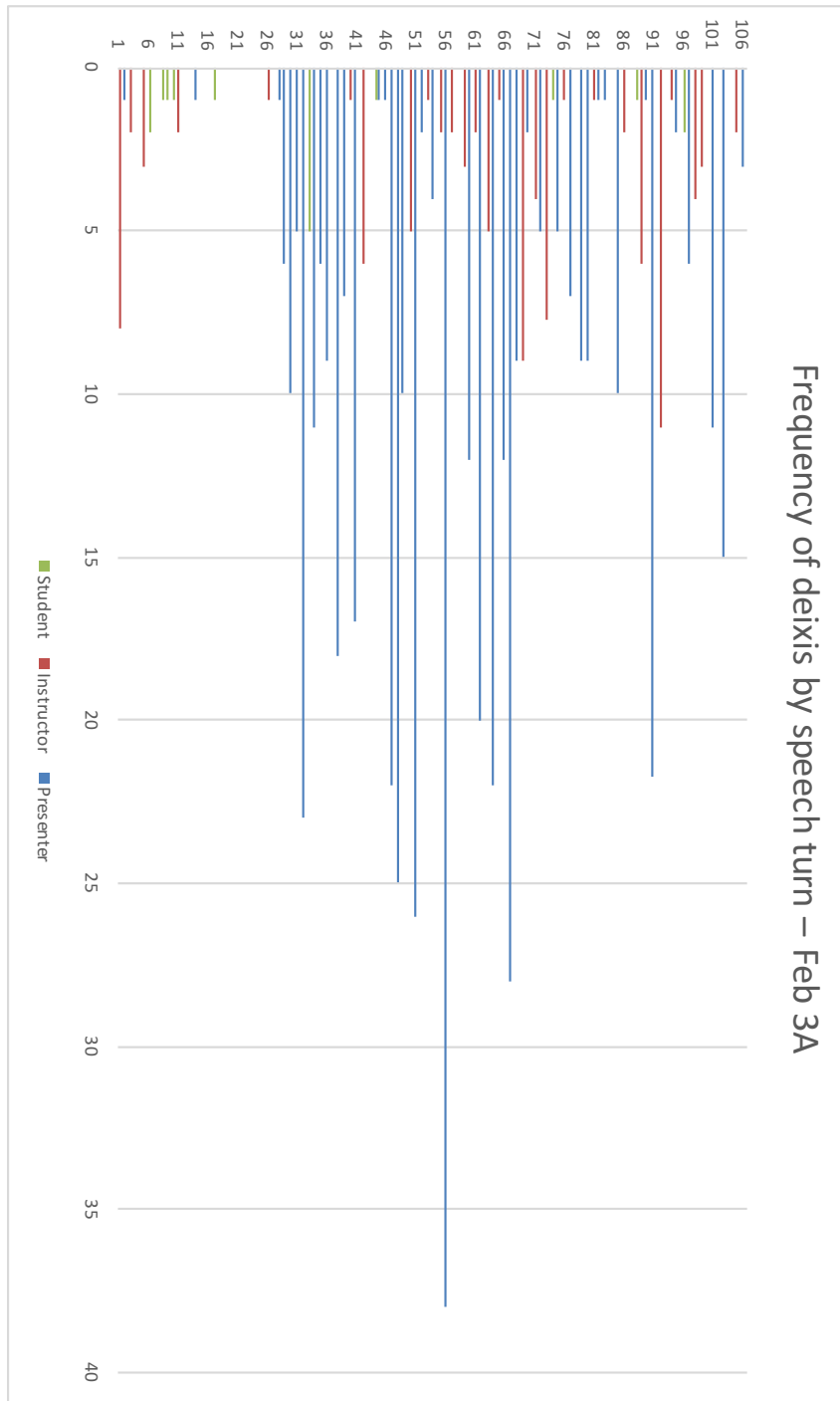
Figure 2. Frequency of deixis by speech turn, Feb 3A
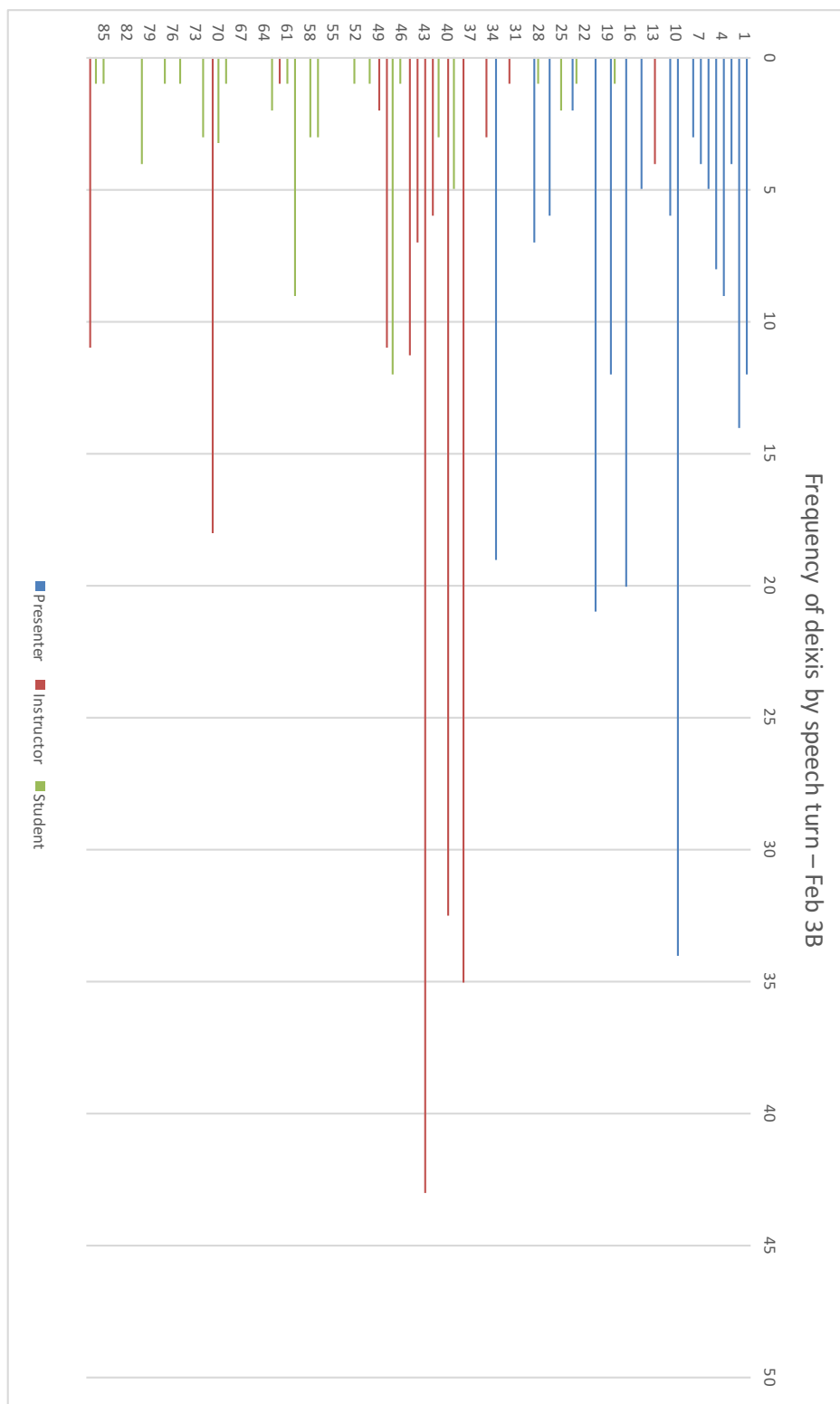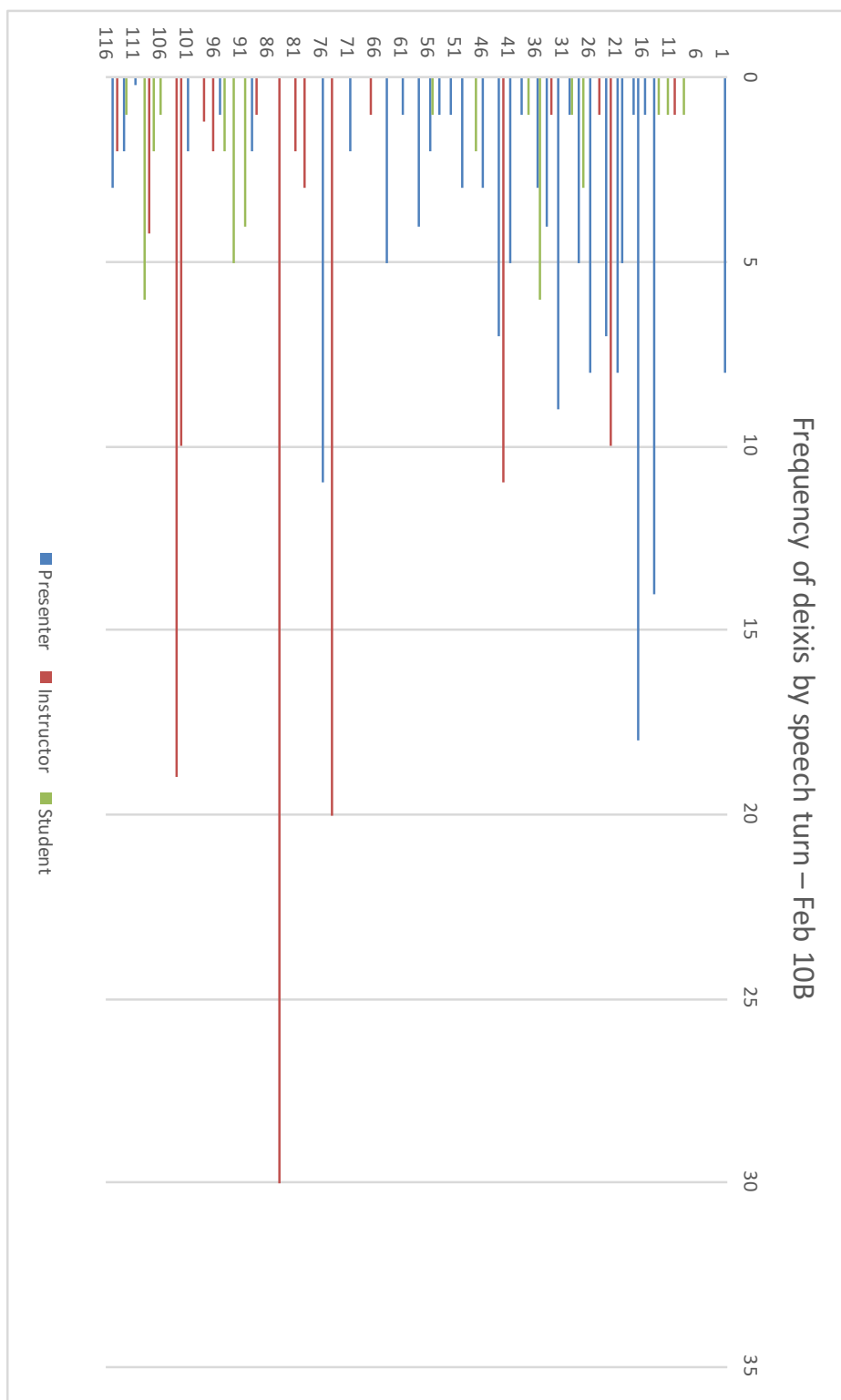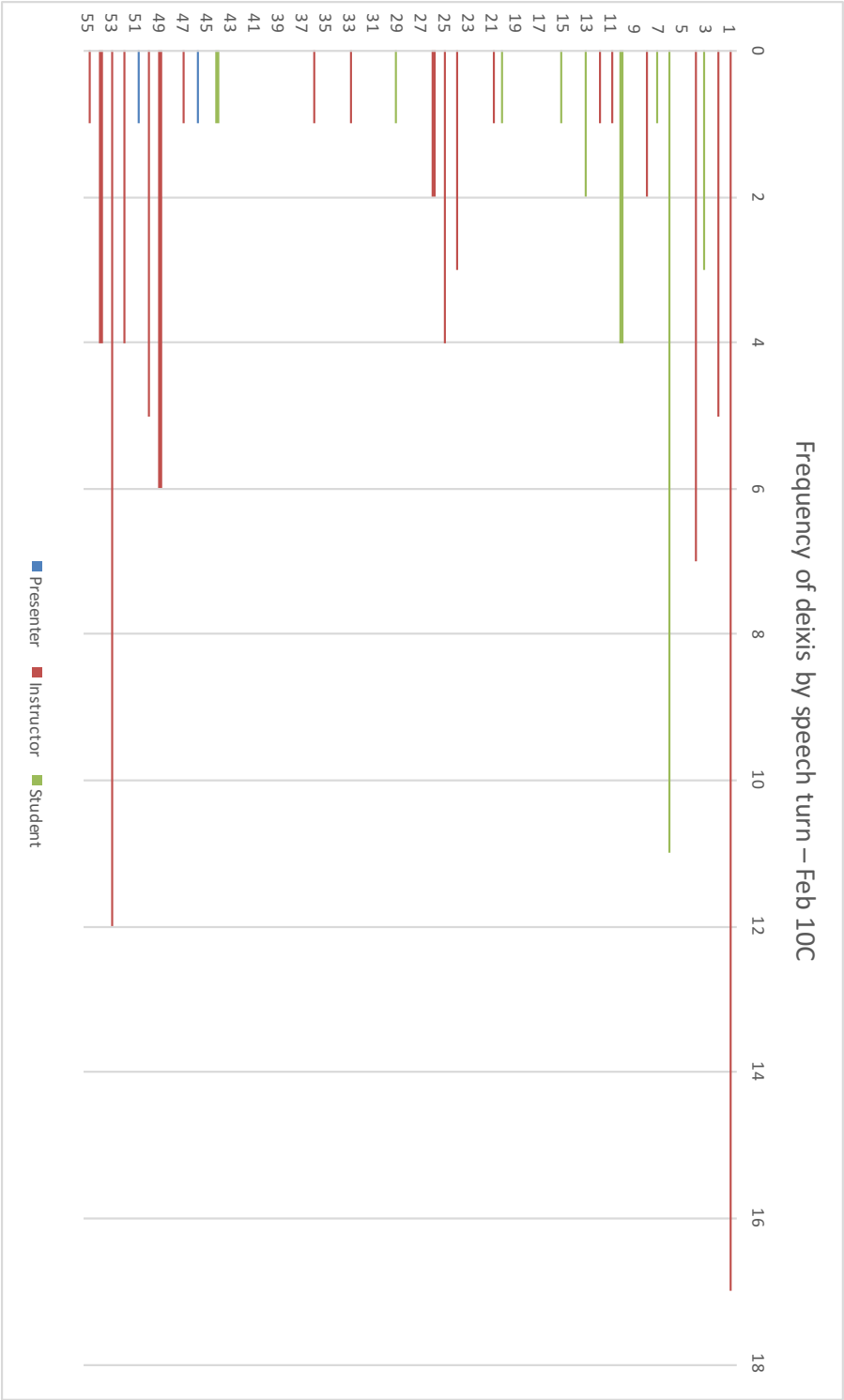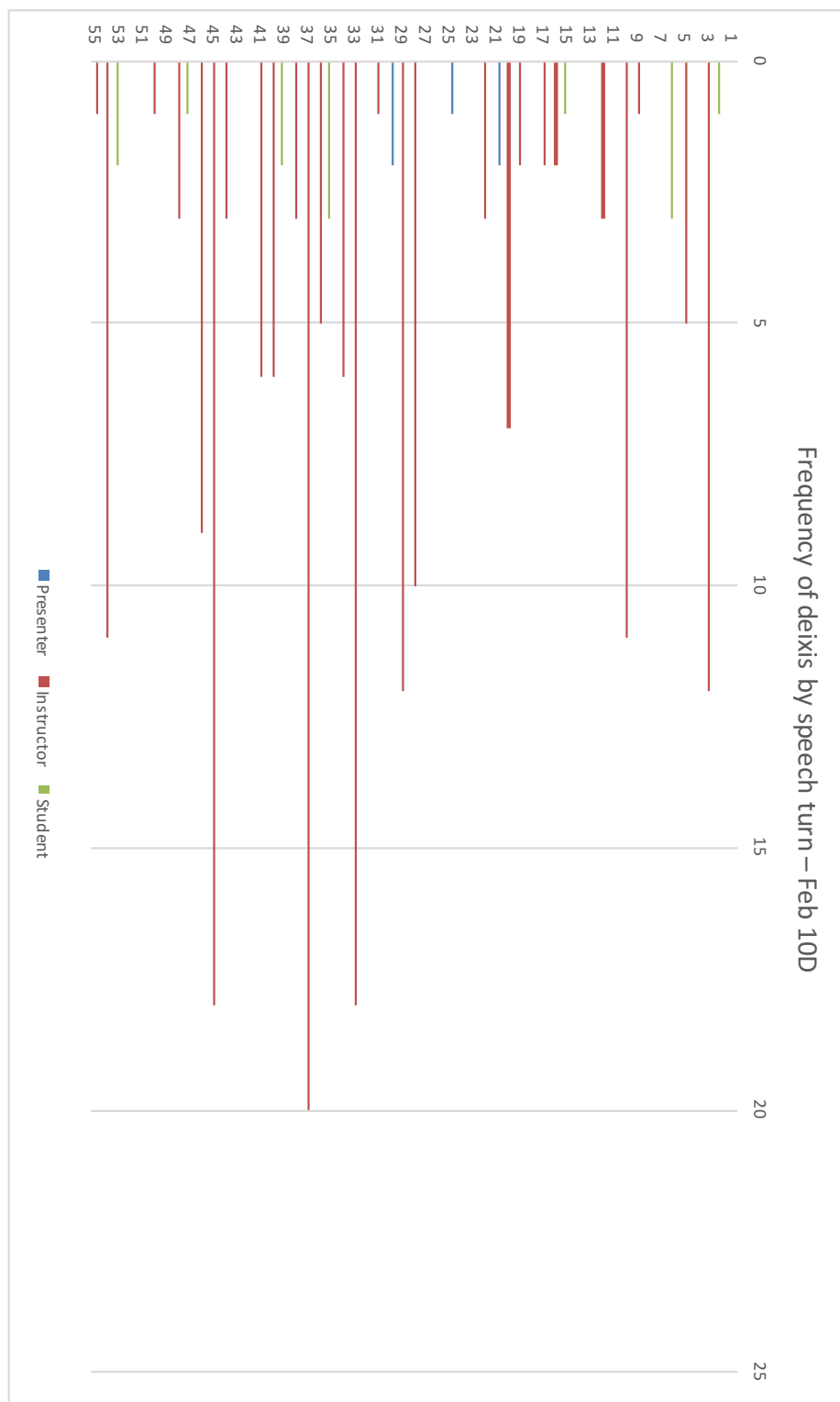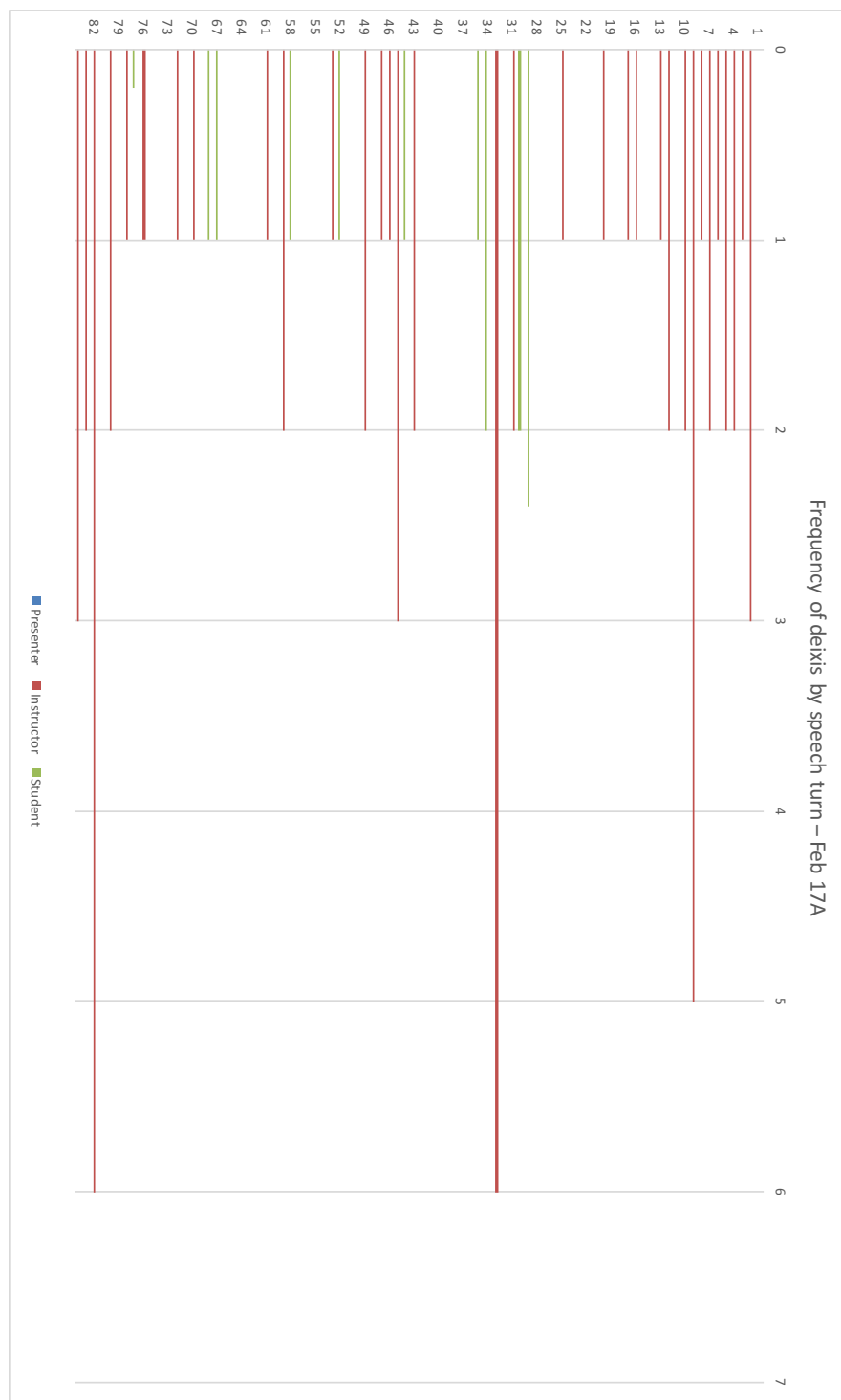
Figure 3. Frequency of deixis by speech turn, Feb 3B
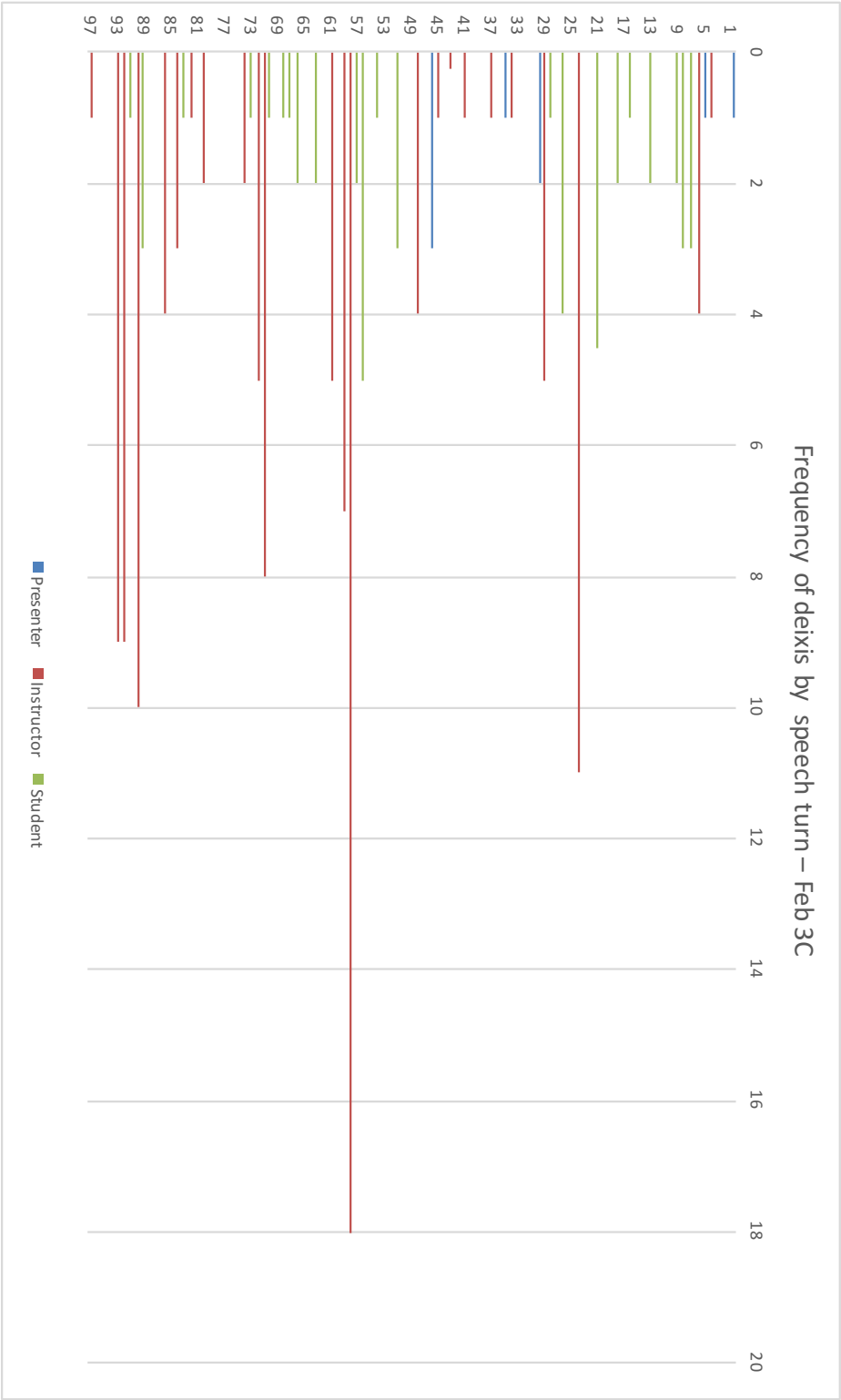
Figure 4. Frequency of deixis by speech turn, Feb 3C

February 10

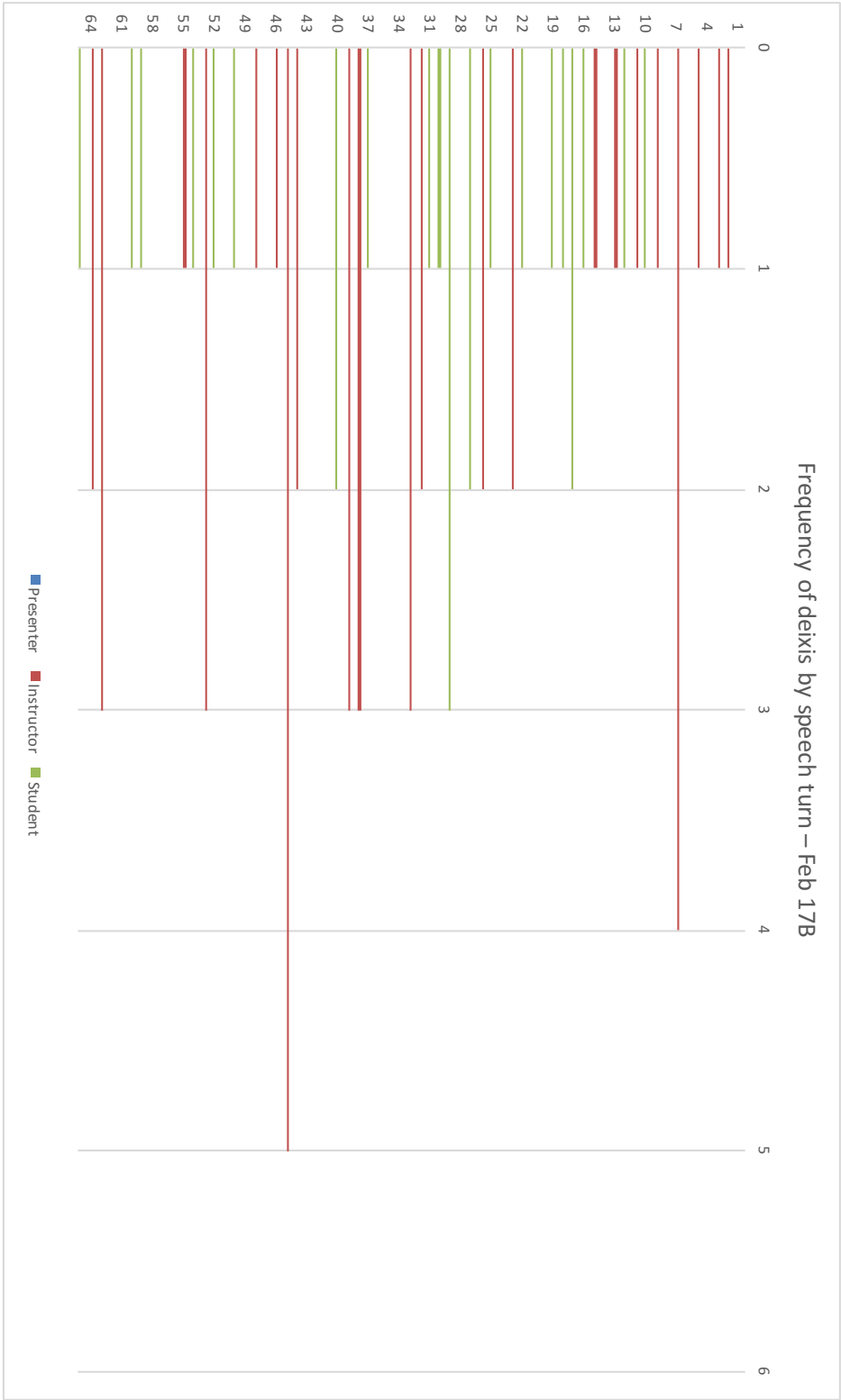*Figure 5.* Frequency of deixis by speech turn, Feb 10A
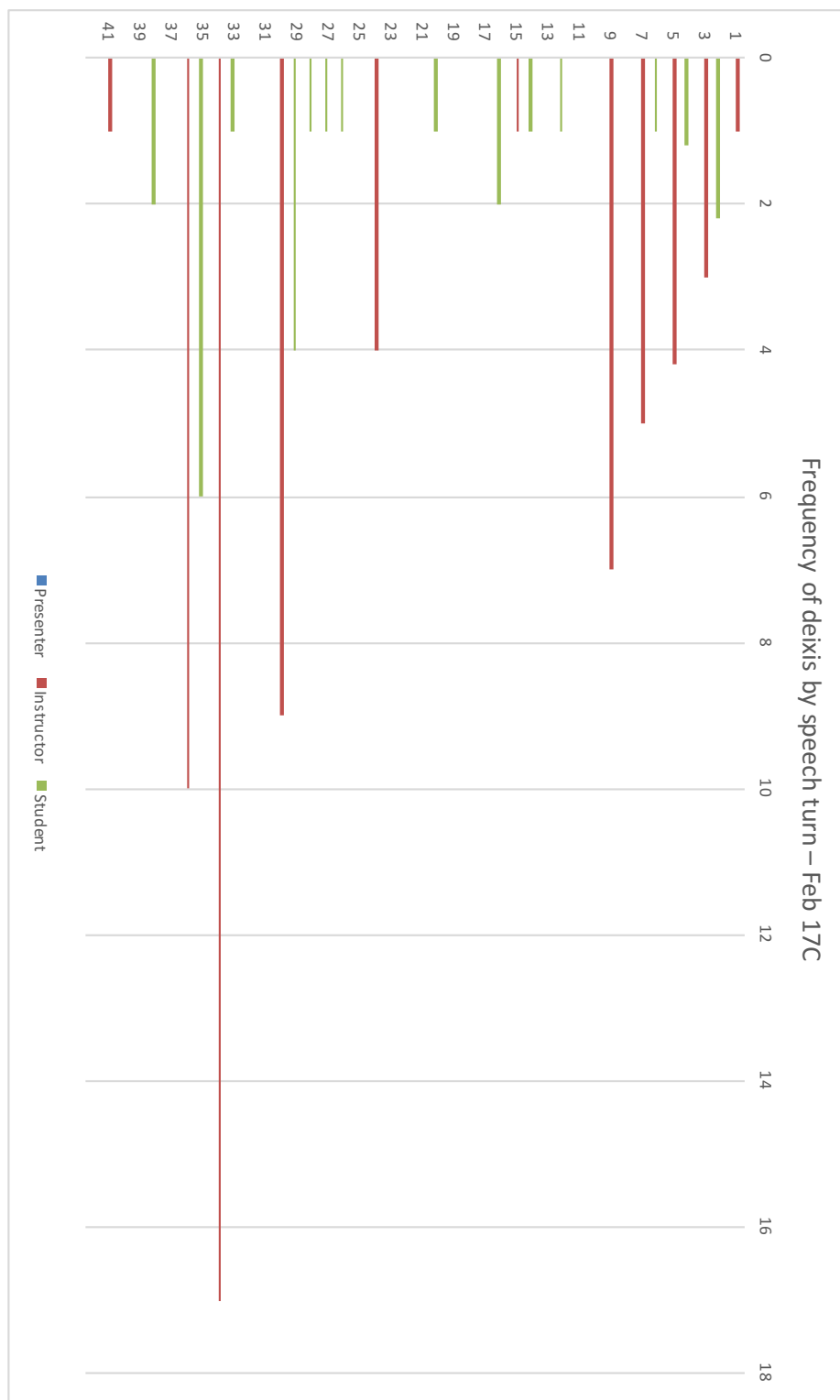
Figure 6. Frequency of deixis by speech turn, Feb 10B

Figure 7. Frequency of deixis by speech turn, Feb 10C

Figure 8. Frequency of deixis by speech turn, Feb 10D

February 17

Frequency of deixis by speech turn — Feb 17A

Presenter   Instructor   Student

Figure 9. Frequency of deixis by speech turn, Feb 17A

Figure 10. Frequency of deixis by speech turn, Feb 17B
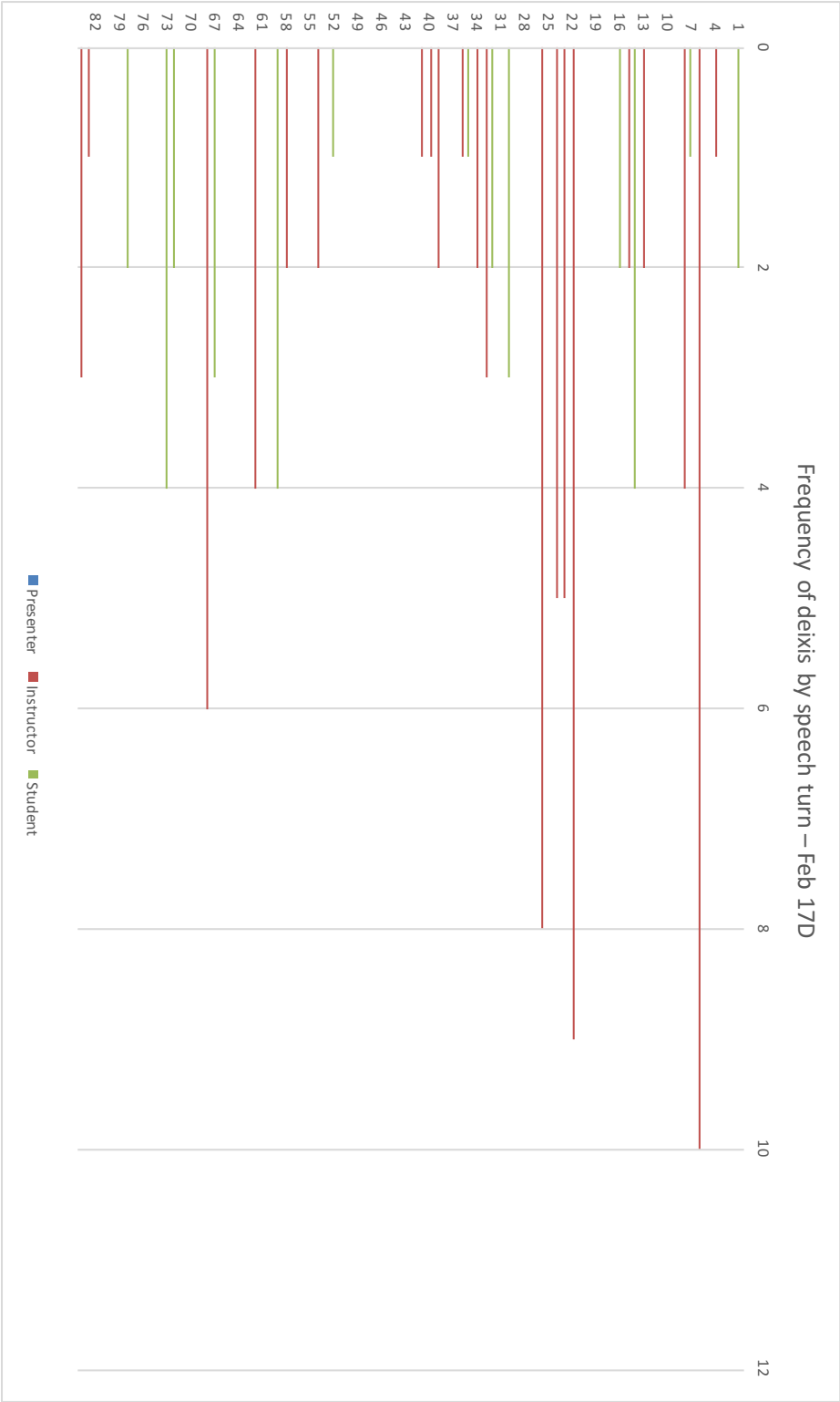
Figure 11. Frequency of deixis by speech turn, Feb 17C

Figure 12. Frequency of deixis by speech turn, Feb 17D