Mental models in discourse production: Atypical discourse and the role of event models in the narratives of depressed patients

by

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Abstract

A mental model is a partial and subjective cognitive representation of reality (van Dijk, 1985a). Van Dijk's introduction of the mental model has helped explain the relationship between discourse and cognition. This thesis provides empirical support for and extends Tuen van Dijk's theory regarding the role of mental models in the production of discourse. It does so by examining the influence of mental models on narratives produced by depressed patients in counseling sessions. Using tools from Systemic Functional Linguistics (Eggins, 2004), the thesis demonstrates how the verb choices can be used to examine the content of mental models, while clausal connections and narrative structure can be used to examine the discursive expression of mental models. Furthermore, local and global atypicalities in patients' retelling of events suggest possible cognitive processes at work in the conversion of a mental model of an event to spoken narrative.

Keywords

Mental model, discourse production, atypical discourse, language and depression

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Chapter One: Introduction

In summary, the study presented in this thesis explores how mental models influence discourse production. The mental model theory of discourse processing was developed by Teun van Dijk (van Dijk, 1985a, 1987b, 1995c, 1999) and explains how cognitive representations in memory both influence and are influenced by discourse (van Dijk, 1993a). A mental model is a partial and subjective cognitive representation of some aspect of the world (1985a). While there are many meanings associated with the term 'discourse' in the literature, in the present context 'discourse' refers to an instance of language in use within a particular social context (Pennycook, 1994). The particular type of discourse examined in the present study is talk-in-interaction between patients and counselors. The study uses mental model theory to suggest processes involved during the reconstruction of events during counseling sessions for individuals suffering from depression.

To elaborate, the study first attempts to add empirical microlinguistic support to van Dijk's mental model theory regarding the influence of the content of mental models on discourse production. To do so, the study uses Systemic Functional Linguistic (SFL) tools to examine the 'transitive choices' (see below) made by depressed patients during the production of narratives. Systemic Functional Linguistics is an action-oriented approach to discourse analysis developed by Michael Halliday (Eggins, 2006). It is based on the assumption that all language is a form of action. According to Halliday, language is made up of a system of oppositional choices, thereby making the employment of

linguistic devices – from macro devices like genre, to micro devices like grammar – purposeful actions intended to achieve a goal. The system of transitivity, a key concept in SFL, consists of the *processes,* or verbal choices that a speaker makes, along with the participants and circumstances involved. Accordingly, this study looks at the linguistic choices a person makes regarding participants and actions when converting the content of a mental model into discourse. For a more thorough discussion of SFL see Chapter Two and Chapter Three.

The study then attempts to extend van Dijk's work by examining how mental models influence discourse expression. The term 'expression' here differs from the term 'production' as it refers to an individual's ability to express discourse content; that is, whether individuals are able to employ appropriate clausal connections, or whether their speech contains many errors, incomplete clauses, or false starts. In this context, then, discourse 'production' encompasses both 'discourse content', as described above, and also the 'expression' of this content. To examine expression, this study looks specifically to the ability of depressed individuals to create 'receivable' narratives. A narrative is receivable when a listener can create a corresponding comprehension model. In order for this to occur, the narrative must be both locally and globally coherent (van Dijk & Kintsch, 1983). Van Dijk defines 'local coherence' as the ability of the speaker to maintain organization from one utterance to the next, while 'global coherence' is defined as his or her ability to maintain an overall topic or goal that connects a discourse (van Dijk, 1980). In order to examine the local and global coherence of narratives, this study again employs tools from SFL. To examine local coherence the study uses 'clause

complex analyses' to look at how patients are connecting clauses. Clauses can either be 'clause simplexes' consisting of one clause, or they can be 'clause complexes' that consist of two or more clauses. Clauses in clause complexes are connected through either dependency or independency – these are termed 'taxic' relationships. Further, these relationships are connected through 'logico-semantic connections' that either extend or expand surrounding clauses (for a more thorough discussion of the taxic and logico-semantic systems see Chapter Three).

Global coherence is measured in this thesis by patients' ability to provide consistent 'event elements', and by their ability to create a typical 'generic structure'. 'Event elements' are the important parts of a narrative that 'transitive elements', (i.e., people, places, and actions) realize.' Generic structures' are culturally accepted discourse patterns that achieve some goal. A narrative is an example of a generic structure.

To date much of the research associated with van Dijk's theory has been devoted to discourse comprehension (van Dijk, 1976, 1977a, 1977b, 1982; van Dijk & Kintsch, 1983). While van Dijk's theory has gained support in the literature in terms of the influence of individuals' attitudes—i.e., their views on people, events, actions, etc.—on discourse production, much of discourse production research has looked at the content of models and discourse (van Dijk, 1982, 1987a, 1988, 1990, 1993a; Koller, 2005; Oktar, 2001; Chen, 2011). Furthermore, a large part of this research looks only at macrolinguistic patterns, rather than at more local discourse patterns. This thesis fills this gap in the literature by providing a microlinguistic analysis of the content of mental

models and their influence on discourse production, as well as extending van Dijk's mental model theory by looking at how models influence the structure and expression of discourse, not just the content of discourse.

The thesis also addresses another gap in the literature. There has been a significant amount of research on atypical discourse patterns (Fine, 2006; Fine, Bartolucci, Szmatmari, & Ginsberg, 1994; Chaika, 1990) and the possible cognitive underpinnings of these patterns (Fine, 1985; Chaika & Lambe, 1989; Brandao, Castello, van Dijk, Parente, & Pena-Casanova, 2009; Rogalski, Altmann, Plummer D'Amato, Behrman, & Marsiske, 2010), including research that has used SFL to examine atypical discourse patterns (Rochester, Martin, & Thurston, 1977; Fine, 1985; Fine et al. 1994).

To the best of my knowledge, however, no attention has been paid to those atypical patterns present in the discourse produced by people suffering from depression during counseling sessions. This could be due to the range in severity across depression (Gotlib & Joormann, 2010; Kangas, 2001). By distinguishing between those patients with more or less severe depression, this thesis attempts to fill this third gap.

Accordingly, two research questions are posed:

1. What can the Systemic Functional Linguistic (SFL) system of transitivity reveal about the content of mental models and their influence on discourse production?

2. What can the atypicalities found in the reconstructions of events produced by depressed patients in counseling sessions suggest about the influence of mental models on discourse production? Specifically, what can we learn about the processes involved in the conversion of event models into receivable narratives?

In order to examine the influence of the content of mental models on microlinguistic devices, such as grammar, this thesis examines transitivity choices made by speakers during the production of narratives. Doing so allows one to show how the participant, time, locations, and activity elements present in one's mental model influence the verb, noun, and circumstance choices.

In order to advance our understanding of the conversion of information in event models to discourse production, the thesis conducts clause complex and genre analyses. In this thesis, the structural relationships created between clauses are taken to reflect local coherence, while consistent event model elements (people, places, actions etc.) and generic structure are seen to reflect global coherence capabilities. Atypicalities at these levels and the possible cognitive impairments associated with depression are thought to suggest processes involved during event model expression.

The study found that atypical narratives identified in those with severe depression contain more mental and relational processes, especially when these processes refer to the speaker. Given evidence of attentional bias in the cognitive processing of depressed individuals (Gotlib & Joormann, 2010), this pattern might suggest that severely depressed

individuals may attend more to this particular information, creating an overrepresentation of this information in event models. Specific verb and noun realizations demonstrate how these models directly influence discourse production.

The study also found that severely depressed individuals have difficulty creating receivable, or 'typical' narratives, and that this may be due to a problem with creating or expressing a discourse model. This problem may be the result of cognitive impairments associated with depression (see Gotlib & Joormann, 2010; Austin, Mitchell, & Goodwin, 2001). Specifically, the atypical narratives contain an atypical number of clause complexes, with unusual employment of taxis and logico-semantic relationships. These local expressions impede the ability of individuals to create typical generic structures. Their narratives also contain inconsistent narrative elements as is demonstrated through looking at transitive features in these narratives. What this reveals about mental models is that (a) the creation of an appropriate discourse model is important for receivable discourse, and (b) working memory and attention/inhibition mechanisms are also important for an individual's expression of mental models.

Based on these findings of the study, it will be argued that atypical patterns at the local and global levels occurring during narrative production reflect either 'atypicalities' or impairments during discourse production and that these patterns are the result of an inability to convert mental model information into linguistic expression. In the present context, 'atypical' discourse refers to any macro patterns (meaning generic patterns) or micro patterns (those at the clausal level) that make the narratives difficult to understand.

In the present study, atypical patterns were found in patients with more severe depression or patients who were experiencing a particularly depressive episode.

The thesis consists of six chapters. Chapter Two provides a review of the relevant literature. The chapter begins by presenting an overview of van Dijk's cognitive theory. It then addresses the concerns of some scholars within Discourse Studies about attending to cognition in discourse (see Potter & te Molder, 2005). Next follows a more detailed review of the development of van Dijk's theory and how it applies to the present study. Chapter Two concludes with a review of recent literature that has addressed atypical discourse processing, atypical discourse and mental illness, and finally depression and cognition.

The literature review is followed by a discussion in Chapter Three of the analytical framework applied in the present study. A more detailed discussion is provided of how mental model theory is applied in the study. The chapter then discusses how Systemic Functional Linguistics (SFL) can be used to assess the content of mental models and to analyze the local and global coherence of event reconstructions.

Chapter Four provides a detailed description of the method employed in the study. This description includes a discussion of the data collected and the analytical procedure employed. The limitations of the study are also addressed.

Chapter Five contains the findings. It presents a comparison of typical and atypical narratives in the context of the two research questions guiding the study. Specifically the chapter begins by comparing the transitive features of typical and atypical narratives as they relate to model content. This is followed by a discussion of the local and global patterns found in the typical versus atypical texts, as they relate to model expression.

Chapter Six offers a review of the findings of the study and a discussion of the relationship between the linguistic patterns found and van Dijk's mental model theory. The discussion also offers further interpretation by providing suggestions for possible cognitive explanations of the patterns found in the analysis. The thesis concludes in Chapter Seven with an overview of the findings, and a discussion of the theoretical and applied implications of these findings. These include a review of the study's contribution to van Dijk's theory, as well as suggestions of the possible applied value that future research in this area may hold for Psychology. The chapter concludes suggestions for future research.

Chapter Two: Literature Review

This chapter provides a review of the literature relevant to the study presented in the thesis. The chapter begins by providing a brief overview of the information processing theory that forms the basis of van Dijk's theory of mental models. It then addresses some concerns from within the field of Discourse Studies about the potential issues that arise when addressing cognitive questions. This is followed by an account of some talk-in-interaction theorists who advocate for the consideration of cognitive influences on discourse. The chapter then moves on to review van Dijk's theory of mental models in more detail, as well as previous research that has incorporated the theory. Given the focus in this study on atypical discourse, the chapter then reviews literature that has investigated atypical discourse, followed by a review of the literature regarding atypical discourse and mental illness. Finally, given interpretations that are made in the thesis regarding cognitive underpinnings of these atypicalities, the chapter reviews research on the cognitive impairments associated with depression.

Discourse and Cognition

The relationship between discourse and psychology has attracted many research perspectives. There is great applied interest, for example, in the clinical applications of discourse analysis (DA) (Spong, 2010; Fine, 2006). More specifically, researchers have examined conversational structure in counseling sessions (Perakyla, Antaki, Vehvilainen, & Leuder, 2008; Madill, Widdicombe, & Barkham, 2001; Stiles & Shapiro, 1995), aiding in the assessment and diagnosis of disorders (Fine, 2006; Schubert, Hansen, Dyer, &

Rapley, 2009) and even highlighting how DA can provide insight to counselors as to the cultural underpinnings of their clients' pathologies (Madill & Barkham, 1997). Experimentally, research connections between cognitive psychology and discourse processing began to develop in the 1970s with advances in artificial intelligence (van Dijk, 1990). Discourse processing research has expanded to include more sociocognitive avenues as well. Social psychology's interest in discourse began to emerge in the 1980s, opening up more areas for the consideration of the role of cognition in discourse (van Dijk, 1990; Potter & Edwards, 1992; Potter & Wetherell, 1987). A great amount of qualitative and theoretical research has focused on how beliefs, values, attitudes, and goals –how cognitions, essentially – are manifested in discourse (Potter & Edwards, 1992; van Dijk, 1982, 1990, 1993a) and how these cognitions contribute to the relationship between discourse and society (Koller, 2005; Oktar, 2001; van Dijk, 1989, 1995a).

The study of the relationship between discourse and cognition is complex, however, and at times contentious (Potter & te Molder, 2005; Koller, 2005; Wodak, 2006). There has been a long line of research exploring the relationship between language and cognition. The relationship between *discourse* and cognition has taken a slightly different direction, however, with discourse often viewed as existing beyond the reach of cognitive questions (Potter & te Molder, 2005). Prominent discourse theorists have opposed giving attention to cognition (e.g., Chouliaraki & Fairclough, 1999), while others have argued for its importance (van Dijk, 2001, Potter & te Molder, 2005; Wodak,

2006). Researchers can approach the relationship between discourse and cognition from varying perspectives. Some researchers might adopt a strictly constructionist viewpoint, some a more traditionally psycholinguistic perspective. Others, like Teun van Dijk for instance, have argued for an interdisciplinary approach. Van Dijk (2001) argues that discourse production and comprehension cannot be separated from cognition, as discourse events exist as mental representations in the individual. However, the empirical study of the relationship between discourse and cognition can at times be problematic in terms of what discourse analysts can examine – i.e., what "cognitions" are available to them, what questions they should ask, and how they can go about answering these questions (Potter & te Molder, 2005).

In investigating the relationship between cognition and discourse, we need to consider the question of what "cognition" should be taken to mean. This question has been answered in different ways. In his landmark text, *Cognitive Psychology*, Ulric Neisser (1967) defines cognition as "all the processes by which the sensory input is transformed, reduced, elaborated, stored, recovered, and used" (p. 4). This can be seen to refer to the conscious or semi-conscious rhetorical creation of cognitive constructs like memory or knowledge. It can also be viewed as referring to the representation of more enduring and semi-conscious cognitions like beliefs or attitudes. Finally, it could also be taken to refer to the unconscious mental processes involved in discourse processing (Sanders, 2005). The present study is most concerned with the latter level of cognition, the unconscious mental processes involved in discourse processing. The study draws

from van Dijk's research on discourse processing to examine how mental models influence the production of narratives.

Discourse Processing and Mental Models

Van Dijk's multidisciplinary approach to discourse applies information processing theory from cognitive psychology (Goodwin, 2008) to explain the influence of cognition on discourse. While the theory's application to discourse production is what is most relevant in the present study, it would be useful to give a brief overview of the theory of information processing. The following section will provide an overview of this theory as it applies to the present study.

Van Dijk's theoretical work on discourse processing has progressed tremendously over the past 30 years, from his initial focus on discourse comprehension and production, to his incorporation of mental models, and finally to his more recent consideration of context and ideology. The crux of van Dijk's model theory is an interaction between two well-established cognitive theories, the information-processing approach (Goodwin, 2008) and the network model of memory (Collins & Loftus, 1975).

According to the information processing-approach to cognition, our processing system is a hierarchical and categorical system that allows for the efficient processing, storage, and retrieval of information in memory (Goodwin, 2008). Our memory consists of both short-term and long-term memory systems (Radvansky, 2006). The idea of short-

term memory (STM) has more recently been replaced by the concept of working memory (WM) (Baddeley, 1992) to explain how we maintain information in memory and attention, while at the same time manipulating incoming information.

Our long-term memory (LTM) consists of two levels as well – semantic and episodic memory. Semantic memory contains general information about concepts and procedural knowledge (Radvansky, 2006). This memory system is responsible for our knowledge of language structures needed in discourse production and comprehension, as well as for the attitudinal schemas used to interpret and encode new information quickly (van Dijk & Kintsch, 1983). Episodic memory consists of more specific information about events and experiences (Tulving, 2002). That is not to say that these do no interact. If we have a similar episodic experience frequently enough we generalize these situations, so that parts of these episodic models begin to form a semantic representation (van Dijk, 1985a). Furthermore, generalized semantic representations will influence the interpretation of new information (van Dijk, 1985a; Goodwin, 2008), and thus will affect what new information is committed to episodic memory. This is because the information-processing system is a limited-capacity system. The efficiency of processing requires us to use short-cuts. When encountering a new situation, not all information can be incorporated into memory, and thus only relevant information is encoded. An individual will record the 'gist' of a situation, which will include information that is either consistent with existing schema (cognitive representations) or that is atypical, resulting in the creation of new representations (van Dijk & Kintsch, 1983).

The selection of relevant information is directed by a control system (van Dijk & Kintsch, 1983, van Dijk 1985a) that works to attend to, select, store, and later retrieve information to and from memory. Although van Dijk does refer to this control system throughout his work, the processing theory has advanced to include control processes including attention, working memory, and activation and inhibition. Essentially, individuals attend to new or consistent information and maintain it in working memory while it is encoded in LTM. During retrieval, activation and inhibitory processes work to select or inhibit information (Collins & Loftus, 1975; Radvansky 2006).

How all of this information is actually stored in memory is another question. Presently, the accepted view is that information exists in 'information packets', or schemas, interconnected throughout a 'network' organized categorically by concepts or 'nodes' (van Dijk & Kintsch, 1983). According to Goodwin (2008), the term 'schema' was introduced by Bartlett in 1932. Bartlett explained that individuals must organize experience into logical wholes, called schemas. These schemas are always active, influencing the perception and storage of new information. This system is categorical in that we categorize the information for ease of storage and access. The categorization is hierarchical in that there are higher-order structures that connect and organize more specific information (Collins & Loftus, 1975). Essentially, a categorical 'node' will be connected to related information, with stronger relationships having stronger connections and weaker relationships having weaker connections. This allows situationally relevant information to be activated quickly. For example, when we think about going to the movies, we will activate a "going to the movies" representation, and this activation will

spread to other, lesser nodes containing relevant information about getting popcorn or buying your ticket, etc.

The network model described in the paragraph above relates to van Dijk's theory about racism and its cognitive underpinnings (1987a). For instance, when hearing a story about a particular ethnic group, a listener will activate what relevant information they have about that particular ethnicity. This information will include both personal and social – i.e., both direct individual contact with the group and information gained socially from other discursive sources. Although often not directly acknowledged, the network theory contributed conceptually to the development of van Dijk's research regarding the importance of knowledge and its organization during discourse processing, to the development of his theory of mental models, and to his more recent research on the connections between discourse, cognition, and society (for a brief history of this theoretical progression see van Dijk, 1995c).

Drawing conclusions about the influence of an unobservable cognitive world on discourse is not without its problems, however. Some researchers taking more structural approaches to discourse have argued against the pursuit of cognitive questions (Potter & te Molder, 2005). Structural approaches to discourse consider language to be a system of constituently related parts, with the relationships among these parts contributing to the meaning of the whole text. These structures are considered to be culturally specific, allowing for communication amongst members of a culture. The following section reviews one of these structural approaches, Conversation Analysis, and describes how

recently researchers have begun to suggest ways of answering cognitive questions. Conversation Analysis provides a good example of how theorists reject or support cognitive questions because it encompasses both a talk-in-interaction perspective and a structural perspective. The present study uses instances of talk-in-interaction as data, and Systemic Functional Linguistics can be considered a structural approach. This discussion of CA contributes to the goals of this study by providing background on the relationship between discursive and psychological theories and how best to approach multidisciplinary problems such as the role of mental models and processing in discourse production.

Conversation Analysis and Cognition

The goal of Conversation Analysis (CA) is to describe the displayed organizational structure or 'rules that participants naturally adhere to during conversation. Rather than attending to the inner lives of participants, CA attends to the situational and motivational constraints on discourse as they appear in the explicit discursive actions of participants (Schiffrin, 1994; Silverman, 1998). Discursive actions are regarded as social rather than psychological phenomena. Conversation analysts often avoid trying to understand a person's mental state at the moment of interaction because our language choices do not always reflect what we really think or feel (van Dijk, 1977a; Sanders, 2005). A speaker may be less than truthful, confused, or wrong. Because of this, it is more acceptable for analysts to ask what discursive objects are accomplishing in interaction, what social functions discursive choices are contributing.

Conversation analysts avoid taking cognition into account for at least three reasons. First, they consider it irrelevant. Attention to cognition focuses on individual agency and behaviour, but CA is driven by an analysis of collective and co-constructive practices (Sanders, 2005; Schegloff, Koshik, Jacoby, & Olsher, 2002). However, despite the refusal of some conversation analysts to frame questions as cognitive ones, they attend to cognitive constructs anyway. Certainly those discourse analysts using action-based approaches (those that consider all language to be purpose driven or 'action oriented') draw conclusions about intended action and motivation, and thus really are attending to cognitive constructs (Sanders, 2005).

Second, some researchers question whether reported cognition can really be taken as truth. Van Dijk (1977a) suggests that the 'truth' in a cognitive manifestation is irrelevant. Just the very manifestation of a cognitive state is worth analysis. Furthermore, analysts do not have to consider only subjective reports of thoughts and feelings. There are at times discursive actions that can be used as evidence of cognitive mechanisms or "cognitive moments" (Drew, 2005). Drew uses the example of confusion. When calling in to emergency services and asked for their name, many callers will clarify that the operator in fact wants *their* name, and not that of the person in need of help. When the caller has to clarify, this can be viewed as an expression of her cognitive state, allowing us to see a "cognitive moment" (2005, p. 178).

The example above is a case of a cognitive state being made explicit; i.e., the participant draws attention to his or her state as a way of maintaining communication. These cognitive moments can also occur explicitly without the speaker drawing attention to them. For example, Heritage (2005) has an interesting study about the use of 'oh' as an expression of a cognitive process. He calls this a "change of state token," meaning that it signals a change in the listener's or speaker's understanding, awareness, or knowledge state. Heritage demonstrates the frequent use of this token when participants' actions embody recollection, for example. The question remains, however, whether the participants want to display this recollection in an "explicit effort to convey a cognitive event" (p. 189), or whether it is simply an involuntary expression of a cognitive process. Other methods need to be applied in order to confirm conclusions like this. Heritage suggests that intonation can be used to make this distinction. The use of video stimulated interviews with participants has also been applied in order to have participants comment on their discursive actions (Pomerantz, 2005). This suggestion of a "cognitive moment" is important to the present study as instances of hesitation and repair are taken to reflect cognitive moments.

This gives rise to a third claim against asking cognitive questions: there is often a social organizational function for what one might refer to as a 'cognitive moment' (Heritage, 2005). In Heritage's study, for example, he notes the use of 'oh' during conversations when the news relayed is not particularly surprising. It appears to be given more as an interactional demand than a pure expression of a cognitive event. Drew (2005) also makes a similar distinction when pointing out that a participant's confusion is

typically not made relevant until socially necessary. Drew points out that cognitive processes like this only become visible to participants when they have to be, i.e., when communication is at risk. These two studies are not alone; other research suggests that certain discourse markers (like 'ums' and 'ahs', for instance) serve as place holders, so that the speaker can maintain the floor while he or she produces the next utterance (Schiffrin, 1988). However, for Drew, in this case he or she is still referring to a cognitive event – i.e., confusion. Despite the reason for its discursive manifestation, this manifestation is still a reflection of cognition. As with place-holders – these discursive actions may be employed while the speaker performs cognitive work.

The perspective described above suggests that although it is very difficult to decide whether or not these instances should be considered social functions or cognitive moments, it is possible that social and cognitive moments need not be mutually exclusive. Even if an utterance accomplishes an interactive goal, there is still cognition occurring. When a speaker falters or repairs something, he or she has done so because of a cognitive process (Drew, 2005). It is this perspective that is applied to the discourse analysis in the present study. When a participant uses an incomplete clause, it is an expression of cognition, in the sense that they are struggling with discourse expression. Although the importance of the social functions of utterances in the present data is not ignored, certain linguistic patterns like false starts and repairs, regardless of their social function, can still be considered reflections of 'on-line' processes during discourse production. In other words, they can be considered processes that occur 'in- the-moment' during processing.

The point here is that while there are those who might argue against drawing conclusions about the influence of cognition during an instance of narrative production or argue against using linguistic patterns as evidence of possible cognitive impairment, the research discussed above suggests that attending to cognition in narrative production may be more reasonable than previously thought. Further, there is another perspective that supports the validity of considering cognitive underpinnings when looking at atypical discourse, namely, the perspective offered by SFL, which will be reviewed later in the chapter. First, however, a more detailed account of van Dijk's model theory is provided, demonstrating how his multidisciplinary theory can be used to answer cognitive questions.

Van Dijk's Mental Model Theory

This section will provide a more detailed review of van Dijk's theory, its influences on discourse comprehension and production, and its contributions to Discourse Studies. Van Dijk began to develop his model theory in the 1970s, with a focus on discourse processing, that is, on the unconscious mental 'work' performed during the comprehension and production of discourse (for a brief history of van Dijk's theoretical progression, see, 1995a). The question guiding van Dijk's early work was how our limited-capacity cognitive system is able to comprehend, produce, and remember text so efficiently. Much of his earlier research focused on discourse comprehension. This is because it was much easier to measure an individual's comprehension of a controlled

input text than to measure the production of information already in memory (van Dijk, 1977b; 1983; van Dijk & Kintsch, 1983). Research at this stage mainly relied on tests of recall during which individuals were tested on how much and what parts of a text they were able to recall (van Dijk, 1976). Essentially, given the limited capacity of our processing system, we are not able to record every utterance to long-term memory. Thus, it follows that comprehension must be strategic (van Dijk & Kintsch, 1983). Using narratives and news reports, van Dijk (1976) noted that individuals tend to recall elements of what a text is about, i.e., the topic, setting, participants, and action sequences. Essentially, this is what van Dijk refers to as a 'gist' effect – in order to overcome processing limits, individuals remember the 'gist' of a text. This creates a representation of the text in episodic memory that van Dijk calls a 'macrostructure' (van Dijk & Kintsch, 1983). During strategic comprehension, a listener/reader will begin forming this macrostructure immediately. Such is the case with news story headlines, for example. Upon reading a headline, a reader will begin interpreting and organizing the remaining text accordingly. In this way, the macrostructure also provides a framework for comprehension of the microstructures present. These include the local coherence ties, such as cohesive devices. A listener cannot understand a discourse by relying on these local ties alone, however; rather, there must also be a global topic structure that unifies local devices and allows for the creation of a mental representation (van Dijk, & Kitsch, 1983).

Originally, van Dijk's assumption was that listeners (and speakers, perhaps) formed a 'text-base' of a discourse based on sentence-level realizations, and that this was

slowly converted into an episodic model once relevant information had been selected by a control system. However, based on the evidence of macrostructure influence, it is now assumed that these text-bases are really just a means to the creation of the macrostructure or 'gist' model (van Dijk, 1985a; 1995a).

Some of these macrostructures become well established and thus easier for recipients to anticipate. A narrative, for example, has a structure made up of particular components. Individuals become accustomed to this pattern and can identify immediately that "this is a narrative" (van Dijk & Kintsch, 1983), and begin organizing the incoming information accordingly. These structures van Dijk termed 'superstructures' (van Dijk & Kintsch, 1983). This concept of superstructures bears resemblance to Halliday's discussion of cultural genres. For Halliday, a 'genre' is a culturally influenced language action, realized by the goal-oriented stages that contribute to its structure (Eggins, 2004). A narrative is one example of a popular genre. If, however, there is some atypicality in the delivery of the text – i.e., if the expected information is not provided, or not provided in the expected pattern – a recipient will have more difficulty creating a macrostructure. This will become relevant to the present study, as the transcripts from counseling sessions with depressed individuals have been selected based on the generic atypicalities apparent to counselors and analysts.

In his observations of talk-in-interaction, van Dijk was more able to offer some initial hypotheses regarding discourse production (1984; 1985a; 1985b). A main question guiding this area of research was how individuals process and integrate new and old

information online during discourse comprehension or production. If we understand that individuals have a large amount of information organized in memory already – i.e., they have general linguistic knowledge that allows them to understand and produce an utterance, they have knowledge of their conversation partner and the relationship between them, they have knowledge about the context and what behavior is appropriate, and they have any prior information required to fully interpret the discourse, including the utterance directly before – if they know all this, and are able to access this while attending to and interpreting ongoing discourse, then that knowledge must be organized strategically (1977a). To make access and storage easier, knowledge is organized into 'knowledge units'. In other words, knowledge has been hypothesized to exist as various knowledge units in both semantic and episodic memory. As discussed earlier, schemas consist of knowledge surrounding particular concepts. This knowledge has been generalized from episodic experiences to semantic memory (1977a). These semantic knowledge structures consist of information that was once held in episodic memory, have been generalized to exist as semantic knowledge, and from there are able to influence further processing of new information. Van Dijk's introduction of the theory of models actually applied more to structures that involve episodic memories, rather than semantic knowledge. Although all episodic memories might exist as models, van Dijk uses this concept to account specifically for the role of models in discourse processing.

Regarding discourse production, van Dijk notes that during conversation, speakers must plan their speech act – in other words, they must be able to form a 'discourse strategy', i.e., the most efficient method of achieving their speech goals

(1985a). He contrasted a discourse strategy with a 'discourse plan' because speakers do not have a text-base with each clause in working memory so much as a general speech goal and efficient sub-goals for how to communicate this (1985b). Furthermore, speakers must keep this strategy in mind while executing their speech goal. Other theorists have maintained the use of 'discourse plan', however (Rochester, Martin, & Thurston, 1977). For the present study the term 'discourse model' will be employed when describing the actual structure (or plan) that speakers create and use during discourse expression. This is because a 'model', according to van Dijk, is a cognitive representation. During narrative production a speaker will first access the model containing the event, but then he or she must create a representation of this in working memory that reflects how he or she will organize discourse expression (van Dijk, 1985b). It is in fact, a 'plan', but given its representational nature, the term 'model' seems appropriate.

As mentioned, van Dijk's introduction of the theory of mental models not only allowed him to explain how episodic information might be organized in long-term memory; it also allowed him to explain the connection between cognitive representations, discourse realizations, and the relation of both to society (van Dijk, 1990; 1993a). In van Dijk's theory, there are three main kinds of representations: situation models, context models, and experience (event) models (for a more detailed discussion of models see van Dijk, 1999).

Situation models are used to account for the representation of the discursive event. Essentially this is what a discourse is about, in terms of topic, but also other

relevant information like the setting, the participants, action sequences, and evaluations of these – essentially the information relevant to a memory representation that would make it easier for storage and access (van Dijk, 1985a; 1995c; 1999).

Context models are representations of the local and the global contexts. As mentioned, in order for comprehension or production to occur, a listener must have global and local knowledge of the context as well. Contextual information includes both wider situational information (i.e., cultural and historical knowledge) and also more local understanding such as the relationship between speaker and listener (or reader) (van Dijk, 2006). Van Dijk theorized that individuals form a representation of the context in cognition (1999). During comprehension this contextual information influences how utterances are interpreted and represented (van Dijk, 1995c; 1999; 2006). During production, context models influence the discursive choices a speaker makes in regard to what is socially appropriate and what is necessary in order to achieve listener understanding, essentially constraining the discourse (van Dijk, 1985a; 1985b). In the data collected for the present study, contextual influences to consider would be the expectations of a counseling session, the relationship between counselor and patient, and the type of counseling. These sessions are taken from episodes of client-centered therapy, meaning the client does much of the talking, and her speech is mainly about herself and her thoughts and feelings.

Finally, and most relevant to the present study, is van Dijk's notion of experience models. These are representations in long-term memory of events, or of experiences had

by individuals. They contain information about the setting, participants, and action sequences, and of course evaluations of these (van Dijk, 1999). It is these experience models that form the basis for the narratives constructed during the counseling sessions.

It is important to note that all models are subjective. They are only partial reflections of reality, and these reflections incorporate knowledge that already exists in semantic and episodic memory (van Dijk, 1985a; 1993a). This means that perceived information is interpreted and encoded as it relates to previous knowledge. Furthermore, individuals attend to and encode information consistent with existing representations. It is this phenomenon that is largely responsible for the maintenance of racist attitudes (van Dijk, 1985a; 1989a; 1993a; 1993b), as well as for negative schemas associated with depression (Beck, 1976).

It is this phenomenon described above that has allowed van Dijk to apply his model theory to explain the relationship between discourse and society. The predominant view in Discourse Studies is that discourse and society have a bidirectional relationship, in that the society or culture in which one is immersed will influence how one interprets discourse and also the discourse one produces (van Dijk, 1993a). This relationship is bidirectional in that the discourse produced can serve to shape new cultural norms and also reinforce existing norms (van Dijk, 1993a). Thus beliefs, attitudes, and ideologies are influenced by various modes of discourse and in turn influence the production and interpretation of new discourse. For van Dijk, a complete understanding of this relationship requires consideration of cognition because beliefs, values, and ideologies

are cognitive structures. For van Dijk, individual cognition acts as the "filter," or mediator, between discourse and society (1993a; 1990; 1985a). When encountering and interpreting a discursive event, an individual forms a representation of it in memory as a situation model. This representation is modified by the already existing, and culturally influenced, cognitive schemas stored in memory. In discourse production these schemas influence the discursive representation a speaker constructs, completing the discourse-cognition-society triangle (1985a; 1993a). It is beyond the scope of the present study to discuss the cognitive organization of beliefs, attitudes, and ideologies. Van Dijk has, however, offered some explanation of their differences (1995b). It is sufficient to say that ideologies are the overarching cultural representations that organize related attitudes and beliefs.

Van Dijk has been particularly influential in contributing to the understanding of racist attitudes in discourse and their cognitive underpinnings. He explains how *Us* and *Them* categories are formed, both cognitively and discursively, and how this serves to maintain power relationships between minority and majority groups (1985a; 1988). This particular avenue of research has allowed van Dijk to look more closely at the production of discourse. For the most part, his theoretical contributions are extensive but often lack microlinguistic support. However, his focus on the reproduction of attitudes and ideologies (1982; 1990; 1995a; 1995b; 2006b), especially his critical analyses of racism (1987a; 1989a; 1989b; 1992a; 1993a; 1993c), has prompted further research (Oktar, 2001; Koller, 2005; Chen, 2011; Guillem, 2013).

For example, as is the case in this study, Oktar (2001) also applies tools from SFL to examine the discourse-society connection. She uses the transitivity system, a way of describing how experience is represented linguistically through verbs, nouns, and circumstances, to examine how relational and action verbs contribute to the creation of *Us* and *Them* categories, and how this maintains the power dynamics between these categories. Using media texts, Oktar explains how language can be used to selectively represent information containing bias, manipulation, and ideology, and how this is used to achieve certain goals. Much of the social impact of media texts is the result of this discursive action, or the result of the choices made in how to represent events, people, or ideas.

Although her focus is more on the discourse-ideology relationship rather than on the role of cognition, Oktar (2001) does note that *Us* and *Them* are mental categories. These representations are demonstrated and reproduced discursively through verb and noun choices. The way a group is categorized influences the way individuals and other groups perceive and behave toward that group, but also the way actions by the group are perceived. In other words, the way attitudinal or ideological representations are reproduced discursively influences the processing and storage of new information, thus demonstrating a direct link between text, cognitive representations, and society.

Another application of van Dijk's work comes from Veronika Koller (2005), who looked at metaphors in business texts. Koller focuses her attention on the metaphors identifiable in business discourse from a critical perspective, noting that those in power

get to 'impose' their own metaphors, thus maintaining or propagating the existing power structures. In this way, metaphors both demonstrate and continue sociocultural relations.

Koller (2005) gives more attention to the cognitive dimension of the relationship between discourse and society, and the importance of empirical demonstration. Since both general and sociocultural knowledge exist as structured representations cognitively, Koller suggests that predominant metaphors also exist as cognitive models. Therefore looking at metaphor structure may reveal mental models. In this way, Koller had similar goals to those of the present study, in which narratives are used to examine the possible structure and processes involved in discourse production. For Koller, metaphors make up much of our social cognition, and they are good places to start when studying cognitive and ideological determinants of discourse. Similar to Oktar (2001), Koller demonstrates how the use of metaphors creates *Us* and *Them* categories, but she goes further and explains how this categorization leads to alienation. If you identify with the metaphor, you are *ingroup*, if not you are alienated. This categorization and alienation effect influence or reproduce the power structures in society that the metaphors reflect.

As the above examples demonstrate, van Dijk's model theory has become popular for critical discourse analysts. Wodak (2006) reviews criticisms that have been raised about the inclusion of cognition in Discourse Studies, but argues that despite these criticisms a careful consideration of cognitive influences should be included, providing a review of the theorists, including herself, who have begun including more cognitive research.

However, most of the above research, and that reviewed by Wodak (2006), focuses on model content and on its influence on discourse and society. While this research provides some sociocognitive interpretations of discourse, it does not focus enough on how we might understand the strictly processing side of discourse production and what specific cognitive mechanisms might be acting on production and at what stage. More recent research has provided some discussion of this. Recently researchers have attempted to use atypical discourse as a means of drawing conclusions about these mechanisms (Brandao, Castello, van Dijk, de Mattos Pimenta Parente, & Pena-Casanova, 2009; Rogalski, Altmann, Plummer-D'Amato, Behrman, & Marsiske, 2010). The following section will review some of this research as it applies to the consideration of atypical discourse and cognition in the present study.

Atypical Discourse Processing

The following section provides a review of recent literature addressing atypical discourse processing. This review is relevant to the present study as the study attempts to use atypicalities found in discourse production as a way of understanding underlying processing.

The examination of attitudes in discourse, as described in the previous section, is only one way of looking to the role of mental models in discourse production. At a more delicate level, it can be difficult to identify how cognitive processing mechanisms operate

during the expression of mental models. Recently, researchers have attempted to use atypical discourse as a means of drawing conclusions about these cognitive mechanisms. One such study applies van Dijk's theory to explore the relationship between discourse production and cognition in Alzheimer's patients. By correlating cognitive-deficit measures with patterns in narrative production, Brandao et al. (2009) attempted to understand the possible mechanisms underlying discourse production in those individuals whose cognitive functioning was deteriorating. They compared two test-groups to a group of control individuals. In the first test-group patients were asked to freely recall an event memory. Test-group one participants were provided no prompts other than a topic (their wedding). The second test-group was asked to do the same, only they were offered prompts whenever they were missing narrative macrostructure elements thought to be included in event models (e.g., setting, participants, conflict). Researchers had familiarized themselves with the event prior to the study by asking participants' close family members about these details. Brandao et al. then examined the prevalence of proposition repetition (when an idea was repeated but contributed nothing new to the narrative) and incomplete propositions (those that were missing either a predicate or argument). They found that although there was not enough of a pattern of repetition when compared to controls, the individuals that did demonstrate the most repetition were those in the early stages of Alzheimer's. Brandao et al. suggested that this may be a compensatory strategy when patients have difficulty producing new ideas – i.e., accessing information from event models.

Brandao et al. (2009) expected that incomplete propositions might reflect incomplete episodic models, and they did in fact find a correlation between the episodic memory task and the number of incomplete propositions. However, incomplete propositions were found mainly in the prompted condition rather than the free-recall condition. One would expect that if this pattern is due to fragmented models it should appear in both conditions or even be predominantly in the free-recall task in which participants have no help from the context. To explain this Brandao et al. suggest that the effect may be due not to memory deficiencies, but rather to issues in information management. Essentially, participants were unable to apply contextually supplied information (prompts) to knowledge that already existed in semantic and episodic memory. In order to use the prompt for recall, participants would have to maintain their interactive goal, while searching for the prompt referent in episodic memory, and then incorporate the referent into their discourse representation. Given that they also found strong negative correlations with working memory tasks, Brandao et al. suggest that control system mechanisms like working memory may contribute to this pattern. Brandao et al.'s finding demonstrates the effect that cognitive control mechanisms have on narrative expression, and how deficits may lead to atypicalities in event reconstructions like those found in the present study.

While Brandao et al. (2009) looked to signs of local coherence and their relationship to cognitive deficit, Rogalski et al. (2010) demonstrated that it is global coherence that actually may be more cognitively demanding. In a dual-task study involving stroke victims with demonstrated cognitive impairments, Rogalski et al.

examined the effects of a cognitively demanding dual-task condition on the global and local coherence of narratives. Local coherence is defined as the ability of the participant to maintain organization from one utterance to the next, while global coherence is the ability to maintain an overall topic or goal that connects a discourse (van Dijk, 1980). While there was no effect of the dual-task on narrative production, the researchers did observe that global coherence appeared to be more severely affected. Furthermore, global coherence scores correlated with measures of attention, processing speed, and concentration. The researchers did not find a relationship between working memory and local coherence measures, however, although they suggest that their measures may not have been sensitive enough. They note that research regarding the role of working memory is mixed and that therefore the topic needs further attention.

Rogalski et al. (2010) suggest that given the different results for each of them, global and local coherence may involve separate processing mechanisms, and that in the event of cognitive impairment, global coherence breaks down first. This is relevant to the present study, as local and global coherence are examined for any information they may reveal about discourse planning and execution. Results may further build on a distinction between global and local processing capabilities in a population prone to cognitive impairment.

Unfortunately, the above avenue of research often arises from a strictly cognitive framework. Traditionally, cognitive questions have been left up to psychology while Discourse Studies has focused on directly observable processes in the discourse (van Dijk, 1993a). There has, however, been some research on atypical language in Discourse

Studies as well. Of relevance here are those studies that use SFL to examine atypical patterns. This area of research not only offers linguistically based analysis, it also has suggested cognitive underpinnings for atypical linguistic patterns. The following section will review this literature, first providing a brief overview of Systemic Functional Linguistics.

An Overview of Systemic Functional Linguistics

Systemic Functional Linguistics (SFL) was developed by Michael Halliday in the 1960s. The theory states that language is a meaning-making system (Eggins, 2004) and that all language is a form of social action. These social actions are realized by the linguistic choices made in a text. SFL looks to these choices to explain why a text means what it does. In the present study, this would explain why a text is atypical and what this atypicality suggests about the role of mental models in discourse production. SFL makes four claims about language: The first claim is that language use is functional, and the second claim is that its function is to make meanings. (In the present study, the function of the language-in-use is to share experiences or stories.) The third claim is that these meanings are influenced by a social and cultural context, suggesting that what we consider 'typical' for narrative structure and expression is culturally determined. Finally, language use is seen as a process of making meaning by choosing among a finite set of language choices within a system of meaning making.

For SFL, then, linguistic expressions are choices made in opposition to other available options, and it is these oppositions that carry meaning. For the present study, the choices would be the transitive choices made, references, clausal connections, etc. When speakers make unexpected or incongruent choices their stories are difficult to understand. To capture these oppositional choices, SFL describes a system where if *x* choice applies, then *a* or *b* must be chosen. Choices will most often lead to other choices, and this is how language achieves delicacy: if meaning *x* applies, choose *a* or *b*; if *b* is chosen, now choose *m* or *n*. Each choice, at each stage of delicacy, carries and creates meaning (Eggins, 2004).

Within this system there are three metafunctions that carry meaning: the ideational, interpersonal, and textual functions. Ideational meanings are "meanings about how we represent experience in language" (Eggins, 2004, p. 12). Interpersonal meanings express the relationships among participants, between the speaker and subject matter, and between the author and reader. Finally, textual meanings are those that help a text "hang together," i.e., how what was said relates to what was said previously and to the context. These metafunctions are all accomplished simultaneously within a text; in other words, a text always has ideational, interpersonal, and textual meanings.

The present thesis is mainly concerned with the ideational metafunction. The ideational metafunction can be further divided into the experiential and logical functions. The experiential function encompasses how experience is represented in the content words of language. At a syntactic level this is realized by the transitivity system: the verb,

noun, and circumstance choices. It can be said, then, that transitive choices are how we linguistically represent our cognitive representations of experience, or our 'models'. The logical function allows us to examine what structural resources are being used to convey this experience. This is realized through the 'taxis' and 'logico-semantic' relationships created in the text. Taxis allows for the creation of relationships of dependency between clauses, while logico-semantic relationships are the connections that hold the text together. Both contribute to how meaning can be developed to be either more or less complex, i.e., contain more or less meaning. In the present study, the taxis and logico-semantic systems are used to examine the local expression of a speaker's event model. In this context, these experiential and logical connections contribute to the generic structure of patients' narratives. To assess the global coherence of narratives, the study also examines how transitivity and clause complexes contribute to genre. The concept of genre as it relates to the study will be discussed further in Chapter Three.

Atypical Discourse

With respect to atypical discourse, there is a large amount of SFL research surrounding language impairments in individuals with developmental disorders (Boucher, 2003; Capps, Kehres, & Sigman, 1998; Fine, Bartolucci, Smatmari, & Ginsberg, 1994; Fine, 1985) and mental illness (Zohar, Livne, & Fine, 2003; Rochester, Martin, & Thurston; Chaika & Lambe, 1989; Chaika, 1990; Covington, He, Brown, Naci, McClain, Fjordbak, Semple, & Brown, 2005; Tannock, Fine, Heintz, & Schacher, 1995). The bulk of this research has been devoted to autism and Asperger's, and to schizophrenia, with

some researchers making reference to the possible cognitive underpinnings of speech patterns. Unfortunately, little attention has been paid to language patterns in depression (Fine, 2006). This section will review some of the available literature on SFL and atypical discourse.

Of most relevance to the present study is Jonathan Fine's work. Fine's (2006) research is based on the understanding that language is our primary resource for communication, and that therefore when a social action is not being achieved, it is in language that this becomes first apparent. Fine's goal was to identify linguistic patterns across various psychiatric disorders as a way of aiding clinicians in assessment and diagnosis. Essentially, his research was an attempt to help clinicians "listen for" pathology (p.1). In his clinical handbook he uses Systemic Functional Linguistics to identify patterns of disordered speech across communicative disorders, developmental disorders such as Autism and Asperger's, ADHD, psychopathic disorders such as schizophrenia, mood disorders such as depression and manic disorder, and finally personality disorders. There is a large amount of work devoted to psychotic disorders like schizophrenia, by Fine (2006) and others (Chaika & Lambe, 1989; Chaika, 1990; Rochester, Martin, & Thurston, 1977), and more attention is being given to ADHD (Tannock, Fine, Heintz, & Schachar, 1995) and Asperger's (Landa, 2000).

Fine (2006) argues that there are expected discursive patterns present in a speech community, and when there is a deviation from these patterns it is noticeable . The

expected patterns extend to narrative structures, as well. Given that the goal of communication is to share experience, discourse must be designed with the recipient's understanding in mind (Fine, 1985b). Therefore, if a speaker deviates from the expected patterns, or their narrative is atypical, it may impede the communicative goal. A listener might have trouble creating a corresponding comprehension model. Fine suggests that these atypical patterns might suggest the cognitive mechanisms that underlie mental disorders; however, his research does not actually go so far as to suggest such mechanisms (2006).

There has been other work employing SFL that does address cognition. Of specific relevance to the present study are those studies that examine impairments in cohesion or coherence. Cognitive processing deficits have been offered as explanations for the inappropriate use of cohesive links during speech (Fine, Bartolucci, Szatmari, & Ginsberg, 1994; Covington, He, Brown, Naci, McClain, Fjordbak, Semple, & Brown, 2005; Chaika & Lambe, 1989; Rochester, Martin, & Thurston, 1977). For example, Fine, Bartolucci, Szatmari, and Ginsberg (1994) found that high functioning autistic subjects used fewer references to preceding conversation than control conversations and relied more heavily on references to the external environment, suggesting an inability to incorporate social information. Asperger's patients on the other hand appear to make more cohesive errors, especially regarding referents.

Cohesive impairments present in schizophrenic patients have also been a popular area of research (Chaika, 1989; 1990; Rochester, Martin, & Thurston, 1977). Covington

et al.'s (2005) review article goes through all impairments that had been noted to that point. Covington et al. point out that most of the difficulties are of a higher order, linguistically, i.e., occurring at the syntactic and pragmatic levels rather than phonetic or morphological. The most common impairments found are derailment, poverty of content, loss of goal, and tangentiality. In terms of cohesion, Chaika and Lambe (1989) looked at patients' ability to produce narratives and found that they used cohesive ties differently than in normal controls, suggesting dysfunction in narrative production. Schizophrenics also seem to rely on non-verbal referents or to shy away from using referents, as if unsure of what information is known or not known (Rochester, Martin, & Thurston, 1977).

In terms of the cognitive explanations for these atypical patterns, both developmental and mental disorders have been attributed to issues with theory of mind, i.e., the inability to consider that others are conscious thinking beings with thoughts of their own. Schizophrenia is also thought to be characterized by thought-disorder (Rochester, Martin, & Thurston, 1977). This is a disruption in executive functions like discourse planning, execution, and memory, ultimately resulting in difficulty with the "moment-to-moment logical sequencing of ideas" (Covington et al., 2005). Measures of coherence have found that manic patients seem to jump from one idea to another, possibly as a result of juggling multiple discourse plans. Schizophrenics on the other hand, show a lack of overall structure, suggesting impaired discourse planning. Both of these become relevant in the present analysis, as patients appear to be struggling with the formation or expression of discourse plans or models.

Many of these atypical patterns have been found to occur in those with depression and other disorders as well (Chaika, 1990). This suggests a common core dysfunction present in some illnesses (Fine, 2006). Anxiety often occurs with depression, and has been suggested to share cognitive dysfunctions with depression (attentional bias for example) (Gotlib & Joorman, 2010). Zohar, Livne, and Fine (2003) compared the cohesive links made by high- versus low-anxiety subjects during public speaking. They used taxis and conjunction to assess semantic efficiency, hypothesizing that those with a greater level of anxiety would be less efficient. Within the taxis system there can be either paratactic clauses that exist independently of connected clauses, or hypotactic clauses whose meaning is dependent on preceding or following clauses (Eggins, 2004). Zohar, Livne, and Fine (2003) explained that paratactic clauses add meaning and are therefore more efficient, because their use is necessary to message progression. Hypotactic clauses on the other hand do not progress meaning, and therefore their overuse is less efficient. The researchers found that the high anxiety group used less parataxis and more hypotaxis than lower anxiety subjects, suggesting that anxiety may lead to less efficient speech.

The researchers also investigated the use of the conjunctive connections speakers used. According to Halliday and Hasan (1976) there are three types of conjunctive devices: elaborative, extending, and enhancing. Elaborative conjunctions restate meaning, extending clauses add new meaning, while enhancing clauses enhance or build on meaning. They found that high-anxiety speakers used fewer enhancing and elaborating

clauses, but more extending conjunctions, once again suggesting a negative relationship between anxiety and efficiency.

It should be noted here that Fine (2006) considered elaborative clauses to be semantically efficient because they clarify meaning. The results of the present study disagree, instead suggesting that only relationships of enhancement further develop narrative. Elaborative clauses merely restate meaning, and extending clauses merely add independent information. Neither type of clause further develops the complexity of a clause, or adds narrative progression. The present study will demonstrate this effect.

Zohar, Livne, and Fine (2003), in the research described above, were trying to validate linguistic measures as a tool for identifying high anxiety and its influence on cognition. Other studies have also attempted to demonstrate the usefulness of linguistic analysis to examining psychological and cognitive questions. Tannock et al., for instance, demonstrated that linguistic analysis can differentiate between stimulant effects in ADHD (1995), and Rochester, Martin, and Thurston (1977) showed that even lay judges can identify the presence of thought disorder based on cohesion and coherence issues. The present study, then, not only adds to the study of language and depression, it also demonstrates the usefulness of Systemic Functional Linguistics for examining the role of mental models. As discussed earlier, while van Dijk provides an excellent theory for how cognition interacts with discourse and society, he provides little to no microanalysis. Thus, by using SFL to examine the atypical discourse of depressed individuals, we can

demonstrate SFL's usefulness in empirically validating his theory, and in answering cognitive questions overall.

The data in the present study comes from the counseling sessions of depressed individuals. Therefore any atypicalities found in their speech could be attributable to their disorder. Jonathan Fine's (2006) research on depression is very limited. This may be due to the wide range in the severity found in depression. Its symptomology and its causes can vary greatly across individuals (Gotlib & Joormann, 2010; Kangas, 2001). Individuals often experience a different combination of depressive symptoms, and at times these can be attributed to external life stressors, or may be attributable to physiological imbalance (Johansson, Bengs, Danielsson, Lehti, & Hammerstrom, 2009). This may make it difficult to pinpoint specific patterns across the disorder; even Fine notes that severity often affects the frequency and expression of certain discursive patterns.

The patterns that Fine (2006) does observe in depression have more to do with discursive content than more micro-linguistic patterns. For example, he notes that depression is characterized by frequent use of the negative form of words (won't, can't, haven't). Depressed patients also tend to use more content words, perhaps because of the confused state associated with the disorder; content words may help keep them on topic. Depressed patients also tend to use frequent modals that express uncertainty.

One interesting trend that Fine (2006) does outline is the distance created when patients express their mood. For example, when a patient expresses his or her mood as a relational relationship, as in “I am sad,” the participant “I” is the carrier, and the feeling is directly related or attached to the speaker. Mood can also be expressed as a sensing (“I think”) or affect (“I feel”) relationship, which creates more distance between the senser or feeler and the phenomenon. The phrasing “I said I was sad” creates even more distance from the subject. This is interesting for the present study, as the verb choices employed and the participants they describe are investigated later in the thesis. Furthermore, it is suggested that verbal processes, specifically direct reported speech, may create more distance from the speaker, as they contain no evaluation. This will be discussed further in the Findings section.

To the researcher’s knowledge, the only other discursive research on depression specifically has focused on the social construction of the illness (Johansson, Bengs, Danielsson, Lehti, & Hammerstrom, 2009; Kangas, 2001; Korner, Newman, Mao, Kidd, Saltman, & Kippax, 2011; Lafrance, 2007; Drew & Dobson, 1999). These are certainly valuable directions for research. Furthermore, van Dijk’s understanding of discourse and cognition could no doubt be extended by an examination of the social and personal attitudes of depression. However, while research examining the social construction of the illness is useful, it does not attend to the possible cognitive constructs underlying the disease and how they appear in discourse. Attending to this question may help in distinguishing social versus physiological depression and perhaps also in assessing depression severity. This thesis will hopefully be able to contribute to this goal.

Although valuable, an examination of attitude is beyond the scope of the present study, which hopes to extend van Dijk's understanding of the content and processing of mental models. However by doing so – that is, by attending to atypicalities in narrative structures – the present study might build on Fine's work as well by suggesting underlying cognitive mechanisms of atypical discourse. In order to do so, cognitive impairments associated with depression will be considered when the results are discussed later in the study. These impairments are reviewed in the following section.

Cognition and Depression

Recently there has been a great amount of research devoted to identifying the cognitive deficits underlying depression (see Gotlib & Joormann, 2010; Wisco, 2009; Austin, Mitchell, & Goodwin, 2001). Although measures considered in the present thesis do not include tests of cognitive performance, understanding the possibility of cognitive issues does guide speculations on the cognitive mechanisms at work in event representation. Therefore, recent research regarding cognitive processing deficits in those diagnosed with depression is also relevant to the study.

Two particular areas of research are important here. The first area is research into the content of depressive cognitions. The most commonly noted pattern is that depressed individuals appear to have a negative attentional bias when perceiving negative or neutral information (Gotlib & Joormann, 2010). This means these individuals recall more

negative information than positive information. The cognitive theory explaining depression suggests that the presence of negative maladjusted schemas contributes to the development and persistence of depression (Beck, 1976). These schemas are formed during childhood or during trauma and are used to 'filter' or influence the interpretation of new information. If van Dijk's theory were applied, one could explain how mental models in memory contain an overrepresentation of negatively biased representations. As these representations become generalized knowledge in semantic models, they influence both what external information is deemed relevant (an attentional bias) and also how the information is interpreted and categorized into new episodic models. This perpetuates depressed individuals' negative view of the self and the world.

There has also been a focus on the discursive content of depressive cognition. Mostly this has looked at the discursive evidence of negative thoughts and negative self-concept (Drew & Dobson, 1999). There have even been comparison analyses of speech patterns when depressed patients speak with strangers versus with close friends. Segrin and Flora (1998), for example, found that when speaking with friends as opposed to strangers, depressed individuals were more likely to use negative language.

More recent research has explored what cognitive processes may be responsible for these speech patterns. Much of the research has revealed mixed results. However, this is likely due to the fact that researchers sometimes fail to distinguish across severity of depression; for instance, dysthmic patients (those with mild depression) are often not distinguished from those with major depressive disorder (Gotlib & Joormann, 2010).

Given that the very definition of depression, with regard to its cause, is currently under debate (i.e., social versus physiological determiners), it is important to distinguish patient symptomology when measuring cognitive deficits in order to have a full understanding of the illness. Despite mixed results, some cognitive patterns have been identified.

For example, depressed individuals appear to have access to more over-generalized memories (Williams, 1988; see Gotlib & Joormann, 2010). Over-generalization means that there are more categorical and extended memories (semantic information, repeated activities, or general life period events) relative to specific memories (events that do not last longer than 24 hours). The fact that these depressed individuals appear to have better memories for more generalized information may explain why they interpret new information with a negative bias. Overgeneralization has even been shown to predict severity of illness and suicide risk (Williams & Broadbent, 1986; Arie, Apter, Orback, Yefet, & Zalzman, 2008).

Depressed patients have also demonstrated concentration and memory impairments, both in terms of their subjective reports and also in objective measures of cognition (Wisco, 2009; Gotlib & Joormann, 2010). Specifically, patients have been shown to have impaired autobiographical memories (King, MacDougall, Ferris, Levine, MacQueen, & McKinnon, 2010). Most of these studies have involved lab testing of retrieval, retention, and encoding of stimuli. Few have looked at personal events and facts – these are integral to a sense of self and thus are thought to be important in illnesses that affect this, like depression (Gotlib & Joormann, 2010). This is important as the data in the

present study is made up of free recall of autobiographical event memories, and thus may demonstrate useful patterns in this area.

There have been mixed results regarding the role of working memory (WM). Some researchers suggest it is an impairment in control systems rather than in working memory itself (Joormann, 2005; Gotlib & Joormann, 2010, Wisco, 2009). In other words, executive control systems, like inhibition for example, may be affecting what information is allowed to enter and leave working memory (Gotlib & Joormann, 2010). Depressed individuals have shown decreased inhibition regarding negative information, specifically in removing it from WM – this means that the depressed individuals cannot keep irrelevant negative material from entering WM (Joormann, 2004; Linville, 1996). Evidence for inhibition impairments when non-emotional information is being processed is limited unless patients are severely depressed; however, there is a great amount of evidence that depressed individuals have reduced inhibition of negative information (Gotlib & Joormann, 2010; Joormann, 2004; De Lissnyder, Koster, Derakshan, & De Raedt, 2010).

Furthermore, there seems to be a relationship between rumination and impaired executive functioning (Joorman, 2005; Joorman & Gotlib, 2008; Watkins & Brown, 2002). Specifically, when the task is not constrained and depressed individuals are allowed to ruminate, they have difficulty keeping negative thoughts out of WM (Joorman, 2005; 2006; Joorman & Gotlib, 2008). Some research has suggested that rumination actually seems to trigger executive function impairment (Watkins & Brown,

2002). This is important as the present study involves patients in an unconstrained context (therapy) where they are essentially required to ruminate. Therefore, executive control patterns may be influencing discourse.

Although results are still mixed, the above research points to processing areas where depressed patients may have difficulty. While no definitive conclusions can be drawn as to cognitive performance in the individuals in these case studies, the results can prompt speculation and future research as to possible cognitive processes at work in both normal and abnormal discourse. Atypicalities in the present data may be related to control processing impairments, for example. This is certainly a beneficial exploration for research on depression, but it also may shed light on the processes at work in healthy individuals. If future research were to confirm correlations between specific impairments and atypical discursive patterns, we might conclude that these impaired processes are necessary for the production of normal discourse. The following analysis contributes preliminary speculations on this topic.

Chapter Three: Analytical Framework

This chapter outlines the analytical framework used to analyze the data collected for the present study, with an overview of the specific theories and methodologies employed in the analysis provided. The chapter begins with the parts of van Dijk's discourse processing approach to discourse production that apply to event reconstructions. The chapter then outlines the specific tools from Systemic Functional Linguistic applied in the analysis. These tools include transitivity and its relation to the content of event models as well as taxis, logico-semantics, and generic structure and the application of all three in the analysis of the expression of event models.

Van Dijk and Discourse Processing

While most of van Dijk's research on cognitive processing of discourse focuses on comprehension, he suggests that mainly the same processes apply in relation to discourse production, as it would not make sense for a limited-capacity system to have two completely separate systems working for comprehension and production (van Dijk, 1983). However, differences between discourse production and discourse comprehension must still be considered, as one cannot simply be just the reverse of the other. Rather than the creation of an episodic memory from an instance of discourse, the goal of production is to create a discourse from an already existing model. A 'model' in this case, is "a mental representation of an episode, that is, an event or action taking place in a specific

social situation" (1993a, p. 124). The stories told by depressed individuals patients in the data collected for this study are the discursive expressions of these models. If the main goal of interaction is to communicate an experience, then speakers must create a macrostructure to unify their communicative goal and its expression (its microstructures). Speakers must also create a 'discourse plan' or 'strategy' that involves an overall goal and subgoals (1983; 1985a; 1985b). Rather than terming this a 'text-base' (1985a), which seems more appropriate for describing the retention of incoming information, this discourse plan will henceforth be referred to as a 'discourse model', as the goal of the speaker is to create a representation in working memory of the general (and most efficient) structure to be expressed. Finally, during expression, control processes such as attention, activation, and inhibition must help in the execution of this discourse structure (van Dijk, 1985a).

One way of examining the role of mental models in discourse production is to look at event reconstructions. Since event models are one kind of mental model that influences discourse, event reconstructions are a way of identifying how model elements influence the retelling of events. The present study uses van Dijk's concept of event models (1999) to examine the role of such models in event reconstructions from depressed patients. Van Dijk suggests that these models are stored in episodic memory and contain specific event elements, i.e., information about events such as their setting (time and location), participants, and actions/events. As with other models, event models also include evaluations of these events. All of these model elements are the same key elements required for a narrative (1999). Thus, examining the presence of these elements

and their consistency in an individual's narrative construction may reveal aspects of a person's event model.

If a narrative is to be communicated to a listener, it must be receivable. In other words, it must be constructed in a way that a listener can comprehend. In order for discourse comprehension to occur, i.e., for a story to be understood by a listener, a listener must be able to construct a corresponding event model, for our purposes here referred to as a 'comprehension model' (van Dijk, 1987b). For this to occur, certain macrostructure/ microstructure elements must be available (van Dijk, 1987b). The above-listed narrative elements must be included, along with a topic or discourse goal, so that a listener can organize the information into a macrostructure. This macrostructure is what is stored in memory (van Dijk & Kintsch, 1983). These narrative elements are expressed in a narrative's microstructures (linguistic devices like grammar and cohesive ties), which are used to form the initial text-base (van Dijk & Kintsch, 1983). These microstructures must also be organized in a way that is receivable (van Dijk, 1985b). Therefore, the narrative must be both globally coherent (have a receivable macrostructure) but also locally coherent (the story must be cohesive, meaning that each utterance is logically tied to the ones preceding and following it) (van Dijk & Kintsch, 1983). When a narrative is atypical at either of these levels, a listener will have difficulty forming a comprehension model.

In this study, in counseling sessions with depressed individuals the inability of the counselor to form a corresponding comprehension model is taken as a signal of

atypicality. Tools from Systemic Functional Linguistics are used to identify and describe these atypicalities and suggest what they may reveal about a speaker's discourse models and their expression. Much of van Dijk's work focuses on macro-analysis, looking at narrative elements, or the content of texts. SFL allows us to see how these meanings are actually being created in the language. Transitivity allows one to examine content, taxis allows one to examine expression, and generic structure allows one to see how speakers are able to incorporate these into a coherent narrative. Transitive choices reflect what narrative or event elements are present in an event model, while taxis and logico-semantic relationships contribute to local coherence, and generic structure reflects global coherence.

Systemic Functional Linguistics

The use of the tools described below in this thesis is mainly concerned with the ideational level. The ideational can be further divided into experiential and logical functions. The experiential function of a text concerns how experience is represented in text through verbs, nouns, and circumstances. The logical function of text concerns how this experience is structured at the clausal level. With transitivity, and with taxis and conjunctive relationships, we see both how the content of experience is expressed and also how this is structured linguistically in a narrative (Eggins, 2004).

Conjunctive cohesion, while serving a structural purpose at the clausal level, also serves a textual function as well, as it holds a text together. Thus, when looking at

cohesion at the sentence and clausal level, this study also considers the textual metafunction. Finally, the generic identity of these texts can only be identified in relation to those texts that are culturally relevant, that is, how transitive, taxis, and cohesive choices influence their generic identity as compared to what we might consider typical. I will now briefly explain the transitive, taxis, logico-semantic, and generic tools applied in the study.

Transitivity. The transitivity system relates to the organization of ideational content of a clause, or how reality is represented and realized through language (Eggins, 2004). The term 'experiential meaning' refers to how the clause represents one's experience. This is realized linguistically through verb choices and their associates, i.e., their participants and circumstances. In this way, by using the transitivity system one is able to explore how cognitive representations become linguistically represented.

Eggins (2004) outlines six main types of processes – material, mental, verbal, behavioral, existential, and relational. Under relational processes there are attributive, identifying, possessive, and circumstantial relationals. The following sections review each of these and what they may suggest for the present study.

Material. Material processes include concrete and tangible actions, or in other words, they are 'doing' processes. There can be one or more participants involved, which include the Actor, and the Goal. In some cases, when the Goal appears to extend the meaning of the process itself, it is labeled a Range. There can be one more participant

involved, that of the Beneficiary. When the material process has an Actor doing something to or for something, the beneficiary is called a Recipient or a Client, respectively. Another way of thinking of material processes is that they often have the Actor interacting somehow with the external world. An emphasis of material processes, then, would mean an emphasis of tangible interactions with the external world in the event model.

Verbal. The second type of 'doing' process is the verbal process. This includes terms like ask, tell, yell, discuss, etc. There are typically three participants involved, the Sayer, the Recipient, and the Verbiage. Again these generally represent interactions with objects or people outside of oneself.

Mental. Mental processes are also considered 'doing' verbs, but rather than relating to external actions, they are internal. They include Cognition (thinking), Affect (feeling), and Perception (seeing, for example). Participants include the Senser (the thinker or feeler) and the Phenomenon (what is though/felt/ or perceived).

A note must be made here about projected verbal and mental clauses. This occurs when a verbal or mental process is used to project another clause. That is, verbal processes are used to report direct or indirect speech and mental processes quote or report ideas. For example, "She said 'I worked there'" includes two processes, 'She said' and the projected clause, 'I worked there'. A projecting mental clause would be 'He thought she worked there', where 'he thought' projects 'she worked there'.

Behavioural. The last 'doing' process is Behavioural. These are typically physiological or psychological processes, and generally only involve one participant – the Behaver – unless they include a Behaviour, which simply restates or extends the process.

Besides doing verbs, representations are also created through relationships of *being*. These include relational and existential processes.

Relational. Relational processes represent the relationship between two terms, or something's 'state of being'. These include the sub-types Attributive, Identifying, Possessive and Circumstantial. In Attributive processes a participant (the Carrier) is given some quality, classification, or description (Attribute), essentially representing the 'way it is'. Identifying processes are similar, except the state of being identifies the participant. Instead of a Carrier the main participant is the Token, and the attribute becomes the Value. For example, She (Token) is the quietest one (Value) here. Possessive relationals encode relationships of possession, with the participants including the Possessor, and the Possessed. Finally, circumstantial relationals encode situational information, either within the Attribute, or within the process itself. Participants will either be Carriers and Attributes, or Tokens and Values, depending on whether they are attributive or identifying relationships.

Existential. The second type of 'being' process expresses existence, i.e., "there is a light in the window." There is only one participant involved, the Existent.

The above processes allow the examination of speakers' representations of reality and experience; they are content devices. To examine the logical aspect of ideation this study also looks at the structural connections created between clauses, or how experience is connected to create a unified whole. The following section explains how clause complex and logico-semantic relationships are used to examine how this reality is expressed.

Taxis and Logico-Semantic Relationships. While the transitivity system realizes the experiential function of ideation, the taxis and logico-semantic systems express the logical aspect of experience. When a sentence contains only one clause it is called a Clause Simplex. When there are two or more clauses in a sentence this becomes a Clause Complex. A speaker chooses to connect clause units through relationships of either independency or dependency. Relationships of independency are called paratactic clauses. These are related through addition and include clauses that can stand-alone. An example would be, "I went to the store, and I drove home." These can often be identified by either the use of the word 'and' or punctuation. Relationships of dependency are hypotactic clauses. With hypotaxis there is always one alpha clause, and one dependent clause. An example would be, "While I sat there she showed the photos," where the meaning of "while I sat there" depends on the alpha clause "she showed the photos,"

These clausal relationships are connected through logico-semantic relationships. There are three main kinds of logical relationship that can be employed when creating meaning: elaboration, extension, and enhancement. Elaborating clauses merely restate

information (as in ‘in other words’, ‘more specifically’). Extending clauses add new but independent information (often signaled by the use of ‘and’ or ‘but’). Finally, enhancing clauses develop the meaning of a Clause Complex further. There are five main kinds of enhancement, these include clausal, temporal, spatial, manner, and conditional/concessive relationships.

Clausal conjunctions are used to signal a causal relationship between an utterance and the information contained in the one preceding it. These include terms like ‘and so’, ‘therefore’, etc. These conjunctions are particularly important to narrative progression, especially in terms of the conflict and resolution sections as these often involve causal relationships between actions and consequences.

The second type of enhancement is Temporal. These carry information about timing or progression. They include terms like ‘and then’, or ‘and so’. These are also particularly important in storytelling as they allow for events and actions to be reconstructed chronologically.

Spatial relationships express relationships of location, while ‘manner’ expresses the *how?* or *in what way?* of clauses. Finally, conditional and concessive relationships include terms like ‘if’ and ‘despite’ or ‘but’.

As discussed, Zohar, Livne, and Fine (2003) consider parataxis and elaborating and enhancing relationships to be the most efficient when speaking. To them, paratactic

clauses add new meaning, which furthers the message. Elaboration clarifies meaning and enhancement deepens meaning. With the exception of the role of enhancing connections, the present study suggests the opposite of this claim. Although either taxis relationship is considered more complex than a Clause Simplex, the dependency contained in hypotactic relationships is considered more complex. Similarly, elaboration and extension are both considered to contain less complex information than enhancing clauses, because they only emphasize or extend meaning. Enhancing relationships deepen meaning, creating a denser (or more complex) clause. These effects will be demonstrated in the data of the study.

The above logical relationships describe meanings that are created within Clause Complexes. The same logico-semantic relationships are also created at the sentence level as well. Rather than logical relationships, however, they are called cohesive devices. At this level they are not considered structural, and they contribute to the textual function of a text rather than the ideological. Halliday and Hasan's (1976) textual cohesion is defined as the devices that link each utterance to that preceding and following it. They outline several categories of cohesion such as lexical cohesion, reference, ellipsis, substitution, and conjunction. Among these, those that are relevant here are the same conjunctive relationships listed above. While these conjunctions are fewer in number than Clausal Complex connections, they still contribute to story progression and so will be considered later in the study.

Systemic Functional Genres. While transitivity is used to examine model content, and taxis and logico-semantics are used to examine model expression, the notion of genre is used to show how these tools contribute to the creation of a receivable, or 'typical' narrative. Genres are established organizational structures used in narrative construction. They are culturally established and propagated discursive norms that individuals come to expect in discourse (Eggins, 2004). Given that these structures become expected, deviations are easily noticed (Fine, 2006). Systemic Functional Linguistics provides a way to examine these organized structures, or genres. Genres, as viewed in SFL, can be separated into stages based on function. In regard to a narrative structure, each stage contributes some aspect to the narrative progression, be it the conflict or resolution in a story, for example. Thus, SFL gives analysts a way to recognize when a narrative structure is atypical. SFL also provides information about what "stage," or what model information, may be problematic. This might suggest either which model elements are inconsistent or what information an individual is having difficulty manipulating mentally.

As discussed earlier, according to van Dijk there must be a discourse goal in order for listeners to organize a comprehension model (van Dijk & Kintsch, 1983) and speakers must have a discourse plan in working memory during production (1983; 1985a; 1985b). It is suggested here that the macrostructures that result from discourse planning might resemble those that are culturally normalized as genres, or resemble van Dijk's 'superstructures' (van Dijk & Kintsch, 1983). Furthermore, van Dijk discusses elements of these superstructures, such as narrative patterns like conflicts and resolutions, which

bear resemblance to Halliday's discussion of generic stages. Therefore, in relation to production specifically, overall generic structures may resemble a speaker's discourse goal/plan, with the generic stages reflecting sub-goals of discourse production.

To explain further, narrative production involves several cognitive processes that a speaker must perform virtually simultaneously. In order to recount an event a speaker must first access the event model in episodic memory. While maintaining this meaning in working memory he or she then must create a discourse model. Using knowledge stored in semantic memory about language patterns, the speaker must create a discourse plan that is structured in a way that is receivable to the listener (van Dijk, 1983; 1985b) As mentioned earlier, this involves both knowledge of superstructures, like genres, and of micro-linguistic devices. Once this discourse model is formed it too must be maintained in working memory while the speaker tells his or her story. This process is overseen by the control systems of executive functioning, which selects what information to include, i.e., known versus new information and irrelevant information (van Dijk, 1985a). Part of the discourse model created is determined by the communicative goal, or function, just as function determines the structure of a genre and its contributing stages. It may be, then, that the discourse model formed would resemble the genre most appropriate for the communicative goal. Van Dijk notes that the plan created during production would not resemble the event model itself, but rather would resemble the most appropriate macrostructure (1985a). It therefore seems reasonable to suggest that this macrostructure would resemble the intended narrative genre. Therefore, the generic structure produced by the speaker would represent its corresponding discourse model. Any atypicalities in

the generic structure may suggest atypicalities in the discourse model, and atypicalities in the generic stages may reflect problems with the subgoals of the discourse model.

Systemic Functional Genres provide a method of examining these structures. Eggins and Slade (1997) outline four kinds of generic structures of stories told in conversation: Narrative, Anecdote, Exemplum, and Recount. They refer to these blocks of text as 'chunks'. The generic stages of a text are identified by the function they serve relative to the whole. They can thus be differentiated by what they are doing or what they contribute to the whole text, but also by how this is done, i.e., grammatical or semantic realizations.

The stages of a typical Narrative involve an optional Abstract, an Orientation stage, a Complication, a Resolution, an Evaluation(s) stage, and finally an optional Coda. The Abstract of a Narrative provides a brief summary of the goal of the Narrative. This involves mentioning the main point or message. The Orientation stage orients listeners in that it provides the setting, participant, or action information that recipients need in order to 'set the scene'. Background information needed to interpret the Complication or Resolution stages may also be provided in an Orientation. The Complication stage has the protagonist encounter a problem, usually realized by temporally sequenced events that culminate in a conflict. The Evaluation stage can occur multiple times throughout the Narrative but usually contains the speaker's attitude toward the Narrative or towards the Complication or Resolution stages. The Resolution stage has the protagonist overcome the complication. Finally, during the Coda stage the Narrative is concluded. Here the speaker may make a general point about the story overall, it is usually identifiable by a

return to the present. While some stages are optional or flexible, there is always an Orientation, Complication, and Resolution.

An Anecdote is similar to a Narrative except there is no explicit Resolution stage. Instead of a conflict and resolution there is a Remarkable Event followed by a Reaction stage. The goal is thus to share the reaction with the listener.

The goal of an Exemplum is to share some culturally or morally significant message with the listener, using some event as an example. While the Abstract, Orientation, and Coda stages remain as in the Narrative and Anecdote, the middle stages are replaced by an Incident stage and an Interpretation stage.

Finally, a Recount differs from the above structures in that its goal is simply to reconstruct a series of events. There is evaluation throughout the reconstruction, and there may be an overall observation made about the event. The temporal sequence is very important in the Recount.

A full-scale 'genre' analysis in SFL terms would attend to the culturally meaningful attributes of a text, that is, to what the generic structure and patterns reflect from the underlying culture that they are propagating. While this would no doubt reveal useful patterns in regard to any ideologies or actions surrounding depression, this is beyond the scope of this study. The goal here is to use an established method of analysis related to van Dijk's attention to narrative in order to provide empirical support for his

production theory. The inclusion of SFL allows for the break-down of narratives methodically in order to find tangible patterns of relevance.

Summary

This chapter has described the theory and analytical tools applied later in the present study for analyzing data. Transitivity is used to assess how discourse content reflects model content and also how it influences discourse production. Clause Complex and logico-semantic relationships are used to examine model expression in typical and atypical narratives. Finally, generic structures are used to understand how these devices, as well overall narrative structure, contribute to patients' ability to translate event model information into receivable discourse. In the next chapter the research method employed in the study is described.

Chapter Four: Method

This chapter describes the data collected for the study, the procedures employed for analyzing the data, as well as the limitations of the study.

Data

Data was obtained from the Alexander Street Press Database of Counseling and Therapy Transcripts. This database provides subscribers access to published transcripts and reference material. Transcription data was collected for past research and therefore adheres to ethics guidelines. Permission to collect and use the counseling sessions for research purposes had been previously obtained from all clients and counselors. Although the database includes sessions from various types of counseling and therapy, the cases that were selected were from Client-Centered Therapy. This type of counseling is client focused in that the goal is to have the patient guide the session. Counselors are there to encourage the client to speak freely about thoughts and experiences and to provide insight. This particular therapy was chosen because the main speaker is the patient, providing a wealth of uninterrupted narrative for analysis.

Three cases were selected from the database. The first case (patient 017) had no experience with suicide and had mostly coherent event reconstructions. The second case (patient 018) also had no previous suicidal behaviour and mostly coherent event constructions, with the exception of one particularly depressive session. Session 8 for

patient 018 includes event constructions that were difficult to follow. In this session the patient explicitly acknowledges feeling more depressive than usual, and it is thought that differences in coherence for this session are related to her state. The third case (patient 006) is a patient who had exhibited suicidal behavior, self-harm, and who had attempted suicide throughout the course of treatment. Her sessions were characterized by less coherent event reconstructions.

Analytical Procedures

Data was analyzed by applying van Dijk's mental model theory along with tools from Systemic Functional Linguistics (SFL) with a view to assessing the content and coherence of event reconstructions and how they reflected mental models. An emergent qualitative research design was used, with three stages of data analysis. The initial stage involved first selecting for transcripts from depressed individuals specifically, and then surveying these transcripts for emergent themes. The question guiding this stage was whether there were any identifiable differences in the discourse of depressed patients, specifically the talk-in-interaction during counseling sessions. Since there was no data form 'normal' individuals to serve as a comparison, patients were compared with one another based on the severity of their depression, with a previous suicide attempt taken to suggest greater severity. It is important to note that the absence of a 'normal' sample significantly limits conclusions that can be drawn regarding the role of depression in mental model content and expression. However, this first stage of analysis revealed that in severe cases of depression, the discourse appeared less coherent, specifically during

the reconstruction of events. Data was then surveyed a second time and examined more closely for specific cases and sessions with respect to this theme of degrees of coherence. In a third stage of the analysis, particular attention was given to event reconstructions in the discourse of individuals with less versus more severe depression.

As previously discussed, the present study attempts to contribute empirical evidence to van Dijk's mental model theory of discourse. Specifically, the study uses analytical tools from SFL to examine the possible content and processing of mental models during narrative production. Transitive choices are thought to reflect model content while clause connections and generic structure is thought to reflect expression. Given that a speaker must create a narrative that is receivable, and that this involves the creation of a general discourse model or plan, it is thought that this discourse plan might resemble typical generic structures of narratives in conversation. Thus, looking at atypicalities in generic structures might reveal issues creating this discourse model.

Passages were deemed atypical if a) the counselor demonstrated explicit trouble understanding some element of the event, or b) the analyst had difficulty following the story. This was taken as an indication that the listener(s) were unable to create a corresponding comprehension model. A transitivity analysis was then conducted on all texts and the typical and atypical texts were compared. In order to describe atypicalities further, local and global coherence devices were examined. A clause complex analysis was conducted that looked at taxis relationships, and logico-semantic relationships as signs of local coherence. To assess global coherence, the availability of setting (time,

location), participant, and action elements were compared across patients. The generic structure of each passage was then analyzed. Passages were identified as Narrative, Anecdote, Exemplar, or Recount and their stages identified. Consistency in event model elements and typical generic structure served as a way of looking at global coherence of the reconstructions. Conclusions were then drawn based on what these atypical patterns might reveal about the role of mental models on discourse production.

Limitations

Given the nature of the data source, three limitations to the conclusions drawn from the data analysis must be acknowledged. First, the transcripts are not standardized. Although they provide some (limited) information as to the timing of conversational turns, they provide no information about intonation, pauses, or the breathing patterns of participants. This represents a significant loss of communicative information, and thus any interpretations should take this into account. Further, at times utterances are recorded as 'inaudible', which makes it difficult to connect a speaker's utterances. In the selection of excerpts, instances were avoided if inaudible utterances took too much away from a sense of the overall meaning. Regardless, it is possible that speech that is missing may have contributed to global coherence of a session, and therefore moments where discourse is missing should be interpreted with caution.

Second, patient information was also very partial. Information as to the general diagnosis was provided and a list of symptoms was presented, along with the patient's

age and gender. These are provided in Appendix A along with the selected texts. However, no information was available about the counselor's subjective determination of the severity of the patient's, about previous treatments, or whether the patients were being medicated for their depression. This last point is particularly problematic because medications may have an influence on cognitive performance and therefore on discourse coherence. This makes it difficult to draw conclusions as to the effect of depression on mental models, since patterns could conceivably be attributed to medication. It is thought, however, that this does not impede conclusions about the influence of mental models on discourse production. Regardless of the cause of atypical processing, be it depression or drugs, atypical discourse may still shed light on the influence of mental models and processing on discourse production.

The distinction between the atypicality of texts and the patient's depression is an important one to note for other reasons as well. The study sample is not representative enough to draw conclusions about the influence of depression or depression severity on discourse or mental models. Although texts were selected as examples of overall patterns found across a large initial data set, such a limited number of texts cannot serve as a representative sample. Comparisons are therefore made based on the 'typicalness' and 'atypicalness' of texts as described by systemic functional patterns. Conclusions cannot be drawn based on severity of depression.

Along with the above three data limitations, the study is also limited by the fact that it is not entirely interdisciplinary. Although it makes suggestions about possible

information-processing deficits, no cognitive measures were conducted. Previous research on the presence of cognitive deficits underlying depression is provided to support the explanations for patterns found; however, only the inclusion of tests of cognition for patients would be sufficient to solidly confirm the conclusions. The nature of the present study is qualitative, however. Its goal has been to make discourse the primary object of study and to showcase how fruitful this can be. It is hoped that the benefits of such a qualitative discourse analytic approach will be demonstrated.

Chapter Five: Findings

This chapter presents the findings of the study. The chapter first outlines the findings regarding the first research question, i.e., what the transitivity system reveals about mental model content. To do so it compares the content of typical and atypical texts of those patients with less severe and more severe depression, respectively. This part of the chapter is followed by the findings for Research Question Two, i.e., what the taxis and logico-semantic relationships and the generic structure reveal about patients' ability to create receivable narratives. Once again, this is accomplished by comparing typical versus atypical texts. The texts that have been analyzed are presented in full in Appendix A.

Research Question One

What can the Systemic Functional Linguistic (SFL) system of transitivity reveal about the content of mental models and their influence on discourse production?

Transitivity and the Content of Models. Event model elements include information about participants, time, location, actions, and evaluations. These elements can all be realized discursively through actors, circumstances, and processes. The SFL transitivity system is used to examine the content of event models in the typical versus atypical narratives of patients with varying levels of depression. Specifically, process types are examined to see what kind of events and relationships are stored in these patients' event models. This allows for suggestions to be made about the influence of cognitive representations on discourse production.

Table 1

Process types used in each text for typical versus atypical texts by percentage

	Typical		Atypical				
Process Type	Text 1	Text 2	Text 3	Text 4	Text 5	Text 6	Text 7
Material	22	59	17	24	13	21	22
Mental	30	18	30	27	49	30	28
Verbal	7	5	17	15	5	8	11
Attributive	37	10	32	15	24	30	22
Identifying	0	0	0	0	0	1	3
Possessive	0	5	2	0	0	1	2
Circumstantial	0	3	0	0	5	2	1
Behavioural	0	0	2	15	5	6	4
Existential	0	0	0	3	0	2	3
Causative	4	0	0	0	0	1	2
Total	27	62	53	33	37	105	90

The chart above summarizes the distribution of process types for the typical texts (text 1 and 2) and for the atypical texts (3-7). The main process types used are material, mental, relational attributive, and verbal, and therefore the occurrence of these process types merits special attention. The distribution of process types in the typical texts resembles what might be expected for a narrative genre. In the atypical texts, however, mental and relational processes play a comparatively larger role in the narratives. This outcome might indicate that the content of event models content comprises mainly

internally and self-focused information, suggesting a possible attentional bias. Furthermore, processes at times occur during atypical stages of the narrative, a point that will be explored further later, during the genre analysis. The following section provides a description of the related patterns for each text.

Typical Event Reconstructions. *Text 1*. The types of processes are evenly distributed across material, mental, and attributive processes. This indicates that the excerpt mainly concerns what the participants did, describing the way things 'are'. This indicates that the event model contains information about the actions and action sequences, as well as about the speaker's evaluations and reflections on these. This excerpt can be identifies as an Anecdote as the speaker's goal is to share with her listener a reaction to a remarkable event. Given this goal, the distribution of processes seems appropriate; they include both material actions and the speaker's evaluations of these. Furthermore, the processes are distributed throughout the stages in an expected pattern. Material processes are used during the event stage, and relational and mental processes are used for evaluations.

Text 2. The majority of the processes are material. This means that the event model mainly concerns the speaker's interactions with the outside world, and with material actions. The mental and relational processes that are used occur as either projections or evaluations. This is to be expected from a Recount, as they mainly highlight the recounting of events in chronological sequence.

Atypical Event Reconstructions. *Text 3.* The passage is realized by predominantly mental and attributive verbs. This pattern suggests that the speaker's event model contains mainly information about thoughts and feelings, and about how she perceives states of being. Furthermore, almost all of the mental processes refer to her own thoughts and feelings.

This pattern also indicates that the information being encoded or represented in her event model emphasizes herself, but specifically her internal world – what she is thinking or feeling, and her perception of her own state, rather than her material interactions with the external world. Furthermore, the material processes that are used occur during the Orientation stage rather than an Event stage where they would more typically be found.

Also noticeable here is the number of verbal processes. It would appear here, and this is a significant point for the present study, that quoted speech creates the most distance from oneself because it provides no evaluation. The speech 018 quotes is that of a different participant. By reporting direct speech, it is possible the speaker has not fully connected with the situation, or that she finds it more difficult to reflect on the actions of others, and therefore relies on quotation. Either way, the content of her model overall concerns how she is, and her own thoughts and behaviour. The model information about other participants largely concerns what they said.

Text 4. As in Text 3, there is a large percentage of verbal processes in Text 4,

although there is no direct reported speech. In this particular passage, the verbal processes all refer to the speaker's own verbalizations. This particular atypical example is actually characterized by a more even distribution of material, mental, and attributive processes. While this does resemble a more typical text, this pattern may be due to the large percentage of verbal and behavioural processes, each making up approximately 15% of the verbs. These verbal and behavioural processes all refer to the speaker's own speech and behaviour. This pattern suggests then, that there is still a predominance of self-focused information in her event model. The model appears to contain her own thoughts and feelings, how she perceives states of being, her own speech, and her own behaviour.

Notably, as in her Text 3, the material processes in Text 4 all occur within the Orientation stage. As will be noted later in the chapter, Orientation stages often contain more relational processes, while material processes dominate Event stages. When 018 describes the actual event in Text 4, where one might expect material processes, there are none. This may, however, be related to the expression of her event model rather than its content, as will be explored during the clause complex analysis.

Text 5. In Text 5, there is a very clear emphasis on mental processes; furthermore, 006 is the Senser for all of them. The second highest process group is attributive processes. Once again this indicates that the information contained in the event model mainly concerns her own thoughts and perceptions.

Text 6. Once again, the mental and relational processes in this atypical text far

outnumber the material processes, and almost all mental processes refer to the speaker's own thoughts and feelings. This indicates that her event model mainly contains information about herself and her internal world. She is not, however, concerned with the internal world of others.

Text 7. In Text 7, the mental processes outnumber the material verbs. Considered along with the relational processes, these mental processes comprise more than twice the number of material verbs. As will be discussed further during the genre analysis, this passage can be considered a Recount. The typical Recount contained predominantly material processes, making this passage much different in comparison. As in Texts 3 and 4 the material processes that do occur are in the Orientation stage rather than the Event. These patterns suggests that despite its genre being one where material verbs might be highlighted, the event model of this severely depressed patient contains mainly information about her own thoughts, feelings, and perceptions.

Summary. Given the above patterns it appears that the event models of depressed individuals contain information that mainly concerns their internal world, and the way things 'are'. Given that these instances of discourse are all narratives, which typically should involve participants interacting with the outside world, this is an interesting finding. As will be discussed further in Chapter 5, there is evidence of attentional bias in depressed individuals (see Gotlib & Joorman, 2010). The patterns described above may be the result of a bias toward self-focused information. Regardless of their cause, it is argued that the transitive choices in each narrative, specifically the types of processes

employed, reflect the content of the mental models, and, significantly, it is SFL that allows us to recognize this.

Research Question Two

What can the atypicalities found in the reconstructions of events produced by depressed patients in counseling sessions suggest about the influence of mental models on discourse production? Specifically, what can we learn about the processes involved in the conversion of event models into receivable narratives?

Taxis analysis: Discourse model expression. A clause complex analysis was conducted in order to see how speakers express their mental models. It was found that in atypical narratives, speakers took far longer to reach their discourse goal. Patient 018 used more incomplete clauses and clause simplexes, giving the impression that she was struggling to form or express a discourse model. Patient 006 on the other hand used lengthier clause complexes, creating a disproportionate number of clauses per sentence as compared to typical narratives. This gave the impression that she had no discourse model. Furthermore, both patients linked clauses through relationships of elaboration and extension, rather than through the more complex relationships of enhancement, again giving the impression of issues at the discourse model stage of event model expression.

Table 2

Clause Complex (C.C.) Analysis

	Typical Text			Atypical Text			
Text	1	2	3	4	5	6	7
Sentences	16	19	36	34	12	19	20
Total # of Clauses	36	70	64	39	49	118	99
Clause Simplexes	6	1	20	15	2	6	3
Clause Complexes	10	18	16	9	9	13	17
C.C. of 2 clauses	5	5	9	7	3	1	2
C.C. of 3 clauses	3	5	4	0	0	0	1
C.C. of 4 clauses	1	4	1	1	3	2	3
C.C. 5 clauses	1	1	2	0	0	1	0
C.C. of 6-8 clauses	0	2	0	1	2	2	7
C.C. of 9-11 clauses	0	1	0	0	0	3	3
C.C. of 12-14	0	0	0	0	0	3	0
C.C. of > 14	0	0	0	0	1	1	0
Incomplete Clauses	1	0	6	4	0	0	0

The above table illustrates the length and clausal connections made in each text. It is clear that atypical texts are much longer than typical narratives. Patient 018 uses far more clause simplexes and incomplete clauses, creating a longer text, while 006 uses much longer clause complexes. It is important to note that there are a comparable number

of sentences in patient 006's texts as compared to the typical examples, but far more clauses, indicating that it takes her far longer to express her narrative.

Table 3

Taxis

	Text 1	Text 2	Text 3	Text 4	Text 5	Text 6	Text 7
Parataxis	2	27	8	6	11	50	31
Projection	1	2	4	0	0	1	1
Expansion	1	25	4	6	11	49	30
Hypotaxis	14	24	20	9	26	48	49
Projection	6	5	0	0	7	8	9
Expansion	8	19	20	9	19	40	40

The above table illustrates the type of taxis relationships created. Unlike in Zohar, Livne, and Fine's study (2003) on anxious speakers, there does not appear to be a difference between paratactic versus hypotactic clauses. However, the kind of logico-semantic-relationships created between clauses did show a difference. As the following table demonstrates, atypical texts are characterized by fewer enhancing clauses than by elaborating and extending clauses. It would appear that elaborating and extending clauses do not create the more complex meanings contained in enhancement, nor do they contribute to story progression (this will be discussed further in the chapter). Again, this phenomenon may suggest a problem at the discourse modeling stage of expression.

Table 4

Logico-Semantic Relationships

	Text 1	Text 2	Text 3	Text 4	Text 5	Text 6	Text 7
Expansion							
Elaboration	2	8	2	1	6	17	24
Extension	2	9	9	8	15	49	28
Enhancement	5	26	12	5	9	23	20

The following section provides a brief description of the patterns in each text discussed above and what this may suggest about each patient's event model expression.

Typical Event Reconstructions. *Text 1.* Text 1 contains 16 sentences with 36 complete clauses. There are 10 clause complexes, but these never contain more than five clauses. Clauses are connected predominantly through enhancement. Even when considered together, those clauses that only elaborate or extend are still fewer than those that are connected through the more complex relationships of enhancement.

Text 2. Text 2 consists of 19 sentences realized through 70 ranked clauses. While these do include some longer clause complexes than Text 1, the longest complex occurs within an Orientation stage and serves an appropriate purpose. Orientation stages in a narrative serve to provide background information for the listener so that he/she can participate in the speaker's evaluations of an event. This will be discussed further in the next section, but for now it can be said that using clause complexes here keeps the ideas more closely related, which helps achieve the speaker's purpose. Furthermore, this

structure allows the speaker to list off a series of sequential events. Keeping them closely related this way prevents any overshadowing of the main event.

Finally, these relationships are connected through predominantly enhancing conjunctions, and given that this is a Recount, chronology and causal relationships between events are very important. The effective use of enhancement realizes these relationships. This makes it easier for the speaker's listener to form a corresponding comprehension model for the Recount.

Atypical Event Reconstructions. *Patient 018 - Text 3 and Text 4.* To review, patient 018, while having exhibited no suicidal behavior, seems to be experiencing a depressive episode in this session. She explicitly says that she is feeling particularly troubled and notes her struggles to express her feelings during the session. This appears to have had an impact on the expression of her event model.

Both Text 3 and Text 4 are characterized by a greater number of clause simplexes and incomplete clauses. This gives the impression that patient 018 is struggling to express her ideas. Using clause simplexes means she does not create the closer or more complex relationships contained within paratactic and hypotactic clauses. In terms of the logico-semantic connections, the elaborating and extending clauses equal in number the relationships of enhancement in Text 3, and outnumber those in Text 4. Again, this suggests she may be having difficulty creating more complex clauses. These patterns contribute to the appearance that she is struggling to express her ideas. This may be the

result either of a failure to form an organized discourse model, or of difficulty in expressing one.

Patient 006 – Text 5, Text 6, and Text 7. To review, patient 006 appears to be the most severely depressed. This observation is based on the fact that she exhibits suicidal behavior and self-harm, and attempts suicide during the course of her treatment. Text 5, Text 6, and Text 7 are taken from sessions that occurred right before her attempt. This appears to have had an impact on her event model expression.

Text 5 is made up of 12 sentences that include 49 clauses. There are only two clause simplexes in the entire passage, meaning most of the clauses are paratactic, or hypotactic. There is one clause complex that is over 15 clauses long. Furthermore, the majority of clauses are connected through elaborating and extending conjunctions rather than enhancement. This means that rather than separating her clauses and connecting them through appropriate conjunctive devices that express her meaning clearly for her listener, the speaker just keeps adding new meaning to one clause. These characteristics give the text the appearance of run-on thoughts, rather than the expression of an organized discourse model.

Text 6 and Text 7 are characterized by similar patterns, with the majority of clause complexes reaching beyond five clauses. Furthermore, clausal connections are realized predominantly by elaborating and extending conjunctions. Finally, it is important to note the length of both of these texts. While they are only 19 and 20 sentences long,

respectively, they include 118 and 99 clauses. This in itself indicates that it takes patient 006 a long time – many clause complexes – to express her point. Furthermore, Text 7, while already containing almost 100 clauses, includes only a selected excerpt from the entire passage. The patient interjects entire event models throughout her attempt to reconstruct the event. Irrelevant events have been removed from Text 7, so that it only includes excerpts that relate to the expression of the intended event model. This only further suggests that the speaker's passages reflect run-on thoughts rather than the effective communication of an organized discourse model.

A final point. The typical texts are characterized by mainly enhancing conjunctions, specifically causal and temporal. The point of a narrative is to relay events in chronological order and to express relationships between events; therefore, the use of temporal and causal connections makes sense. The atypical passages, however, have a greater number of additive and elaborating conjunctions. Additive conjunctions are even used where enhancing relationships may have been more appropriate, for example in Text 6, lines 1-3, "And I don't know kind of yesterday was like a really really effective day and I was really torn and I had this awful headache and my boyfriend said I could pick him up at the airport or not if I like and I decided to because I didn't need to." It would seem appropriate to place a contrastive conjunction between the day being effective and being torn and having a headache; one would think these are opposing each other. There could also have been a temporal conjunction at "and my boyfriend said I could…" and a causal connection at "and I decided to." The speaker instead relies on extending conjunctions.

Creating a receivable narrative: Generic structure and model expression. The clausal connections contribute to the local coherence of the event reconstructions. The more macro generic structures of each text contribute to its global coherence. The stages are of course realized by transitive, taxis, and logico-semantic relationships. The following section explores how these contribute to the global structure of each text and how they contribute to the creation of either a receivable narrative, or an atypical one. It was found that more severely depressed or depressive patients seem to form less coherent narratives in that their structures were difficult to identify, they contained inconsistent event elements, or their local ties did not contribute to story progression.

Typical Event Reconstructions. *Text 1.* Genre: Anecdote. This excerpt can be identified as an Anecdote, as the patient does not overcome any obstacle or conflict throughout, but instead hopes to share the experience of an event and reaction with her listener. The stages can be identified as follows:

Orientation ^ Remarkable Event ^ Interpretation

Orientation

Lines 1-10 serve as the Orientation stage, which offers background information for 017's account. The main purpose of this stage is introducing the listener to the participants and providing the background necessary for the interpretation of the Remarkable Event. In order to do so, this stage is realized by relational and mental processes that provide

background information about the participants' relationship and the way the speaker perceives certain things about it. In introducing the participants and circumstances of her Anecdote, the patient is also revealing the event model elements these are realizing. Her account demonstrates that these event elements have been stored in long-term memory and are easily recalled and expressed.

Remarkable Event

Lines 10-15 serve as the Remarkable Event stage. Its beginning is signalled by the appropriate use of the conjunction "And then one time." It is further signalled by her explicitly noting that this is the event she was leading up to. As is the case for most narratives, the event stage is realized mainly by 'doing' verbs, in this case specifically material and verbal processes. Using material actions and verbalizations enable her to represent the interaction between her and her friend. Her emphasis in "he looked me straight in the eye" signals to her reader that his behaviour was abnormal, and therefore that this is the remarkable moment.

Interpretation

The patient's Interpretation begins at line 15 until 18. The purpose of the Interpretation stage is to offer her evaluation of the event and what it means to her. It is, therefore, realized mainly by relational and mental processes that describe how she perceived the situation. The relational process at line 15, "And it made the whole thing

seem like," signals that her evaluation is beginning. By referring to the "whole thing," she signals that the specific details have been revealed and that the recipient should reflect on these (and the whole relationship) in order to follow the point. Her conclusion is realized by a clause simplex, and is signalled by the conjunction "yet." The repetition of her point and the use of a clause simplex connected this way help her listener identify that the story is over.

Throughout the chunk the patient is able to provide an expected generic structure for a listener to follow. Event elements are clear and consistent as is evident in from participant, process, and circumstantial devices. Local cohesive devices like conjunctions help progress and connect the stages. The fact that she is able to recall and consistently recount all the model elements suggests that the event model is intact and retrievable from episodic memory. Her ability to recount these elements into an organized and comprehendible Anecdote for her listener might suggest that she is creating a discourse model and is able to maintain it in working memory throughout discourse production.

Text 2. Genre: Recount. Text 2 can be identified as a Recount, as its main goal is to share a series of events with her listener. Throughout the recount she offers evaluations of her actions, but the main goal is shared amusement. While in more reflective accounts the goal is to communicate an overall message or interpretation, for strict event recounts there is more emphasis on the chronology of events, and thus patients must be able to maintain temporality for their recipients. The following excerpt demonstrates the

importance of temporal conjunctions when reconstructing events. The stages can be identified as:

Abstract ^ Orientation ^ Event

Abstract

The abstract introduces her topic in line 1 as "I had the hardest time getting out bed this morning." This stage previews what the entire passage will be about before she moves to providing background.

Orientation

The Orientation takes place over lines 1-8. This stage serves to provide background by comparing the main event to dreams she has had. This is signalled by the relational process used in the first clause. The rest of the stage is realized mainly by 'doing' verbs (material and mental processes), as it describes what she does in her dream. There is also a large amount of taxis used to express relationships between clauses. By creating closer relationships between ideas and actions this way, the actions appear as one closely connected chunk, and this way the events do not overshadow those of the main event expressed in the following stage.

Event

The speaker begins the event stage at line 9, “Well, this morning I got up,” and it continues until line 19. The use of “first of all” in line 9 not only signals the first action but also lets her listener know that a series of events is about to be recounted in order of occurrence. This signal helps her listener organize the information into a comprehension model that corresponds with the event model. As is typical in event stages, this one is realized predominantly by material processes that express what she did, and emphasize interactions with the external world.

There are also many enhancing conjunctions used to express temporal and causal relationships between events. Since this chunk is a Recount of her actions, the chronology of the story elements are very important, as are the relationships between events. Rather than the speaker saying “*I did this and I did this and I did this*” and only using extending or elaborating conjunctions to connect actions, employing relationships of enhancement *so then* or *and then* or *by that time* adds chronology and causation to the Recount. The chronological and causal order of events that these devices create help the recipient form a mental model of the event.

As in Text 1, the patient is able to provide consistent model elements that have been organized into a logical and receivable structure. Her use of appropriate cohesive devices allows her listener to form a corresponding comprehension model. Furthermore, when there is a reliance on taxis, this emphasis serves a specific purpose.

The above examples establish what is meant by ‘typical’ event reconstructions.

They demonstrate how those individuals who have no history of suicidal actions are able to produce expected generic structures, whose stages employ various devices that serve a purpose in realizing both the experiential and logical aspects of a narrative. The processes employed follow a typical pattern of narrative expression, while the cohesive and logico-semantic connections help move the story along. These suggest that these individuals are able to recall all event details from episodic memory and maintain those in working memory throughout discourse production. These patterns also suggest that they are able to organize details in a way that allows listeners to form corresponding comprehension models.

Atypical Event Reconstructions. The following section demonstrates how discursive patterns present in atypical reconstructions may suggest new information about the influence of mental models on discourse. The analyses provide examples of instances where patients' event reconstructions were atypical. That is, either the listener, the analyst, or both found it difficult to create a corresponding comprehension model. There were difficulties found both in terms of the global coherence (event model elements were inconsistent or generic structures were disordered) as well as in terms of the local coherence of event reconstructions (inappropriate use of conjunctive devices, or atypical clausal connections).

Text 3. Genre: Exemplum. In Text 3 patient 018 attempts to use the task of driving with her mother to exemplify how people often misinterpret her emotions. She feels she is less enthusiastic than she is supposed to be. Keeping in mind the consistency across structures in previous (typical) chunks, in terms of there being a clear introduction, topic,

problem, reflection, and consistent conclusions, as well the ability of the patient to relate a chronological account of events, her emotional state in this session appears to change. Indications at the local coherence level may suggest she is attempting to create the discourse model "on-line," rather than just its expression.

Although it is not perfectly in line with any typical story genre, one could identify this as an exemplum because the speaker uses an incident to exemplify how her behaviour is at times socially inappropriate. The stages can be identified as:
Orientation ^ Incident ^ Interpretation ^ (Coda)

Orientation

The Orientation takes place across lines 1-9. The purpose of the orientation stage is to provide background necessary for the listener to understand the incident. This involves presenting event model elements such as the participants, the timing, location, and other circumstances of the event. Patient 018 does this by introducing the participants (her and her mother), the activity (driving the car), and also by providing background evaluation about the problem. The background information consists of how she is feeling when she is driving; therefore the stage is realized predominantly by mental processes. Most noticeable in this stage are the incomplete clauses and false starts. Rather than the enhancing relationships used in orienting stages in typical narratives, patient 018 appears to struggle with the expression of this stage. There is a notable amount of repetition, which may be her attempt at focusing her account, and her clauses are often incomplete.

Incident

The Incident stage occurs across lines 11-15 in which the speaker describes a particular event with her mother. The purpose of the Incident stage is to describe the activities in the event' it therefore is typically realized by 'doing' verbs. Thus, this stage is typical in that it is realized predominantly by verbal processes, which express the interaction between her, her mother, and others in the past. However, in the typical narratives, clauses and sentences in the event stages were connected via enhancing conjunctions that expressed temporal and clausal relationships. This passage contrasts, in that the connections are all additive, realizing only relationships of extension.

Interpretation

At lines 15-40 the speaker provides her interpretation. This is signified by a comparison of the event to similar ones she has experienced, and then by reflecting on social perceptions of her behaviour. She comments on how others view her actions as socially unacceptable. In this stage she offers her understanding of the event. It is therefore realized predominantly by relational processes that express her interpretation of the way things 'are'. Her main interpretation is also signalled by the causal conjunction "And so" and "If I had more.." that express the idea that if she behaved differently, perhaps things would be different. Note that during this interpretation she has to correct her counselor who has misunderstood her point – an explicit indication that her listener is

having difficulty following her exemplum.

Coda

The speaker's interpretation continues until line 42 at which point the coda ties her exemplum together. By referring to "this thing," she refers back to the whole event and then concludes with a final reflection on how her behaviour is often not what is socially expected. The coda stage is realized by a repetition of her main interpretation, and her final conclusion in a clause simplex.

It is within the orientation stage that she appears to have the most difficulty articulating her thoughts, as is evident from the frequency of incomplete clauses, false starts and repairs. In the very first line it is already clear that she is unsure of herself; for instance, she finishes her last chunk with "…or something." She then attempts to begin her story by setting up her location and actions in "I was sitting there," but immediately tries to repair this ("no."). She attempts the repair by introducing another model element, a participant, with "My mother." Still this does not work, so she tries again to establish setting elements in line 2 with "I used – When I drive the car, I enjoy driving the car." This repair almost seems to be an attempt to force herself on topic. Furthermore, throughout this stage there are a series of unfinished clauses ("But I don't – you know- I'm usually, when I'm driving" (line 4-5), "Unless I'm having, you know, except maybe – Well, usually" (line 6). This may indicate that the speaker is having difficulty forming or producing the discourse model but is trying to do so repeatedly.

These same patterns can be identified in another excerpt from the same session. In the following, patient 018 again has the most difficulty during her abstract and orientation stages. Again the introduction of event elements does not appear within any organized stage although she attempts to do so. Again false starts and incomplete thoughts occur the most frequently during these stages.

Text 4. Genre: Exemplum. That the client is having difficulty staying on track with her story is clear immediately when in lines 1 and 2 the counsellor has to redirect her back to her original topic, (COUNSELOR: Is that what happened to you last night? PATIENT: Oh, I was talking. We were bowling.). From lines 2-8 she attempts to set up her event with setting and participant elements'; however, she has difficulty. If we impose an Exemplum structure on the excerpt the following stages can be identified:
Orientation ^ Incident ^ (Evaluation) ^ Incident ^ Interpretation

Orientation

The orientation occurs during lines 1-8 in which she attempts to identify participants and location, as well as activity elements. The purpose of the Orientation stage is to set the scene. Patient 018 attempts to do so here by introducing the participants, herself and her friend, and what they were 'doing', realized by material processes. She has difficulty expressing this stage, however, as is evident from the incomplete clauses

and repetition. For example, the repair in line 3-4, “I’ve just grow on the bowling team,” [sic] appears to have no connection to the setting elements she has established directly before. She then appears to attempt again to refocus her account with “Well see, her husband was bowling” by introducing another participant. However in lines 4-5 she changes not only the setting from bowling to “Dr. Arrews” house but also introduces him as a new participant. She finally seems to impose some organization by line 6 when she clarifies that Sue’s husband was playing Dr. Arrews’ team, so they had to wait for them to finish. By line 7 she begins her description of the event. This would have been clear; however, she then includes a new and un-introduced participant (Sarah) in line 12. She also has to interject new background information in order to continue describing the event. Eventually she does manage to express what they were doing (waiting) and why (they were not finished bowling) using a causal conjunction in line 6-7.

Incident

The beginning of the incident stage is realized by the causative conjunction “And so” in line 7 and continues until line 29. The Incident stage is realized predominantly by ‘doing’ verbs, i.e., verbal and mental processes that express what they said and what she thought. Conjunctive cohesion signals temporal and causal relationships appropriately throughout. For example, “And so” signals that the event is beginning but also implies that the conversation took place as a result of them sitting waiting together, thus is acting as a causal conjunction. The same relationship is signified in line 9 with “it sounded interesting, so I started talking about it.” Temporal conjunctions are also used for story

progression, as in line 11 with “And then I started throwing in my thoughts.”

<Evaluation>

The evaluation stage is an interjected stage that expresses the speaker’s reflection on the topic of their conversation. It therefore differs from the interpretation stage that reflects on their interaction as a whole. It takes place throughout lines 16-23. Given that the Evaluation is her attitude, it is realized mainly by mental processes that express what she thinks about the topic. In terms of her ability to express her thoughts and feelings about it, she has difficulty, as is evident from the incomplete clauses. It may be that this stage is more difficult for her to organize.

Incident

In this stage the speaker returns to the Incident and therefore sees a return to verbal processes. It is signalled by the enhancing conjunction “So I was” in line 25, and another enhancing temporal conjunction is used in line 26, which is typical in Incident stages.

Interpretation

The interpretation stage occurs in lines 30-31 at “And I just talked too much,” which offers an overall evaluation of the event. This stage acts as an Interpretation for the exemplum, as it expresses what she thinks she should have done in the situation. This stage is very short in comparison to the typical Interpretations we have seen, which makes it seem rushed. This may be a result of a lack of discourse model.

In both examples the speaker has difficulty setting up her story, and her Orientation stages have the most repairs and unfinished thoughts. This may suggest that she is having difficulty creating an appropriate discourse model for production. Once she starts describing the incidents, she is more able to stay on track with the help of temporal and lexical connections. She also appears to struggle to express complete clauses during the evaluation and interpretation stages. It is possible that these particular stages require more cognitive effort in terms of planning than other stages. During Event or Incident stages there is already an inherent structure. These stages are largely made up of actions, and they have an order already determined by their chronology. In essence, these stages are already organized in Episodic Memory. However, introductory stages must be organized for the recipient’s benefit. They present information that the listener does not yet know and needs to know in order to understand the event or reflection stages. Therefore a speaker must be able to identify (or activate) what information in episodic memory is required, inhibit unnecessary information, and also organize this in the most efficient way for comprehension. Thus, when creating a mental representation or discourse plan, these stages may require more cognitive effort.

Patient 018's difficulty realizing particular stages in her narrative may be indicative of a lack of structure during discourse planning. This difficulty may suggest the role of discourse model structure. Essentially, having a clear discourse goal and subgoals (stages) in mind is very important to the expression of receivable narratives. Furthermore, the fact that depressed individuals have been shown to have trouble with inhibitory processes and with manipulating contextual information (Gotlib & Joorman, 2010), this may lend support to an assumption that these processes are necessary during discourse expression, especially the expression of particular generic stages.

While patient 018's lack of local fluency might suggest trouble creating or maintaining a structured discourse model, patient 006 presents with other patterns that may indicate issues in discourse processing. The following examples demonstrate 006's trouble maintaining consistent model elements, atypical use of local coherence devices such as conjunctions, and once again a difficulty creating or maintaining a discourse plan. While patterns in 018's speech gives the impression that she is emotional or may be having trouble concentrating, patterns found with 006 give the impression that her reconstructions are run-on thoughts or monologues rather than organized discourse structures intended for a recipient. While 018 appears to attempt to provide information for her listener but struggles, at times 006's discourse does not appear recipient designed at all.

Text 5. In the first excerpt patient 006 has difficulty maintaining a chronological Time element. Her discourse is locally coherent – she does not have the frequent false

starts or incomplete thoughts found with 018 – and her story does appear to follow an expected generic structure. This at first gives the impression of a typical event reconstruction; however, when analyzed closely, she appears unable to provide the chronological information necessary for a recipient.

Text 5 can be considered an Anecdote because the goal of the chunk is to have the speaker's participant share in her reaction to her boyfriend's actions. The stages are:

Orientation ^ Remarkable Event ^ Reaction ^ (Coda)

Orientation

Lines 1-7 act as the Orientation by establishing the participants (her and her boyfriend) and the location (home) and by stating both her and his emotional state at the time.

Remarkable Event

Line 7 acts as the remarkable event – her boyfriend falling asleep while she was talking. The Remarkable Event stage is realized by mainly 'doing' verbs, i.e., verbal and behavioural processes. She also offers an evaluation of the event realized by a relational process in line 8, "which wasn't too cool." The remarkableness of the event is realized by the contrast created by using paratactic clauses in lines 4-7 and then switching to a final

hypotactic clause in line 7-8 that realizes the event.

Reaction

The temporal conjunction “And then” in line 9 begins the new Reaction stage. By contrasting how she felt that night with how she felt the next day (“but by the next day I was”) she signals to the listener that there was a change in her emotional state (i.e., a reaction). The reaction stage is realized by mainly mental processes that express what she was thinking and feeling after the event. This stage becomes atypical because the circumstances, specifically time, are not kept consistent. In line 9-10 she describes the next day, which changes to Monday in line 10; she then interrupts this and goes back to “the next day” in line 11. In line 12 the timing changes again to Friday. Here it is unclear whether she is referring to the previous Friday or the Friday following as there is no signal as to whether she is going backwards or forwards; the only conjunctive device is an additive “And.” Furthermore, she then moves back to the present using only an additive conjunction in line 13, “and I’m just completely back to just feeling suicidal,” rather than a conjunction that would signal time. She switches time once more in line 16 with “whereas the day before,” but it is unclear if she is referring to the day before Friday or the day before the present day. The stage seems to lack any signals, either cohesive devices or bounded topic shifts, to help the listener to follow the chronology of her reaction.

Coda

The beginning of the Coda stage is realized by the contrastive conjunction "Whereas" in line 16, and a return to the time of the incident. This stage serves to reiterate and conclude what had happened and how she felt about it, and is therefore realized by mental processes and elaborating conjunctions. The mental processes express her thoughts, while the elaboration reiterates and further specifies her point.

In Text 5, patient 006 is able to adhere to an expected generic structure, and with the exception of her Event stage, her discourse for the most part is locally coherent. However, her event elements are inconsistent. This along with the inappropriate use of conjunctive devices makes her event difficult to follow. The inconsistency across transitive features may suggest one of two things – either her event model information is incorrect, or she has not created a proper discourse model.

Text 6. In the Text 6, patient 006 *is* able to provide consistent model elements. The participants are always clearly introduced and referred to (herself, her boyfriend, and her friend), and timing is always made explicit mostly with lexical references to time (Monday, Sunday, etc.). She also makes clear a communicative goal – essentially it is to recount the events of "yesterday" and how it was a good day. These events are kept clear and chronological. This indicates that she has access to the event model and is able to maintain it in working memory. However, her ability to express this in a coherent

discourse structure is at times not as successful.

It is difficult to identify the genre of Text 6. The purpose appears to be recounting the event of one night and her reaction to it; therefore the genre would appear to be Anecdote. However, clear stage transitions are difficult to identify, and the passage ends up appearing more like a Recount, with the expression of one event after another with evaluations interspersed throughout. The stages can be identified as follows:
Abstract ^ Orientation ^ Event ^ Evaluation/ New Event

Abstract

The Abstract stage introduces the topic of the passage, i.e., "yesterday," and takes place in line 1. It is realized by mainly relational processes. It is difficult to tell where the Abstract changes to the Orientation because the first 5 clauses are connected only through additive conjunctions. This gives the impression that all of the information contained is serving the same function rather than distinguishing a new stage. This pattern continues throughout the entire passage, which contributes to the atypical progression through stages.

Orientation

The Orientation takes place beginning at line 2 and continuing until line 10. Throughout this stage the speaker introduces a participant (her boyfriend) and a preliminary action sequence (picking him up), and also provides background information about her mood state prior to the main event. The Orientation stage is typical in that it introduces the participants (her and her boyfriend), and establishes what she was feeling, and why, before the main event. It is therefore realize by mainly mental processes. The stage is atypical in its amount of nesting and extending parataxis. In terms of local coherence, there is an unusual amount of extending conjunctions, which at times causes confusion. For example, she begins with what seems to be a positive evaluation of the main event, but then provides a negative evaluation of her state. This is confusing because she uses an additive conjunction rather than one that might signal the contrast. Depressed individuals have been shown to have trouble inhibiting negative information (see Gotlib & Joorman, 2010). It is possible that she is having difficulty stopping negative thoughts from interrupting her story. Given that this would be an unplanned interjection, it might also explain why she has not used appropriate conjunctions.

Event

The speaker's use of "by the time" at line 10 signals her beginning of the recount. From lines 11-53 she provides a chronological retelling of the evening's events until the chunk is interrupted by another event sequence. The event is realized mainly by 'doing' verbs (mental, material, and verbal processes), which describe the events of the night. Evaluations of the events are offered throughout and can be identified by the relational

processes that realize them. This stage is atypical in the length of its clause complexes and its overrepresentation of elaboration and extension. As seen from the typical passages, enhancing temporal and causal relationships are the main conjunctions used in typical event stages. In Text 6, however, elaborating and extending clauses are used.

While at times causative or temporal conjunctions are used, and serve to move the story along (for example lines 15, “And then”; 29, “So I sort of asked”; and 48, “And so”), for the most part clauses are connected through addition. This is so even when they might have been connected with other devices, for example, a contrast device at line 2. This pattern is particularly apparent through lines 23-39. This gives the impression that the chunk is a run-on thought, as if she is just verbalizing inner thought, rather than a planned or organized discourse model. Another frequent phrase that serves an additive function is “which is why.” The patient uses this twice in line 18, and again in line 45 to add either justification or side-note information. Again, this gives the impression that she is expressing inner thought. It should be noted that the use of side-notes or frequent ‘run-on’ sentences is seen in typical individuals as well; however, it is the frequency of their use in patient 006 that makes her excerpt atypical.

Evaluation/New Event

Her Evaluation stage takes place across lines 51-54. This final evaluation stage is atypical in that it is interrupted by a new event. She begins the stage with a relational process realizing her evaluation of the entire event; however, this is interrupted. Once

again the listener is left with the impression that patient 006 does not create a discourse model. Alternatively, as with negative information, the interjection of a new event may also be related to impairments in inhibitory function.

Text 7. Problems with inhibitory functions may also play a role in Text 7. The passage is atypical in several ways. Most notably is the patient's tendency to interject entire event reconstructions. The main topic of the passage is her inability to share her feelings with her boyfriend on Sunday night. She attributes this to an event from Saturday night. Again we get the impression that patient 006 is thinking aloud. She does begin and conclude with the same topic or problem – that she was having trouble talking to her boyfriend; however, this topic seems to get lost for over three pages of continuous monologue. Throughout the monologue she recounts three additional events. She does this to exemplify evaluations she makes throughout the recount, and so they are related; however she goes to a great amount of detail in describing them, launching into entirely new event models. This amount of detail may suggest trouble inhibiting irrelevant information.

Genre: Anecdote. Although the passage is long, with multiple event models interjected, it can be identified as an Anecdote. The goal appears to be to share a remarkable event (the evening with her friend) and how this made her feel afterwards (her reaction). The abstract stage takes place from lines 1-3, in which she introduces the main topic (that she could not talk to her boyfriend). The stages can be identified as:

Abstract ^ Orientation ^ Remarkable Event ^ Reaction

Abstract

The abstract stage takes place from lines 1-3 in which the speaker introduces the main topic (that she could not talk to her boyfriend). The Abstract stage introduces the topic of the text, that she could not talk to her boyfriend about what happened on Sunday night. The stage is again characterized by extending and elaborating conjunctions in place of enhancing connections. She could have chosen to use temporal and causal conjunctions to connect clauses 1iii, 1iv, 1v, 1vi, for example, but instead relies on extension.

Orientation

Lines 3-12 serve as the Orientation stage. It is here that she introduces the timing of the event she is about to describe, as well as providing background information about what she was doing prior to the event. This allows her listener to understand her mindset and to share her reaction. The Orientation stage sets the scene by introducing the participants (the speaker and her friend), the location (dinner), and time (the night of the cast party), and by providing background on the events leading up to it. The processes are mainly relational – describing the way things were –and material – describing what she had done.

Remarkable Event

The Remarkable Event begins at line 13 with "it was like a monologue on his part." Here the speaker makes her friend and herself the central participants and begins recounting their conversation. The Remarkable Event describes her discussion with her friend. Unlike in typical examples, the Event stage is not signalled by a temporal conjunction, but instead is an extending continuation of the previous paratactic clause complex. Similarly, the progression of the event is not connected through relationships of temporal and causal enhancement, as is typical for event stages. Clauses are instead connected by extending or elaborating conjunctions. As in previous atypical passages there is a tremendous use of very long clause complexes.

As for the realization of the events, actions are realized mainly through 'doing' verbs, specifically verbal, mental, and material processes. However, during the event stage there are model elements that are inconsistent. Participant information is inconsistent at lines 11-13; the speaker first claims she is out with her friend and his sister but this switches to his mother at line 29-30. The location is also unclear when she says she goes to his apartment but then refers to them being at dinner for the rest of the event. When or why they go to the apartment is left unexplained. As in Text 5, this may be an issue with the event model itself, or with her discourse plan.

Reaction

The speaker's reaction is signalled with "And I don't know what that did to me" at line 74. Here we see a shift from her friend's actions and her own actions to a reflection on her internal world. She also describes this internal state as a direct result of the Remarkable Event ("I don't know what that did to me"). As is to be expected, the Reaction stage is realized by mainly mental and relational processes that express what she thought and felt in response to the event, as well as her perception of the situation. The Reaction stage would typically be signalled by a causative conjunction; however, once again patient 006 relies on extension, as is the case throughout the rest of the stage.

There is no conclusion or any kind of coda stage to this Anecdote, though. Instead of concluding, her account is interrupted with a new event. This again gives the impression that she either has no discourse model or is having difficulty expressing it.

We see a similar pattern in the abstract/orientation stages as in other examples. It appears that these stages are the most difficult for patients to organize as they often have the most false starts and unfinished thoughts. Furthermore, we see the speaker force an organization on-line at lines 4-6, similar to a pattern found from 018. This might be evidence of an attempt to form a discourse model on-line, or it could be difficulty maintaining and expressing the discourse model. Once again, the Event stage seems easier for her to recount, which may be due to the already available organization of temporal events.

However, during the Event stage she interjects an entirely different event model.

Rather than briefly mentioning the event and how it contributes to the evaluation she is describing, she goes into a great amount of detail. Furthermore, the parallel occurs to her on-line, the information seems to interrupt her train of thought, i.e., she does not inhibit the new event model from interfering. While the event is obviously related to the evaluation she is giving, launching into an entirely new event model makes it seem as though she is again verbalizing online thought rather than communicating a planned discourse model.

Summary. The above examples illustrate several differences in the ability of severely depressed individuals to create receivable genres as compared to more typical examples. While patients with less severe depression seem able to create global coherence through the maintenance of consistent model elements and typical generic stages, and local coherence through the appropriate use of clause complexes and connections, more severely depressed or emotional patients were not. Patient 018's reconstructions were characterized by a great number of incomplete clauses and false starts, as if she were struggling to express her event reconstruction. These patterns were especially prominent in the Orientation and Evaluation stages. Patient 006 had difficulty maintaining consistent model elements and creating identifiable generic structures. She also did not take advantage of appropriate conjunctive devices, and her speech was characterized by a tremendous number of very long clause complexes. Finally, she appeared unable to inhibit impeding event models. All of these patterns in the discourse of both patient 018 and patient 006 can be explained by a lack of discourse model or difficulty expressing a discourse model. In the next chapter these patterns and their

possible explanations are discussed further.

Chapter Six: Discussion

The goal of the study presented in this thesis is to add empirical support for and to extend van Dijk's Mental Model theory of discourse processing (van Dijk, 1993a; 1995c; 1999). The study aims to add empirical support to van Dijk's research by providing a microanalysis of the content of models and its influence on discourse production. It aims to extend his theory by examining local and global coherence devices and what they may reveal about mental model expression. More specifically, the study considered the processes involved in converting an event model into language. To explore these goals, two research questions were posed. First, what can the transitive choices made during event reconstruction reveal about model content and its influence on discourse? Secondly, what can the clausal and logico-semantic relationships and the generic structure of narratives reveal about the processes involved in event model expression? The following discussion presents the study's findings, points to possible cognitive explanations for these findings, and suggests what this means for the role of mental models in discourse production.

Mental Model Content and its Influence on Discourse

In the typical examples, the Anecdote is characterized by a fairly even distribution of material, mental, and relational processes. There are fewer material verbs; however, the goal of an Anecdote is to describe a situation and share a reaction (Eggins & Slade, 1997) – therefore it makes sense that there would be a large proportion of relational and

mental verbs. The typical Recount is predominantly material processes. Again this pattern makes sense because the goal of a Recount is simply to recount events (Eggins & Slade, 1997).

The atypical narratives, however, are all characterized by more mental and relational processes. Mental processes always outweigh material verbs, and a large portion of processes are always relational. This suggests that the event models of severely depressed or emotional patients contain more information about thoughts and feelings, and about a patient's own perceptions of states of being. Furthermore, for every text examined almost all mental processes refer to the patient's own thoughts and feelings.

There is one exception: Text 4 (patient 018) has a more even distribution of material, mental, and relational processes. However, the text is also characterized by a large percentage of behavioural processes and of verbal processes. In both cases, all refer to the speaker's own behavior and speech. The event model therefore still contains more self-focused information.

A further note must be made about patient 018's use of verbal processes. It is argued here that direct reported speech involves less connection from the speaker. Directly reporting speech does not contain any evaluation of the speech, and therefore it creates more distance from the speaker. In Text 3, the larger percentage of verbal processes are direct reported speech. In Text 4, we see predominantly indirect speech. The interesting difference is the direct quotes feature a different participant, while the

indirect speech is always the speaker's own. Therefore, when referring to someone else she creates less connection to the speech, while there is more connection to her own. This again suggests a predominance of more self-focused information in the event models of more severely depressed or depressive patients.

This demonstration of model content is beneficial in itself; however, even more interesting would be an explanation of why this occurs. As discussed, there is evidence of attentional bias in depressed individuals. The main finding is that depressed individuals attend to more negative information than positive, and that this creates a negative bias in the information committed to memory (Gotlib & Joormann, 2010; Beck, 1976). This bias leads participants to recall more negative information than positive (Williams & Scott, 1988). It might possible that they also attend to predominantly self-focused information. There has not, to the researcher's knowledge, been a transitivity analysis of depressive speech to date. Most of the research on the content of depressed cognition has not been discursive at all. Conclusions are typically drawn from tests of reaction speed and priming conditions. Studies that have looked to discourse have looked at other patterns like self-concept (Drew & Dobson, 1999) and negative language (Segrin & Flora, 1998), but not at the different verb categories used in speech. The present transitivity analysis seems to demonstrate that patients focus more on thoughts and feelings – namely their own – and their own perceptions of 'how things are'. If this is the case, this content difference across patients is a clear demonstration of how cognition influences discourse. The biased cognitive process of attention selects information to encode into the event

model. This event model then directly influences the discursive choices made in discourse production.

One might argue that the differences are a result of context rather than illness, as the goal of therapy is to share one's thoughts and feelings. Segrin and Flora (1998) demonstrated a contextual difference in verbal behavior when depressed patients speak with strangers versus friends, for instance. They found that patients appeared to use more negative language when speaking with friends. It is unclear from the present data set if results are due to a contextual effect. However, while there does appear to be some difference in the content of patients with severe depression, the intent of the transitivity analysis was to demonstrate the benefits of using SFL to examine model content, not to demonstrate a difference across these cases. Though there are hints that there may in fact be a difference, the data is not exhaustive enough to draw that conclusion definitively. It does, however, illustrate the benefit of using SFL to provide an examination of model content and its influence on the micro-realizations in discourse production.

Global and Local Coherence and Mental Model Expression

Research Question Two considered patients' ability to create receivable narratives as a means of examining the expression of event models. Specifically, the question explored patients' ability to translate event models into discourse models and linguistic expressions. It would appear that their ability/inability to do so, and the possible cognitive explanations for this, might suggest cognitive processes involved in model

expression. To review this point, in order to create a discourse that is receivable, a speaker must be able to create and execute a 'discourse plan' or discourse model that adheres to the expected generic structure (van Dijk, 1983; 1985a). A speaker must be able to access the event model in episodic memory, and control systems (executive functions) must be able to select and inhibit relevant and irrelevant information to include in the discursive representation. Speakers must be able to maintain this in working memory while creating a general discourse model (the macrostructure that guides semantic realization). This must then be maintained during the on-line semantic expression (verbalization) of the story (van Dijk, 1983; 1985a; 1995c)

If there is a processing problem at any one of these steps, the result may be a discourse that is atypical either in terms of the global (macro) coherence or the local (micro) coherence. These atypical patterns may shed light on what processing errors may be occurring and at what stage. It appears that global and local coherence issues during narrative expression in more depressed patients impedes their ability to create receivable stories.

In terms of global coherence, inconsistent event elements and atypical generic structures impede reception. Severely depressed samples at times seemed to have difficulty maintaining consistent model elements. These include event participants, setting elements such as time and location, and action sequences (van Dijk, 1985a), all of which can be identified by the transitivity devices of participant, circumstance, and process. Inconsistencies could be the result of impaired event memory, resulting in a

fractured model. Depressed patients have been shown to have impaired autobiographical knowledge (King et al., 2010). It could also be, and more likely is, an issue at the discourse modeling stage. The patients may be having difficulty selecting and inhibiting the appropriate event model information for the discourse plan. This includes providing the necessary background information for listeners (i.e., when a location switches, for example). This might suggest an impairment in executive functioning, a finding that has been associated with depression (Joormann, 2004, 2005; Gotlib & Joormann, 2010; Austin, Mitchell, & Goodwin, 2001; Linville, 1996; Watkins & Brown, 2002). If this explanation is correct, it would lend support to the role of these mechanisms in creating receivable narratives from event models.

As well as inconsistent event elements, generic structures were at times difficult to identify. It was difficult to determine the purpose of the narratives, and thus to identify a genre. It was also difficult at times to distinguish stages, because of inappropriate use of cohesive devices. Cohesive devices help to link a text together to create a coherent whole (Halliday & Hasan, 1976; Eggins, 2004). Conjunctive cohesion is especially important in narrative stage transitions. In the present analysis, inappropriate use, or lack of use, of conjunctions made stage transitions difficult to identify. Finally, the processes used in certain stages were atypical. For example, material processes would dominate Orientation stages, where you might expect relational verbs.

These patterns suggest that the patient's discourse model does not reflect a typical narrative genre. To review, given that one goal during production is to form a 'discourse strategy' (van Dijk, 1985a; 1985b) based on information in episodic and semantic memory, one way to identify this in discourse is to consider the represented organizational structure these discourse plans would likely have. Given that these plans are organized macrostructures (like narratives, for example) that include all of the key content elements of the event model and are organized according to their communicative goal and topic, one way to identify their structure may be to look at the generic structures produced in discourse (van Dijk, 1985a). If we consider van Dijk's understanding that a discourse strategy includes a goal and subgoals, we might consider that these may resemble the genre and stages of an SFL narrative. Systemic Functional genres are discourse structures organized according to communicative function that have been normalized by their reproduction within a culture (Eggins, 2004). The genre represented might reflect the discourse goal, and the stages the subgoals. Once these structures receive 'genre' status they become the expected way to organize a discourse, and thus there are 'typical story structures that listeners come to expect from speakers. This expectation helps them in creating a corresponding event model necessary for comprehension (a comprehension model) (van Dijk & Kintsch, 1983; van Dijk, 1985a). When these discourse models are not created or expressed properly, a discourse is less receivable. Therefore, in order for a speaker to create a receivable narrative he or she must follow this pattern. It would make sense, then, that a speaker's discourse model (or plan) would resemble this structure. If it does not, the speaker may be having difficulty creating the discourse model.

In terms of local coherence, patterns found in atypical narratives may also reveal problems in discourse planning. Compared to typical narratives, the atypical texts from those patients with severe depression or who were experiencing a depressive episode used an atypical proportion of clause complexes and simplexes. Both patient 018 and patient 006 take much longer to achieve their discourse goals than do the more typical examples.

Patient 018, for example, often employs clause simplexes or uses incomplete clauses. This gives the impression that she is struggling to express her account. Incomplete clauses suggest that she has no discourse model, and clause simplexes are not as complex or efficient as a taxis clause. If the patient had effectively organized her event model information into a discourse model, she would be able to rely on it during expression, but she does not seem to do so. There is evidence that emotional stimuli or inducing emotional states in patients influences their executive functioning (Joormann & Goltib, 2010; Joormann & D'Avanzato, 2010; Gotlib & Joormann, 2010; Joormann, 2005). During this particular session, patient 18 talks about feeling more depressed than usual. It might be that her emotional state is influencing her executive functioning, and thus her ability to create or express a discourse model.

Patient 006's excerpts are much longer than the typical examples as well, even though they use the same number of sentences. This is because most of the sentences are clause complexes with many complexes reaching beyond five clauses, some as long as 14

clauses. These lengthy complexes essentially lead to her taking much longer to reach her discourse goal, i.e., tell her story. Furthermore, the paratactic and hypotactic clauses are often linked with inappropriate conjunctions, i.e., instances when a temporal conjunction would have contributed to story progression but she employs an additive conjunction. She uses far more elaborating and extending clauses than enhancing clauses. This reduces the complexity contained within her clauses – she does not create the dependency relationships of enhancement that would further story progression. This also gives the impression that 006 has no discourse model. Rather than struggling to form or express her discourse model, however, it seems as though 006 has not designed one at all. Her speech lacks recipient design.

Some coherence and cohesive issues in mental illness have previously been attributed to an impaired theory of mind (Rochester, Martin, & Thurston, 1977.) This means that the speaker has problems remembering that their listener is a thinking being with thoughts and feelings of their own. An impaired theory of mind might lead a speaker to forget to introduce a new participant or setting element, or fail to use other cohesive devices designed for the listener's comprehension. This could be a possible explanation for the present coherence and taxis patterns. A theory of mind would be important for two reasons. It would be important to recognize the need for a generic structure; understanding that the listener expects a certain pattern and needs it to form a comprehension model would require that the speaker understand the listener's cultural and personal knowledge. Secondly, theory of mind would be required when understanding the listener's knowledge of the discourse thus far. A speaker must keep

track of what event elements are known by the listener already and which are new. In the atypical examples, evidence that the speaker does not consider their listener's comprehension might suggest impairment in their theory of mind.

Another pattern observed was the intrusion of irrelevant information. This includes both the on-line intrusion of negative affect or cognition as well as entire event model structures. By 'on-line' intrusion, it is meant that expression of the original idea is interrupted. Research has demonstrated that depressed individuals have difficulty inhibiting irrelevant information, especially negative information, and that irrelevant memories intrude on attention (Joormann, 2004, 2005; Brewin, Watson, McCarthy, Hyman, & Dayman, 1998). Therefore, the present findings may indicate that control processes, like inhibitory functions, are affected. Furthermore, this may offer evidence that these control processes are important for the expression of typical narratives.

One common pattern with both patient 018 and patient 006, was a difficulty realizing the Abstract/Orientation stages. It was within these stages that patients appeared to have the most difficulty in terms of local coherence issues. Once patients moved on to the Event stages, there were fewer false starts or unfinished clauses and repairs. This may suggest two things. First, it may be evidence of the *on-line* creation of a discourse model. Oftentimes these patients tried to "force" organization by expressing setting or action elements. This could be evidence of a verbalized "cognitive moment" (Heritage, 2005). Alternatively, this verbalization may also be an attempt at maintaining the floor (Schiffrin, 1988). However, given that in client-centered therapy patients are expected to have the

floor the majority of the time, it is unlikely that patients would be concerned with this. Trouble within the Abstract or Orientation stages may also suggest that the organization of these particular stages requires more cognitive effort than that of other stages. Given their temporal nature, Event stages may already have an organization imposed on them. Therefore, provided participants can apply appropriate causal and temporal cohesion to express this, it may be easier for patients to just report this information. Abstracts and Orientations on the other hand require awareness of knowledge the listener already has and the information they still need, as well as the ability to organize this into the most efficient representation. This is of course occurring all while the event model and communicative intent are maintained. Thus, the creation of Abstract and Orientation stages may require more effort.

The same pattern is at times also observed during Reaction or Interpretation stages – essentially stages that include more emotional or attitudinal content. There is evidence of the negative effect of emotion on cognitive processing in depressed individuals (Joormann & Goltib, 2010; Joormann & D'Avanzato, 2010; Gotlib & Joormann, 2010; Joormann, 2005), and thus this pattern may reflect difficulty manipulating emotional material in working memory.

All of the above patterns suggest that patients with atypical narratives might be having difficulty forming or expressing a discourse plan. First, impaired executive functioning may be contributing to difficulty expressing a model. Second, an impaired theory of mind may be influencing the recipient design of discourse models, and in turn,

the narratives they influence.

A Note About Context

As mentioned above, transitive patterns could be a result of context rather than model content. The goal of therapy is to express thoughts and feelings and thus patients could be choosing to emphasize this information. It might be argued that this is the case for structural patterns as well. It could be that taxis and logico-semantic relationships reflect the role of models in context, rather than a difference of illness.

To explain, what is most striking about Text 7 is its lack of dialogue between the counsellor and patient. The patient speaks in monologue for four pages. This is a pattern throughout many of patient 006's sessions. A more monologic pattern may be contextually appropriate as these sessions are taken from client-centered therapy where the goal is to have the client control the session and talk freely about their own feelings and thoughts. Patient 006's passages are often much more reflective than those of other patients. She speaks more about her thoughts and feelings about events, rather than just sharing actions and occurrences. This perhaps creates either less receivable (or coherent) discourse models, or chunks that consist of multiple event representations; both of which give the impression of an inner monologue, or verbalized online thought. The blending of topics, unfinished thoughts, interference or inhibition, and overuse of additive cohesive devices all contribute to the impression that she is 'thinking aloud'.

That being said, rather than there being an atypicality in mental models of depression, these patterns may be attributable to differences in the models associated with monologic versus dialogic speech. It could be that monologic speech involves mental models that are organized differently than those in more dialogic speech. For example, speakers whose intent is to share information go through the cognitive process of organizing the discourse plan into a structure that can be comprehended. Van Dijk suggests that *monologues* tend to be more context dependent and their discourse plans more flexible (van Dijk & Kintsch, 1983). Thus, discourse models in other contexts may be organized differently (or more) than the ones in more monologic speech. The event model is recalled, and then verbalized, and any information that is activated along the way is also verbalized, rather than there being an intermediary stage, or one as extensive in terms of discourse planning.

However, this monologic pattern is not as predominant in other patients' sessions, but rather is characteristic of 006. Despite this, there are still patterns that suggest discourse planning impairments in other patients. Furthermore, encouraging rumination in severely depressed patients appears to trigger executive control deficits (Watkins & Brown, 2002). This information suggests that it is depression that is influencing model expression.

As in the examination of model content, the observation above does suggest that these patterns reflect an influence of illness, specifically, that models and their influence on discourse are atypical in severely depressed patients. This is a finding that would have

significant applied value. If validated, clinicians might be able to use these findings to better diagnose severe depression and suicide risk. However, data is not exhaustive enough to make this claim definitively. Furthermore, while this is an important finding, it does not relate to the main goal of the thesis, which has been to explore how models influence discourse production. If patterns can be explained by context, the goal has still been achieved. Contextual influences on the expression of models still contribute to understanding of model influence. Furthermore, the present focus is on Event Models. It could be that a consideration of context leads to further questions about Context Models – the cognitive representations speakers and listeners have of the context, and how this influences discourse. This and other implications are explored in the next chapter.

Chapter Seven: Conclusion

Summary

The transitivity analysis reveals not only suggestions for the model content of this particular population, but also reveals more information about how cognitive processing influences our event models, and how these cognitive representations of reality influence their linguistic expression. The atypical narratives appear to represent information that (a) predominantly concerns how patients feel or how things 'are', and (b) is self-focused. This is realized through a predominance of mental and relational processes, many of which feature the patient as the main participant. This suggests that it is predominantly this information during interaction that participants commit to event models, and that this in turn influences discursive realizations.

Furthermore, at times these patients appear to provide inconsistent model elements, both in terms of participants and in terms of circumstances. This makes it difficult for a listener to form a clear comprehension model, and suggests issues in patients' discourse modeling, or perhaps in event model retrieval. These conclusions are supported by the fact that both executive functions and autobiographical memory have been shown to be impaired in depression.

In terms of discursive expression, the present clause complex analysis reveals how atypical patterns suggest impaired cognitive processing, and how these realizations ultimately hinder a listener's ability to create comprehension models. Specifically, the

atypical patterns found in patients with severe depression or who are experiencing a depressive episode might suggest difficulty either at the discourse planning stage or in expressing a discourse model. Incomplete clauses and false starts suggest a difficulty forming or expressing a discourse model, while atypically lengthy clause complexes and the inappropriate use of clausal conjunctions suggest either a lack of or a lack of adherence to a recipient designed discourse model.

These patterns, as well as inconsistencies within transitive expression, make it difficult for the communication of an event model and the creation of a corresponding comprehension model. It is possible that these difficulties arise from impairments in the control processes involved in discourse production or in higher order cognitive impairments. Namely, control processes like attention, selection, and inhibition may be impaired, causing problems during discourse expression. It is also possible that higher cognitive functions like theory of mind are impaired, preventing the speaker from sufficiently anticipating their listener's knowledge. These are of course only suggestions as the present data does not contain cognitive measures. However, if future research were to explore this, these are interesting preliminary findings.

Implications

Implications for Mental Model Theory. The present study demonstrates the benefits of using SFL to provide empirical microlinguistic support for van Dijk's mental model theory. The study has allowed for the concrete analysis of the content of mental

models by way of the transitivity system to analyze the people, places, time, and actions contained in event memories. The study also extends van Dijk's theory of mental models by examining the expression of event models. Through the use of clause complex analysis and genre analysis, the findings of the study reveal how these systems can be used to examine how event models are translated into discourse models and then discourse structures, both locally and globally.

This study also uses the atypicalities present in the discourse of depressed patients to suggest possible cognitive underpinnings. First of all, these depressed individuals have been shown to have atypical representations of reality, emphasizing negative or self-focused information (Gotlib & Joorman, 2010; Beck, 1976). The findings of the study also demonstrate how atypical processing influences the content of models. Furthermore, the patients appear to have difficulty expressing their models. Given the impairments found to be present in depression (i.e., inhibition, attentional bias), the cohesive impairments in the patients' discourse may be the linguistic result of those impairments. This finding not only provides support for the use of linguistic analysis as an aid to clinicians, but, more significantly, suggests that these processes are important in the creation of receivable discourse. The patients' inability to appropriately use taxis and conjunctive devices directly influences their ability to tell a story, and therefore any associated cognitive processes would be important to narrative construction. Given its findings, this study contributes a methodology for applying van Dijk's theory, and also extends it by suggesting the processes involved in the translation of event model information to narrative during discourse production.

Implications for Psychology. The study also holds significance for psychology. In line with Fine's contributions, the study may help clinicians in the diagnosis of depression. Not only does the study suggest the usefulness of linguistic analysis for understanding cognition during discourse production, it also suggests an approach to analysis that could help in the diagnosis and assessment of depression. As previously noted, this is an area that requires attention. Speech patterns present in depression have not given enough attention, and they certainly have not been validated as a mechanism for distinguishing severity of depression. By looking at patients with varying levels of depression and the associated linguistic patterns, the present study offers some initial steps in this direction. If future research were to validate this as a reliable tool, this could be a viable option for diagnosis.

Future Research

It is clear that this study is only a preliminary exploration. Further research could use a wider sample with better control variables to determine if these patterns can be reliably identified across depression and its differing levels of severity. This should include awareness of social factors (e.g., employment, family) and physiological factors (i.e., the presence and type of medication if any). Future studies could also include audial information as well, so that intonation and timing could be incorporated into the research.

The application of SFL in examining the content and expression of models should not be restricted to the particular population examined in this study, nor to atypical

discourse. Although atypical discourse provides insight through comparison, SFL is a useful tool generally for a more microlinguistic application of van Dijk's theory. Further, these are certainly not the only levels of analysis that SFL could provide; research could be conducted at the interpersonal and textual levels as well.

In terms of the multidisciplinarity of the study, future research could be designed to include cognitive variables. For example, it would be ideal if the present findings could be definitively associated with impairments. This would not only provide insight into processes in discourse production, but would also serve as an example of the impact of these impairments in a real-life setting, rather than in research restricted to a laboratory setting, as is so often the case with research in psychology.

Although the study presented in this thesis offers an interdisciplinary perspective on discourse production, it is only a preliminary exploration of the role of cognition. Future studies with better controls and data would be able to provide more definitive conclusions. However, the study does offer interesting initial suggestions regarding the role of mental models in discourse production.

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Appendix A

Presentation of Texts

Text 1

Patient 017. No history of suicide or self-harm. Talks about her relationship with a man and how he made her feel.

PATIENT: Well, yeah, the last thing, this - you know, I've been kind of half interested in this guy in the fall, you know. And, you know, we were pretty good friends. I got along pretty well with him and everything. And then it became fairly apparent that he just wanted to kind of jump into bed with me, and I just was trying to get over this thing in the summer, which I just don't (inaudible at 0:08:04.8). The pain is just never going to go away. But anyhow, I just didn't think it would be a good idea. And he seemed to kind of lose interest but yet, still be friendly.

0:08:17.9

And then, you know, he was sort of flaunting this other girl around to me, which really hurt, you know. And then one time - you know, I just kind of was approaching this. He kept asking me to go to Chicago with him over Christmas. And I just said, "I really was interested in why you asked me because I didn't - you know, it didn't make any sense." I just wondered what his motives were. And just looked at me straight in the eyes with pity, which made the whole relationship seem like one of - you know, he had kind of known that I'd been very unhappy over the summer. And it made the whole thing seem like the only way I could communicate with a man was if he felt sorry for me. You know, that I'm

not really taken seriously as a person. I'm not somebody that one can get seriously interested in. Yet, I take life desperately seriously.

Text 2

Patient 018. Female, age 20-25 years. No history of suicide or self-harm. Talk about getting up and getting ready for work.

PATIENT: I had the hardest time getting out of the house this morning. It was like one of those bad dreams that I keep having where I can never get anyplace that I have to-you know, I'll-like I'm-I used to have them when I was in high school. I wanted to go to school, you know, I'd get up in the morning and I'd rush around and do this or that and I'd get out the door and realize that I didn't have my clothes on, I couldn't go out yet. So I had to go back and put my clothes on. And then I'd walk out the door and realize I forgot my books and go back and walk-go out and be halfway down the street and have to come back because I forgot something else.

Well, this morning I got up-first of all I got up late. And then I had to hem up these pants because I'm short and I had to buy them too long. I didn't get a chance to do that last night because I had to do something else. And it just seems like it took forever to do that. I was hurrying up and I was hurrying up getting dressed and I finally go on my way and I was going to take the train. I was stop at the co-op and catch a train-I was going to drive my car down to the train and then drive it back down because it was going to be cold tonight and I didn't want to walk all that way. And I got down to the co-op and I had my checkbook but I was out of checks. I had to go all the way back to my apartment and get

new checks. So then I decided I'd drive down because it would waste less time. And so then I went to (ph 5:21 Mr. G's) to cash a check and I had to stand in line and wait to cash the check. This was like-by the time I got there and got anything done it was eleven-thirty and I was so afraid somebody was going to, you know-that they like you to be there early for jobs. I was so afraid somebody was going to say "Where have you been? Why are you so late?" So I was going to lie and tell them I had to work this morning.

Text 3

Patient 018. Session number 8. In this session the patient explicitly states that she is experiencing more intense feelings of depression. There are noticeable differences in discourse coherence. In this excerpt she discusses driving, and how she often does not behave the way other's expect her to.

PATIENT: ...or something. I was sitting there, no. My mother. You know, I used - . When I drive the car, I enjoy driving the car. But I don't sit there, "M mmm," with this stupid grin on my face while I drive the car. And you know, I yell at people when they do stupid things, they'll almost hit me or something like that, you know. But I don't - you know - I'm usually, when I'm driving I'm usually not feeling anything. unless I'm having, you know, except maybe - . Well usually I'm just enjoying. But I'm not really feeling anything, you know. I'm not feeling any, like, great exhilaration from it, but I'm enjoying it. This is the way I enjoy things. And my mom (inaudible at 22:15) I've been driving so much. She, she looks better.

COUNSELOR: Uh huh.

PATIENT: She's (inaudible at 22:17) better. She says, "What are you upset about?" and [I'm not upset about anything] (ph) .

COUNSELOR: Uh huh. Uh huh.

PATIENT: [And she says,] (ph) "Yeah, but your face looks all sad and everything," you know. And a couple of (inaudible at 22:27) at different times in my life, when I was not feeling sad, was just kind of feeling nothing.

COUNSELOR: Yeah. They get sort of concerned?

PATIENT: Yeah. They say, "What's the matter?"

COUNSELOR: ...and anxious about you?

PATIENT: You know, "What's the matter?"

COUNSELOR: Yeah.

PATIENT: And so by not (crosstalking)

COUNSELOR: Something needs to be fixed in you.

PATIENT: Right. No, it's not like that. It's just, like, when I'm not smiling, I look sad.

COUNSELOR: Yeah.

PATIENT: Maybe we'll see if we [inquire and (sound of banging) at 22:51] (ph) why I was sad, if I didn't feel good, if I was upset about something, was I just tired.

COUNSELOR: Um hm. Um hm.

PATIENT: And when none of these have been the case. I've been perfectly fine. You know.

COUNSELOR: Um hm. Um hm.

PATIENT: And I was very sensitive about this. I used to almost yell at my mom. I'd say, "What do you want me to do, drive down the road with a big smile on my face (counselor chuckles) so you know I'm not upset?"

COUNSELOR: I know that, life being -

PATIENT: And I'm touchy about it, you know. Because, I'm really wasn't upset about anything. As a matter of fact, my mind was almost a complete blank, you know. I was just driving, watching the road and the other cars and everything. I don't think about a lot of other stuff while I'm driving. I can't. I just kind of drive. And so - if I had more - if I had - my idea of having ups and downs, I'd be - is being more susceptible. No, that's not the right word. You know, if I had more (inaudible at 24:02) I - maybe I could show more outward feelings. My father is talking about people who bubble. And I don't, like - I don't bubble.

(loud background noise, like an airport)

But this thing, you know - if I felt more, you know, if I really got any kind of a really [sic] exhilaration (inaudible at 24:22). I don't know, I just maybe would relate better to other people.

Text 4

Patient 018. Session 8, as in above. Here she discusses a conversation with a friend, and how she wishes she had not talked so much.

COUNSELOR: Is that what happened to you last night?

PATIENT: Oh, I was talking. We were bowling. And, we finished about a quarter to ten, and nobody else finished until 10:30, until Sue - . You know, I just have - I've just grow on the bowling team. Well see, her husband was bowling. I arrived at Dr. Arrews.

COUNSELOR: Um hm.

PATIENT: And her husband's team was bowling Dr. Arrews team. So both of us had to wait. And so, we were sitting there talking, you know, and I started asking her about her kids. And so I had heard her talking with some - some of the other ladies about some of the silly things their kids do. It's sounded interesting, so I started talking about it, you know. And I - most of the time I just sat there and listened, you know. I started off, but it - because it was interesting. And then I started throwing in my thoughts on the subject. Which were more thoughts and questions as to how, you know, Sarah - it was like, she's having trouble with her kids.

COUNSELOR: Um hm.

PATIENT: So - other people have trouble with their kids. And she (said) (ph) - you know. I was - you know - my views on the fact that, you know, I'd want kids. But I don't know when they're the age that hers are, starting two and three years old, and you start having trouble with them, you know, they're -

COUNSELOR: Yeah.

PATIENT: Then - and you don't really know which way to turn, you know. You don't want to spend your life reading up on 'em, and yet just coaxing and reason them and - and threatens, threatenings don't bother the kids at all, you know. They're just kind of, "Nyaa," you know. Totally oblivious of everything, you know.

COUNSELOR: Yeah.

PATIENT: And, ah (sound of bumping and furniture squeaking) - so I was, you know, like worrying, talking to her (sound of squeaking) about (inaudible @ 0:52:16.6). Then we started talking about, um - you know, the way we were raised and stuff. And I just talked too much, you know. There were times when I just should have let her talk.

Text 5

Patient 006. Age 20-25 years. History of suicidal behaviour and self-harm. Inflicts self-harm and attempts suicide over the course of treatment. Here she discusses trying to talk to her boyfriend one night.

PATIENT: So I got back home, which (inaudible at 15:45) was all tired anyway. And I guess then after all that night my boyfriend came over and he was really kind of bad; like I was really trying to tell him what had happened, just how I felt, because it was really important to me, that, you know, I didn't feel like killing myself and I didn't - I don't remember what all the thoughts were, but just that it felt so really good to be really, really free and really alive and really able to face things and to stand on my own two feet kind of and to, you know, gotten away and kind of not needed him, and he sort of fell asleep while I was talking which wasn't too cool. [16:43]

And then at that night it didn't bother me, but by the next day I was sort of coming out of it. I had really ended up just sort of drifting back. And by Monday - I guess I sort of wanted all the next day just to talk to my boyfriend, just plain talk, and he just didn't want to. And kind of on Friday night when I drove home I just didn't care anymore and I'm just completely back to just feeling suicidal. Not completely, but you know, just having the feelings there again and not liking it.

COUNSELOR: Or that it's not liking him (inaudible at 17:29).

PATIENT: Whereas the day before it's like I didn't know what they were, I didn't know what they felt like, because I felt so good. And I just want so badly to know how to keep

feeling good and, you know, just be able to just start living my life of my own that I'm really happy with. I mean, have it stay there. [18:08]

Text 6

Patient 006. Here she discusses going to see her friend's play.

PATIENT: ...And I don't know kind of yesterday was like a really really effective day and I was really torn and I had this awful headache and my boyfriend said I could pick him up at the airport or not if I like and I decided to because I didn't need to

COUNSELOR: Um hum.

PATIENT: And because I didn't feel dependent on him. In a sense his phone call really upset me because I had managed to put him out of my mind on Sunday night and I think it is after he called that I started writing unhappy things and I couldn't go to sleep until like three in the morning which is why I was tired all day Monday. But so that his call in a sense had upset me but somehow I managed all day Monday to kind of forget and kind of function anyway and do a good job functioning so that like by the time I picked him up at the airport it was raining it was really pouring it was gorgeous and I ended up and I told him and I said "I just really came down here to see the airplanes in the water cause it was really pretty and I'm really glad you gave me an excuse"

COUNSELOR: Um hum.

PATIENT: And in some sense it was true. I really enjoyed it. And then I had like he was going to come over and I had conveniently forgotten his keys which was real and I really worried about that because I didn't want him to think that I was sort of chasing after him

which is kind of why I had his sister left his keys with me. Which is kind of why I debated whether to go to the airport because I thought well I don't want him to think this means I'm chasing after him. (10:49)

COUNSELOR: Um hum.

PATIENT: And yet I really felt so we moved from that that it wasn't even effecting me. So much so that like he came over to get the keys and I was going to have dinner and he probably would have stayed there and there was this message to call a friend and there turned out to be an extra ticket for a play that was going on at 7:30 and this was 7:15 and a really good friend of mine a guy that I know and had gotten to know this summer when my boyfriend was gone and was just a good friend was starring in it and I was determined I was going to see that play and this was like the one opportunity to go see it and this was 7:15 and I had 15 minutes to get like downtown. So I sort of asked my boyfriend to baby sit for my dog (laughing) dropped them both off at his house and just took off. And it was really nice because I could do it without feeling bad about "Oh my boyfriend has just come home and I have to stay with him" and in a sense that would have been much more convenient because I felt so tired and it would have been so nice and I was sick of driving and I had a really bad headache and it would have been really nice just to stay home except I knew this was something I wanted to do. And I it was a fantastic play. It was worth the drive. It was really, (inaudible at 12:07) was really moving. It was done really well and my friend played the lead in it and I had never seen it before and like somehow the part of me that is really alive (ph) and that I'm usually afraid to be is very much into writing and very much into acting and very much into art and those kinds of things. And I mean I was just so turned on by this play I just I drove home and it was dark and it was

raining and I refused to put the radio on or anything else because I was just so happy about it and it was a really sad play but I was just really happy because it had been it was done so well and it was so meaningful and that people could express so much through art and stuff like that. And it was like then I stopped over at my boyfriends and I sort of then I really had a splitting headache and physically just and I hadn't eaten anything which is probably why I had a splitting headache all day and then I just sort of told him you know that I felt so good and I was like prepared to stay and talk for a few minutes if he felt like it or just to leave. And so he suggested that he would come over which was like a real shift because I wasn't asking him and I didn't care whether he did or not. (13:35)

COUNSELOR: Um hum.

PATIENT: And I told him I mean it was just really a nice really a nice night. And I ended up oh another thing I had done Sunday when I got back from the walk on the lake was just to play my guitar and my recorder for like two hours and make myself learn a new song.

Text 7

Patient 006. Here she discusses the events of one night, specifically a conversation with a friend and how it made her feel.

PATIENT: Like he came over Sunday afternoon to borrow my typewriter to work on his paper because he didn't have one, and he stayed and we went out Sunday night, and I came back and I couldn't talk to him. And part of it had been a kind of really mind bodly... bodily experiences of Saturday night I... going out for dinner I... well, it had been

a strange thing with... with time and with being sleepy, because okay I didn't go to sleep Wednesday night at all, and I'd gone to work and I'd worked all day Thursday, and I came back about 6:00 and I was supposed to go out at 9:30 or 10:30 that night, and so I went to sleep from like 6:00 to 9:00. And I went out to dinner with this friend that was just sort of half a friend that I mentioned that I had... had started in the trial on the previous Tuesday, and this was like the night of the cast party and stuff, except we ended up not going to the cast party because a lot of his friends weren't going. We just went out to dinner with his sister [to kind of simplify] (ph) in Florida and then I go over to his apartment to talk for a while and he had just... it was like a monologue on his part.

…she continues to describe her friend's story

And just, just his own feelings and somehow it was... it was a... it was a good experience to listen to, because he had a good perspective on it now and he'd come back; he'd come through this, and he'd come through it really well, and he also had... like he said he had a really good perspective on people and he could play a lot of these roles really well because he'd been through a lot of them. Somehow the subject had come up and we were both just sitting at dinner with his mother very innocuously, and just... he just said some... I said something about, "Did you really identify with J.K. in the play?," and he said at times that he would bring me and think parts of his life that he would relive as he was portraying certain aspects of the role. And we both sort of got discussing how important it was to really be able to empathize with people from your own experience, and I sort of said that I... oh, I know, I... that's what happened.

35 Friday I had seen a really good patient that I had been working on for a long time,

From lines 36- 61 she continues to describe her experience with her patient – an entirely different even model within which she recounts more detail than would be necessary to make her point.

62 And anyway at this dinner, so I had just sort of said, yeah, I just... I felt that in order to be
63 a decent psychologist you've really got to be able to empathize with the people that you're
64 talking to, and not just put them in a category and put a label on them and give them a
65 drug or something like that. [18:24] And I said that in some ways I think maybe every
66 psychologist ought to be able to be an actor and to be able to take everybody else's role.
67 There are an awful lot of different kinds of roles and stuff like that, and it was... it was
68 kind of like I was talking about mental patient in the abstract, and I realized that
69 afterwards that I may have hit on all sorts of things because... since he had been a mental
70 patient, which I didn't know about when we was talking at dinner. But it didn't... whatever
71 it was it... it hadn't come through badly, because his mother didn't... and his mother
72 seemed pleased with me, well, at least not angry at me, and he had end... he ended up just
73 going, talking for two hours in mon... straight monologue about this experience that had
74 happened to him. And I don't' know what that did to me. It did all kinds of things to me in
75 the sense... in a sense it was really an optimistic good kind of thing in that he'd come...
76 come back out of it. In another sense, it was not in that... like this had happened to him
77 last Christmas, and in a sense I've been really out of it for two years now and I haven't

78 really come back, and I haven't really done anything to get myself back, and so in a sense
79 there's a negative comparison there.

From lines 80-87 she describes her friend's account. Again going into more detail about him than contributes to her model expression.

88 I know I felt kind of strange about it for the next day, and I think that part of that made
89 me... made it hard for me to talk to my boyfriend the next day. Part of what... because I
90 tried to tell my boyfriend about it in a very abstract way and I really couldn't, and I also
91 didn't feel like I had a right to tell him very much because he didn't know the guy, but he
92 knew... he knew who the guy was. He knew through a friends of friends kind of, and so
93 that I really couldn't say very much.
94 And also we'd gone to this movie by accident actually, because we'd had had an
95 (almaroo) (ph) and we'd gone to see "Sterile Cuckoo," which in a lot of ways is a very
96 superficial kind of kids in college movie, but I tend to let any kind of movies almost... I
97 tend to take what's good in them and sort of disregard what's superficial and what's...
98 what's trash, and I sort of take off from one little theme that they have and use [21:32] my
99 imagination for the rest of it even if it's not portrayed. And I sort of started thinking from
100 there about a lot of like really happy times that I'd had at college…

Appendix B

Analysis

Transitivity, Clause Complex and Logico-Semantic Relationships

Transitivity Analysis

Key

P = Process

Pm = material, A = Actor, G = Goal, B = Beneficiary, R = Range

Pme = mental, S = Senser, Ph = Phenomenon

Pb = behavioural, Be = Behaver, Behaviour = Be

Pv = verbal, Sy = Sayer, Rv = Receiver, Vb = Verbiage

Pe = existential, X = Existent

Prel = relational attributive, Cr = Carrier, Att = Attribute

Pid = relational identifying, T= Token, V = Value

Pp = possessive, Pr = possessor, Pd = Possessed

Pcc = circumstantial

Pc = causative, Ag = Agent

C = Circumstance, Cl = location, Cx = extent, Cm = manner, Cc = cause, Cacc = accompaniment, Ct = matter, Cro = role

Text 1

PATIENT: 1. Well, yeah, the last thing, this - you know, I've (Cr) been (Prel) kind of half interested (Att) in this guy (Cc) in the fall (Cl), you know. 2. And, you know, we (Cr) were (Prel) pretty good friends (Att). 3. I (A) got along pretty well (Pme) with him and everything. 4i. And then it (Cr) became (Prel) fairly apparent (Att) 4ii. that he (S) just wanted (Pme) 4iii. to kind of jump (Pm) into bed (Cl) with me (Cacc), 4iv. and I (S) just was trying to get over (Pme) this thing (Ph) in the summer (Cl), 4v. which I just don't (inaudible at 0:08:04.8). 5. The pain (A) is just never going to go (Pm) away (Cl). 6i. But anyhow, I (S) just didn't think (Pme) 6ii. it (Cr) would be (Prel) a good idea (Att). 7i. And he (S) seemed to kind of lose interest (Pme) 7ii. but yet, still be (Prel) friendly (Att). 0:08:17.9

8i. And then, you know, he (A) was sort of flaunting this other girl around (Pm) to me (R), 8ii. which (A) really hurt (Pm), you know. 9i. And then one time (Cl) - you know, I (A) just kind of was approaching (Pm) this (G). 9ii. He (Sy) kept asking (Pv) me (Rv) 9iii. to go (Pm) to Chicago (Cl) with him (Cacc) over Christmas (Cl). 10i. And I (Sy) just said (Pv), 10iii. "I (S) really was interested (Pme) in why you asked me (Ph) 10iv. because I didn't - you know, it (Cr) didn't make any sense (Prel)." 11. I (S) just wondered (Pme) what his motives (Cr) were (Prel). 12i. And (he) (A) just looked (Pm) at me (G) straight in the eyes (Cl) with pity (Cm), 12ii. which made the whole relationship seem like one of - you know, he (S) had kind of known (Pme) that I'd (Cr) been (Prel) very unhappy (Att) over the summer (Cl). 13. And it (Ag) made (Pc) the whole thing (Cr) seem like (Prel) the

only way I could communicate with a man was if he felt sorry for me (Att). 14. You know, that I'm (Cr) (Prel) not really taken seriously (Att) as a person (Cr). 15. I'm (Cr) (Prel) not somebody that one can get seriously interested in (Att). 16. Yet, I (S) take (Pme) life (Ph) desperately seriously (Cm).

Text 2

1. PATIENT: I had (Pme) the hardest time (Ph) getting out (Pm) of the house (Cl) this morning (Cl). 2i. It (Cr) was like (Prel) one of those bad dreams that I keep having where I can never get anyplace that I have to (Att) -you know, 2ii. I'll-like I'm-I (S) used to have (Pme) them (Ph when I was in high school (Cl). 3i. I (S) wanted (Pme) to go (Pm) to school (Cl), you know, 3ii. I'd (A) get up (Pm) in the morning (Cl) and 3iii. I'd (A) rush (Pm) around (Cl) and 3iv. do (Pm) this or that (G) and 3v. I'd (A) get (Pm) out the door (R) and 3vi. realize (Pme) 3vii. that I (Pr) didn't have (Pp) my clothes (Pd) on (Cl), 3ix. I (A) couldn't go (Pm) out (Cl) yet (Cl). 4i. So I (A) had to go (Pm) back (Cl) and 4ii. put (Pm) my clothes (G) on (Cl). 5i. And then (Cl) I'd (A) walk (Pm) out the door (Cl) and 5ii. realize (Pme) 5iii. I (S) forgot (Pme) my books (Ph) and 5iv. go (Pm) back (Cl) and 5v. walk (Pm)-5vi. go (Pm) out (Cl) and 5vii. be (Pcc) halfway down the street (Att) and 5viii. have to come back (Pm) 5ix. because I (S) forgot (Pme) something else (Ph).
6i. Well, this morning (Cl) I (A) got up (Pm) - 6ii. first of all (Cl) I (A) got up (Pm) late (Cm). 7i. And then I (A) had to hem up (Pm) these pants (R) 7ii. because I'm (Cr) (Prel) short (Att) and 7iii. I (α) had to buy (Pm) them (G) too long (Cm). 8i. I (A) didn't get a chance to do (Pm) that (G) last night (Cl) 8ii. because I (A) had to do (Pm) something

else (G). 9. And it (Cr) just seems like (Prel) it took forever to do that (Att). 10i. I (A) was hurrying up (Pm) and 10ii. I (A) was hurrying up getting dressed (Pm) and 10iii. I (A) finally (Cl) go on my way (Pm) and 10iv. I (A) was going to take (Pm) the train (R). 11i. I (A) was stop (Pm) at the co-op (Cl) and 11ii. catch (Pm) a train (R)- 12.i I (A) was going to drive (Pm) my car (R) down (Cl) to the train (Cl) and 12ii. then drive (Pm) it (R) back down (Cl) 12iii. because it (Cr) was going to be (Prel) cold (Att) tonight (Cl) and 12iv. I (S) didn't want (Pme) 12v. to walk (Pm) all that way (Cm). 13i. And I (Cr) got down (Pcc) to the co-op (Cl) and 13ii. I (Pr) had (Pp) my checkbook (Pd) but 13iii. I (Pr) was out (Pp) of checks (Pd). 14i. I (α) had to go (Pm) all the way (Cm) back to my apartment (G) and 14ii. get (Pm) new checks (G). 15i. So then I (S) decided (Pme) 15ii. I'd (A) drive (Pm) down (Cl) 15iii. because it (A) would waste (Pm) less (Cm) time (R). 16i. And so then I (A) went to (Pm) (ph 5:21 Mr. G's (G)) to cash a check (Cc) and 16ii. I (A) had to stand (Pm) in line (Cl) and 16iii. wait (Pm) to cash the check (Cc). 17i. This was like-by the time I (A) got there (Pm) and got anything done (Pm) it (Cr) was (Pcc) eleven-thirty (Att) and 17ii. I (S) was so afraid (Pme) somebody was going to, you know- 17iii. that they (S) like (Pme) you to be there early (Ph) for jobs (Cc). 18i. I (A) was so afraid (Pme) 18ii. somebody (Sy) was going to say (Pv) 18iii. "Where (Cl) have you (Cr) been (Pcc)? 18iv. Why (Cc) are (Prel) you (Cr) so late (Att)?" 19i. So I (Sy) was going to lie (Pv) and 19ii. tell (Pv) them (Rv) 19iii. I (A) had to work (Pm) this morning (Cl).

Text 3

PATIENT: ...or something. 1. I (A) was sitting (Pm) there (Cl), no. My mother. You know,

I used - . 2. When I drive the car (Cl), I (S) enjoy (Pme) driving the car (Ph). 3. But I (A) don't sit (Pm) there (Cl), "M mmm," with this stupid grin on my face (Cm) while I drive the car (Cl). 4. And you know, I (Sy) yell (Pv) at people (Rv) when they do stupid things (Cm), 4i. they'll (A) almost hit (Pm) me (G) or something like that, you know. 5. But I don't - you know - I'm usually, when I'm driving (Cl) I'm (S) usually not feeling (Pme) anything (Ph). unless I'm having, you know, except maybe - . 6. Well usually I'm (S) just enjoying (Pme). 7. But I'm (S) not really feeling (Pme) anything (Ph), you know. 8i. I'm (S) not feeling (Pme) any, like, great exhilaration (Ph) from it (Cm), 8ii. but I'm (S) enjoying (Pme) it (Ph). 9. This is the way (Cm) I (S) enjoy (Pme) things (Ph). 10. And my mom (inaudible at 22:15) I've (A) been driving (Pm) so much (Cm). 11. She, she (Cr) looks (Prel) better (Att).

COUNSELOR: Uh huh.

PATIENT: She's (inaudible at 22:17) better. 12i. She (Sy) says (Pv), 12ii. "What are (Prel) you (Cr) upset (Att) about?" 12iii. and [I'm (Cr/ Prel) not upset (Att) about anything (Cm)] (ph) .

COUNSELOR: Uh huh. Uh huh.

PATIENT: 13i. [And she (Sy) says (Pv),] 13ii. "Yeah, but your face (Cr) looks (Prel) all sad and everything (Att),” you know. 14i. And a couple of (inaudible at 22:27) at different times in my life (Cl), when I (S) was not feeling (Pme) sad (Ph), 14ii. (I) (S) was just kind of feeling (Pme) nothing (Ph).

COUNSELOR: Yeah. They get sort of concerned?

PATIENT: Yeah. 15i. They (Sy) say (Pv), 15ii. "What's (Ph) the matter (Pme) [with you (S)]?"

COUNSELOR: ...and anxious about you?

PATIENT: 16i. You know, [They (Sy) say (Pv)] 16ii. "What's (Ph) the matter (Pme) [with you (S)]?"

COUNSELOR: Yeah.

PATIENT: And so by not (crosstalking)

COUNSELOR: Something needs to be fixed in you.

PATIENT: Right. 17. No, it's (Cr) not like (Prel) that (Att). 18. It's just, like, when I'm not smiling (Cm), I (Cr) look (Prel) sad (Att).

COUNSELOR: Yeah.

PATIENT: 18i. Maybe we'll see if we (Sy) [inquire and (sound of banging) at 22:51] (Pv) why (Cc) 18ii. I (Cr) was (Prel) sad (Att), 18iii. if I (Cr) didn't feel (Prel) good (Att), 18iv. if I (Cr) was (Prel) upset (Att) about something (Cc), 18v. was (Prel) I (Cr) just tired (Att).

COUNSELOR: Um hm. Um hm.

PATIENT: 19. And when none of these (Cr) have been (Prel) the case (Att). 20. I've (Cr) been (Prel) perfectly fine (Att). You know.

COUNSELOR: Um hm. Um hm.

PATIENT: 21. And I (Cr) was (Prel) very sensitive (Att) about this (Cm). 22. I (Sy) used to almost yell (Pv) at my mom (Rv). 23i. I'd (Sy) say (Pv), 23ii. "What do you (S) want (Pme) me to do, 23iii. drive down the road (Pm) with a big smile on my face (counselor chuckles) (Cm) so you know I'm not upset?" (Cc)

COUNSELOR: I know that, life being -

PATIENT: 24. And I'm (Cr/Prel) touchy (Att) about it (Cm), you know. 25. Because, I'm (Cr) really wasn't (Prel) upset (Att) about anything (Cm). 26. As a matter of fact, my

mind (Cr) was (Prel) almost a complete blank (Att), you know. 27. I (A) was just driving (Pm), watching (Pm) the road (R) and the other cars (R) and everything (R). 28. I (S) don't think (Pme) about a lot of other stuff (Ph) while I'm driving (Cl). 29. I (A) can't (think (Pme) about other stuff (Ph) (G)). 30. I (A) just kind of drive (Pm). 31. And so - if I had more – if I (Pr) had (Pp) - my idea of having ups and downs (Pd), I'd be - is being more susceptible. 32. No, that's (Cr/Prel) not the right word (Att). 33. You know, if I had more (inaudible at 24:02) I - maybe I (A) could show (Pm) more outward feelings (R). 34. My father (Sy) is talking (Pv) about people who bubble (Vb). 35. And I don't, like – I (Be) don't bubble (Pbe).

(loud background noise, like an airport)

36. But this thing, you know - if I felt more, you know, if I (S) really got any (Pme) kind of a really [sic] exhilaration (Ph) (inaudible at 24:22). 37. I don't know, I (A) just maybe would relate (Pm) better (Cm) to other people (R).

Text 4

COUNSELOR: Is that what happened to you last night?

PATIENT: 1. Oh, I (Be) was talking (Pb). 2. We (A) were bowling (Pm). 3i. And, we (A) finished (Pm) about a quarter to ten (Cl), 3ii. and nobody else (A) finished (Pm) until 10:30 (Cl), until Sue - . 4. You know, I just have - I've (B) just grow (Pb) on the bowling team (Cm). 5. Well see, her husband (A) was bowling (Pm). 6. I (A) arrived (Pm) at Dr. Arrews (Cl).

COUNSELOR: Um hm.

PATIENT: 7. And her husband's team (A) was bowling (Pm) Dr. Arrews team (R). 8. So both of us (A) had to wait (Pm). 9i. And so, we (A) were sitting there talking (Pm), you know, and 9ii. I (Sy) started asking her (Pv) about her kids (Vb). 10. And so I (S) had heard (Pme) her talking (Ph) with some - some of the other ladies (Cac) about some of the silly things their kids do (Cm). 11i. It's (Cr) sounded (Prel) interesting (Att), 11ii. so I (Sy) started talking (Pv) about it (Vb), you know. 12i. And I - most of the time (Cl) I (A) just sat (Pm) there (Cl) and 12ii. (I (Be)) listened (Pb), you know. 13. I started off, but it - because it (Cr) was (Prel) interesting (Att). 14. And then I (Sy) started throwing in (Pv) my thoughts on the subject (Vb). 15i. Which (Cr) were (Prel) more thoughts and questions as to how (Att), you know, Sarah - it was like, 15ii. she's (S) having trouble with (Pme) her kids (Ph).

COUNSELOR: Um hm.

PATIENT: 16. So - other people (S) have trouble with (Pme) their kids (Ph). 17. And she (said) (ph) - you know. I was - you know - my views on the fact that, you know, I'd (S) want (Pme) kids (Ph). 18. But I don't know when they're the age that hers are (Cl), starting two and three years old (Cm), and you start having trouble with them (Cm), you know, they're -

COUNSELOR: Yeah.

PATIENT: 19. Then - and you (S) don't really know (Pme) which way to turn (Ph), you know. 20i. You (S) don't want (Pme) to spend your life reading up on (Pme) 'em (Ph), 20ii. and yet just coaxing and reason them and - and threatens (Pm), 20iii. threatenings (Ph) don't bother (Pme) the kids (S) at all (Cx), you know. 21. They're (Cr/Prel) just kind of, "Nyaa" (Att), you know. 22. (They’re (Cr/Prel)) Totally oblivious of everything (Att), you

know.

COUNSELOR: Yeah.

PATIENT: 23i. And, ah (sound of bumping and furniture squeaking) - so I (S) was, you know, like worrying (Pme), 23ii. talking (Pv) to her (Rv) (sound of squeaking) about (inaudible @ 0:52:16.6) (Vb). 24. Then we (Sy) started talking (Pv) about, um - you know, the way we were raised and stuff (Vb). 25. And I (Be) just talked (Pb) too much (Cm), you know. 26. There were (Px) times (X) when I just should have let her talk (Cl).

Text 5

PATIENT: 1. So I (A) got (Pm) back home (R), which (inaudible at 15:45) was all tired anyway. 2i. And I guess then after all that night (Cl) my boyfriend (A) came over (Pm) and 2ii. he (Cr) was (Prel) really kind of bad (Att); 3i. like I (Sy) was really trying to tell (Pv) him (Rv) what had happened (Vb), 3ii. just how I (S) felt (Pme), 3iii. because it (Cr) was (Prel) really important to me (Att), that, you know, I (Cr) didn't feel (Prel) like killing myself (Att) and 3iv. I didn't - I (S) don't remember (Pme) what all the thoughts were (Ph), 3v. but just that it felt (Prel) so really good (Att) to be (Prel) really, really free (Att) and really alive (Att for ellipted relational process “to be”) and really able to face things (Prel) and to stand (Pm) on my own two feet kind of (Cm) and to, you know, gotten away (Pm) and kind of not needed him (Pme), 3vi. and he (Be) sort of fell asleep (Pb) 3vii. while I (Sy) was talking (Pv) 3viii. which (Cr) wasn't (Prel) too cool (Att). [16:43]
4i. And then at that night (Cl) it (Ph) didn't bother (Pme) me (S), 4ii. but by the next day (Cl) I (S) was sort of coming out of it (Pme). 5. I (S) had really ended up just sort of

drifting back (Pme). 6i. And by Monday (Cl) - I guess I (S) sort of wanted (Pme) all the next day (Cl) 6ii. just to talk (Pv) to my boyfriend (Rv), 6ii. just plain talk, 6iii. and he (S) just didn't want to (Pme). 7i. And kind of on Friday night (Cl) when I drove home (Cl) I (S) just didn't care (Pme) anymore (Cl) 7ii. and I'm (S) just completely back to just feeling (Pme) suicidal (Ph). 8i. Not completely, but you know, just having (Pp) the feelings (Pd) there again (Cl) and 8ii. not liking (Pme) it (Ph).

COUNSELOR: Or that it's not liking him (inaudible at 17:29).

PATIENT: 9i. Whereas the day before (Cl) it's like I (S) didn't know (Pme) what they were (Ph), 9ii. I (S) didn't know (Pme) what they felt like (Ph), 9iii. because I (Cr) felt (Prel) so good (Att). 10i. And I (S) just want (Pme) so badly (Cx) 10ii. to know (Pme) how to keep feeling good (Ph) and, you know, 10iii. [I (S) want (Pme) to] just be (Prel) able (Att) to just start living (Pme) my life of my own that I'm really happy with (Ph). 11. I mean, have it (Cr) stay (Pcc) there. [18:08]

Text 6

PATIENT: 1i. ...And I don't know kind of yesterday (Cr) was like (Prel) a really really effective day (Att) 1ii. and I (Cr) was (Prel) really torn (Att) 1iii. and I (B) had (Pb) this awful headache (Be) 1iv. and my boyfriend (Sy) said (Pv) 1v. I (A) could pick him (B) up (Pm) at the airport (Cl) or not if I like (Cm) and 1vi. I (S) decided (Pme) to [pick (Pm) him (B) up] 1vii. because I (S) didn't need (Pme) to

COUNSELOR: Um hum.

PATIENT: 1viii. And because I (Cr) didn't feel (Prel) dependent (Att) on him (Cc). 2i. In a sense his phone call (Ph) really upset (Pme) me (S) 2ii. because I (S) had managed

(Pme) 2iii. to put him (Ph) out of my mind (Pme) on Sunday night (Cl) 2iv. and I think it is after he called (Cl) that I (A) started writing (Pm) unhappy things (R) 2v. and I (Be) couldn't go to sleep (Pb) until like three in the morning (Cl) 2vi. which is why (Cc) I (Cr) was (Prel) tired (Att) all day Monday (Cm). 3i. But so that his call (Ag) in a sense had upset (Pc) me (R) 3ii. but somehow I (S) managed (Pme) all day Monday (Cl) 3iii. to kind of forget (Pme) and 3iv. kind of function (Pme) anyway 3v. and do a good job functioning (Pm) 3vi. so that like by the time I picked him up (Cl) at the airport (Cl) it (Cr) was (Prel) raining (Att) 3vii. it (Cr) was (Prel) really pouring (Att) 3viii. it (Cr) was (Prel) gorgeous (Att) 3ix. and I ended up and I told him and 3x. I (Sy) said (Pv) 3xi. "I (A) just really came (Pm) down here (Cl) to see the airplanes (Cc) in the water (Cl) cause it (Cr) was (Prel) really pretty (Att) 3xii. and I'm (Cr/Prel) really glad (Att) you (A) gave (Pm) me (B) an excuse (G)"

COUNSELOR: Um hum.

PATIENT: 4. And in some sense (Cm) it (Cr) was (Prel) true (Att). 5. I (S) really enjoyed (Pme) it (Ph). 6i. And then I had like he (A) was going to come over (Pm) 6ii. and I (S) had conveniently forgotten (Pme) his keys (Ph) 6iii. which (Cr) was (Prel) real (Att) 6iv. and I (S) really worried (Pme) about that (Ph) 6v. because I (S) didn't want (Pme) 6vi. him (S) to think (Pme) 6vii. that I (A) was sort of chasing (Pm) after him (G) 6viii. which is kind of why (Cc) 6ix. I (Ag) had (Pc) his sister 6x. (A) left (Pm) his keys (G) with me (Cacc). 7i. Which is kind of why 7ii. I (S) debated (Pme) whether to go to the airport (Ph) 7iii. because I (S) thought (Pme) 7iv. well I (S) don't want (Pme) 7v. him (S) to think (Pme) this means I'm chasing after him (Ph). (10:49)

COUNSELOR: Um hum.

PATIENT: 8. And yet I really felt so we (Sy) moved (Pv) from that that it wasn't even effecting me (Vb). 9i. So much so that like he (A) came over (Pm) to get the keys (Cc) and 9ii. I (A) was going to have (Pm) dinner (R) and 9iii. he (Be) probably would have stayed (Pb) there (Cl) and 9iv. there was (Px) this message to call a friend (X) and 9v. there turned out to be (Px) an extra ticket (X) for a play (Cc) that was going on at 7:30 (Cl) and 9vi. this was (Pcc) 7:15 (Att) and 9vii. a really good friend of mine a guy that I know and had gotten to know this summer when my boyfriend was gone and was just a good friend (A) was starring (Pm) in it (R) and 9viii. I (S) was determined (Pme) 9ix. I (A) was going to see (Pme) that play (Ph) 9x. and this (T) was (Pid) like the one opportunity to go see it (V) and 9xi. this (Cr) was (Pcc) 7:15 (Att) and 9xii. I (Pr) had (Pp) 15 minutes to get like downtown (Pd). 10i. So I (Sy) sort of asked (Pv) my boyfriend (Rv) 10ii. to baby sit for my dog (Vb) (laughing) 10iii. [I (A)] dropped (Pm) them both (R) off at his house (Cl) 10iv. and just took off (Pm). 11i. And it (Cr) was (Prel) really nice (Att) 11ii. because I (A) could do (Pm) it (G) without feeling (Pme) bad (Ph) about "Oh my boyfriend has just come home and I have to stay with him" (Cc) and 11iii. in a sense (Cm) that (Cr) would have been (Prel) much more convenient (Att) 11iv. because I (S) felt (Pme) so tired (Ph) and 11v. it (Cr) would have been (Prel) so nice (Att) and 11vi. I (S) was sick (Pme) of driving (Ph) and 11vii. I (Be) had (Pb) a really bad headache (Bh) 11viii. and it would have been (Prel) really nice (Att) just to stay home (Pm) 11ix. except I (S) knew (Pme) 11x. this (Cr) was something (Prel) I wanted to do (Att). 12. And I it (Cr) was (Prel) a fantastic play (Att). 13. It (Cr) was (Prel) worth the drive (Att). 14. It (Cr) was really, (inaudible at 12:07) was (Prel) really moving (Att). 15i. It (R) was done (Pm) really well (Cm) [by them (A)] and 15ii. my friend (A) played the lead (Pm) in it (R)

and 15iii. I (S) had never seen (Pme) it (Ph) before (Cl) and 15iv. like somehow the part of me that is really alive and that I'm usually afraid to be (S) is very much into (Pme) writing (Ph) and 15v. very much into (Pme) acting (Ph) and 15vi. very much into (Pme) art and 15vii. those kinds of things (Ph). 16i. And I mean I (S) was just so turned on (Pme) by this play (Cc) 16ii. I just I (A) drove (Pm) home (Cl) and 16iii. it (Cr) was (Prel) dark (Att) and 16iv. it (Cr) was (Prel) raining (Att) and 16v. I (S) refused (Pme) 16vi. to put (Pm) the radio (R) on or anything else because 16vii. I (Cr) was (Prel) just so happy (Att) about it (Cc) and 16viii. it (Cr) was (Prel) a really sad play (Att) but 16ix. I (Cr) was (Prel) just really happy (Att) 16x. because it had been it (R) was done (Pm) so well (Cm) [by them (A)] and 16xi. it (Cr) was (Prel) so meaningful (Att) and 16xii. that people (Sy) could express (Pv) so much (Cx) through art (Cm) and stuff like that. 17i. And it was like then I (A) stopped over (Pm) at my boyfriends (G) and 17ii. I sort of then I (Be) really had (Pb) a splitting headache (Bh) and physically just and 17iii. I (A) hadn't eaten (Pm) anything (R) which is probably why (Cc) 17iv. I (B) had (Pb) a splitting headache (Be) all day (Cl) and then 17v. I (Sy) just sort of told (Pv) him (Rv) you know 17vi. that I (Cr) felt (Prel) so good (Att) and 17vii. I (Cr) was (Prel) like prepared to stay and talk (Att) for a few minutes (Cl) 17viii. if he (Cr) felt (Prel) like it (Att) or 17ix. [I (Cr) was (Prel) like prepared] just to leave (Att). 18i. And so he (Sy) suggested (Pv) 18ii. that he (A) would come over (Pm) 18iii. which (Cr) was (Prel) like a real shift (Att) 18iv. because I (Sy) wasn't asking (Pv) him (Rv) and 18v. I (S) didn't care (Pme) whether he did or not (Ph). (13:35)

COUNSELOR: Um hum.

PATIENT: 19. And I told him I mean it (Cr) was (Prel) just really a nice really a nice

night (Att). 20i. And I ended up oh another thing I (A) had done Sunday (Cl) when I got back from the walk (Cl) on the lake (Cl) was just to play (Pm) my guitar and my recorder (R) for like two hours (Cx) and 20ii. make (Pc) myself (A) learn (Pme) a new song (Ph).

Text 7

PATIENT: 1i. Like he (A) came over (Pm) Sunday afternoon (Cl) 1ii. to borrow (Pm) my typewriter (R) to work on his paper (Cc) 1iii. because he (Pr) didn't have (Pp) one (Pd), and 1iv. he (Be) stayed (Pb) and 1v. we (A) went out (Pm) Sunday night (Cl), 1vi. and I (A) came back (Pm) and 1vii. I (Sy) couldn't talk (Pv) to him (Rv). 2. And part (Cx) of it (Cr) had been (Prel) a kind of really mind bodly... bodily experiences (Att) of Saturday night (Cl) I... going out for dinner I... 3i. well, it (Cr) had been (Prel) a strange thing (Att) with... with time (Cc) and with being sleepy (Pb), 3ii. because okay I (Be) didn't go (Pb) to sleep (Bh) Wednesday night (Cl) at all (Cx), 3iii. and I'd (A) gone (Pm) to work (G) and 3iv. I'd (A) worked (Pm) all day Thursday (Cl), 3v. and I (A) came back (Pm) about 6:00 (Cl) and 3vi. I (A) was supposed to go out (Pm) at 9:30 or 10:30 (Cl) that night (Cl), and so 3vii. I (Be) went to (Pb) sleep (Bh) from like 6:00 to 9:00 (Cl). 4i. And I (A) went out to dinner (Pm) with this friend (Cacc) that was (Prel) just sort of half a friend (Att) that (Pid) I mentioned that I had... had started in the trial on the previous Tuesday (V), 4ii. and this (Cr) was like (Pc) the night of the cast party and stuff (Att), 4iii. except we (A) ended up not going (Pm) to the cast party (G) 4iv. because a lot of his friends (A) weren't going (Pm). 5i. We (A) just went out to dinner (Pm) with his sister (Cacc) [to kind of simplify] (ph) in Florida (Cc) and then 5ii. I (A) go over (Pm) to his apartment (G) to talk for a while (Cc) and he had just... 5iii. it (Cr) was like (Prel) a monologue (Att) on his part.

…she continues to describe her friend’s story...

6i. And just, just his own feelings and somehow it was... it was a... it (Cr) was (Prel) a good experience to listen to (Att), 6ii. because he (S) had a good perspective (Pme) on it (Ph) now (Cl) and 6iii. he'd (S) come (Pme) back (Cl); 7i. he'd (S) come through (Pme) this (Ph), and 7ii. he'd (S) come through (Pme) it (Ph) really well (Cm), 7iii. and he also had... like he (S) said he had a really good perspective (Pme) on people (Ph) and 7iv. he (A) could play (Pm) a lot of these roles (R) really well (Cm) 7v. because he'd (S) been through (Pme) a lot of them (Ph). 8i. Somehow the subject had come up (Px) and we (A) were both just sitting (Pm) at dinner (Cl) with his mother (Cacc) very innocuously (Cm), 8ii. and just... he just said some... I (Sy) said (Pv) something about, 8iii. "Did you (S) really identify (Pme) with J.K. (Ph) in the play?" (Cl), and 8iv. he (Sy) said (Pv) 8v. at times (Cl) that he (A) would bring (Pm) me (G) and 8vi. think (Pme) parts of his life that he would relive (Ph) as he was portraying certain aspects of the role (Cl). 9i. And we both (Sy) sort of got discussing (Pv) 9ii. how important (Att) it was (Prel) to really be (Prel) able (Att) to empathize (Pme) with people from your own experience (Cm), 9iii. and I sort of said that I... oh, I know, I... that's (Cr/Prel) what happened (Att).

10. Friday (Cl) I (S) had seen (Pme) a really good patient that I had been working on for a long time (Ph),

…she continues to describe her experience with her patient – an entirely different even model within which she recounts more detail than would be necessary to make her point.

11i. And anyway at this dinner (Cl), so I had just sort of said, yeah, I just... I (S) felt (Pme) 11ii. that in order to be (Prel) a decent psychologist (Att) you've (Cr) really got to be (Prel) able (Att) to empathize (Pme) with the people that you're talking to (Cacc), and not just

put them in a category (Pme) and put a label on them (Pme) and give (Pm) them (B) a drug or something like that (G). [18:24] 12i. And I (Sy) said (Pv) 12ii. that in some ways (Cm) I think maybe every psychologist (T) ought to be (Prel) able (Att) 12iii. to be (Pid) an actor (V) 12iv. and to be (Prel) able (Att) 12v. to take (Pme) everybody else's role (Ph). 13i. There are (Px) an awful lot of different kinds of roles and stuff like that (Px), 13ii. and it was... it (Cr) was kind of like (Prel) I was talking about mental patient in the abstract (Att), 13iii. and I (S) realized (Pme) 13iv. that afterwards (Cl) that I (Sy) may have hit on (Pv) all sorts of things (Vb) 13v. because... since he (T) had been (Pid) a mental patient (V), 13vi. which I (S) didn't know about (Pme) when we was talking at dinner (Cl). 14i. But it didn't... whatever it was it... it (Cr) hadn't come through (Prel) badly (Att), 14ii. because his mother didn't... and his mother (Cr) seemed (Prel) pleased (Att) with me (Cc), well, at least not angry at me, and he had end... 14iii. he (Sy) ended up just going, talking (Pv) for two hours (Cl) in mon... straight monologue (Cm) about this experience that had happened to him (Vb). 15. And I (S) don't' know (Pme) what that did to me (Ph). 16i. It (Ag) did (Pc) all kinds of things (G) to me (A) in the sense... 16ii. in a sense (Cm) it (Cr) was (Prel) really an optimistic good kind of thing (Att) 16iii. in that he'd (S) come... come back out (Pme) of it (Ph). 17i. In another sense (Cm), it (Cr) was (Prel) not [good (Att)] 17ii. in that... like this (A) had happened (Pm) to him (B) last Christmas (Cl), 17iii. and in a sense (Cm) I've (Cr) been (Prel) really out of it (Att) for two years now (Cx) 17iv. and I (S) haven't really come back (Pme), 17v. and I (A) haven't really done (Pm) anything (G) to get myself back (Cc), 17vi. and so in a sense (Cm) there's (Px) a negative comparison (X) there.

…

18i. I (S) know (Pme) I (Cr) felt (Prel) kind of strange (Att) about it (Cc) for the next day (Cx), 18ii. and I think that part of that (Ag) made me... made (Pc) it [to be (Prel)] hard for me (Att) to talk to my boyfriend (Cr) the next day (Cl). 19i. Part of what... because I (Sy) tried to tell (Pv) my boyfriend (Rv) about it (Vb) in a very abstract way (Cm) and 19ii. I (Sy) really couldn't [tell (Pv) him (Rv)], 19iii. and I (S) also didn't feel (Pme) 19iv. like I (Pr) had (Pp) a right to tell him very much (Pd) 19v. because he (S) didn't know (Pme) the guy (Ph), 19vi. but he knew... he (S) knew (Pme) who the guy was (Ph). 20i. He (S) knew (Pme) through a friends of friends kind of (Cm), 20ii. and so that I (Sy) really couldn't say (Pv) very much (Cx).

21i. And also we'd (A) gone (Pm) to this movie (G) by accident actually (Cc), 21ii. because we'd had had an (almaroo) (ph) and we'd gone to see "Sterile Cuckoo," which in a lot of ways is a very superficial kind of kids in college movie, but I tend to let any kind of movies almost... I tend to take what's good in them and sort of disregard what's superficial and what's... what's trash, and I sort of take off from one little theme that they have and use [21:32] my imagination for the rest of it even if it's not portrayed. And I sort of started thinking from there about a lot of like really happy times that I'd had at college…

Taxis

Key

α = alpha clause

β= beta clause

CS = clause simplex

I/C = incomplete clause

N/A = not available (information is missing)

Text 1

	PATIENT: Well, yeah, the last thing, this - you know,
CS	I've been kind of half interested in this guy in the fall, you know.
CS	And, you know, we were pretty good friends.
CS	I got along pretty well with him and everything.
1 α	And then it became fairly apparent
‘β α	that he just wanted
‘β	to kind of jump into bed with me,
+2 α	and I just was trying to get over this thing in the summer,
=β	which I just don't (inaudible at 0:08:04.8).
CS	The pain is just never going to go away.

α	But anyhow, I just didn't think
‘β	it would be a good idea.
α	And he seemed to kind of lose interest but
xβ	yet, still be friendly.
	0:08:17.9
	And then, you know, he was sort of
α	flaunting this other girl around to me,
	which really hurt, you know.
xβ	And then one time - you know,
	I just kind of was approaching this.
< β >	He kept asking me
α	to go to Chicago with him over Christmas.
“γ	And I just said,
	"I really was interested in why you asked
1	me
“2 α	because I didn't - you know, it didn't make
	any sense."
xβ	I just wondered
	what his motives were.
α	And just looked at me straight in the eyes
‘β	with pity,
α	which made the whole relationship seem
	like one of - you know,

xβ		he had kind of known
		that I'd been very unhappy over the
	< α >	summer.
	< ‘β >	And it made the whole thing seem like the
		only way I could communicate with
α		a man
xβ	α	was if he felt sorry for me.
		You know, that I'm not really taken
	xβ	seriously as a person.
CS		I'm not somebody
		that one can get seriously interested in.
α		Yet, I take life desperately seriously.
=β		
CS		

Text 2

α		PATIENT: I had the hardest time
xβ		getting out of the house this morning.
α	α	It was like one of those bad dreams
	=B	that I keep having
=β	α	where I can never get anyplace
	=β	that I have to-you know,

=C	α	I'll-like I'm-I used to have them
	xβ	when I was in high school.
1		I wanted to go to school, you know,
x2		I'd get up in the morning
x3		and I'd rush around
x4		and do this or that
x5		and I'd get out the door
x6	α	and realize
	‘β	that I didn't have my clothes on,
	xγ	I couldn't go out yet.
1		So I had to go back
+2		and put my clothes on.
1		And then I'd walk out the door
x2	α	and realize
	‘β	I forgot my books
x3		and go back
x4		and walk-
x5		go out
x6		and be halfway down the street
x7	α	and have to come back
	xβ	because I forgot something else.
1		Well, this morning I got up-
< +2 >		first of all I got up late.

α		And then I had to hem up these pants
xβ	α	because I'm short
	xβ	and I had to buy them too long.
α	α	I didn't get a chance
	=β	to do that last night
xβ		because I had to do something else.
CS		And it just seems like it took forever to do that.
1		I was hurrying up
=2		and I was hurrying up getting dressed and I
x3		finally go on my way
+4		and I was going to take the train.
1		I was stop at the co-op
+2		and catch a train-
1		I was going to drive my car down to the train
x2	α	and then drive it back down
	xβ	because it was going to be cold tonight and
	xγ	I didn't want to walk all that way. And I got
1		down to the co-op
+2		and I had my checkbook
+3		but I was out of checks.
1		I had to go all the way back to my

			apartment
x2			and get new checks.
α			So then I decided
‘β	α		I'd drive down
	xβ		because it would waste less time.
1	α		And so then I went to (ph 5:21 Mr. G's) to
	=β		cash a check
x2			and I had to stand in line
+3			and wait to cash the check.
1	xβ	α	This was like-by the time I got there
		+β	and got anything done
	α		it was eleven-thirty
+2	α		and I was so afraid
			somebody was going to, you know-that
	xβ		they like you to be there early for jobs.
α			I was so afraid
‘β	1		somebody was going to say
	“2		"Where have you been?
	“3		Why are you so late?"
1			So I was going to lie
+2	α		and tell them
	“β		I had to work this morning.

Text 3

		PATIENT: ...or something.
CS		I was sitting there, no.
I/C		My mother.
I/C		You know, I used - .
xβ		When I drive the car,
α		I enjoy driving the car.
α		But I don't sit there,
xβ	α	"M mmm," with this stupid grin on my face
	xβ	while I drive the car.
1	α	And you know, I yell at people
	xβ	when they do stupid things,
+2	α	they'll almost hit me
	=β	or something like that, you know.
I/C		But I don't - you know - I'm usually,
xβ		when I'm driving
α		I'm usually not feeling anything.
I/C		unless I'm having, you know,
I/C		except maybe - .
CS		Well usually I'm just enjoying.
CS		But I'm not really feeling anything, you know.
1		I'm not feeling any, like, great exhilaration

	from it,
+2	but I'm enjoying it.
CS	This is the way I enjoy things.
NA	And my mom (inaudible at 22:15)
	I've been driving so much.
CS	She, she looks better.
	COUNSELOR: Uh huh.
NA	PATIENT: She's (inaudible at 22:17) better.
	She says,
1 1	"What are you upset about?"
“2	and [I'm not upset about anything] (ph) .
+2	COUNSELOR: Uh huh. Uh huh.
	PATIENT: [And she says,] (ph)
1	"Yeah, but your face looks all sad
“2	and everything,” you know.
	And a couple of (inaudible at 22:27) at
	different times in my life,
xβ	when I was not feeling sad,
=γ	was just kind of feeling nothing.
α	COUNSELOR: Yeah. They get sort of
	concerned?
	PATIENT: Yeah. They say,
1	"What's the matter?"

“2	COUNSELOR: ...and anxious about you?
	PATIENT: You know, "What's the matter?"
CS	COUNSELOR: Yeah.
	PATIENT: And so by not (crosstalking)
	COUNSELOR: Something needs to be fixed in you.
	PATIENT: Right.
	No, it's not like that.
CS	It's just, like, when I'm not smiling,
CS	I look sad.
xβ	COUNSELOR: Yeah.
α	PATIENT: Maybe we'll see if we [inquire and (sound of banging) at 22:51] (ph)
α	why I was sad,
	if I didn't feel good,
xβ	if I was upset about something,
+γ	was I just tired.
+δ	COUNSELOR: Um hm. Um hm.
+ε	PATIENT: And when none of these have been the case.
CS	I've been perfectly fine.
	You know.
CS	COUNSELOR: Um hm. Um hm.

			PATIENT: And I was very sensitive about this.
CS			I used to almost yell at my mom.
			I'd say,
CS			"What do you want me to do,
1			drive down the road
“2	α		with a big smile on my face (counselor
	=β	α	chuckles)
		xβ	so you know I'm not upset?"
			COUNSELOR: I know that, life being -
		xγ	PATIENT: And I'm touchy about it, you know.
CS			Because, I'm really wasn't upset about anything.
CS			As a matter of fact, my mind was almost a complete blank, you know.
CS			I was just driving,
			watching the road
1			and the other cars and everything.
+2	α		I don't think about a lot of other stuff while
	+β		I'm driving.
α			I can't.
xβ			I just kind of drive.

CS	And so - if I had more - if I had –
CS	my idea of having ups and downs,
I/C	I'd be - is being more susceptible.
	No, that's not the right word.
	You know, if I had more (inaudible at
CS	24:02)
xβ	I - maybe I could show more outward
	feelings.
α	My father is talking about
	people who bubble.
CS	And I don't, like - I don't bubble.
	(loud background noise, like an airport)
CS	But this thing, you know –
	if I felt more, you know,
	if I really got any kind of a really [sic]
	exhilaration (inaudible at 24:22).
xβ	I don't know,
α	I just maybe would relate better
	to other people.
CS	

Text 4

	COUNSELOR: Is that what happened to

	you last night?
	PATIENT: Oh, I was talking.
CS	We were bowling.
1	And, we finished about a quarter to ten,
+2	and nobody else finished until 10:30, until Sue - .
CS	You know, I just have - I've just grow on the bowling team.
CS	Well see, her husband was bowling.
CS	I arrived at Dr. Arrews.
	COUNSELOR: Um hm.
CS	PATIENT: And her husband's team was bowling Dr. Arrews team.
CS	So both of us had to wait.
1	And so, we were sitting there talking, you know,
+2	and I started asking her about her kids.
α	And so I had heard her talking with some - some of the other ladies
xβ	about some of the silly things their kids do.
1	It's sounded interesting,

x2	so I started talking about it, you know. And
1	I - most of the time I just sat there and
+2	listened, you know.
I/C	I started off, but it –
CS	because it was interesting.
CS	And then I started throwing in my thoughts
	on the subject.
I/C	Which were more thoughts
	and questions as to how, you know, Sarah –
	it was like,
	she's having trouble with her kids.
CS	COUNSELOR: Um hm.
	PATIENT: So - other people have trouble
CS	with their kids.
	And she (said) (ph) - you know.
I/C	I was - you know - my views on the fact
CS	that, you know,
	I'd want kids.
	But I don't know when they're the age that
xβ α	hers are,
	starting two and three years old,
=β	and you start having trouble with them, you
+γ	know, they're -

α is I/C	COUNSELOR: Yeah.
	PATIENT: Then - and you don't really
CS	know which way to turn, you know.
	You don't want to spend your life reading
1 α	up on 'em,
xβ	and yet just coaxing
+γ	and reason them and –
+δ	and threatens,
+ε	threatenings don't bother the kids at all, you
=2	know.
	They're just kind of, "Nyaa," you know.
CS	Totally oblivious of everything, you know.
CS	COUNSELOR: Yeah.
	PATIENT: And, ah (sound of bumping and
	furniture squeaking) - so I was, you know,
	like worrying,
1	talking to her (sound of squeaking) about
	(inaudible @ 0:52:16.6).
+2	Then we started talking about,
	um - you know, the way we were raised
CS	and stuff.
	And I just talked too much, you know.
	There were times

CS α xβ	when I just should have let her talk.

Text 5

α				PATIENT: So I got back home,
(NA) β				which (inaudible at 15:45) was all tired
				anyway.
1	xβ			And I guess then after all that night
	α			my boyfriend came over
+2				and he was really kind of bad;
1	1	α	α	like I was really trying to tell him
			“β	what had happened,
	=2			(just how I felt,)
		xβ	α	because it was really important to me, that,
			=β	you know, I didn't feel like killing myself
+2	α	α		and I didn't - I don't remember
		‘β		what all the thoughts were,
	+β	α		but just that it felt so really good
		+β		to be really, really free
		+γ		and really alive
		+δ		and really able to face things

		+ε	and to stand on my own two feet kind of
		+ζ	and to, you know, gotten away
		+η	and kind of not needed him,
x3	α		and he sort of fell asleep
	xβ		while I was talking
	=γ		which wasn't too cool. [16:43]
1			And then at that night it didn't bother me,
x2			but by the next day I was sort of coming out of it.
CS			I had really ended up just sort of drifting back.
1	1	α	And by Monday - I guess I sort of wanted
		‘β	all the next day just to talk to my boyfriend,
	=2		(just plain talk,)
+2			and he just didn't want to.
1	xγ		And kind of on Friday night
	xβ		when I drove home
	α		I just didn't care anymore
+2			and I'm just completely back to just feeling suicidal.
	=β		Not completely,
			but you know,

α	α		just having the feelings there again
+β			and not liking it.
			COUNSELOR: Or that it's not liking him
			(inaudible at 17:29).
1	xβ		PATIENT: Whereas the day before
	α	α	it's like I didn't know
		‘β	what they were,
=2	α		I didn't know
	‘β		what they felt like,
x3			because I felt so good.
1	α		And I just want so badly
	‘β	α	to know
		‘β	how to keep feeling good
+2	α		and, you know, just be able
	=β	α	to just start living my life of my own that
		=β	I'm really happy with.
CS			I mean, have it stay there. [18:08]

Text 6

	PATIENT: ...And I don't know kind of
1	yesterday was like a really really effective
	day
+2	and I was really torn

+3				and I had this awful headache
+4	1	α		and my boyfriend said
		“β	α	I could pick him up at the airport or not
			xβ	if I like
	+2	α		and I decided to
		xβ	1	because I didn't need to
				COUNSELOR: Um hum.
			+2	PATIENT: And because I didn't feel dependent on him.
1	α			In a sense his phone call really upset me
	xβ			because I had managed to put him out of my mind on Sunday night
+2	xβ			and I think it is after he called
	α			that I started writing unhappy things
+3	α			and I couldn't go to sleep until like three in the morning
	xβ			which is why I was tired all day Monday.
1				But so that his call in a sense had upset me
x2	1			but somehow I managed all day Monday to kind of forget
	+2			and kind of function anyway
	+3			and do a good job functioning
x3	xβ	α		so that like by the time I picked him up at

					the airport
		=β			it was raining
		=γ			it was really pouring
		=δ			it was gorgeous
	α	1			and I ended up and I told him and I said
		“2	1	α	"I just really came down here
				xβ	to see the airplanes in the water
				=γ	cause it was really pretty
			+2		and I'm really glad you gave me an excuse"
					COUNSELOR: Um hum.
					PATIENT: And in some sense it was true.
CS					I really enjoyed it.
CS					And then I had like he was going to come
1					over
+2	α				and I had conveniently forgotten his keys
	=β				which was real
+3	α				and I really worried about that because I
	xβ	α			didn't want him to think that I was sort of
					chasing after him
		=β			which is kind of why I had his sister left his
					keys with me.
α	α				Which is kind of why I debated
	‘β				whether to go to the airport

=β	α		because I thought
	‘β		well I don't want him to think this means
			I'm chasing after him. (10:49)
			COUNSELOR: Um hum.
α			PATIENT: And yet I really felt so we
			moved from that
=β			that it wasn't even effecting me.
1	α		So much so that like he came over
	xβ		to get the keys
+2			and I was going to have dinner
+3			and he probably would have stayed there
+4	α		and there was this message
	=β		to call a friend
+5			and there turned out to be an extra ticket
			for a play that was going on at 7:30
+6			and this was 7:15
+7	α		and a really good friend of mine
	=β		a guy that I know
	=γ	α	and had gotten to know this summer when
		xβ	my boyfriend was gone
	=δ		and was just a good friend
			was starring in it
+8			and I was determined I was going to see

					that play
+9					and this was like the one opportunity to go see it
+10					and this was 7:15
+11					and I had 15 minutes to get like downtown. So I sort of asked my boyfriend
1	α				to baby sit for my dog (laughing) dropped
	“β				them both off at his house
x2					and just took off.
x3					And it was really nice
1	α				because I could do it
	xβ	α			without feeling bad about
		xβ	α		"Oh my boyfriend has just come home and
			‘β	1	I have to stay with him"
				+2	and in a sense that would have been much
+2	α				more convenient
	xβ				because I felt so tired
+3					and it would have been so nice
+4					and I was sick of driving
+5					and I had a really bad headache
+6					and it would have been really nice just to stay home
+7	α				except I knew

	‘B	α	this was something
		=β	I wanted to do.
CS			And I it was a fantastic play.
CS			It was worth the drive.
CS			It was really, (inaudible at 12:07) was really moving.
1			It was done really well
+2			and my friend played the lead in it
+3			and I had never seen it before
+4	α	α	and like somehow the part of me that is really alive (ph)
		+β	and that I'm usually afraid to be
	xβ		is very much into writing
	+γ		and very much into acting
	+δ		and very much into art
	+ε		and those kinds of things.
1			And I mean I was just so turned on by this play
x2			I just I drove home
+3			and it was dark
+4			and it was raining
+5	α		and I refused to put the radio on or anything else

	xβ			because I was just so happy about it and it
+6				was a really sad play
+7	α			but I was just really happy
	xβ			because it had been it was done so well
+8				and it was so meaningful
+9	α			and that people could express so much through art
	=β			and stuff like that.
1				And it was like then I stopped over at my boyfriends
+2				and I sort of then I really had a splitting headache
+3				and physically just
+4	α			and I hadn't eaten anything
	=β			which is probably why I had a splitting headache all day
+5	α			and then I just sort of told him
	“β	1		you know that I felt so good
		+2	α	and I was like prepared to stay
			+β	and talk for a few minutes
			< γ >	if he felt like it
			+δ	or just to leave.
α				And so he suggested

“β	α		that he would come over
	=β	α	which was like a real shift
		xβ	because I wasn't asking him
		+γ	and I didn't care whether he did or not.
			(13:35)
			COUNSELOR: Um hum.
CS			PATIENT: And I told him I mean it was just really a nice really a nice night. And I ended up oh another thing I had done Sunday when I got back from the walk on the lake was just to play my guitar and my recorder for like two hours and make myself learn a new song.

Text 7

1	α		PATIENT: Like he came over Sunday afternoon
	xβ	α	to borrow my typewriter
		=β	to work on his paper
		xγ	because he didn't have one,

+2		and he stayed
+3		and we went out Sunday night,
+4		and I came back
+5		and I couldn't talk to him.
CS		And part of it had been a kind of really mind bodly... bodily experiences of Saturday night I... going out for dinner I...
α	α	well, it had been a strange thing with... with time
	+β	and with being sleepy,
xβ	1	because okay I didn't go to sleep Wednesday night at all,
	+2	and I'd gone to work
	+3	and I'd worked all day Thursday,
	+4	and I came back about 6:00
	+5	and I was supposed to go out at 9:30 or 10:30 that night,
	=6	
	x7	and so I went to sleep from like 6:00 to 9:00.
α	α	And I went out to dinner with this friend
	=β	that was just sort of half a friend
	=γ	that I mentioned that I had...

	=δ			had started in the trial on the previous Tuesday,
=β	α			and this was like the night of the cast party and stuff,
	xβ	α		except we ended up not going to the cast party
		xβ		because a lot of his friends weren't going. We just went out to dinner with his sister
1				[to kind of simplify] (ph) in Florida and then I go over to his apartment
x2	α			to talk for a while
	=β			and he had just... it was like a monologue
+3				on his part. …she continues to describe his monologue. And just, just his own feelings
1	α	α		and somehow it was... it was a... it was a good experience
		=β		to listen to,
		xβ	α	because he had a good perspective on it now
			+β	and he'd come back;
=2	1	1		he'd come through this,
		=2		and he'd come through it really well, and he

	+2	α		also had... like he said
		“β		he had a really good perspective on people
				and he could play a lot of these roles really
		“c	α	well
				because he'd been through a lot of them.
			xβ	Somehow the subject had come up and we
1				were both just sitting at dinner
+2	α			with his mother very innocuously,
	xβ			and just... he just said some... I said
				something about,
+3	1			"Did you really identify with J.K. in the
	“2			play?,”
+4	α			and he said
	“β	1		at times that he would bring me
		+2	α	and think parts of his life that he would
				relive
			xβ	as he was portraying certain aspects of the
				role.
1	α			And we both sort of got discussing how
	“β	α		important it was
		=β		to really be able to empathize with people
				from your own experience,
+2	α			and I sort of said that I... oh, I know, I...

				that's what happened.
				Friday I had seen a really good patient that
				I had been working on for a long time,
				...she describes this separate event…
				And anyway at this dinner,
α				so I had just sort of said, yeah, I just... I felt
‘β		xβ		that in order to be a decent psychologist
	1	α	α	you've really got to be able to empathize
				with the people
			=β	that you're talking to,
	x2	1		and not just put them in a category and put
		+2		a label on them
		+3	α	and give them a drug
			=β	or something like that. [18:24]
α				And I said
“β	α			that in some ways I think maybe every
				psychologist ought to be able to be an actor
	+β			and to be able to take everybody else's role.
1	α			There are an awful lot of different kinds of
				roles
	=β			and stuff like that,
+2				and it was... it was kind of like I was

					talking about mental patient in the abstract,
+3	α				and I realized that afterwards
	‘β	α			that I may have hit on all sorts of things because...
		xβ	α		since he had been a mental patient, which I
			=β	α	didn't know about
				=β	when we was talking at dinner.
1	α				But it didn't... whatever it was it... it hadn't come through badly,
	xβ	α			because his mother didn't...
					and his mother seemed pleased with me,
		=β			well, at least not angry at me,
+2	1				and he had end... he ended up just going,
	=2	α			talking for two hours in mon... straight monologue
		=β			about this experience that had happened to him.
CS					And I don't' know what that did to me. It
CS					did all kinds of things to me
α					in the sense... in a sense it was really an optimistic good kind of thing
=β					in that he'd come... come back out of it. In another sense,

α			it was not in that...
xβ			like this had happened to him last Christmas,
+γ	α		and in a sense I've been really out of it for two years now
	+β		and I haven't really come back,
	+γ	α	and I haven't really done anything
		=β	to get myself back,
xδ			and so in a sense there's a negative comparison there.
			….
1	α		I know I felt
	‘β		kind of strange about it for the next day,
x2	α		and I think that part of that made me... made it hard for me
	=β		to talk to my boyfriend the next day. Part
1	α		of what... because I tried to tell my boyfriend about it
	=β		in a very abstract way
+2			and I really couldn't,
+3	α		and I also didn't feel
	‘β	α	like I had a right to tell him very much

xβ α =β 1 x2 1	because he didn't know the guy, but he knew... he knew who the guy was. He knew through a friends of friends kind of, and so that I really couldn't say very much. And also we'd gone to this movie by accident actually, because we'd had had an (almaroo) (ph) and we'd gone to see "Sterile Cuckoo," which in a lot of ways is a very superficial kind of kids in college movie, but I tend to let any kind of movies almost... I tend to take what's good in them and sort of disregard what's superficial and what's... what's trash, and I sort of take off from one little theme that they have and use [21:32] my imagination for the rest of it even if it's not portrayed. And I sort of started thinking from there about a lot of like really happy times that I'd had at college…

Appendix C

Text 7 – Patient 006, complete transcript

Like he came over Sunday afternoon to borrow my typewriter to work on his paper because he didn't have one, and he stayed and we went out Sunday night, and I came back and I couldn't talk to him. And part of it had been a kind of really mind bodly... bodily experiences of Saturday night I... going out for dinner I... well, it had been a strange thing with... with time and with being sleepy, because okay I didn't go to sleep Wednesday night at all, and I'd gone to work and I'd worked all day Thursday, and I came back about 6:00 and I was supposed to go out at 9:30 or 10:30 that night, and so I went to sleep from like 6:00 to 9:00. And I went out to dinner with this friend that was just sort of half a friend that I mentioned that I had... had started in the trial on the previous Tuesday, and this was like the night of the cast party and stuff, except we ended up not going to the cast party because a lot of his friends weren't going. We just went out to dinner with his sister [to kind of simplify] (ph) in Florida and then I go over to his apartment to talk for a while and he had just... it was like a monologue on his part. It was like he'd been so high from this play and he just hadn't had anyone; had had no social life and had no one to talk to in so long that he was really needing somebody to talk to. And I really like him and I can really understand him, so I was really up for listening to him, and he just started telling me like he had just been completely psychotic last year and this was kind of his first... like this really meant so much more to him, because this was his first kind of

comeback from when he'd been living in Boston and when he'd been really, really out of it and just really bizarre and ended up in a mental hospital for three weeks or something like that, and then calling... taking an overdose of Demerol or something like that and ended up back in the hospital. And just, just his own feelings and somehow it was... it was a... it was a good experience to listen to, because he had a good perspective on it now and he'd come back; he'd come through this, and he'd come through it really well, and he also had... like he said he had a really good perspective on people and he could play a lot of these roles really well because he'd been through a lot of them. Somehow the subject had come up and we were both just sitting at dinner with his mother very innocuously, and just... he just said some... I said something about, "Did you really identify with J.K. in the play?," and he said at times that he would bring me and think parts of his life that he would relive as he was portraying certain aspects of the role. And we both sort of got discussing how important it was to really be able to empathize with people from your own experience, and I sort of said that I... oh, I know, I... that's what happened.

Friday I had seen a really good patient that I had been working on for a long time, and I hadn't planned to see him but he was being discharged, and I just had the suspicion that there was something going on with him that... that other people... psychologists (anyway) (ph) that had looked over his testing results hadn't come up with, and so I sat down with him and I said, "Look you tell me. I suspicion that cer..." I didn't say right out. I said, "Tell me about how you get along with your friends at work and tell me about you're feeling, you're holding anger inside of you and stuff like that.," and he came up and he said well he hadn't told anybody this before but, yeah, that he had felt such and such a way and he had in a sense bottled up all of his anger, and the voices that he'd been

hearing had some pretty good basis in... in what had been going on with his life that so far no... nobody had any record of, because he had never reported this to anybody. And it was nothing that drastic that he would report, unless somebody came out and asked him and I'd only asked him because of suspicions that I'd gotten from the test, but I felt really good about it because I think... no... no, I think he should have been discharged, but I think also I'm going to see him on an outpatient basis, which otherwise would not have happened at all. And not that I really felt that able to empathize with... with his paranoia, but I did feel able to empathize with him just kind of totally and able to talk to him, and he just kept saying over and over again, "Nobody's ever talked to me like this before. Nobody here's talked to me except you.," and I felt really good about that. I just felt like I was doing my job and...

THERAPIST: I would have felt like it felt really good to be there for someone...

CLIENT: It was.

THERAPIST: ...for him as well as for this friend.

CLIENT: And... yeah, in both cases. And anyway at this dinner, so I had just sort of said, yeah, I just... I felt that in order to be a decent psychologist you've really got to be able to empathize with the people that you're talking to, and not just put them in a category and put a label on them and give them a drug or something like that. [18:24] And I said that in some ways I think maybe every psychologist ought to be able to be an actor and to be able to take everybody else's role. There are an awful lot of different kinds of roles and stuff like that, and it was... it was kind of like I was talking about mental patient in the abstract, and I realized that afterwards that I may have hit on all sorts of things because... since he had been a mental patient, which I didn't know about when we was talking at

dinner. But it didn't... whatever it was it... it hadn't come through badly, because his mother didn't... and his mother seemed pleased with me, well, at least not angry at me, and he had end... he ended up just going, talking for two hours in mon... straight monologue about this experience that had happened to him. And I don't' know what that did to me. It did all kinds of things to me in the sense... in a sense it was really an optimistic good kind of thing in that he'd come... come back out of it. In another sense, it was not in that... like this had happened to him last Christmas, and in a sense I've been really out of it for two years now and I haven't really come back, and I haven't really done anything to get myself back, and so in a sense there's a negative comparison there. In a lot of ways... I hadn't been psychotic. I'd taken an overdose of drugs and tried to kill myself and stuff like that, but I'd never been hallucinating and paranoid and that... everything like that. Depressed yes and confused maybe, but at the same time I just... typically I should be functioning better than he and I'm not and...

THERAPIST: That really... not really screwy what it sounds like.

CLIENT: Somehow it did. That's... that's... I don't know what that did to me actually. I know I felt kind of strange about it for the next day, and I think that part of that made me... made it hard for me to talk to my boyfriend the next day. Part of what... because I tried to tell my boyfriend about it in a very abstract way and I really couldn't, and I also didn't feel like I had a right to tell him very much because he didn't know the guy, but he knew... he knew who the guy was. He knew through a friends of friends kind of, and so that I really couldn't say very much.

And also we'd gone to this movie by accident actually, because we'd had had an (almaroo) (ph) and we'd gone to see "Sterile Cuckoo," which in a lot of ways is a very

superficial kind of kids in college movie, but I tend to let any kind of movies almost... I tend to take what's good in them and sort of disregard what's superficial and what's... what's trash, and I sort of take off from one little theme that they have and use [21:32] my imagination for the rest of it even if it's not portrayed. And I sort of started thinking from there about a lot of like really happy times that I'd had at college…