Patient-Centred Advanced Cancer Care: A Systemic Functional Linguistic Analysis of Oncology Consultations with Advanced Cancer Patients

Thesis submitted in accordance with the requirements of Macquarie University for the degree of Doctor of Philosophy

By Neda Karimi

BA, Azad University, Isfahan, Iran,

MA, Azad University, Isfahan, Iran,

October 2017

Department of Linguistics Faculty of Social Sciences Macquarie University

Supervisors

Associate Professor Annabelle Lukin

Dr. Alison Moore

CONTENTS

ABSTRACT	vii
STATEMENT OF ORIGINALITY	viii
ACKNOWLEDGEMENTS	ix
Chapter 1	1
1.1. Introduction	1
1.2. The revival of death	4
1.3. Dying in Australia	6
1.4. Discourse, complexity, and multivalence	7
1.5. Systemic functional linguistics: complexities and multivalences	8
1.6. Theoretical gaps in medical interaction research	22
1.7. The study of personhood and patient-centredess in oncology consultation with advan patients	ced cancer
1.7.1. Data	26
1.7.2. Ethics	
1.8. Outline of the remaining chapters	
References	
Chapter 2	37
2.1. Introduction	
2.2. Method	
2.3. Interaction Analysis Systems (IASs)	40
2.3.1. Interpersonal resources in IPS research	41
2.3.2. Experiential resources in IAS research	50
2.3.3. Textual resources in IPS research	53
2.4. Conversation Analysis (CA)	53
2.4.1. Interpersonal resources in CA research	54
2.4.2. Textual resources in CA	57
2.5. Sociolinguistics	58
2.5.1. Interpersonal, logical and experiential resources in sociolinguistics research	58
2.5.2. Textual resources in sociolinguistics research	61
2.6. Systemic functional linguistics (SFL)	61
2.6.1. Interpersonal resources in SFL research	62
2.6.2. Experiential resources in SFL research	64
2.7. Pragmatics	66
2.7.1. Interpersonal resources in pragmatics research	66
2.8. Rhetorical Genre Studies (RGS)	68

2.9. Ethnography: Qualitative content analysis	69
2.10. Conclusion	69
References	72
Chapter 3	
3.1. Introduction	
3.2. Register Analysis	
3.3. The field of oncology consultations	
3.4. The tenor of oncology consultations	
3.5. The mode of oncology consultations	
3.5. Conclusion	
References	101
Chapter 4	
4.1. Introduction	
4.2. Modelling experience	106
4.3. Method	109
4.3.1. Data	109
4.3.2. Approach	109
4.3.3. Procedure	110
4.4. Results	111
4.4.1. The transitivity landscape of terminal patient's self-image	111
4.4.2. Material processes	113
4.4.3. Mental processes	118
4.4.4. Relational processes	124
4.5. Summary of findings and discussion	128
4.6. A final note on the intra-registerial variations and the limitations of a transitivity account	concordance
References	
Chapter 5	
5.1. Introduction	
5.2. A brief review of the semantic networks in the Hallidayan SFL	
5.3. Hasan's semantic networks	136
5.4. Semantics in advanced cancer care	141
5.5. The context of oncology practice	141
5.6. What is it like to be an advanced cancer patient?	143
5.7. Semantic options in confirm answers	144
5.8. Semantic options in specify answers	151
5.9. Rationality, elaboration, and relatedness: patient-centred advanced cancer oncold	gical care. 154

5.10. Can Hasan's contextually open semantic networks model the variation in oncology	
consultation?	155
References	156
Chapter 6	161
6.1. Introduction	161
6.2. The linguistic correlates of patient-centredness: What does the literature offer and wh missing?	hat is 161
6.3. Patient-centred care: an integrated view	
6.4. Weak classification	166
6.5. Weak framing	
6.6. Positive attitude	
6.7. Study limitations and suggestions for further research	
6.8. The potential implications for patient-centred advanced cancer care practice	174
6.8.1. Pedagogical moves and transparent clinical reasoning	175
6.8.2. Reasoning in providing answers	
6.8.3. Understanding and attending to the meaning of cancer in the life of the patient	176
6.8.4. Readiness to entertain a shift in the activity initiated by the patient	176
6.8.5. The construction of a joint project	
6.8.6. Placing the discussion of prognosis and time within the discussion of patient's fu	uture plans
6.9. Conclusion	
Reference	178
Appendix: Selected aspects of the transitivity-concordance analysis	
a) Snapshots of the analysed variables and their properties in SPSS environment	
b) Snapshot of the transitivity-concordance analysis in SPSS environment	

LIST OF TABLES

Table 1.1 The lexicogrammatical analysis of the clause in turn 107	17
Table 1.2 Patient characteristics and corpus information	27
Table 2.1 Papers that used an IAS and their data	40
Table 2.2 CA papers and their data	54
Table 2.3 Sociolinguistic papers and their data	58
Table 2.4 SFL papers and their data	62
Table 2.5 Pragmatic papers and their data	66
Table 2.6 Rhetorical Genre Studies (RGS) paper and its data	68
Table 2.7 Ethnographic paper and its data	69
Table 3.1 Actions in the corpus instantiating the Field parameter [practical] and their textual realizations	84
Table 3.2 Actions in the corpus instantiating the Field parameter [conceptual] and their textual realizations	86
Table 3.3 Aspects of the facilitating role of the oncologist	96
Table 3.4 Interactants' share of discourse in texts I, II and III	100
Table 4.1 The most frequent [intransitive] processes, absolute numbers and relative frequencies	114
Table 4.2 Categories of inanimate Goals, absolute numbers, relative frequencies and examples	115
Table 4.3 Categories of Actors, absolute numbers, relative frequencies and examples	116
Table 4.4 Categories of animate Goals, absolute numbers, relative frequencies and examples	118
Table 4.5 Instantiation of the different types of mental processes that extend to a Phenomenon, absolute	
numbers, and relative frequencies	119
Table 4.6 Categories of Phenomena, absolute numbers, relative frequencies and examples	121
Table 4.7 The most frequent mental processes associated with the patients as the Senser, absolute numbers	and
relative frequencies	122
Table 4.8 Functions of using the mental processes of 'thinking' and 'knowing', absolute numbers and relation	ive
frequencies	124
Table 4.9 Instantiation of the different types of Attributes, absolute numbers, and relative frequencies	124
Table 4.10 Instantiation of 'domain of attribution' in the relational clauses, absolute numbers, and relative	
frequencies	125
Table 4.11 Instantiation of different types of Attributes within the semiotic domain, absolute numbers, relative	live
trequencies, and examples	126
Table 4.12 Categories of Attributes, absolute numbers, relative frequencies and examples	127
Table 5.1 The structure of reasoning in extract 1	149
Table 5.2 The structure of reasoning in extract 1	151
1 able 5.3 The structure of reasoning in extract 5	153
Table 6.1 The oncologist's and the patients' construction of the advanced cancer patient's personae	166

LIST OF FIGURES

Figure 1.1 The four orders of systems (from Matthiessen, 2007)	9
Figure 1.2 An example of a system network	11
Figure 1.3 The structure of the language system (from Halliday & Matthiessen, 2014)	12
Figure 2.1 Study flow diagram	
Figure 2.2 A simplified DEMAND INFORMATION network (adopted from Hasan, 2009)	63
Figure 2.3 Number of linguistic features associated with PCC in terms of their 'semiotic address'	70
Figure 3.1 FIELD network (from Hasan, 2009, p. 183)	83
Figure 3.2 A fragment of INTERACTANT RELATIONS network (from Hasan, 2014, p. 33 and Hasar	ı, 2013)
Figure 3.3 Butt's (2003) network of goal-orientation	92
Figure 3.4 A fragment of MODE network (from Hasan, 2014, p. 27)	98
Figure 4.1 Instantiation of PROCESS TYPE across the OCC-P and the corpus reported in Halliday and	1
Matthiessen (2014), relative frequencies	112
Figure 4.2 Instantiation of the grammatical roles across the OCC-P and the Driscoll's (2012) interview	s corpus,
relative frequencies	113
Figure 4.3 Instantiation of different types of mental processes across the OCC-P and the Driscoll's (20	12)
interviews corpus, relative frequencies	119
Figure 4.4 The distribution of PROCESS TYPE across the 69 texts	130
Figure 5.1 A Fragment of Hasan's (1983) Semantic Networks	138
Figure 5.2 'A simplified system of choices in reasoning' (from Hasan, 2009 [1992])	150

ABSTRACT

This thesis provides a linguistic description of the practice of patient-centred care based on a corpus of 69 transcribed oncology consultations with advanced cancer patients. Using tools from Halliday's systemic functional linguistics, the thesis identifies ways in which personhood and patient-centredness is realized semiotically in a series of papers.

First, a systematic literature review provides an overview of the previous research on the linguistic operationalisation of patient-centredness and the theoretical approaches applied. This is followed by three types of analyses including (1) looking at the nature of the social context around and enacted by the discourse of oncology consultation and analysing a sub-corpus of 10 consultations; (2) looking at how the patients identify themselves and construct their experience and sense of self during the consultations; and (3) considering how two contrasting oncologists in the sample construct their role and that of the patient through their answers to the questions asked by the patients and their companions.

The findings suggest that a patient-centred practice involves the enactment of a 'facilitating' role by the oncologist. Through this role, the oncologist facilitates a new doctor-patient relationship in which the degree of 'classification' and 'insulation' (Bernstein, 1990) between them is reduced. The data shows that this is done by considering and discussing the patients' personal circumstances and their personal lives as affected by the illness as well as through informing the patients about their body, their illness, their options, rights and entitlements, and generally through enabling them to be an informed patient who is the centre of healthcare. Such practice acknowledges that the dying patients are semiotically agentive. It also appreciates the patient's experience of maintaining a sense of normalcy in the face of a life-limiting illness. A patient-centred practice is further characterised with elaborated reasoning to provide more information and precise information to the conscious and semiotically agentive patient.

STATEMENT OF ORIGINALITY

This work is original and has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Neda Karimi 10 October 2017

ACKNOWLEDGEMENTS

I am especially indebted to my supervisor, Associate Professor Annabelle Lukin, for her guidance, patience, and continuous support throughout my PhD and even beyond that in my career. Associate Professor Lukin taught me how to examine language from the perspective of meaning and function. I learned much from her way of approaching social problems in linguistic research and her analytical rigor. I am most grateful to Dr Alison Moore, my external supervisor, for her insightful and detailed input. Dr Moore's rigorous standards inspired me to work hard. I am indebted to both of my supervisors for initiating a collaboration through which the data for this study was obtained. Without them, this thesis would never have materialised.

I would like to thank Professor Phyllis Butow and Dr Adam Walczak for collaborating with us and for their generosity in providing access to the data for this study. I am grateful for the generosity of the patients, the families, and the oncologists who participated in the main study from which the data for this study was sourced.

I am extremely grateful to Dr Alan Jones for initially accepting my PhD proposal for supervision and for introducing me to Associate Professor Lukin when he became unwell. For feedback and comments on aspects of my PhD, thanks are due to Professor Butow, Professor Geoff Williams and Associate Professor David Butt and my peers at our weekly systemic functional linguistics seminars. I gratefully acknowledge the financial support of the Australian Government, through the Australian Postgraduate Award. I also thank my friends at Macquarie University, in particular Kristin Khoo, Li Long, and Livia Gerber for their friendship and support.

And finally, I would like to thank my family. I would like to express my deepest gratitude to my parents Ali Karimi and Farideh Nikjou for their generous social and material support and for raising me to believe that scholarship is a valuable endeavour. I would like to thank my husband, Siamak, for his love and support and for facilitating the process of doing a PhD by taking on more household responsibilities than me. I also want to thank my brothers, Mahdi and Mohamad, for their kindness and humour.

Chapter 1 INTRODUCTION

1.1. Introduction

Our culture differentiates between the 'person' and the ill 'person', especially if she or he is terminally ill. This is not only reflected in the practice of care for the dying or the way friends and family members act and react but also in the language we speak. Even dictionary definitions construe this distinction. The Oxford English Dictionary (OED) defines 'Person' as "the individual acting in a particular capacity or concerned in some respect", someone "regarded as having human rights, dignity, or worth" and "a conscious or rational being". On the other hand, according to OED, to be a 'patient' means to "endure pain", "undergo the action of another", "be an entity that is directly affected or changed by the action of a verb", "receive medical treatment" or "be subject to supervision, correction, or care". What happens in the process of becoming ill that the 'subject' becomes the 'object', the 'person' is reduced to 'body' or from a "kinder and gentler" (Bishop, 2011, p. 309) perspective to 'body' and 'psyche'? Bishop (2011, pp. 279-280) holds the institution of medicine responsible for this reduction in form and function: "Medicine's epistemology and its metaphysics ... shapes the way we think of and care for the dying ... At each stage of medicine's development, its repressed core returns to haunt the lives of those who are subjected to medicine's techniques of control and mastery". Bishop's critique is not only directed to biomedicine but also to what he refers to as 'biospsychosociospiritual' medicine which advocates the comprehensive total care found in the concept of palliative care:

Once it has been armed with new assessments of grief and the spiritual, and with the expert discourses of the helping disciplines, medicine is ready to expand its dominion over the dying, to discipline both the bodies and psyches of the dying, and, indeed, to extend itself beyond the grave in the psychological care offered to family and friends after the deceased is gone (Bishop, 2011, p. 252).

For over seven decades the critics of the biomedical model have argued against the reductionist biomedical philosophy of care that reduces the ill person to a body with a malfunction, the experience of illness to symptoms and disease, and the doctor to treater, and have suggested an alternative approach. Carl Rogers' concept of 'client-centered therapy' (1942) in

psychotherapy, Michael Balint's notion of 'patient-centered medicine' (Balint, 1969), Barney Glaser and Anselm Strauss's concept of 'open awareness' (1965) and Cicely Saunders' 'hospice movement' are among the attempts to bring personhood back into medical practice. Byrne and Long's (1976) checklist of behaviours, Helman's 'Folk Model' (1981), Pendleton et al.'s (1984) consultation tasks, McWhinney's Disease-Illness Model (1985), and Kurtz and Silverman's Calgary-Cambridge approach (1996) are among the models of consultation that go beyond the biological aspect of illness.

Yet, Bishop (2011, p. 309) argues that "even within medicine in its kinder and gentler mode, that of biopsychosociospiritual medicine, one finds experts deploying assessments in order to determine the precise spiritual category, social situation, or psychological state into which to place the patient ... and thereby deploy their expertise and powers for the benefit of the patient". He then adds that such medicine "with claims to universal techniques of assessment in physiology, psychology, social situations, and spirituality cannot address the rich particularities of patients in given communities, with their shared traditions, beliefs, and practices about living and dying" (p. 310). The alternative that Bishop suggests is a therapy that is responsive to differences and peculiarities and is informed by 'being-with-others'. Medicine in Bishop's view is about the body. However, the body in his view is shaped by meaning and purpose. In other words, histories, capacities, and purposes are 'embodied' so that "what is suffered in the body is a loss that reaches further back and further ahead of the materiality" (p.311). The consideration of the body and embodied experiences as "another layer of complexity" in the study of illness and dying, and the rejection of a separation of the social aspect from the bodily aspect of illness, is also stressed by Broom (2015, p. 143). In drawing attention to the relevance and importance of exploring body matters in the process of dying as an aspect of a sociological research on health and illness, Broom (2015, p. 146) brings evidence from his field research in an in-patient hospice in Australia and the dying patients' accounts of their "failing" and "dying" bodies. Broom shows how "the troubling character of the dying body - its decay, its smells, its excretions and its lack of conformity to what we understand and want the body or person to act like" (Broom, 2015, p. 153) is experienced by the dying patients and the people who care for them and how it poses cultural challenges.

Sharing similar views but from a different standpoint, Matthiessen (2013) proposes a sociosemiotic description of the patient in the healthcare system. Matthiessen holds similar views about the relationship between the biological and the social: a social system is a biological system with the added component of 'social order' or 'value'. But Matthiessen adds another order of abstraction to the description of patient: 'semiotic'. In Matthiessen's view patients are 'organisms' or 'species' (Foucault, 1973) within the biological order of abstraction, 'persons' within the social order of abstraction and 'meaning-makers' or 'meaners' when viewed from a social-semiotic perspective. The semiotic order is then a social order with the added component of 'meaning' (Halliday & Matthiessen, 1999). In this sense, illness as an inherited mutated gene or a virus that causes a change in cells, or a malfunction of body organs is viewed as a phenomenon that occurs within a person experiencing the consequences of those conditions and not separated from that person. This approach considers the meaning to be "intimately related to the definition of and perspective on humane clinical care" in Mishler's words (1984, p. 21).

By 'persons' Matthiessen (2013) refers to social actors with many social roles in different social networks. By using the term 'meaners' (one who 'means'), Matthiessen's framework draws attention to the semiotic roles that a patient plays in different communication networks. This approach involves important differences from the biomedical model of healthcare in which the patient's voice is generally treated as just an indicator of underlying signs (Seale, 1998). Matthiessen's framework draws on Halliday's systemic functional linguistics (SFL) which has been previously applied in medical communication contexts such as hospital emergency departments (Herke et al., 2008; Slade et al., 2015), HIV/AIDS healthcare (Moore, 2004, 2005), psychotherapy (Butt, Moore, Henderson-Brooks, Meares, & Haliburn, 2010), surgery (Moore, Butt, Ellis-Clarke, & Cartmill, 2010), and aphasiology (Armstrong, 1997). SFL, as I show later in this chapter, is a theory that takes account of differences and relativities in several different ways. A detailed discussion of how variation is described in SFL is provided in section 1.5. In the remainder of this section, I briefly discuss the importance of the semiotic order in Matthiessen's model, bring support from medical communication research, and situate this thesis in the literature.

'Words' are an essential part of the medical encounter. "Language" it is argued, "transforms the experience of illness into the subjective portraits painted by the patient" (foreword by Stanley Joel Reiser in Cassell (1985)). Words are arguably the most important part of the care at the end-of-life (EOL). The dichotomy of 'drugs' versus 'words' that Aitini, Adami, and Cetto (2010) put forward in dealing with the dying person supports the significance of language in the care of the dying. In Heath's (2008, p. 61) words, "we need words to try and minimise the inevitable loneliness of dying, words to hold the other with us, words to make sense of shared experience". In an inspiring essay on the resources that the doctor has for supporting

his/her dying patients, Heath (2008, p. 62) emphasises the role of language in care at the EOL: "words are always used to find another and to forge a connection, an understanding, with that other human individual and they come ready freighted with meaning and history".

How, then, does language reflect meaning, purpose, and history? How does it transform the experience of the dying person? In this thesis, I attempt to answer these questions by exploring personhood at the EOL using a systemic functional approach. I give an account of how the linguistic choices made by oncologists and advanced cancer patients during an oncology consultation construe certain ways of acting and ways of viewing the world.

1.2. The revival of death

Since the late 60s, criticisms of the modern way of death, perceived to treat death as taboo, have made their way into the discourse of medicine. According to Seale (1998, p. 4), these discourses propose the idea that "the (supposedly) private experiences of dying and bereavement" should be "brought into the field of public discussion, as they are in psychological knowledge". Seale (1998) calls this view 'revivalism', after Walter (1994). Revivalism develops an approach towards patients in their EOL stage that is characterized by moving away from aggressive and futile treatments and putting an increasing emphasis on communication instead. It criticises the anatomo-clinical vision of disease for being totalitarian and promotes a shift from the anatomo-clinical vision to a social and psychological view of disease and the person experiencing the consequences of that disease. The patient in this newer view is perceived as a person who is suffering. Thus, death and dying is regarded as a subjective matter (Yeatman, Dowsett, Fine, & Gursansky, 2009). The influence of such a shift is evident in the ideas of palliative care and person-centred care at the EOL. These philosophies focus on shared authority between doctors and patients as active stakeholders. Patients, according to these models, must be provided with thorough and transparent information about their diagnosis and prognosis, and they must be empowered and encouraged to talk about their medical, psychological and spiritual preferences and concerns and actively participate in decision making. In the following paragraphs, I outline some of the most important empirical studies of what happens in the care of patients at the EOL, under models that incorporate a revivalist perspective.

The work of Glaser and Strauss (1965) was amongst the first studies that can be considered to incorporate the concept of revivalism and person-centred care at the EOL stage (Glaser & Strauss, 1965). Glaser and Strauss applied an ethnographic approach to develop a theory about

dying in hospitals in California that was grounded in observation. Their study found four different 'awareness contexts' for dying in the hospital that are the product of a reluctance to talk about death and dying: 'closed awareness', 'suspected awareness', 'mutual pretence' and 'open awareness'. The study further showed that the awareness context has an impact on the interactions between hospital staff, patients, and their families. For example, it revealed the different conversational strategies that staff used to maintain the awareness context.

A seminal study investigating the process of dying in American hospitals was the Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments (SUPPORT, 1995) conducted over a period of 4 years. SUPPORT aimed to improve outcomes for seriously ill hospitalized adults by improving information and decision-making. It consisted of two phases: phase I, a 2-year prospective observational study; and phase II, a 2-year controlled clinical trial of a nurse-led intervention to provide timely and reliable prognostic information and to elicit and document patient and family preferences and understanding of disease prognosis and treatment. The results, however, showed that the intervention did not have a significant impact on the care that is provided in hospitals.

Researchers at the Centre for Medical Psychology and Evidence-based Decision-making (SeMPED) at Sydney University have also conducted several randomised controlled trial studies to explore the influence of using different interventions, mainly a question prompt list (QPL), in promoting terminally ill patients' quality of life and death and improving doctorpatient communication. The QPL is a booklet that contains questions grouped into different topics on issues that may be discussed with a clinician and is developed to help patients suffering from a terminal illness communicate more effectively with their doctors and normalise and place EOL issues on the consultation agenda. The researchers have investigated the influence of providing a QPL to seriously ill patients before their consultations on the topics that are covered in consultations. They apply quantitative statistical methods (Clayton et al., 2007) as well as qualitative exploration and analysis of the patients' perspectives (Walczak et al., 2014; Walczak et al., 2013) using content analysis software. Their research is guided by the principles of Self-Determination Theory (SDT) of health-related change (Ryan & Deci, 2000). Self-Determination Theory of health-related change is part of a broad suite of approaches covered by the concept of revivalism. Accordingly, in this model patients not only have a right to open prognostic disclosure and early EOL discussions, and to contribute to decision-making about their body. They also have a right to measures that meet their needs for 'autonomy' or autonomous motivation for health related behaviour change, 'competence' or

"skills and tools for change" and 'relatedness' or "a sense of being respected, understood, and cared for" (Ryan & Deci, 2000, p. 3).

1.3. Dying in Australia

Despite all the efforts to transform the biomedical EOL care into a total care that is less paternalistic, there is national and international evidence that doctors need to enhance their knowledge, confidence and management skills in EOL care and that patients usually do not get the opportunity to openly discuss their preferences and concerns about death and dying until the last days of life (The Lancet, 2012). According to The Lancet (2012) in England, 250,000 people die in hospitals every year, many of whom may never receive palliative care. This number is more than the number of people who die at home or in a care home or a hospice in England.

The situation is similar in Australia where the majority of Australians die in acute hospitals (Clark et al., 2014). In New South Wales, Australia, about half of all deaths occurred in acute hospitals in the year 2010 (King, Kerr, & Walker, 2013). There are no more recent figures because, according to Clarke and Sivey (2017), in 2016 "Australia's National Health Performance Authority (NHPA) decided not to release data on death rates across Australia's hospitals", but research in Australia suggests that healthcare delivery at the EOL is significantly poorer than healthcare delivery at other times in peoples' lives and that it does not meet the Australian Commission on Safety and Quality in Health Care (ACSQHC) standard entitled 'Partnering with consumers' (Clark et al., 2014). A recent report by the Grattan Institute shows that dying in Australia is more institutionalised than in most other countries (Swerissen & Duckett, 2014), meaning that more Australians die in hospital.

The present study attempts to address this issue using an approach to communication at the EOL that is different from the mainstream approaches in the medical communication research. It applies Matthiessen's model of patients to analyse the meanings exchanged between dying patients and oncologists and to explore the context, history, culture and in Bishop's (2011) term the 'oikos' of both the patient and the oncologist.

In the next two sections, I first suggest two essential properties for discourse in general, and medical discourse in particular, and then explain how an SFL model can describe these two properties.

1.4. Discourse, complexity, and multivalence

Medical discourse is complex and multifaceted. The range of methodological and theoretical approaches to the study of medical discourse and the variety of linguistic areas that have been adopted in the literature on medical communication demonstrates the complex nature of medical discourse and reveals its various components. On a general level language, itself, is complex. It is used by language speakers to do several different things simultaneously: it is used not only to exchange information but also to build relationships of different kinds and to perform rhetorical acts or form continuity and coherence. It also consists of various components. It consists of expression and content; words and grammar and meaning. Even within one function, for instance, building interpersonal relationships, there are different subcategories and options involved. For example, Oncologists are advised to empower the dying person to be autonomous and participate in decision making at the EOL and, at the same time, to respect the dying person's emotions, beliefs, and hopes. How can the balancing of these "seemingly competing directives on how to approach EOL discussions", as Moore (2015) puts it, be possible? How can the language of the oncologist be empowering and caring at the same time? It goes without saying that to understand these and other complexities analysis is required. In Fleming's (1866, p. 98) words (drawing on Taylor (1851)), "the analysis of *complex* notions is one of the first and most important exercises of the understanding". This is not a new thing today. But what seems rare in healthcare communication in general and in both EOL care communication and person-centred care in particular, is a kind of analysis that has the potential to elucidate the complexities involved in language-based interactions of this type.

How is it that one particular concept such as patient-centredness has been explained from various disconnected perspectives? Is there a 'holistic sociolinguistics' (Hasan, 2009b) that can explain all these complexities? In this chapter, I will address this question and suggest a theory of language that has the potential to account for the complexities involved in medical discourse.

But complexity, which pertains to a whole that consists of several different components, is not the only property of discourse. Language is also multivalent, meaning that it can have different values. Its value is affected by several textual and contextual factors, and its components are interrelated. The linguistic choices are related to each other and to the context: they are textually and contextually motivated. Just as there are different "ways of being-there-with" (Bishop, 2011, p. 308) in the practice of care for the dying depending on the context, there are also different "ways of saying" and "different ways of meaning" (Hasan, 1996). In Hasan's (2009a,

p. 9) term "the content and structure of one verbal interaction will vary from another according to variation in the social context relevant to that interaction; this is what forms the basis for perceptions of degrees of *appropriateness* of behaviour in interactive practice".

For example, Semino et al. (2015) show that violence metaphors are not essentially a negative resource for conceptualising cancer and journey metaphors are not essentially positive; rather, both types of metaphors can be used in empowering and disempowering ways. For instance, according to Semino et al. (2015) "Some patients describe themselves as 'fighters' in ways that suggest agency and pride" (p. 4) and, on the other hand, "Some patients use Journey metaphors to emphasise the overwhelming difficulties they face as cancer sufferers" (p. 5). Or, as another example of contextual relativity, while open-ended questions are largely advised over closed questions because they are said to provide patients with the opportunity to express their concerns (Roter & Larson, 2002), Moore (2015) shows how in opening an EOL discussion the so called closed question 'Are you finding any problems with nighttime?' by the doctor provides the patient the choice not to enter the discussion. This means that the value of a linguistic choice such as open-ended question depends on the social context of the interaction in which it is used. The fact that in Moore's (2015) study the doctor could have chosen an openended question but did not also determines the value of the oncologist's choice. The value of a linguistic item is also determined by its co-text. For example, in analysing the phases in shared decision-making about highly active antiretroviral treatment (HAART) Moore (2004, p. 246) shows that "the same message may have a different status depending on where it is placed sequentially in the interaction". For example, the use of 'we' by the doctor in the phase 'declaration', when "a doctor declares their preference or recommendation explicitly" (Moore, 2004, p. 224), may hinder shared decision-making, whereas "the use of 'we' at other points in the conversation is likely to have a very different value", according to Moore (2004, p. 224).

1.5. Systemic functional linguistics: complexities and multivalences

Above I explained two properties of medical discourse and argued that the analyses of medical discourse need to account for these properties. In this section, I explain how Halliday's systemic functional linguistics, the theoretical framework within which analyses of oncology consultations in this thesis were conducted, is capable of elucidating the complexities and the multivalences in conversations in oncology consultation. The section starts with a brief account of the essential notions in systemic functional linguistics. In this part, I describe those linguistic notions whose understanding is essential for the progress to the socio-semiotic approach to

oncological care at the EOL that was applied in this thesis. This is followed by the application of these theoretical notions to the context of oncological care for advanced cancer patients. Finally, the properties of complexity and multivalence are revisited using the SFL notions introduced.

These linguistic notions are:

- Typology of systems
- Linguistic system
- Choice and system network
- Text
- Context of situation
- Context of culture
- Register

The first theoretical notion that needs to be explained here is Halliday's **typology of systems** (see Halliday (1996); Halliday & Matthiessen (1999); Matthiessen (2007)). Halliday's typology of systems counts four systems or four orders of abstraction: physical systems, biological systems, social systems and semiotic systems (figure 1.1). These systems are in order of increasing complexity, and lower systems constitute a part of the upper systems. A biological system is both physical and biological: it is a physical system with the added component of 'life'. A social system is physical, biological and social: it is a biological system with the added component of 'social order' or 'value'. A semiotic system is physical, biological, social and semiotic: it is a social system with the added component of 'meaning' (Halliday & Matthiessen, 1999). Meaning involves all types of system. In Halliday's (2003b, p. 2) words 'meaning is socially constructed, biologically activated and exchanged through physical channels''.



Figure 1.1 The four orders of systems (from Matthiessen, 2007)

It is not necessary to describe physical and biological systems in detail in this discussion of how SFL can be applied to the study of oncology consultations. However, an account of the semiotic systems and the social systems is important. Semiotic systems include all meaningmaking systems. Linguistics is a semiotic system along with several other semiotic systems like painting, sculpture, music, and even other modes of cultural behaviour such as modes of exchange, modes of dress, the structure of family and so on. The focus of this thesis is on linguistics and the language system only. Language system includes the paradigmatic range of semantic choice in the system of language. In other words, it is the meaning potential from which the language speakers make semiotic choices. The semiotic activity of choosing what to mean is represented by a tool called a 'system network' in SFL (see Halliday (2013) and Hasan (2014) for more information). "A system 'is a' set of interlocking options which represent what is 'possible', i.e., the potential under some explicitly specified conditions", as (Hasan 2009b, p. 367) puts it. When language speakers talk, they activate "many moments" of choice ... across many locations within the total architecture of language" (Halliday, 2013, p. 19). These 'moments of choice' are represented as linguistic 'features' "within a complex network of systems, where the output of one system becomes the condition of entry to another ... or the entry condition may involve the output of two or more other systems, either in disjunction (any one of them) or in conjunction (all of them)" (Halliday, 2013, p. 19). Figure 1.2 shows an example of a system network in SFL. 'Point of origin' refers to the system network's object of enquiry or the "descriptum that will be described in every part of a sys-net [system network]" (Hasan, 2014, p. 14). A 'simple system' includes an opening square bracket that displays 'options'. Each of the four square brackets in Figure 1.2 is a simple system. Simple systems may appear alone or in a 'simultaneous set', as in 'a' and 'b' in Figure 1.2. The simultaneous set is called a 'member system' (m-system). The degree of detail of the information about the descriptum is referred to as 'delicacy'. Delicacy is at its lowest level at the 'primary system', or the first system to appear after the point of origin. The 'systemic description' of language makes the paradigmatic relations, as Saussure puts it, visible: each feature is in contrast with another or a set of other features which could be chosen (Halliday, 1966).



Figure 1.2 An example of a system network

While the language system provides speakers with their meaning potential, text is the 'actualized meaning potential' in a specific situation type available to language users of a culture. It is an instance of linguistic interaction between people in an operational context. The relationship between text and language system is that of **instantiation**.

Central to the language system and text is the concept of **stratification** or the layering of meaning in SFL. Accordingly, language consists of the three strata of meaning (semantics), wording (lexicogrammar), and expression (phonology or graphology) that are embraced by context. Each stratum, while having its own organization, is related to the next through the relation of **realization**. That is, the phonology or graphology realizes the lexicogrammar and they both realize the semantics. The realization relationship is not a causal relationship whereby a chain of dyadic relationships is created between the strata (Halliday, 2002 [1992]). In other words, it is not the case that the semantics is realized by the lexicogrammar and the lexicogrammar is realized by the expression. Rather, there is a "*meta*redundancy" such that the semantics redounds not with the lexicogrammar but with the redundancy of the lexicogrammar with the phonology or he graphology (Halliday, 2002 [1992], p. 357, emphasis in original).

A fundamental property of language built in the organization of language (across all strata) and particularly to the organization of semantic stratum is language **metafunction** (Halliday & Hasan, 1985/89). There are three different metafunctions to language or three different layers of meaning simultaneously: **ideational**, **interpersonal** and **textual**. The ideational function of text is what a text says about the world or the representation of reality (e.g. topics, subject matters), 'language as reflection'. The ideational function is further divided into two functional components: the **experiential** and the **logical**. The experiential function allows language users to use language to construe a theoretical model of their experience and the logical function "embodies those systems which set up logical-semantic relationships between one clausal unit

and another" (Halliday, 2003a, p. 17). The interpersonal function is how language enacts our roles and relationships with the other people around us (e.g. status, intimacy, contact, sharedness between interactants), 'language as action'. This is about how language users use language to make a proposal, inform or question, give an order or make an offer, and express their appraisal of and attitude towards whoever they are addressing and what they are talking about (Halliday & Matthiessen, 2014).

Finally, the textual function is about the construction of the message itself (e.g. foregrounding/salience; types of cohesion). The textual function is considered an enabling or facilitating function for the two previous metafunctions because they both depend on it as a means of building up sequences of discourse, organizing the discursive flow and creating cohesion (Halliday & Mattissen, 2014). Figure 1.3 illustrates the 'architecture' of the language system in terms of the axis of instantiation, stratification, and metafunction.



Figure 1.3 The structure of the language system (from Halliday & Matthiessen, 2014)

Above I explained that language is a system of possibilities and options within the social system or the 'context of culture' and text is an instance of these options within a specific situation or the 'context of situation'. The context of situation refers to the environment or the 'context' in which the text unfolds. The term 'context' in this sense was first introduced by Bronislaw Malinowski, a Polish anthropologist whose ethnographic approach to language has had a profound influence on Halliday. Before Malinowski, the word 'context' had meant the words and sentences before and after the particular sentence that one was looking at. Malinowski coined the terms **context of situation** and **context of culture** (which will be explained later on) to be able to translate the highly pragmatic language of the inhabitants of the Trobriand Islands (Kiriwinian) or better put in words by Hasan (1995, p. 185) "to resolve problems in interpreting the meanings of one specific culture – the Trobriand – to the members of some other culture – the European".

The context of situation or the environment in which meaning is being exchanged can be interpreted through three socio-semiotic variables: **field**, **tenor**, and **mode** (Halliday & Hasan, 1985/89). The field of discourse refers to the nature of the social action and what participants are engaged in. The tenor of discourse refers to the participants of the social action, their role and statuses, and their relationships. And the mode of discourse refers to the role language is playing in that social action. Texts with same semantic configurations that are typically associated with a specific situation type belong to the same '**register**'. Register, Halliday, 2009, p. 181). Examples of register are doctor-patient register, transactional registers, classroom register, etc. These are not monolithic entities but represent degrees of semantic consistency. For example, there can be many different registerial 'settings' within what we recognise as the doctor-patient register.

A social system, as was mentioned earlier, consists of biological populations that group into a social group with a set of shared beliefs, ideas and moral attitudes or 'collective consciousness' and a clear division of labour among the members of that group and a network of institutional and social role relationships that define persons or 'social subjects' (Durkheim, 1997). Like semiotic systems, social systems are diverse and wide-ranging: family, peer groups, school, healthcare and so on. Just like the relation between the language system and the text, the relation between the social systems (or the context of culture in Malinowski's term) and the context of situation is that of **instantiation**: the context of situation is an instance of the social system. So in fact, social systems produce and define the relationship networks within different social groups which in turn define the 'tenor' in the context stratum within the semiotic systems. Social systems also construct the social activities that the members of group engage

in, which constitute the 'field' in the semiotic systems. The 'mode' and the rhetorical channel also have their origin in the social structure (Halliday, 2009).

Earlier I explained that language has the three strata of semantics, lexicogrammar and phonology/graphology and that the context of situation belongs to the social system. I provided this clear cut distinction between the two systems for the purpose of clarifying and simplifying the architecture of language in SFL. However, such a simplification may seem misleading as it implies that the language system and the context of situation are separate. But there is a 'natural' relation between the structure of context and the organization of language in SFL. The semiotic components of the context of situation (field, tenor, and mode) are systematically related to the functional components of the semantics (Halliday, 2007 [1975]). That is, the field of social action tends to be linguistically encoded as ideational meanings, the tenor as interpersonal meanings, and the mode as textual meanings. The relationship between the context of situation and the text is that of realization. That is, the context is realisationally related to the semantics, the semantics is realisationally related to the lexicogrammar and so on. This implies that context is a semiotic construct. As Hasan (2009b, p. 363) puts it, "context and text are really two sides of the same coin - two functives of the same function of semiosis". So it can be argued that the context of situation, situated at the interface of the semiotic and the social system, belongs to both systems.

Now let us apply these concepts to the context of oncology consultation with advanced cancer patients. Matthiessen (2013) provides a comprehensive model of SFL in healthcare contexts and I draw on his work in clarifying how SFL can be applied to the context of oncology consultation. A recorded or transcribed oncology consultation is a text, an instance of linguistic interaction between the oncologist and the patient (and typically a companion) in the context of oncology consultation. It represents the linguistic choices that the participants make from the meaning potential they have. In other words, it is an instance of the language system. At the same time, it is the realization of oncology consultation 'as contextual concern involving healthcare activities and people in healthcare roles'. Through a different theoretical relationship, that of instantiation, oncology consultation as a contextual concern is related to 'medical consultation' that according to Matthiessen (2013, p. 444) involves "recurrent patterns emerging in similar situations – patterns that we recognize as forming a recurrent type of situation, one that we might provisionally label "medical consultation". Similarly, a medical consultation is an instance of a more general cultural concept that involves a number of situation types such as 'medical consultation', 'medical test', 'treatment' and so on that in

Matthiessen's terms "work together as an aggregate within a more inclusive and general domain of structured healthcare" (p. 444) such as the domain of the hospital. Finally, a hospital is an instance of the healthcare system as a cultural institution.

So, coming back to the question I asked at the beginning of this section, can we argue that SFL has the description power to elucidate the complexities and the multivalences involved in oncology consultation? In this section, I explain why my response to this question is positive. Above I tried to explain the essential theoretical tools in SFL for the description of the different aspects of language which arguably show the extent and detailedness of the theory. Here I use an authentic example, *Are you happier where you are now*?, taken from extract 1 which is from a consultation from the corpus of this thesis. I analyse it in terms of the three lines of metafunction (textual, interpersonal and experiential) at the level of lexicogrammar to demonstrate how the SFL model of language has the theoretical and methodological power to elucidate and describe the different aspects of the medical encounter in oncology with advanced cancer patients. I confine the analysis to the lexicogrammatical level for space reasons. However, the analysis can extend to the semantics and context level.

Before moving on to the analysis, a short note on the unit of analysis is in order. The grammatical unit of the highest rank on the lexicogrammar stratum is the clause. Viewed "from above" (Halliday, 1978) on the hierarchy of stratification, the clause is the realization of a **message** (the textual unit of meaning at the level of semantics that forms a flow of information), a **move** (the interpersonal unit of meaning at the level of semantics that forms exchange) and a **figure** (the experiential unit of meaning at the level of semantics that forms sequence) and thus unifies the textual, interpersonal and experiential meanings. Viewed "from below" in terms of the stratal organization a clause is realized by the **tone group** in the phonology stratum. Finally, seen "from roundabout" within the lexicogrammar stratum a clause is the point of entry to a number of simultaneous textual, interpersonal and experiential systems.

Extract (1): Transcript 91 – Turns 103-109 (P = Patient and O = Oncologist)

103	0	Look do everything you want to do because to me you're still really,
		you're really well.
104	Р	Yeah. Yes, yeah, yeah, considering really I've been so lucky.
105	0	And it's good that you're not on the treatment, so you're not getting the
		side effects.

107	0	Are you happier where you are now?
		I'm really enjoying that, enjoying people and you know -
		looking at life through a lens and seeing things you know in detail, and
		look I appreciate, it's like I used to do a lot of photography, it's like
		thought of it I thought no I just want, I want the time just to sort of –
106	Р	Oh that's right, oh either, I've just, the thought of it you know oh the

- 108PMuch but I escape all the time, yeah.
- 109 O Okay well that's the best of both worlds, yeah.

Table 1.1 shows the analysis of the example in terms of the textual, interpersonal and experiential lines of structure.

- Textually, the clause *Are you happier where you are now?* presents a message as a new turn to elicit information concerning the patient and her state of being (*Are you*). This is the point of departure of the message or, as it is called in SFL, the Theme of the message. Through being the point of departure of the message Theme is assigned a distinct status: 'that which locates and orients the clause within its context' (Halliday & Matthiessen 2014, p. 89). The Theme is further elaborated by the remainder of the message or the Rheme (*happier where you are now?*).
- Interpersonally, the clause enacts a move of demanding information (proposition). The Mood or that component of the clause that is being discussed (*Are you ...? Oh yes, I am. No, I'm not. I am not; but I will be.*) consists of Subject (*you*) plus Finite (*Are*) and the order of this two elements realizes 'yes-no interrogative'. The Subject (*you*) by definition is the element that carries "the responsibility for the validity of what is being predicated" (Halliday & Matthiessen 2014, p. 148) (here what is questioned) and thus "has a certain status in the interpersonal structure of the clause" (Matthiessen, Teruya, & Lam, 2010, p. 208): a status higher than the elements that constitute the Residue or what follows the Mood. The Finite makes the proposition finite in terms of the primary tense (past, present or future), modality (likelihood, for example, *may* and *might* and desirability, for example, *should* and *must*) and polarity (positive or negative). In this example, the prominent element of the talk is realized by the Subject (you) of the clause and the Finite determines it as 'present' in relation to the here-and-now of speaking.
- And experientially, the clause construes a figure: "a quantum of change in the flow of events" (Halliday & Matthiessen 2014, p. 212). The figure is a configuration of a process unfolding through time and the participants involved in that process. There may

also be a circumstance involved: circumstance of time, manner, space and a few other types. Here in this example, the process is the relational process of being (*Are*) that relates the main participant (*you*) to an Attribute (*Happier*).

Are you happier where you are now? Textual Theme Rheme Given New Interpersonal Residue Mood Finite Subject Complement Adjunct **Experiential** Process Carrier Attribute Circumstance

Table 1.1 The lexicogrammatical analysis of the clause in turn 107

In the unified structure of the clause, the three metafunctions are conflated with one another. For example, table 1.1 shows that for this example the Theme is the Subject and the Subject is the Carrier in the experiential structure of the clause which shows that the oncologist chooses to centre the clause around the patient (you) as the carrier of an emotional attribute (happy). To pull apart the different elements of the text and then bring these elements back together shows the descriptive power of the SFL model of language. The analysis presented here is just for one clause and at the level of lexicogrammar. Metafunctional analysis can be done at the level of semantics and context as well. This kind of detailed linguistic analysis is done to give a deeper explanation of the meanings and the context. For example, through a contextual analysis of the three metafunctions in a paper in Chapter 4 of this thesis, Karimi, Moore, and Lukin (in press) give a detailed account of the diverse roles an oncologist takes during a consultation with an advanced cancer patient. What I intended to show in this part is an example of the degree of elaboration and the degree of detail possible with the description that SFL provides in the study of a complex construct such as advanced cancer oncology consultation.

So far I have shown that SFL is able to describe the complexities of the oncology consultation but oncology consultation interactions are also multivalent as was argued earlier. Halliday (2005, p. 63) argues that "[o]ur interaction with our environment is so complex and multidimensional that there has to be a lot of 'play', or indeterminacy, in the construal for it to be able to work at all". But can SFL model of language account for the relativities that exist in this particular register? From an SFL perspective, a transcribed oncology consultation is a collection of linguistic choices by the participants. These linguistic choices are the realization of the contextual choices these participants make in relation to the field, tenor and mode which are in turn motivated by the culture. The value of the linguistic choices that a language user makes in a functional context is determined by the other potential options that could have been chosen but were not, by the context and by the co-text.

Consider extract 2 from an oncologist who, in a paper that forms Chapter 4 of this thesis, is shown to hold a socio-semiotic philosophy of care through which she sees the patient not only as a social being but also as a 'meaner'. Her patient is a 75-year-old man diagnosed with metastatic bowel and anal cancer. In this part of the consultation, the patient expresses a problem that he has been experiencing, emotional lability, and in turn 67 the oncologist responds to this problem by urging the patient to see one of the two psychotherapists whom she had suggested earlier.

The value of a linguistic choice is determined by those possible options that could have been chosen but were not. The relation between the possible options are "relations 'in absentia" (Halliday 2013, p. 17) and are referred to as paradigmatic relations in SFL after Saussure. The 'systemic description' of language and the system networks in SFL allows for the description of the paradigmatic relations. To illustrate how paradigmatic relations work, consider turn 67 from extract 2 and the two other 'versions' of this turn, each of which selects slightly different interpersonal meanings.

- 67 I want you to see one of the two Jennifers.
- 67a Can you see one of the two Jennifers?
- 67b See one of the two Jennifers.

Each of the above versions of the *command* is a way of trying to get the patient to see a psychologist, but each is different in terms of the realization of the tenor of the interaction and the role relationship between the oncologist and the patient.

While 'I want you to' is a hallmark of institutional doctor-patient relationships and the oncologist's *command* to see one of the psychologists that she suggested earlier may signal patient disempowerment by itself, the analysis of this clause in the picture of the context of this consultation makes it plausible to have a different interpretation. The contextual analysis of this consultation, as is reported in chapter four in more detail, suggests that the oncologist engages in several different agentive roles such as treater, palliative doctor, therapist, gate keeper and transmitter or educator and that the social distance between her and her patients is low. Since the oncologist is demanding something that is in the benefit of the addressee, i.e.,

the patient, it is plausible that by saying *I want you to see one of the two Jennifers* the oncologist constructs a relationship different from an institutional doctor-patient relationship, one that is based on the psychotherapeutic care that exists between a therapist and her client. Therefore, 'I' in this turn can construe a participant that cares instead of a participant that has a will. In the coming paragraph, drawing on the co-text of this turn I will further investigate this hypothesis.

54_1	Р	This lability,
54_2		I've been emotionally labile for many years.
54_3		This is not new
54_4		but it's exacerbated.
54_5		The condition is exacerbated,
54_6		that's all.
54_7		I can live with it.
55_1	0	Would a bit of counselling from a psychologist help just in terms
		with how to manage?
55_2		There's a South African Jewish woman –
55_3		I know, I know –
55_4		but she, look there's two people
55_5		I can offer you.
55_6		One is this South African Jewish woman
55_7		whom (9 clauses omitted)
56	Р	Okay, okay.
57_1	0	She'll see you at her house.
57_2		The other one is another Jennifer
57_3		who's a psychologist up in [name of suburb]
57_4		and she used to work here.
57_5		She's a very sensible person.
58	Р	What are their names?
59_1	0	Jennifer Jones [*] is the one in [name of Suburb] and Jennifer [*] –
59_2		I've got her brochure here –
59_3		is the other one.
59_4		I'll give you both of the Jennifers -
60_1	Р	It's worth thinking about.

Extract (2):	Franscript 87 –	Turns 54-67	(P = Patient and O =	= Oncologist)
--------------	------------------------	--------------------	----------------------	---------------

* Pseudonyms

60_2		At the moment I'm okay.
61_1	0	But it's actually nice to make contact
61_2		while you're okay
61_3		because that's your anchor point
61_4		and if you think –
61_5		let's say
61_6		we get bad news
61_7		and you're finding that tough,
61_8		at least they know you
61_9		whereas if you don't,
61_10		if they've never met you
61_11		and then you fall apart,
61_12		not fall apart but -
62	Р	It's an emotional thing.
63_1	0	But this is an emotional disease.
63_2		We're going to have good news at times and not so good –
63_3		so if you have a good rapport with someone -
64	Р	Yeah, it makes a difference.
65_1	0	And you've got to make that rapport now
65_2		while you're well.
66	Р	Yeah, sure, not when you're sick.
67_1	0	I want
67_2		you to see one of the two Jennifers.

Above I looked into the possible realizational relation between the context of the consultation from which extract 2 is taken and the oncologist's demand in turn 67. Another type of relation that affects the value of linguistic items are what Saussure calls syntagmatic relations. In extract 2 the value of the clause complex *I want you to see one of the two Jennifers* is also determined by the other clauses that accompany this clause. Arguably the structure of the oncologist's command is not simple: it is dispersed over turns 63-67 and is comprised of a number of elements. In fact, the oncologist chooses to justify her demand for an expected state in 67 (*seeing one of the two Jennifers*), or what Hasan (2009 [1992]) refers to as a Claim, through providing an 'elaborated' Reason (Hasan, 2009 [1992]) in 63_3, 65_1 and 65_2 which she further validates by another 'elaborated' reason: the Principle (Hasan, 2009 [1992]) that 'cancer is an emotional disease' and that 'there is good news and bad news'. These elements are displayed schematically in figure 1.4 below. The term *elaborated* refers to Hasan's (2009b, p.

333) notion of elaboration as a property of reasoning that signifies interspersion in the realization of the elements of reasoning and accommodates additional information. For example, the element Reason here consists of four related messages and the element Principle is made up of two related messages. This linear relationship between the different elements of the reasoning also has an effect on the interpretation of the oncologist's command as I have shown.

Claim: I want you to see one of the two Jennifers.

Reason:If you have a good rapport with someone,
it makes a difference.And you've got to make that rapport now
while you're well.Principle:Because this is an emotional disease.

We're going to have good news at times and not so good news.

Figure 1.4 Schematized logical structure of oncologist's reasoning in Extract 2

The above explanation supports the hypothesis that the oncologist's demand in turn 67 is the realization of a psychotherapeutic relationship. To be able to accept that hypothesis, further analysis is required and that is beyond the scope of this chapter. What I described here is the descriptive power of an SFL model of language and its capacity to describe the relativities that exist in this register.

I want to make a final comment on the co-constructing relationship between the context and the text. Let us assume that the above hypothesis is correct, that by choosing to use a command the oncologist construes a therapeutic relationship with her patient and further justifies that command with an elaborated reasoning. By doing this the oncologist juggles being a therapist and being a 'transmitter' (Bernstein, 1990) from a contextual point of view and provides care and support and at the same time educates the patient. So at the same time that the context constructs the text, the text creates the context.

1.6. Theoretical gaps in medical interaction research

So far I have argued that talk, in general, and medical encounter, in particular, has two properties that research on medical encounters needs to account for: complexity and multivalence. Analyses of medical discourse need to take into account the complex and relative nature of conversation. I have also shown above that an SFL approach to the analysis of medical encounters successfully describes these two properties. In this part, I look at two well-known and significant methodologies in terms of their power to describe the complex and multivalent nature of language. These methodologies are code-category systems and Conversation Analysis.

Code-category systems are those approaches that Charon, Greene, and Adelman (1994) refer to as 'process analysis' involves the developing of a taxonomy of significant and meaningful behaviours and then analysing medical interactions using the taxonomy and counting the different behaviours listed in the taxonomy, for example, asking open-ended questions or endorsing question asking. This approach was pioneered by Robert Bales (Bales, 1950). Bales' 'interaction process analysis' coding scheme for the study of small groups has had a great influence on medical communication research. Korsch, Gozzi, and Francis (1968), Byrne and Long (1976) and Waitzkin and Stoeckle (1976) are the first examples of the application of this research tradition. The most widely applied coding scheme that is loosely derived from the 'interaction process analysis' is the Roter Interaction Analysis System (RIAS) (Hall & Roter, 2011). While studies that apply code-category systems have produced 'systematic and replicable' findings, such analyses capture merely what is defined by the taxonomy and the text and context are largely neglected (Heritage & Maynard, 2006). Therefore, code-category systems cannot capture the complexity and relativity aspects of the interaction. There are a number of important reviews in linguistics on the use of code-category systems in research on medical interviews in the literature (Ainsworth-Vaughn, 2001; Heritage & Maynard, 2006; Hydén & Mishler, 1999; Mishler, 1984).

The other widely used approach in medical communication research is Conversation Analysis (CA). CA is a micro-analytic approach towards discourse analysis developed by Harvey Sacks, Emanuel Schegloff, and Gail Jefferson. The main focus of CA studies is sequencing and the syntagmatic relations in the conversation at the level of 'turn' as well as 'discourse move' (for example adjacency pairs such as questions and answers). The neglect of detailed aspects of meaning and the relation between text and context which were the main reasons that process

analysis approaches such as the Roter system have been criticised (see Heritage & Maynard (2006), Ainsworth-Vaughn (2001), Mishler (1984), Hydén & Mishler (1999), Inui & Carter (1985), Tuckett, Boulton, Olson, & Williams (1985), Tuckett & Williams (1984), and Pendleton (1983)) is partly addressed in Conversation Analysis (CA) through the analysis of speech as a set of 'social practices' and conversation as a jointly constructed and sustained activity. CA accounts for the semantics and context through the analysis of adjacency pairs (Schegloff, 1968) and sequences, and through the detailed transcription of the conversations to include and display the phonological features, pauses, interruptions, overlaps, and non-lexical features.

But the account of context and meaning stops there. CA does not provide a theory of the context. The relationship between the context and the text is not theorised in CA. For example, one particular criticism is that while it emphasises a systematic approach to the organization of conversation (Heritage & Maynard, 2006), it fails to account for the *outline* or an overall plan of a text as it reduces the *conversation* to *dialogue*, and by doing that it sees the conversation "by itself in isolation from other contextual variables which as a configuration play an important role in the production and comprehension of the discourse" (Hasan, 1997, p. 129). Conversation Analysis in this sense has "insufficient contextual information", in Hasan's term (Hasan, 1997, p. 130).

In addition, CA does not have a theory of the language system, including its different components and the paradigmatic relations in language. To systematise the organization of turn-taking for conversation and to bring into contact 'language' and 'interaction', Sacks, Schegloff, and Jefferson (1974) suggest the Turn Constructional Unit (TCU) as the basic unit of talk and as a component of the turn-taking system for conversation. Sacks et al. (1974, p. 702) refer to TCUs as the "various unit-types with which a speaker may set out to construct a turn". Although Schegloff (1996) and Selting (2000) emphasise that the TCU is not a linguistic unit, TCUs are syntactically classified into sentential, clausal, phrasal, and lexical constructions for English (Sack et al, 1974; Schegeloff, 1996). The parsing of interaction in terms of the TCUs, according to Schegeloff (1996, p. 54), can be described as "grammatical structuring as language's counterpart, fitting to the organizational exigencies of turns as the "host space" in which language deposits are accommodated". The syntactic categorisation of the TCU, though, is not without problem. A primary problem is that the sentence is a unit in the writing system "beginning with a capital letter and ending with a major punctuation mark: a full stop, question mark or exclamation mark" (Halliday & Matthiessen, 2014, p. 6) thus identifying the sentential

TCU as a unit of talk is a bias. In addition, if we identify a sentential TCU as the basic unit of talk we then ignore the primary units that constitute the sentential TCU.

It has not been my intention to provide a critical review of the two abovementioned mainstream approaches towards the analysis of medical interactions here. Rather, I wanted to point out to the methodological and theoretical gaps that exist in medical communication research and suggest an alternative approach that is arguably a better approach to the description of the complexities and relations in the medical interaction.

1.7. The study of personhood and patient-centredess in oncology consultation with advanced cancer patients

Through an interdisciplinary collaboration between the Centre of Language in Social Life at Macquarie University and the Centre for Medical Psychology and Evidenced-based Decision-making (CeMPED) at the University of Sydney a linguistic sub-study was added to an NHMRC funded randomised control trial (RCT) of an intervention called communication support program (CSP) for patients with advanced cancer. This thesis is the outcome of the collaboration with CeMPED.

The RCT was done by a group of researchers at CeMPED at medical oncology clinics based at or affiliated with major hospitals in the Sydney, Australia (Walczak et al., 2014). It involved the design and conduct of a nurse-led CSP and the analysis of its effect on the experience of patients with advanced incurable cancer and their caregivers. The aim of the RCT was to improve communication about EOL and prognostic issues between patients with advanced cancer and with a prognosis of one year or less and their oncologist. The CSP involved a nursefacilitated practice of a question prompt list (QPL). A QPL is a booklet containing questions that patients/caregivers can ask their doctors. The questions in the QPL used in this RCT had a focus on EOL topics including the patient's current condition, what the patient can expect in the future and prognosis; the available treatments, their likelihood of success in controlling the cancer and their advantages and disadvantages in terms of more time to live versus side-effects; palliative care, decisions about stopping anticancer treatments; patient's lifestyle during the illness; support for the patient when anticancer treatments are stopped; support for the family; and advance care directives.

To analyse the effect of the RCT the researchers at CeMPED used a list of questionnaires eliciting patient's and caregiver's demographic details, their medical communication selfefficacy, their views on patient's quality of life, their preferences for information and involvement in decisions about care, their achievement of preferences for information and involvement in decisions about care, patient's hopes for treatment and caregiver's understanding of the patient's hope, patient's preferences for future interventions and caregiver's understanding of such preferences, patient's acceptance of disease, patient's and caregiver's understanding of patient's prognosis, and patient's rating of doctor's communication skills and manner. The audio record of the next oncology consultation after the intervention, the transcribed version of which formed the data for this thesis, was also analysed based on a coding scheme described in Walczak et al. (2014). The manual outlines the coding of patient's/caregiver's questions as question, cue, or concern. It further differentiates between a new issue and a clarification. It also includes the coding of the raised issue in terms of its topic, whether it was a QPL question, whether it has the same wording as the QPL question, and whether it was addressed by the oncologist. The consultations were analysed in terms of the number of questions/cues/concerns, the number of new issues and clarifications, the number of words spoken, and the length of the consultation in seconds and minutes. Finally, a structured telephone interview with the caregiver after the patient's death was also used to elicit the caregiver's view on the quality of the patient's death and their satisfaction with care at that time.

While the main study focused on the investigation of the effect of the RCT, the linguistic substudy aimed to take a socio-semiotic approach and study the contextual characteristics of the oncologist-patient interaction and processes of meaning-making in this practice using a systemic functional linguistics approach to the analysis of the transcribed consultations. More specifically, the study (1) explored the nature of the social context around and enacted by the discourse of oncology consultation, using Hasan's paradigmatic models of the contextual parameters of field, tenor and mode (Hasan, 2014) to identify the different roles that one particular oncologist in the corpus, who seemed to hold a philosophy of care based on which patients are unique rational beings, engaged in during a consultation and the roles that she identified the patient with; (2) analysed how the patients identified themselves and constructed their experience and sense of self during the consultations by doing a transitivity-concordance analysis (Thompson, 2008) of the patients' contribution across the entire corpus; and (3) explored the nuances of meaning in the previously analysed oncologist's responses to her patient and his companion's questions during a consultation using Hasan's semantic network for giving information (Hasan, 1983) and compared that with the answers of a different oncologist in another consultation from the main corpus. In doing these analyses the thesis sought answers to two main questions:

- 1. What is it like to be a terminal cancer patient?
- 2. How is patient-centredness operationalised linguistically in the care for the dying person?

In the remainder of this chapter, I provide an account of the data used in this study and the outline of the thesis.

1.7.1. Data

As a result of the collaboration described above, 76 transcribed oncology consultations were sourced through CeMPED for more detailed linguistic analysis¹, along with demographic information including the patients' age, sex, marital status, highest educational qualification, occupation (or previous occupation if unemployed during illness), their oncologist, their randomisation group, their primary site of cancer and whether they had received chemotherapy, radiotherapy or surgery before. Of these 76 consultations, 69 came with complete metadata and 7 were missing some non-linguistic information. Thus, the 69 texts formed the Oncology Consultation Corpus (OCC), used in the linguistic project. OCC is a searchable corpus of more than 200,000 words with consultations ranging between less than three minutes to about 48 minutes long with the average consultation length of 21 minutes. The texts were tagged for patient's age, sex, education, occupation, and randomisation group. The consultations were led by 14 female and male oncologists three of which were in charge of almost half the consultations. Patients were ranged between 33 and 84 years old and patients in their 60s constituted the biggest group in the corpus (43%). The corpus includes 45 male patients and 24 female patients and the majority of them were married. The six most primary cancers in the corpus were prostate, lung, bowel and anal, breast, pancreatic and kidney. Refer to Table 1.2 for patients' characteristics.

A sub-corpus of 10 consultations, all conducted by the same oncologist, were selected to analyse the context of the oncology consultations. This will be presented in Chapter 3.

¹ The data was obtained under the interinstitutional material transfer agreement between the University of Sydney and Macquarie University (Ref: CT#14262).

	N [~%]
Patient ($N = 69$) characteristics	· · · · · J
Randomisation group	
Control	34 [49 %]
Intervention	35 [51%]
Age	
Mean [range]	63 [33-84]
Sex	
Male	45 [65%]
Female	24 [35%]
Marital status	
Married	37 [54 %]
Single	12 [17%]
De facto or partnered	8 [12%]
Divorced	6 [9%]
Widowed	6 [9%]
Education	
Year 10 or below	12 [17%]
Year 12/HSC	18 [26%]
TAFE certificate/diploma	17 [25%]
University degree	15 [22%]
Higher degree (post graduate)	7 [10%]
Occupation	
Managers/own husiness	10 [14%]
Professional	19 [27%]
Allied professional	7 [10%]
Clerk	6[9%]
Trades people	8 [12%]
Sales and service people	2 [3%]
Labourers	8 [12%]
Home makers	2 [3%]
Missing	7 [10%]
Site of primary cancer	
Prostate	11 [16%]
Lung	9 [13%]
Bowel & anal	8 [12%]
Breast	8 [12%]
Kidney	5 [7%]
Pancreatic	5 [7%]
Ovarian	4 [6%]
Bladder	4 [6%]
Mouth, nose and throat cancers	3 [4%]
Bone Cancer (sarcoma)	1 [1%]
Cervical cancer	1 [1%]
Lymphoma	1 [1%]
Soft tissue	1 [1%]
Stomach and oesophageal	2 [3%]
Testicular	1 [1%]
Unknown primary	3 [4%]
Missing	2 [3%]
$ \begin{array}{l} \text{Oncologist (N = 14) characteristics} \\ \text{Number of transprints per operaterist} \end{array} $	
Number of transcripts per oncologist	1 12
Kallge	1-12

Table 1.2 Patient characteristics and corpus information
1.7.2. Ethics

The trial protocol and all study forms and materials including the addition of the linguistic substudy have received the approval of the Lead Human Ethics Review Board at Royal Prince Alfred Hospital (Protocol Number: X10-0032 and Approval Number HREC/10/RPAH/51) and from the governance officers at each of the participating recruitment sites. In addition, the externally approved linguistic sub-study received the approval of the Macquarie University Human Research Ethics Committees (HRECs) (Ref: 5201400911).

1.8. Outline of the remaining chapters

This thesis is in the format of thesis-by-publication. It includes an introduction (the present chapter), four core chapters (Chapters 2, 3, 4, and 5) consisting of four papers and a conclusion, presented in Chapter 6. The thesis in its entirety covers the concept of personhood at the EOL and in the care for the dying through the study of advanced cancer oncology consultations from different vantage points (Halliday, 1978): "from above" by looking at the context of oncology consultations and the actualisation of different roles one oncologist perform during consultations, "from below" by looking at the grammatical choices advanced cancer patients made to identify and construct themselves and "from roundabout" to explore how two distinct oncologists' constructed their roles and that of the patients and companions by making different semantic choices in giving answers to patients and companions' questions. In designing and developing the methodology of each paper, the results of the preceding papers from this study served as the basis.

The point of departure of the study was a systematic literature review to identify and review those studies in the literature that share a similar focus: studies that look at personhood at the EOL from a semiotic perspective. Chapter 2, 'The linguistic correlates of patient-centredness in end-of-life and palliative care contexts: A systematic literature review', presents the outcome of this systematic literature review. In this paper that is a co-authored work, (to be submitted to the journal of 'Social Science & Medicine') Karimi and Moore investigate the linguistic constructs that have been explored in the research on patient-centred communication at the EOL as well as the approaches that have been adopted in the exploration of these linguistic constructs. As the lead author of this paper, I conducted the systematic literature search, analysed the data of the systematic literature review, prepared the first draft of the paper, and further revised and edited the first draft. Moore's contribution was towards the conception of the paper as well as the provision of critical comments on the initial draft.

Chapter 3 begins the study of data, with a paper that explores the range of roles that one particular oncologist, who I describe as oriented to a socio-semiotic philosophy of care, engaged in. This oncologist was chosen based on the close reading of the corpus. In 'Cancer care as an integrated practice: consultations between an oncologist and patients with advanced, incurable cancer', a co-authored work to be published in an edited volume entitled 'Perspectives from Systemic Functional Linguistics', Karimi et al. (in press) focus on the context and the parameters of field, tenor and mode to probe how the oncologist constructs a variety of roles for herself, in part through her own semiotic choices, but also by allowing the meanings created by the patient to set the terms of how the consultations unfold. As the lead author of this paper, I conducted the data analysis, interpreted the results, prepared the initial draft, revised and edited the draft, and liaised with the co-authors and the provision of critical comments.

In Chapter 4, 'Advanced cancer patients' construction of self during oncology consultations: A transitivity concordance analysis', I shift focus from the oncologist to the patient and explore the patients' self-identification from a grammatical-concordance perspective. In this paper which I co-authored with Lukin, Moore, and Butow (to be submitted to the Journal of 'Functions of Language'), we take a sub-corpus consisting of the patients' participation in the 69 consultations and analyse how the patients identified themselves grammatically to explore the experience of the dying cancer patients and their sense of identity in the face of death. As the lead author of this paper, I contributed to the conception and design of the paper, the analysis and interpretation of the results, the preparation of the initial draft, the revision and editing of the draft, and liaison between the co-authors. My co-authors contributed to this paper in the form of providing critical comments on the first draft.

Chapter 5, 'Ways of meaning: A case study of two oncologists' answers to questions asked by advanced cancer patients and their companions', presents another case study focusing on two consultations and further investigates the answers that the same oncologist analysed in Chapter 3 provides to the questions asked by a patient and his companion, and compares those answers with the answers of another oncologist in the second consultation. 'Ways of meaning: A case study of two oncologists' answers to questions asked by advanced cancer patients and their companions' is a co-authored work that explores patient-centredness from an interpersonal and semantic perspective. My contribution to this paper was to the conception and design of the paper, the analysis and interpretation of the results, and the preparation, revision, and editing

of the paper. Annabelle Lukin has contributed to this paper by providing critical comments on the first draft.

Chapter 6 concludes the thesis by summarising and synthesising the key findings of the thesis and exploring the implications of this research for the care of dying patients in the context of practice and pedagogy. In this concluding section, I argue that a weakly classified and weakly framed oncologist-patient relationship (Bernstein, 1990), in which the oncologist considers and discusses the patients' personal circumstances and their personal lives as affected by the illness, informs the patients, and acknowledges them as semiotic agents, is central to patient-centred oncological care for advanced cancer patients.

References

- Ainsworth-Vaughn, N. (2001). The Discourse of Medical Encounters. In D. Schiffrin, D. Tannen, & H. E. Hamilton (Eds.), *The handbook of discourse analysis* (pp. 454-469). Oxford: Blackwell.
- Aitini, E., Adami, F., & Cetto, G. (2010). End of life in cancer patients: drugs or words? *Annals* of oncology, 21(5), 914-915.
- Armstrong, E. M. (1997). A grammatical analysis of aphasic discourse: changes in meaningmaking over time. (Unpublished doctoral dissertation), Macquarie University, Sydney.
- Bales, R. F. (1950). Interaction Process Analysis: A Method for the Study of Small Groups. Reading, MA: Addison-Wesley.
- Balint, E. (1969). The possibilities of patient-centered medicine. JR Coll Gen Pract, 17(82), 269-276.
- Bernstein, B. (1990). Class, Codes and Control (Vol. IV). London & New York: Routledge.
- Bishop, J. P. (2011). *The anticipatory corpse: Medicine, power, and the care of the dying*. Notre Dame, Indiana: University of Notre Dame Press.
- Broom, A. (2015). Dying: A Social Perspective on the End of Life. Farnham, UK: Ashgate.
- Butt, D. G., Moore, A. R., Henderson-Brooks, C., Meares, R., & Haliburn, J. (2010). Dissociation, relatedness, and 'cohesive harmony': a linguistic measure of degrees of 'fragmentation'? *Linguistics and the Human Sciences*, 3(3), 263–293.
- Byrne, P. S., & Long, B. E. L. (1976). Doctors Talking to Patients: A Study of the Verbal Behaviour of General Practitioners Consulting in Their Surgeries. London: H.M. Stationery Office.
- Cassell, E. J. (1985). Talking with patients (Vol. 2). Cambridge & Mass: MIT Press.

- Charon, R., Greene, M. J., & Adelman, R. D. (1994). Multidimensional interaction analysis: a collaborative approach to the study of medical discourse. *Social Science and Medicine*, 39(7), 955-965.
- Clark, K., Byfieldt, N., Green, M., Saul, P., Lack, J., & Philips, J. L. (2014). Dying in two acute hospitals: would usual care meet Australian national clinical standards? *Aust Health Rev*, 38(2), 223-229. doi:10.1071/ah13174
- Clarke, P., & Sivey, P. (2017). Why don't we know how many people die in our hospitals? Retrieved from The Conversation website: <u>https://theconversation.com/why-dont-we-know-how-many-people-die-in-our-hospitals-71471</u>
- Clayton, J. M., Butow, P. N., Tattersall, M. H., Devine, R. J., Simpson, J. M., Aggarwal, G., .
 . Noel, M. A. (2007). Randomized controlled trial of a prompt list to help advanced cancer patients and their caregivers to ask questions about prognosis and end-of-life care. *J Clin Oncol*, 25(6), 715-723.
- Durkheim, E. (1997). *The Division of Labor in Society (W. D. Halls, Trans.)*. New York: Free Press.
- Fleming, W. (1866). *The Vocabulary of Philosophy*. London & Glasgow: Richard Griffin and Company.
- Foucault, M. (1973). *The birth of the clinic: An archaeology of the human sciences*. New York: Vintage.
- Glaser, B. G., & Strauss, A. L. (1965). Awareness of dying. New Jersey: Aldine Transaction
- Hall, J. A., & Roter, D. L. (2011). Physician-Patient Communication. In H. S. Friedman (Ed.), *The Oxford Handbook of Health Psychology* (pp. 317-346). Oxford: Oxford University Press.
- Halliday, M. A. K. (1966). Some notes on 'deep' grammar. *Journal of Linguistics*, 2(1), 57-67. doi:10.1017/S0022226700001328
- Halliday, M. A. K. (1978). *Language as social semiotic: the Social Interpretation of Language and Meaning*. London: Arnold.
- Halliday, M. A. K. (1996). On grammar and grammatics In R. Hasan, C. Cloran, & D. G. Butt (Eds.), *Functional descriptions: theory into practice* (pp. 1-38). Amsterdam: Benjamins.
- Halliday, M. A. K. (2002 [1992]). How do you mean?. In J. J. Webster (Ed.), On Grammar, Volume 1 in the Collected Works of M. A. K. Halliday (pp. 352-368). London & New York: Continuum.

- Halliday, M. A. K. (2003a). On Language and Linguistics, Volume 3 of the Collected works of M.A.K. Halliday. London & New York: Continiuum.
- Halliday, M. A. K. (2003b). On the "architecture" of human language. In J. J. Webster (Ed.), On Language and Linguistics, Vol. Volume 3 in the Collected Works of M.A.K Halliday (pp. 1-29). London & New York: Equinox.
- Halliday, M. A. K. (2005). On matter and meaning: The two realms of human experience. *Linguistics and the Human Sciences*, 1(1), 59-82.
- Halliday, M. A. K. (2007 [1975]). Language as social semiotic. In J. J. Webster (Ed.), Language and Society, Volume 10 in the Collected Works of M. A. K. Halliday (pp. 169–201). London & New York: Continuum.
- Halliday, M. A. K. (2009). Language as social semiotic: Towards a general sociolinguistic theory (1975). In J. J. Webster (Ed.), *Language and Society: Volume 10, Collected Works of M. A. K. Halliday* (pp. 169-202). London: Bloomsbury Publishing.
- Halliday, M. A. K. (2013). Meaning as choice. In L. Fontaine, T. Bartlett, & G. O'Grady (Eds.), Systemic Functional Linguistics: Exploring Choice (pp. 15-36). US: Cambridge University Press.
- Halliday, M. A. K., & Hasan, R. (1985/89). *Language, context and text: Aspects of language in a social-semiotic perspective*. Victoria: Deakin University Press.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (1999). *Construing Experience Through Meaning: A Language-based Approach to Cognition*. London & New York: Cassell.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2014). *Halliday's introduction to functional grammar*. London & New York: Routledge.
- Hasan, R. (1983). A semantic network for the analysis of messages in everyday talk between mothers and their children. Unpublished work, Macquarie University, Sydney.
- Hasan, R. (1995). The Conception of Context in Text. In P. H. Fries & M. Gregory (Eds.), Discourse in Society: Systemic Functional Perspectives, Meaning and Choice in Language: Studies for Michael Halliday (pp. 183-283). Norwood, New Jersey: Ablex.
- Hasan, R. (1996). Ways of Saying, Ways of Meaning: Selected Papers of Ruqaiya Hasan. London & New York: Cassell.
- Hasan, R. (1997). Situation and the definition of Genres. In G. Houghton & R. O. Freedle (Eds.), Advances in discourse processes, Volume 62 (pp. 127-172). Norwood, NJ: Ablex.

- Hasan, R. (2009a). The place of context in a systemic functional model. In M. A. K. Halliday & J. J. Webster (Eds.), *Continuum companion to systemic functional linguistics* (pp. 166-189). London: Continuum.
- Hasan, R. (2009b). Semantic Variation, Meaning in Society and in Sociolinguistics, Volume 2 of the collected works of Ruqaiya Hasan. London & Oakville: Equibox.
- Hasan, R. (2009 [1992]). Rationality and everyday talk: from process to system. In J. Svartvik (Ed.), *Directions in Corpus Linguistics: proceedings of Nobel Symposium 82, Stockholm, 4-8 August 1991 257-307.* Berlin: Walter de Gruyter. (Reprinted from: Hasan (2009), pp. 309-52).
- Hasan, R. (2014). Towards a paradigmatic description of context: systems, metafunctions, and semantics. *Functional Linguistics*, *1*(1), 1-54.
- Heath, I. (2008). Matters of Life and Death: Key Writings. Oxon: Radcliffe.
- Helman, C. G. (1981). Disease versus Illness in General Practice. J R Coll. Gen. Pract., 31, 548-562.
- Heritage, J., & Maynard, D. W. (2006). *Communication in Medical Care: Interaction between Primary Care Physicians and Patients*. Cambridge: Cambridge University Press.
- Herke, M., Matthiessen, C. M. I. M., Manidis, M., McGregor, J., H., S., & Slade, D. (2008).
 Patient Safety: a tri-stratal interpretation of communicative risk in the Emergency Departments of public hospitals. Paper presented at the 35th International Systemic Functional Linguistics Congress Sydney, Australia.
- Hydén, L. C., & Mishler, E. G. (1999). Language and medicine. *Annual Review of Applied Linguistics*, 19, 174-192.
- Inui, T. S., & Carter, W. B. (1985). Problems and prospects for health services research on provider-patient communication. *Medical care*, 23(5), 521-538.
- Karimi, N., Moore, A. R., & Lukin, A. (in press). Cancer care as an integrated practice: consultations between an oncologist and patients with advanced, incurable cancer. In L. Fontaine & A. Baklouti (Eds.), *Perspectives from Systemic Functional Linguistics*: Routledge.
- King, B., Kerr, R., & Walker, A. (2013). A Care for the dying in NSW, Sydney. Sydney: Clinical Excellence Commission.
- Korsch, B. M., Gozzi, E. K., & Francis, V. (1968). Gaps in doctor-patient communication. 1.Doctor-patient interaction and patient satisfaction. *Pediatrics*, 42(5), 855-871.

- Kurtz, S. M., & Silverman, J. D. (1996). The Calgary-Cambridge Referenced Observation Guides: an aid to defining the curriculum and organizing the teaching in communication training programmes. *Med Educ*, 30(2), 83-89.
- Lancet, T. End-of-life care: the neglected core business of medicine. *The Lancet, 379*(9822), 1171.
- Matthiessen, C. M. I. M. (2007). The "architecture" of language according to systemic functional theory: developments since the 1970s In R. Hasan, C. M. I. M. Matthiessen, & J. J. Webster (Eds.), *Continuing discourse on language* (Vol. 2, pp. 505-561). London: Equinox.
- Matthiessen, C. M. I. M. (2013). Applying systemic functional linguistics in healthcare contexts. *Text & Talk, 33*(4-5), 437-466.
- Matthiessen, C. M. I. M., Teruya, K., & Lam, M. (2010). *Key Terms in Systemic Functional Linguistics*. London & New York: Continuum.
- McWhinney, I. R. (1985). Patient-centred and Doctor-centred Models of Clinical Decisionmaking. In M. Sheldon, J. Brooke, & A. Rector (Eds.), *Decision-Making in General Practice* (pp. 31-46). London: Macmillan Education UK.
- Mishler, E. G. (1984). *The Discourse of Medicine: Dialectics of Medical Interviews*. Norwood, NJ: Ablex Publishing Corporation.
- Moore, A. R. (2004). *The discursive construction of treatment decisions in the management of HIV disease*. (Unpublished doctoral dissertation), Macquarie University, Sydney.
- Moore, A. R. (2005). Modelling Agency in HIV Treatment Decision-Making. *Australian Review of Applied Linguistics*, 103-122.
- Moore, A. R. (2015). Can Semantic Networks Capture Intra-and Inter-Registerial Variation?
 Palliative Care Discourse Interrogates Hasan's Message Semantics. In W. L. Bowcher
 & J. Y. Liang (Eds.), Society in Language, Language in Society: Essays in Honour of Ruqaiya Hasan (pp. 83-114). UK: Palgrave Macmillan
- Moore, A. R., Butt, D. G., Ellis-Clarke, J., & Cartmill, J. (2010). Linguistic analysis of verbal and non-verbal communication in the operating room. ANZ Journal of Surgery, 80(12), 925-929. doi:10.1111/j.1445-2197.2010.05531.x
- Pendleton, D. (1983). Doctor-patient communication: a review. In D. Pendleton & J. Hasler (Eds.), *Doctor-Patient Communication* (pp. 5-53). New York: Academic.
- Pendleton, D., Schofield, T., Tate, P., & Havelock, P. (1984). The Consultation: an approach to learning and teaching. Oxford: Oxford University Press.

- Rogers, C. R. (1942). *Counseling and psychotherapy; newer concepts in practice*. Boston: Houghton Mifflin Company.
- Roter, D. L., & Larson, S. (2002). The Roter interaction analysis system (RIAS): utility and flexibility for analysis of medical interactions. *Patient Educ Couns*, 46(4), 243-251. doi:10.1016/S0738-3991(02)00012-5
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68-78.
- Sacks, H., Schegloff, E. A., & Jefferson, G. (1974). A simplest Systematics for the Organization of Turn-Taking for Conversation. *Language*, *50*(4), 696-735.
- Schegloff, E. A. (1968). Sequencing in conversational openings. *American Anthropologist*, 70, 1075-1095.
- Schegloff, E. A. (1996). Turn organization: One intersection of grammar and interaction. In E.
 Ochs, E. A. Schegloff, & S. A. Thompson (Eds.), *Interaction and grammar* (pp. 52-133). New York: Cambridge University Press.
- Seale, C. (1998). *Constructing Death: The Sociology of Dying and Bereavement*. Cambridge: Cambridge University Press.
- Selting, M. (2000). The construction of units in conversational talk. *Language in Society*, 29, 477-517.
- Semino, E., Demjén, Z., Demmen, J., Koller, V., Payne, S., Hardie, A., & Rayson, P. (2015). The online use of Violence and Journey metaphors by patients with cancer, as compared with health professionals: a mixed methods study. *BMJ Supportive & Palliative Care*. doi:10.1136/bmjspcare-2014-000785
- Slade, D., Manidis, M., McGregor, J., Scheeres, H., Chandler, E., Stein-Parbury, J., Dunston, R., Herke, M., Matthiessen, C. M. I. M. (2015). *Communicating in Hospital Emergency Departments*. Heidelberg: Springer.
- SUPPORT. (1995). A controlled trial to improve care for seriously ill hospitalized patients. The study to understand prognoses and preferences for outcomes and risks of treatments (SUPPORT). The SUPPORT Principal Investigators. *Jama*, 274(20), 1591-1598.
- Swerissen, H., & Duckett, S. (2014). *Dying well*. Retrieved from <u>https://grattan.edu.au/wp-</u> <u>content/uploads/2014/09/815-dying-well.pdf</u>
- Taylor, I. (1851). Elements of Thought. New York: William Gowans.
- Thompson, G. (2008). From process to pattern: methodological considerations in analysing transitivity in text. In C. Jones & E. Ventola (Eds.), New Developments in the Study of Ideational Meaning: From Language to Multimodality (pp. 17-33). London: Equinox.

- Tuckett, D., Boulton, M., Olson, C., & Williams, A. (1985). *Meetings between Experts: An Approach to Sharing Ideas in Medical Consultations*. London: Tavistock.
- Tuckett, D., & Williams, A. (1984). Approaches to the measurement of explanation and information-giving in medical consultations: a review of empirical studies. *Social Science and Medicine*, 7, 571-580.
- Waitzkin, H., & Stoeckle, J. (1976). Information control and the micropolitics of health care: summary of an ongoing research project. *Social Science and Medicine*, *10*, 263-276.
- Walczak, A., Butow, P. N., Clayton, J. M., Tattersall, M. H., Davidson, P. M., Young, J., & Epstein, R. M. (2014). Discussing prognosis and end-of-life care in the final year of life: a randomised controlled trial of a nurse-led communication support programme for patients and caregivers. *BMJ open*, 4(6), e005745.
- Walczak, A., Mazer, B., Butow, P. N., Tattersall, M. H., Clayton, J. M., Davidson, P. M., . . . Epstein, R. M. (2013). A question prompt list for patients with advanced cancer in the final year of life: development and cross-cultural evaluation. *Palliative medicine*, 0269216313483659.
- Walter, T. (1994). The Revival of Death. London & New York: Routledge.
- Yeatman, A., Dowsett, G., Fine, M., & Gursansky, D. (2009). *Individualization and the Delivery of Welfare Services*. London: Palgrave.

Chapter 2 THE LINGUISTIC CORRELATES OF PATIENT-CENTREDNESS IN END-OF-LIFE AND PALLIATIVE CARE CONTEXTS

2.1. Introduction

Differentiating between 'patient-centred communication' and 'patient-centredness' as a moral philosophy based on which patient-centred communication (henceforth PCC) is practiced, Epstein et al. (2005, p. 1517) acknowledge the 'semiotic order' (Halliday, 1996; Halliday & Matthiessen, 1999; Matthiessen, 2013) of patient-centredness (although the above stance assumes a deterministic role for patient-centredness as a contextual construct rather than a co-constructive relationship between patient-cetredness and PCC). This study outlines the achievements and problems of different methods of data collection, data analysis and interpretation in operationalizing PCC.

Following Epstein et al.'s (2005) line of research with a descriptive rather than evaluative approach, and focusing on patient-centredness as a semiotic construct, in this chapter we enquire into how the core values of patient-centred practice are operationalized at a linguistic level because language and meaning "is intimately related to the definition of and perspective on humane clinical care", in Mishler's words (1984, p. 21). These values include 'eliciting and understanding the patient's perspective', 'understanding the patient as a unique person'; 'reaching a shared understanding of the problem and its treatment with the patient that is concordant with the patient's values'; and 'helping patients to share power and responsibility by involving them in the decision making to the degree that they wish' (Epstein et al., 2005, p. 1517). The focus of this chapter is limited to a particular context: the context of end-of-life (EOL) care. It examines the linguistic research that has been done on patient-centredness in EOL care practice and provides a systematic literature review. Using Butt's notion of 'semiotic address' we consider how patient-centredness has been operationalised in terms of language and interaction: which aspects of language have been considered, through which theoretical lens, and what findings have been made. In other words, we are asking 'Does research on EOL see patient-centredness as having linguistic correlates and, if so, how is this relation depicted'?

A considerable amount of work has been published on patient-centredness and its agnates (empathy, self-determination, shared decision-making, etc.) in different medical contexts (Marshall, Kitson, & Zeitz, 2012; McCormack, 2003; Moore, 2005; Walczak et al., 2013) by researchers from different disciplines including medicine, psychology, nursing, communication studies, anthropology, and linguistics. However, the linguistic/semiotic practices involved seem yet to receive systematic attention (cf. Matthiessen, 2013). Communication is most commonly the root of patient dissatisfaction (Buckman, Tulsky, & Rodin, 2011; Slade et al., 2015), and can be the source of a profound sense of personalised care, especially at the EOL (Driscoll 2012), which suggests that it is crucial to develop a nuanced and robust understanding of how patient-centredness is made manifest through language. Equally, if healthcare is a growing area of application for linguistics and discourse analysis, it is important for linguists to engage with health practitioners and communication researchers about such relations, in order to find where a linguistic perspective can add value. This chapter contributes an important step in building such engagement for one specific medical context, following previous research by the authors and their colleagues on other health areas (Brown, Butow, Butt, Moore, & Tattersall, 2004; Butt, Moore, & Henderson-Brooks, 2012; Moore, 2005). This step comprises a systematic literature review of the papers that use linguistics as a guide in addressing issues related to patient-centredness in medical encounters at the EOL. The following section explains the details of how the systematic literature review was performed.

2.2. Method

A literature search using Google Scholar was performed under a large and varied selection of keywords. The use of keywords was partly informed by different linguistic theories and approaches that are used for the analysis of natural talk. These keywords included 'patient-centred', 'patient-centered', 'patient-centredness', 'patient-centeredness', 'cancer, 'end of life care', 'EOL care', 'palliative care', 'audio recorded', 'discourse', 'linguistics', 'sociolinguistics', 'conversation analysis', 'systemic functional linguistics', 'pragmatics', and 'coding scheme'. After initial title screening, followed by abstract screening as the second step, 80 papers were selected for full-text screening for potential relevance. Only 25 papers met the criteria. Studies were eligible for inclusion if they (i) investigated the interactions of terminally ill patients or their care givers with medical professionals linguistically, and (ii) formed relations between their linguistic analysis and the socio-psychological concept of patient-centred care, and (iii) were written in English. No specific date limit was set. Five other studies

which the writers came across but were absent in the search were added to the database. The screening and selection process is demonstrated in Figure 2.1.



Figure 2.1 Study flow diagram

The review of research on patient-centred doctor-patient interaction at the EOL presented in this chapter is organised by the theoretical and methodological approaches taken by the eligible studies. These approaches include Interaction Analysis Systems (IASs), Conversation Analysis (CA), sociolinguistics, systemic functional linguistics (SFL), pragmatics, Rhetorical Genre Studies (RGS) and ethnography. On a general level the studies in this database can be categorised into two broad categories: 1) research applying Interaction Analysis Systems (IASs) to code the interactions and 2) research applying microanalytic approaches to the study of medical interaction. This categorisation is motivated by Mishler (1984) and Heritage and Manyard (2006), who differentiate between the two mainstream medical communication research methodologies of 'process analysis' (that involves the application of an IAS) and 'microanalysis of discourse'. In each part the results of the systematic literature review will be

discussed within the framework of a functional perspective towards language (Halliday & Matthiessen, 2014) which sees language as a complex semiotic system consisting of four levels or strata: context, semantics (or meaning), lexicogrammar (grammar and lexis), and phonology; and having four metafunctions: experiential (related to construing human experiences), logical (related to the logical-semantic relations between units of text), interpersonal (related to enacting personal and social relationships), and textual (related to the internal organisation of text). The concepts of *stratification* and *metafunction* serve as the basis for the discussion and classification of the linguistic features that have been addressed by the studies in this database. In other words, we ask what the location of the meanings analysed by these studies, or in Butt's (2007, p. 111) term their "semiotic address" is.

2.3. Interaction Analysis Systems (IASs)

In this section, the studies which use an IAS to operationalise the relationship dynamics, content and language of medical interactions are reviewed. These studies mostly coded largescale data and applied quantitative statistical tests to explore patterns of communicative behaviour. Table 2.1 lists these studies and presents information about their data.

1	Walczak et al. (2014)	79 consultations between 14 oncologists and 79 advanced cancer patients
2	Brandes et al. (2014)	28 consultations between oncologists from four hospitals in Sydney, Australia and 13 male and 15 female advanced cancer patients
3	Walczak et al. (2017)	79 consultations between 14 oncologists and 79 advanced cancer patients
4	Del Vento, Bavelas, Healing, MacLean, & Kirk (2009)	16 consultations, between 8 physicians experienced in palliative medicine or oncology and 16 analogue patients
5	Eggly, Barton, Winckles, Penner, & Albrecht (2013)	22 consultations including clinical trial offers between 11 oncologists and 11 African American cancer patients (7 male, 4 female) and 11 White cancer patients (6 male, 5 female)
6	Fang, Shi, Kong, & Shields (2014)	39 consultations between 39 physicians (20 family physicians and 19 oncologists) and 3 male stage IV lung cancer standard patients
7	Henry et al. (2013)	40 consultations between 18 urologists and 40 patients with early- stage prostate cancer
8	Kissane (2010)	112 video-recorded consultation with 28 physicians and surgeons

Table 2.1 Papers that used an IAS and their data

9	Lifford (2012)	14 consultations between 6 oncologists and 14 patients with small cell lung cancer (7 male, 7 female)	
10	Lu, Mohan, Alexander, Mescher, & Barnato (2015)	114 audio-recorded and transcribed consultations between a standardized patient depicting a 78-year-old bedbound man with metastatic cancer and life-threatening hypoxia and 114 physicians	
11	Mazer, Cameron, DeLuca, Mohile, & Epstein (2014)	34 consultations between 17 oncologists and 34 patients and companions (46 qualifying companion statements from19 unique companions were collected from a total of 28 conversations)	
12	Roter, Larson, Fischer, Arnold, & Tulsky (2000)	50 audio-recorded consultations between 50 community physicians and 50 patients (34 male, 16 female) with serious medical illness and 48 audio-recorded consultations between 18 expert physicians and 48 patients with 'serious medical illness' (26 male, 22 female)	
13	Shields et al. (2013)	40 audio-recorded consultations between 40 physicians (20 family physicians and 20 medical specialists) and 3 standardized patients (SPs) trained to portray a patient with 'an advanced life-threatening illness'	
14	Wall et al. (2015)	38 healthcare provider-patient conversations between 15 providers and 38 patients	
15	Rodriguez, Gambino, Butow, Hagerty, and Arnold (2007)	29 transcribed oncology consultations between 6 oncologists and 29 patients with incurable cancer (14 male, 15 female)	
16	Cordella (2011)	9 follow-up oncology consultations	

2.3.1. Interpersonal resources in IPS research

The interpersonal resources or the linguistic features that doctors and patients use to enact interpersonal relations are extensively studied in the research which uses IPSs or coding schemes to analyse the doctor-patient interaction. This was done largely at the level of context by looking at the overall consultation atmosphere and the number and content of patient questions, although some items at the stratum of lexicogrammar were also discussed, for example, the use of modality resources and lexis. The following sections provide a brief overview of the interpersonal resources of PCC that were analysed by studies in this part of the database.

Tenor

Tenor is one of the three parameters of the context of situation (Halliday & Hasan, 1985/89) in systemic functional linguistics, and refers to the roles of and relationships between the

interactants. The term 'tenor' encapsulates a) "the part an interactant is playing in the achievement of the goal implicit in the social practice" (Hasan, 2015, p. 34); b) "the considerations around which their meaning-wording roles are calibrated" (Hasan, 2014, p. 33); and c) the interactants' "interactive biography and their social positioning" (ibid, p. 33).

Tenor is partly touched on in one of the studies in our database. Analysing the Advanced Care Directive discussions in two sets of consultations (one set of 50 audiotaped consultations obtained from eighteen internists and family physicians and a further set of 48 audiotaped consultations obtained from nine physicians nationally recognised as expert in medical ethics and/or physician-patient communication), Roter et al. (2000) apply the Roter Interaction Analysis System (RIAS) which describes some aspects of the tenor of the medical interaction. In Roter et al's (2000) terms these are 'socioemotional' categories of 'communication behaviours':

- Social talk: non-medical chit-chat
- Positive talk: agreements, approvals and complements, jokes and laughter
- Negative talk: disagreements, disapprovals or criticisms, and corrections
- Response to emotions: concern, reassurance, empathy, legitimization, partnering
- Partnership: asking for patient opinion, patient understanding, and paraphrase

Roter et al. (2000) show that the patients of the 'expert' physicians engaged in more psychosocial and lifestyle discussions and more positive talk. However, apart from one or two examples for what they refer to as 'communication behaviours' in their coding system no further information about and illustration of how they analysed the texts is provided. It is not shown in the paper what exactly counts as a certain 'communication behaviour', for example, positive talk.

These categories in SFL terms appear to describe key contextual interpersonal choices of the interactants. Of course, they do not cover all the important aspects of interpersonal context and in some ways some of them such as 'asking for patient opinion', 'agreements', and 'disapproval and criticism' are semantic rather than contextual features. Medical discourse is complex and relative. It consists of several different components and the value of each component is determined by the other components. To be able to describe the complexities of the medical discourse and the relativities involved, there is the need to analytically separate contextual determinants from semantic realizations of a professional register or institutionally preferred/legitimated way of speaking.

In addition to the 'socioemotional' categories, the Roter et al (2000) use a 'ratio of the count of physician statements divided by a count of patient statements' as a measure of verbal dominance. By 'statement' here the authors seem to mean the length of contribution to the interaction in terms of time. This measure of verbal dominance also seems to be used as a rough descriptor of the tenor of the interaction. But verbal dominance is only one aspect of the tenor and its value depends on other factors involved in a particular context of situation. For example, in a situation where a doctor finds it necessary to provide more information and more precise information to the patient, she or he can by this definition be considered verbally dominant.

Overlooking the involved complexities, Roter et al. (2000) conclude that those physicians that were recognised (through a number of inclusion criteria that the authors set) as experts in medical ethics, physician-patient communication, or both areas, were:

- Less verbally dominant than the other group of physicians during AD discussions
- Gave less treatment-related and biomedical related information and asked fewer questions related to biomedical and treatment topics
- Encouraged more psychological and lifestyle discussion and questions
- Engaged in more partnership building

Moving on to the next study in this section, tenor has been partially touched on by Lifford (2012) in exploring whether shared decision making was present in consultations with lung cancer patients. Lifford (2012) provides a descriptive account of how lung cancer patients are involved in decision making about treatment choices in consultations with health professionals. The criteria that Lifford uses to assess shared decision making draw on Singh et al.'s (2010) coding system which is an oncology-specific system for shared decision making. Singh et al.'s (2010) coding frame includes six constructs: establishing a problem, doctor-patient relationship, research evidence, patient perspective, decision making, and time issues. Lifford (2012) also uses three new coding frames to code the contribution of doctor, patient, and companion to the consultation and to "classify the emotions, cognitions, reasons for/or against certain options mentioned by all people in the consultation separately". These three coding frames were developed and applied with the consideration of the following key aspects of shared decision making, according to Lifford (2012, p. 93-94):

• both the patient and doctor exchange information about the health problem and treatment options;

- both the patient and doctor discuss their reasoning about and preferences for the different options (patient values elicited);
- both the patient and doctor negotiate and agree on the decision to be made.

Some of these categories, though, are not just interpersonal resources and related to the tenor of the context. They are also experiential or field-related as we will explain in section 2.3.2. That means they construe choices of different kinds of social activity. Of course the parameters of contexts, as Hasan (1995, p. 231) describes them, are like a "chemical solution", meaning that they are interwoven but to be able to describe the complexities involved we need a theory that enables us to pull them apart and analyse them.

Mode of consultation: triadic consultations

Using a coding template method informed by Coupland and Coupland (2001), which in turn uses Goffman's notion of 'relational framing' and pronominal address to look at the interpersonal relationship between the patient and the companion in a geriatric setting, Mazer et al. (2014) looks at the roles that the companion gets in oncology consultations in particular in the discussion of prognosis and treatment options with patients with advanced cancer. The study shows that the companions' statements build a spectrum ranging from 'pseudosurrogacy' (instances when the companion voices the patient or is 'speaking as' the patient), to 'hearsay' (instances when the companion is quoting the patient or 'speaking-for' the patient), to 'conflation of thoughts' (instances when the companion is 'speaking-with' the patient, expressing their views or preferences by using the pronoun 'we'), to 'observation as an outsider and co-experiencer' (instances when the companion is 'speaking-about' an event or experience at which both companion and patient were present, to the most collaborative activity of 'facilitation' (instances when the companion is 'speaking-to' the patient inviting full patient involvement). Analysing the conversations based on their analytic model of companion participation, the authors conclude that companions often had a dominant role and represented the patients during discussions of prognosis and treatment choices, even when the patient was present and capable of speaking. The paper suggests that, to respect patient autonomy, physicians should guide the companion into a supportive role during the discussion of patient's 'internal life'.

In a similar study Cordella (2011) combines a qualitative discourse analysis approach with a quantitative approach to identify the roles that the companion takes in an oncology consultation and code the consultations accordingly. The study shows that the companion may utilize seven

participatory roles during an oncology consultation. These are 'secretary', 'carer', 'financial assistant', 'health advisor', 'social communicator', 'reporter' and 'partner' with 'health advisor' and 'carer' being the main roles observed in Cordella's study of 9 oncology consultations. The discussion of the linguistic functions of these roles goes beyond the scope of this chapter. What is of importance to this review is that unlike Mazer et al. (2014) that suggests the presence of a companion in an oncology consultation is, in essence, a threat to patient autonomy and needs to be guided by the physician, Cordella (2011) suggests that three-way exchanges in cancer encounters are vital in the progression of the medical exchanges and the presence of the companion will contribute to a more patient-centred approach.

Patient's questions

Patients' question asking about different aspects of their illness and healthcare has been reported to correlate with their power and determination. In what Nancy Ainsworth-Vaughn (2001) refers to as the 'praxis literature', studies of medical encounters that are atheoretical about language, an increase in the number of different illness-related questions is reported to be associated with a more balanced power relationship between the physician and the patient and/or carer and thus a greater degree of PCC (Walczak et al., 2017; Walczak et al., 2014; Brandes et al., 2014). Based on the same principle, several studies in the area of medical communication developed and tested the use of a tool called Question Prompt List (QPL) by the patients with different medical conditions. A QPL is a booklet containing questions on different topics such as the illness, its effect on the patient's life and the available treatment options that a patient can ask the physician. In addition to the overall number of patient-initiated questions the studies that test the use of a QPL take a quantitative approach that is sensitive to the content category or topic of the questions. These topic categories include diagnosis, treatment, decision making, lifestyle, prognosis, palliative care and so on.

Walczak et al. (2014), Walczak et al. (2017), and Brandes et al. (2014) explore the effectiveness of interventions that included the use of a QPL in encouraging patients to ask more questions, especially about sensitive topics such as prognosis and palliative care. While Brandes et al. (2014) suggest that QPLs are generally useful to encourage discussion on prognosis among advanced cancer patients and caregivers, they conclude that the QPL used in their study was not specific and that there is a need for the development of more specifically tailored communication interventions for advanced cancer patients. Similarly, Walczak et al. (2017, p. 8) conclude that the oncologists need to improve their communication skills to be able to

successfully address the needs of individual patients and ensure that the patients' attempts to seek information are recognised and responded to appropriately. These conclusions draw the reader's attention to the context of the medical interaction and suggest the need for an approach that accounts for the subtle aspects of the medical interaction.

Physician's questions

Doctors' (and other medical professionals') question asking has been reported to be related to a patient-centred approach toward providing EOL care. From the group of studies that use an IAS in the study of medical communication in our database, Roter et al. (2000) look at the physician's question asking through the use of RIAS. In RIAS open and closed questions are distinguished from each other. The RIAS manual seems to take a functional approach in defining open and closed questions. It defines open questions as non-specific and/or probing questions that often begin with 'what, why, could or how' and closed questions as 'direct questions that ask for specific information, i.e. where short responses are generally the only response options'. The distinction between open and closed question in RIAS seems to be different from the distinction between an open-ended question and a closed questions like 'Have you been having any other symptoms at all?' or 'Are there any other pains in addition to the chest pains?' as open questions. However, the weakness of this approach, as Sandvik et al. (2002) argue, is that the RIAS does not provide a systematic account of the description of questions.

Modality and modulation

Modality and modulation are grammatical features that convey the judgment of the speaker about a particular statement. These features have been shown to be related to shared decisionmaking in the EOL care context. In a study that describes the language used by physicians to broach life-sustaining treatment options for a terminally ill elder, Lu et al. (2015) from our database look at the interpersonal resources of EOL decision-making. In a corpus of 108 simulation encounters with an actor playing the role of a 78-year-old bedbound man with metastatic cancer and life-threatening hypoxia, Lu et al. (2015) use a code book that they developed based on their analysis of a random selection of the corpus to describe how the physicians discuss treatment options with the critically and terminally ill patient. The code book identifies five frames in the discussion of intubation and palliation by physicians that signal interpersonal variations in decision-making. These frames include 'will', referring to segments of text that communicate a decided action, 'must' referring to segments that communicate a necessary action, 'usually' referring to segments that communicate a conventional action, 'could' referring to the segments that show a potential or optional action, and finally 'ask' referring to those segments in which the physician asks questions to elicit the patient's preference. The study suggests that the physicians broached life-sustaining treatment options before palliation options and frequently framed palliation as optional whereas they framed life-sustaining treatment as necessary even though the results of debriefing interviews showed that 33 percent of them considered such life-sustaining moves (e.g. intubation) inappropriate in that clinical situation.

Lu et al. (2015) conclude that the difference in the language used by physicians to explain treatment options seems to be inadvertent. They conclude that it is important for physicians to better understand the language they use when discussing treatment options as it can significantly influence the preferences and choices of the patient.

Using a counterbalanced within-subject design Del Vento et al. (2009) examine how eight physicians who have had experience in palliative medicine or oncology deliver both good and bad news to 16 analogue patients (role-playing participants). The authors identified five features based on the qualitative analysis of a subset of the experimental data to use for the analysis of the whole corpus. These features differentiate between 'implicit' and 'explicit' language. Borrowing the term from Rodriguez et al. (2007), the authors define implicit language as "language whose meaning has to be inferred by the recipient rather than being explicitly stated by the speaker" (p. 444). The different aspects of 'implicit language' as outlined by Del Vento et al. (2009) will be discussed throughout the chapter. One of these aspects is the physician's expressed certainty about the diagnosis. In the majority of bad news delivery occasions physicians either used 'less than definite expressions' for example, 'this is *probably* cancer', or 'personal disclaimers' for example, 'They might be cancer, unfortunately. I mean, *they haven't been biopsied, we don't have any tissue to confirm that*'.

Lexis

In addition to modality, Del Vento et al. (2009) also look at the lexical items in the language of the physicians and the physician's lexical choices that construe their evaluation of the news and their reference to the recipient. Del Vento et al. (2009) conclude that instead of saying 'bad

news', 'malignant condition' or 'terminal', the physicians mostly used 'euphemistic (or qualified) evaluations' for example, 'a little disappointing' or 'serious', or they used 'litotes', for example 'not great news' instead of 'bad news'. They also suggest that in most cases where there was a bad news involved the physicians either used an 'article' instead of a 'personal pronoun' for example 'in *the* liver' instead of 'in *your* liver', or 'generic or impersonal forms that only implicitly connected the disease with the patient' for example 'It is cancer . . .' or 'There are some questionable things'.

Del Vento et al. (2009) show that the physician's term for the diagnosis varied depending on the patient's condition: in the case of bad news the physicians mostly used 'euphemisms' such as 'condition' or 'tumour' instead of 'cancer' or 'metastasis' and 'demonstrative pronouns' "referring back to the explicit diagnostic term, which avoided repeating it" (p. 447), or they tried to 'elicit the explicit term for the diagnosis from the patient'. In this study, Del Vento and colleagues also investigated patients' understanding of the news they received and their evaluation of how it was framed linguistically. Their results suggest that implicit language is an appropriate technique to deliver bad news honestly but not bluntly. The authors argue that the skillful use of what they refer to as 'implicit language' is patient-centred as it 'solves the dilemma of honest but not harsh communication of bad news'.

Rodriguez et al. (2007) look at the language of oncologists, incurable cancer patients and their companions in 29 transcribed oncology consultations to qualitatively explore the language that they use when talking about death. The researchers use a coding scheme to code the language of interactants in terms of the content related categories of the presence or absence of 'prognostic talk', the subject of prognosis ('treatment-related' or 'disease-related' outcome) and the focus of discussion (estimated time frame, anticipated life span, or projected survival). The place of prognostic talk in the structure of consultation (before or after the patient's examination) and the language of prognosis ('explicit' or 'implicit') is also described. Their results show that explicit talk of death or "talk as utterances that included terms such as *die*, *dying*, *dead*, *death*, *terminal*, and *kill*" (p. 155) occurred in only about half the 23 visits that prognostic talk was present in. Implicit talk or "utterances that included either euphemistic language about death (e.g., "pushing up daisies") or indirect language about prognosis (e.g., "limited time frame", "life expectancy", or "long-term survival")" (p. 155) was present in all 23 visits. In the end, Rodriguez at al. (2007, p. 159) do not take sides regarding the use of implicit or explicit language when breaking bad news and recommend "replication in other

settings with a larger and more diverse sample of patients and physicians" to provide insights into how prognostic news should be discussed, in order to be 'honest', 'compassionate' and 'understandable and useful to patients and their kin'.

Two other studies in our database that investigated medical consultations at the level of lexis both look at physician use of 'certainty language', measured through a text analysis program called Linguistic Inquiry and Word Count (LIWC). LIWC is a dictionary in which each word or word stem is related to one or more emotional, cognitive, and structural word categories or "subdictionaries" one of which is 'certainty' which includes words such as 'always', 'never', 'sure', 'absolute', etc.

Fang et al. (2014) explore the relation between 'physician behaviour' and the degree of satisfaction standard patients had about their interaction with their physicians. Standard patients were actors trained to act as stage IV lung cancer patients who sought help for uncontrolled pain. 3 male standard patients and 39 physicians (20 family physicians and 19 oncologists) participated in their study. The study applied regression analysis to develop predictive models and then applied principal component analysis to alleviate the correlations among predictive variables. Among the 13 predictive variables that the study selects based on the literature is what the study's authors refer to as 'certainty language'. Fang et al. (2014) show that the physician use of certainty conveying words contributes significantly in explaining the variance in the data and the physicians' use of certainty words is positively related to patient satisfaction. On the other hand, in the context of pain assessment and using regression analysis Shields et al. (2013) suggests that physicians' use of certainty language was associated with limited data gathering and less thorough pain assessment and thus a tendency to premature closure. This according to Shields et al. (2013) deviates patient-centred care and may result in forming assumptions about patients' symptoms, expectations, and values.

Voice tone

As explained earlier Fang et al. (2014) explore the relation between a number of coded physician behaviours and the standard patients' degree of satisfaction about their interaction with their physicians. In addition to the physician's use of 'certainty language' that was reported earlier, the physician's voice tone was among the 13 predictive variables. The authors explore the relation between the physician's voice tone, characterised through three measures of 'anxious/attentive/hostile tones', and the degree of satisfaction of standard patients about

their visit. The study shows that attentive voice tone among physicians contributes significantly to explaining the variance in the data. More specifically, the statistical analyses show that physicians' use of attentive voice tone is positively associated with patient satisfaction. On the other hand, Shields et al. (2013) show that physician's use of anxious/concerned voice tone is significantly associated with what patients report as a more thorough pain assessment. The anxious/concerned voice tone that physicians display may be associated with a real concern which in turn "may motivate them to explore patient's experience with pain in greater depth, leading to improved pain assessment", according to Shield et al. (2013, p. 744). An alternative explanation, however, is that patients' sense of this dimension of care is directly related to variation in vocal tone rather than variation in pain assessment itself.

2.3.2. Experiential resources in IAS research

So far we have reviewed those studies in the database that use an IAS to study the resources for enacting the social relations between doctors and seriously ill patients. In this section, we continue to examine studies that apply an IAS coding scheme but turn our focus how this approach accounts for linguistic resources that doctors and patients select to construe the activities and experience of EOL care. The work described in this section largely investigates medical interactions in terms of the different topics covered during the interactions. In most cases, this work occurs in studies that have already mentioned in section 2.3.1, but for a small part, the analysis of experiential resources appears in separate studies from those analysing interpersonal resources.

Topic, content, behaviour: field

Studies concerned with what kinds of activity and domain of experience make up the social practice of healthcare frequently study this in terms of the topics covered in medical interactions. Among those studies that used an IAS is Eggly et al. (2013). This study compares how oncologists offer participation in clinical trials, as a topic, to their 'African American' versus their 'White' patients. In doing this, the paper applies the Chafe's (2003) linguistics-based approach to the notion of topic. The study also compares the differences within the topic of clinical trials by looking at key elements (subtopics) of consent, namely a) the purpose of the study, b) its potential risks and benefits, c) alternatives to participation, and d) the voluntary nature of the participation. These elements were defined following the United States of

America's federal regulations and guidance, 45 CFR 46 (2005/1999). The study shows disparities between the two groups. Oncologists had shorter discussions with African American patients overall, mentioned and discussed clinical trials less frequently and in fewer words, mentioned the risks less frequently, and discussed the purpose of a clinical trial and the risks of participation in fewer words compared to the other group.

In the previous section, it was mentioned that Roter et al. (2000) applies RIAS to explore the doctor-patient interpersonal relationship, but this study also examines experiential meanings, particularly those made by doctors through the 'task focused' categories of RIAS as well as a content specific coding scheme. The 'task focused' categories of RIAS can be seen as units that might be assembled in various ways to make up one or more instances of categories such as "data gathering, test and procedures, the physical exam, and patient education and counselling" (Roter, 2011, p. 717). These categories, according to Roter (2011, p. 717), pertain to the "technically-based skills used in problem-solving that comprise the base of the 'expertness' acquired through professional medical education and for which a physician is consulted". The content-specific coding manual was developed based on a literature review of Advanced Care Directives. The five domains of this manual include 'probing and eliciting the patient's preferences referring to specific scenarios', 'probing and eliciting the patient's values, beliefs, and experiences', 'providing support for the decision-making process', 'providing resources and encouragement toward decision resolution' and 'effectively closing the visit: summarization at the close of the discussion and solicitation of further questions or concerns in closing'. Both of these manuals are what can be referred to as 'field-related'. By 'fieldrelated' we mean those categories that describe 'what's going on' in the context. In SFL terms these choices construe different kinds of social activity known as options in 'field', one of the three primary dimensions of context of situation. The other parameter as we saw is tenor. Field covers the social and semiotic activities that the interactants engage in in the context. Roter et al. (2000) show that expert physicians scored higher on RIAS task focused categories of lifestyle information and psychological counselling, as well as the number of psychosocial questions asked (in other words, they used these clinical activities more frequently than 'nonexperts'). They also show that expert physicians received higher mean levels across the board of the 5 categories of the content-specific coding manual. Statistically, they were shown to probe and elicit patients' values and experiences related to EOL more frequently, provide more resources and encouragement for decision making and conclude the visit more effectively through summarization and final checking for additional questions and concerns.

Also in this section is Lifford (2012) who, as we explained earlier, examines shared decision making in consultations with lung cancer patients using four coding systems. The study looks at the 'content' of the consultations and seems to explore the interpersonal and experiential resources involved in decision making about treatment choices through the lens of a set of categories. Lifford (2012) concludes that while what we interpret as the interpersonal aspect of shared decision making did not occur (the participants did not deliberate the decision together), what we refer to as the experiential side of it was more or less covered (meaning that the doctors, patients, and companions exchanged information about disease, treatment and prognosis). Fang et al. (2014) and Shields et al. (2013) were reported earlier to look at some interpersonal 'behaviours' of the clinicians in medical interactions and assess those behaviours in terms of the degree of correlation with patient satisfaction. In addition to the interpersonal aspect of the medical talk, the studies explore its experiential aspect to some extent by looking at the correlation between the 'behaviour' of 'eliciting/validating patient concerns' and the degree of patient satisfaction. Since the studies report a positive correlation between the two measures, the activity of 'eliciting/validating patient concerns' can be considered to be one aspect of the PCC. Another study in this section is Wall et al. (2015) that code the interactions using semantic content analysis and analysing them in term of the presence of the 'content areas' 'offers of supportive care' and 'prognosis' which are said to be patient-centred. And finally, Kissane (2010) developed the Comskil Coding System (CCS), a coding system based on a comprehensive curriculum for teaching and assessing communication skills with postgraduate trainees. CCS assesses the 'skills' of the trainees based on a set of higher-level skills 'regardless of the context of the visit'. These skills include establishing the consultation framework, checking, questioning, empathic communication, shared decision making, and information organization.

While the above five studies analyse the semiotic activity and the linguistic choices of the clinicians, the constructs that they investigate ('content', 'behaviour', 'content area' and 'skill') are not precise and theoretically well-defined constructs in terms of their place on the semiotic map. For example, 'content' and 'content area' and in general 'topic' seems to be an all-encompassing construct in the health communication research. Too much is examined through the lens of content and topic. Or 'behaviour' or 'skill' are general terms that can be broken down into more precise constructs or can mean differently depending on the context. They can be interpersonal, experiential and textual. We have grouped these studies under the title of 'experiential resources' because they seem to investigate the experiential resources of the talk

more than the other aspects or at least some parts of these studies address the experiential choices of the participants. However, this categorisation does not imply that the measures used by these studies are clear-cut in terms of their place in the semiotic map.

2.3.3. Textual resources in IPS research

Structure

Henry et al. (2013) look at the structure of visits dedicated to discussing prognosis and treatment of early-stage prostate cancer using a coding system that the researchers developed. The study reveals that the physicians' main focus and the main purpose of the visit in their view was to talk about treatment options rather than diagnosis. The short opening in which the doctor delivers the diagnosis, according to Henry et al. (2013), provides the patients with minimal space to speak and express emotions after the delivery of the diagnosis and can confuse them about the purpose of the visit and the role of the patient in the decision-making, something which does not accord with the United States National Cancer Institute guidelines for 'recognizing and responding to emotion' and 'managing uncertainty' as two of the six core components of PCC. The study also shows that talking about treatment options, on the other hand, promotes patient-driven treatment decisions, and that physicians managed to both provide guidance while at the same time encouraging patients to contribute to the decision-making process.

2.4. Conversation Analysis (CA)

This section is dedicated to those studies in our database that identified themselves with a conversation analytic approach to the analysis of data. Neither the space nor the purpose of this chapter allows the elaboration of CA. For further information on CA in medical research, readers are referred to Heritage and Maynard (2006). Table 2.2 shows the list of papers in our database using a CA approach toward the study of medical interactions at the EOL along with information on their method.

Table 2.2 CA papers and their data

1	Cunningham (2012)	5 consultations with a 46 year old male patient with lung cancer and metastatic pelvic cancer from a total of 15 consultations
2	Maynard, Cortez, & Campbell (2015)	51 oncology consultations, 22 male and 29 female patients with locally advanced (stage IIIB) and metastatic (stage IV) non small cell lung cancer
3	Öhlén, Elofsson, Hydén, & Friberg (2008)	6 consultations, 3 male and 3 female patients with gastro- intestinal cancer receiving palliative care

2.4.1. Interpersonal resources in CA research

The interpersonal resources explored in this category are conversational framing and physician questions.

Conversational framing

With a focus on communicative dynamics in a corpus of six palliative care consultations Öhlén et al. (2008) examine the distribution of the discursive space between the interactants, topics and conversational framings, and report that a) physicians had a bigger share of the discursive space; b) the palliative care patients mostly initiated topics concerning the future and the experience of living with the illness, whereas the physicians initiated biomedical topics such as treatment and side-effects; and c) the institutional framing dominated over the client framing. By institutional framing the authors seem to mean what Mishler (1984) refers to as the 'voice of medicine' and by client framing, they seem to mean what Mishler calls the 'voice of the lifeworld'. Using Mishler's terms we interpret that an institutionally framed consultation is 'closed' and 'continually reaffirms a single normative order', that of the institution, whereas a client framed consultation is 'open' and 'includes different voices' including the laypersons' perspective. The study calls for the need to establish PCC in palliative care contexts and shows that conversational framing in giving information to palliative care patients is linked to patientcentred information giving. Accordingly, an institutional conversational framing can be a challenge for the practice of PCC as it can hinder the patients' voices and their expression of preferences.

Physician questions

Within the same setting, i.e. palliative care, but with a different focus from Öhlén et al. (2008), Cunningham (2012) looks at palliative care physicians' questions from an applied conversational analytic perspective to investigate how they use such questions to assess a palliative patient's experiences of physical pain, what aspects of physical pain these physicians enquire about, and how the patient responds. Cunningham applies various CA analytic resources including (1) what she, with reference to Boyd and Heritage (2006) and Heritage (2010), refers to as the four basic dimensions of question design: agenda, presupposition, preferences and epistemic stance, (2) the principles of optimization and recipient design (Boyd & Heritage, 2006), (3) the principle of problem attentiveness (Stivers, 2007), (4) some devices that facilitate the progressivity and cohesiveness of the talk and of the routine checklist (Heritage & Sorjonen, 1994), (5) reasons for medical visits (Robinson, 2006), (6) the use of deictics and physical gesticulations to specify the site of a symptom (Heath, 1989), and (7) patterns of elaboration in a medical context (Stivers & Heritage, 2001). A brief summary of findings follows.

- The use of non-specific questions about the aspects of pain, those questions that "refer to pain in a general sense, devoid of any identifying aspects such as severity, quality or time" (Cunningham, 2012, p. 85), suggests an understanding that the patient may have a personal agenda. It also shows that the doctor's agenda is to encourage the patient to provide a detailed description of pain symptoms.
- 2. Asking the patient non-specific how questions, especially before history-taking and the physical examination, elicits detailed answers about the patient's experience of pain as these questions convey that the physician is open to hearing the patient's problems.
- 3. The type of questions that presuppose a 'no pain' answer can put the patient in the uncomfortable position of providing a dispreferred answer.
- 4. Questions that target an evaluation of the pain management plan and those about the effects of pain and treatment on the patient's life show that patient satisfaction and quality of life is on the agenda of the physicians.
- 5. Conversation about the existence and aspects of pain tends to be implicit when it implies the deterioration of the patient's pain and health and explicit when it implies improvement or stability.

- 6. Physicians checked the accuracy of their understanding of the information the patient provided and sought confirmation/affirmation through the use of alternative questions, single-unit yes/no declaratives, and multi-unit turns with one question. Multi-unit turns, according to Cunningham (2012) seem to operationalize a patient-centred approach as they facilitate individualized care with a focus on patient's preferences, values, needs, goals, and concerns through an effort to verify the information provided by patients. Both single- and multi-unit turns, according to Cunningham (2012, p. 243), "furnished the patient with opportunities to give additional information, clarify and/or adjust the physicians' interpretation of previously provided information, and discuss multiple (un)related issues".
- 7. Positively polarised yes/no questions encourage elaboration and negatively polarised ones discourage elaboration.
- 8. Physicians' use of yes/no interrogatives rather than yes/no declaratives (in Hasan's (1983) terms this the difference between 'ask' questions and 'probe/reassure/check questions) puts the patient in a more knowledgeable stance about his/her experiences of pain than the physicians.
- 9. The optimized design of the no-pain questions seems problematic. Optimization is displayed when physicians' questions are designed so that the preferred answer confirms a best case or optimized health outcome, which in most medical contexts is the improvement or cure of a patient's medical issue (Heritage, 2010).
- 10. Progressivity and cohesiveness in the form of prefaces to the questions such as "and" or "so" or evidential phrases such as "it sounds like" make the consultations look like discussions rather than investigations of the patient's condition.
- 11. An unelaborated answer can be related to the grammatical design of the question, double-question turns, and issues related to the content such as inappropriate or inaccurate content.

Of course, some of these variations in questions are variations in the experiential or textual patterning of the questions whereas other variations are changes in the interpersonal structure of the question structures themselves, but for clarity, the study results are all treated as aspects of questioning, and therefore located under interpersonal. Cunningham's analyses of a total number of 53 questions revealed that not all the strategies that she found helpful for patient-centred care in a palliative care context were used by the palliative doctors. For example, 42%

of the physicians' polar question displayed the principle of optimization, or only about 30.2% of the physicians' questions were designed to encourage elaboration.

2.4.2. Textual resources in CA

'Appreciation sequence' was studied by one paper in this category. In CA different kinds of rhetorical moves are called sequences. Here we treat 'appreciation sequence' as a feature of the textual metafunction of language because, as we will explain, it is considered as an element of the structure of the oncology consultation with terminal cancer patients. In its internal character, the 'appreciation sequence' is largely interpersonal. However, since the textual mtafuction is, in Halliday's term, "an enabling or facilitating function" (Halliday & Matthiessen, 2014, p. 30), meaning that it facilitates the enactment of the interpersonal relations, here we groups 'appreciation sequence' as a textual resource.

Sequence

'Appreciation sequence' is a phenomenon that Maynard et al. (2015) document in an attempt to seek answers to the question of how oncologists can include EOL discussions, including talks about prognosis and quality of life, in their medical visit with patients with a prognosis of less than 12 months. Using conversation analysis and following Goffman's notion of 'interactional order' the study looks at the organization of the routine post-diagnosis oncology consultation and describes the occurrence of an 'appreciation sequence'. Appreciation sequence "bears on a particular communicative challenge for physicians: achieving positivity when presenting news about a patient's ongoing cancer that, whether the tidings are relatively bad or good, also can serve as a reminder of the ultimately fatal nature of the disease" (Maynard et al., 2015, p. 2). This sequence usually appears after the presentation of scan results and before the treatment recommendations to convey the message that it is appreciably good that the treatments have prolonged the patient's life even if the cancer is spreading. The paper suggests that because 'appreciation sequence' deals with the reality of the patient's cancer, it can be used as a foundation to facilitate the EOL discussion. That is, instead of going straight into the discussion of treatment options the physician can direct the conversation towards prognostic awareness and if the physician does not initiate the EOL discussion, the appreciation sequence provides the patient with a 'juncture' at which she or he can bring up such issues or concerns.

2.5. Sociolinguistics

Studies in this section can be loosely grouped into the general category of studies applying concepts from sociolinguistics to analyse medical encounters. Sociolinguistics in this sense is considered as the study of language in the social context of care for the terminally ill patients. Table 2.3 gives information on studies in this category.

Table 2.3	Sociolinguist	ic papers	and	their	data
-----------	---------------	-----------	-----	-------	------

1	Andreassen, Neergaard, Brogaard, Skorstengaard, & Jensen (2015)	10 directly observed and audiotaped Advance Care Planning (ACP) discussions - 4 males and 6 females patients with cancer, COPD, or heart disease
2	Chhabra et al. (2013)	20 second-opinion haematology consultations, 8 male and 12 female patients
3	Chou (2004)	18 consultations between 3 physicians and 3 terminally ill cancer patients
4	Barton, Aldridge, Trimble, & Vidovic (2005)	6 EOL discussions in a Surgical Intensive Care Unit (SICU) (in the family meeting room)
5	Aldridge & Barton (2007)	20 EOL discussions between 10 different physicians and family members in a SICU

2.5.1. Interpersonal, logical and experiential resources in sociolinguistics research

The review of studies from sociolinguistics that look at interpersonal, logical and experiential resources will be done all together as these resources investigated by Chou (2004) have different dimensions and her approach to the analysis of these resources is also interdisciplinary as we will see.

Physician's communication style

The patient-physician relationship has been approached by Andreassen et al. (2015) and Chhabra et al. (2013) using interactional sociolinguistics tools. Andreassen et al. (2015) apply Cordella (2004) theory of 'voices' in healthcare communication. Cordella (2004) defines 'voices' as 'different forms of talk' that doctors and patients adopt in the course of the medical consultation. She identified three distinct 'voices' that healthcare professionals use: the 'Doctor voice', the 'Educator voice', and the 'Fellow Human voice' and four main 'voices' that patients use: the 'voice of Health-related Storytelling', the 'voice of Competence', the voice of 'Social Communicator', and the 'voice of Initiator'. According to Andreassen et al. (2015, p. 7) "the

physician's extensive use of the fellow human voice and the use of the doctor and educator voices in ways that sought to empower the patients allowed patients to use the voices of competence, of health-related storytelling, and of initiator. This, in turn, allowed the doctor to get vital information by deducing and assessing patients' sometimes lengthy answers; information the physician might not have otherwise acquired".

Chhabra et al. (2013) also look at the patient-physician relationship in haematology and the communication style of subspecialist physicians. The study applies a theme-oriented discourse analysis approach (Ainsworth-Vaughn, 1998; Cameron, 2001; Roberts & Sarangi, 2005) to explore linguistic choices that may influence shared decision-making and informed consent in subspecialist haematology visits. It identifies four different communication styles in physicians. The most predominant style, according to Chhabra et al. (2013, p. 574), was 'broadcasting' or "a pattern of lengthy physician monologues on topics of disease mechanisms and history, treatment options or prognostic information". Significantly different from 'broadcasting' is 'inviting language', a communication behaviour that encourages patient participation. Linguistic features such as open-ended questions, affirmations like 'right' and 'yes', pauses and altering intonation were used to invite and encourage patients to participate, the study suggests. The study also identifies 'deferential language' and 'directive language' as two patterns used by physicians which show the physician's desired role in the process of decision-making. 'Deferential language' is the language that minimizes the role of the physician in the patient's decision and defers to the patient's autonomy. By contrast, 'directive language' is used to imply that the physician is suggesting the best decision.

Speech acts, Topics and Topic initiation, Coherence, Questions

Using tools from CA, interactional sociolinguistics, and speech act theory in her case study analysis of oncology-patient interviews, Chou (2004) distinguishes between two types of agency: 'conversational agency' or patient's control over the topic of immediate exchange and turn-taking, and 'displaced agency' or the agency existing outside the interactional setting. In her analysis, Chou identifies two ways through which conversational agency is displayed: topic initiation and the speech act of request. Displaced agency is displayed through the speech act of promise, by which the speaker commits herself to a future action, through an expression of desire using the verb 'want', through 'contrasting the negative "then" and the positive "now" (p. 94) and finally through reference to things Chou refers to as the 'enablers' for example, through talking about profession, hobbies, religion, etc.

In the second part of her thesis, Chou (2004) looks at the process of the dying patient's 'coherence-building' through analysing how patients verbalise causality and coping, and how they disclose their subjective view of their life, cancer diagnosis and dying. She uses the term 'coherence' to refer to the patient-oriented answers to the implicit questions of 'WHY?' and 'HOW' as indications of 'coherence-building'. "The topic of the two types of questions can be as broad "Why do I have a terminal illness?" or "How do I find meaning in face of imminent death?" and as narrow as "why do I suffer from a nerve pain right now?" or "How do I deal with bad nurses?"", Chou (2004, p. 172) explains. Coherence in the sense of verbalising causality can be interpreted as a logical resource or a feature that construes causal relations between phenomena. The HOW question seems to belong to the domain of the experience and experiential meaning, though. Chou (2004, p. 235) argues that "a conscious effort to focus on something positive despite the negativities of the illness experience" is central to an account of coherence and suggests that clinicians should "identify the positive aspects that help the patients cope" and "link them to the current medical discussions or decision-making" (p. 235). For example, if religion helps a patient cope with cancer, a doctor could, according to Chou (2004, p. 235), ""attune" ... to this aspect of his life and initiate end-of-life discussions by invoking the religious discourse".

In addition to an account of conversational and displaced agency and coherence, Chou (2004) provides a micro-level analysis of patient-oriented questions with attention to the temporal orientation of the questions to provide a more refined understanding of the role of patient questions in claiming agency. Chou (2004) shows that the number of questions is not a reliable measure of the level of doctor/patient participation as some doctor-oriented questions can be empowering. In other words, Chou (2004) disagrees with the idea that the number of patients' questions is positively related to patients' power in their relationship with their doctors, which is different from the idea based on which Walczak et al. (2014), Walczak et al. (2017), and Brandes et al. (2014) designed and tested their interventions. In her analysis of 18 oncologist-patients functions not only to maintain conversational agency but also their displaced agency in the form of initiating the discussion and confrontation of an unwelcome future. In addition, she argues that future-oriented questions are more open-ended and consequently elicit longer and more extensive responses, thus these questions bestow more agency to the questioner.

2.5.2. Textual resources in sociolinguistics research

Textual resources have also been the target of sociolinguistic research on patient-centredness. The structure of the consultation and its elements are the aspects of textual function covered by the sociolinguistic research on EOL care communication.

Structure

The structure of medical interactions has also been related to notions such as patientcentredness, shared decision-making, comfort care and palliative care. Barton et al. (2005) describes the structure of EOL discussions in a Surgical Intensive Care Unit (SICU) and explores variations of the phases of this kind of discussion. The study identifies four functional phases of 'Opening', 'Description of Current Status', 'Holistic Decision Making', and 'Logistics of Dying' and shows how 'Description of Current Status' at which the physician and the family come to agreement about the terminal state of the patient plays a crucial role in decision-making about the transformation of goals from therapeutic to palliative care. The function of this phase, according to Barton et al. (2005), is not simply to present medical information, but to present information in a way that communicates the terminal status of the patient. This will, in turn, result in the functional progression of EOL discussion toward 'holistic decision-making'.

To further explore the hypothesis that 'Description of Current Status' is a key functional phase in end-of-life discussion progression towards making the decision to move to 'comfort care', Aldridge and Barton (2007) compare EOL discussions that did succeed in transforming treatment goals to those where there was no consensus between clinician and family on turning from therapeutic to 'comfort care'. The study looks at the internal structure of this specific phase and the semantic manifestations of its different parts. This phase consists of three parts: opening (optional), a problem list, and a final summary section. For a discussion to move to the decision of switching to 'comfort care', the problem list should be semantically realized by 'a consistent accumulation of negative evidence' without providing treatment options and the summary statements should be unmitigated.

2.6. Systemic functional linguistics (SFL)

Studies in this category identified themselves with an SFL model of language as a social semiotic that developed in the work of Michael Halliday (Halliday & Hasan, 1985/89). Table 2.4 gives information on these studies.

1	Moore, (2015)	46 palliative care consultations, 6 doctors
2	Driscoll (2012)	39 terminal patients (16 male, 23 female)

2.6.1. Interpersonal resources in SFL research

Physician's questions

As we saw earlier, RIAS has been criticised for its descriptive weakness in as accounting for open and closed questions (Sandvik et al., 2002). Sandvik et al. (2002) suggest that looking at the question in the context of its adjacency pair or the reply that is provided to it, as suggested in CA, can determine whether a question is open or closed. Moore (2015) addresses this issue from a different perspective, using systemic functional linguistics. Applying Hasan's DEMAND INFORMATION network as her primary analytic tool, Moore (2015) provides a descriptive account of the variations how palliative care doctors frame questions. She uses this to explain how different ways of asking for information can influence the way EOL discussions unfold in palliative care and how these differences construe variations in the practice of EOL care as well as cultural variations. Being aware of the different patterns of asking for information, in Moore's (2015) terms, "allows researchers (and, potentially, clinicians) to track intra-registerial variation in palliative care, such as whether the topic of 'end-of-life' is made available for discussion or not in different consultations, and if so, then to what extent, and via which semantic pathways, EOL discussion gets developed". In addition, analyses of semantic variations, according to Moore (2015), can "contribute to research on how well different communication styles meet the needs of different patients, families and health workers".

Hasan's DEMAND INFORMATION network (Hasan, 2009) provides an elaborated set of semantic options with subtle differences that enable speakers to frame questions. A simplified DEMAND INFORMATION network is shown in figure 2.2.



Figure 2.2 A simplified DEMAND INFORMATION network (adopted from Hasan, 2009)

The initial analytic categories are [confirm] versus [apprize] questions. [confirm] questions are grammatically realized as polar interrogatives (commonly called yes/no questions) and [apprize] questions are grammatically realized as wh-interrogatives. The results of Moore's analysis show that the number of [confirm] questions is quite high. However, unlike the general belief about this type of question that they are overbearing, Moore (2015) shows how a doctor's [confirm] questions seem to open "a kind of gate leading to EOL discussion" as these questions in Moore's terms "often open two conversational doors at once, leaving the addressee with the opportunity to decide which way to move" (p. 93). [confirm] questions are further divided into [verify] versus [enquire] questions. [verify] questions are divided into [reassure]and [probe] questions and [enquire] questions are divided into [ask] and [check] question. To show the subtle differences between different types of confirm questions an example for each type of question is provided below:

Are you finding any problems with nighttime?	\rightarrow [confirm: enquire: ask]
So you find problems at nighttime?	\rightarrow [confirm: enquire: check]
You have problems at nighttime, do you?	\rightarrow [confirm: verify: probe]
You have problems at nighttime, don't you?	\rightarrow [confirm: verify: reassure]
Moore shows how [probe] and its agnates, realized as tag only (e.g. 'do you?') and modal adjunct (e.g. 'really?'), play a crucial role in EOL discussion as they seem to offer the next speaker choice and flexibility for responding while maintaining the focus on the information provided in the patient's last turn.

In addition to the semantic function of the questions, Moore looks at the way questions are sequenced. In her analysis, she shows how a series of [ask] questions across a number of turns gradually creates a semantic drift (Butt, 1983) and brings about an EOL discussion. This graduation according to Moore is related to the concepts of 'incipience' and 'implicitness' as two of the core semantic characteristics of palliative care discourse. The third core semantic characteristic of palliative care discourse, she suggests, is the concept of 'individuation' which is brought by the use of [confirm] questions that allow the patient to choose to enter or avoid EOL discussions, as we showed above, as well as the use of the [prefaced] questions, namely questions that ask for the patient and care giver's point of view for example, '*You don't want* to talk about it?'.

2.6.2. Experiential resources in SFL research

Grammar

In her PhD thesis, Driscoll (2012) takes a functional approach to study the degree of dynamism that patients living with terminal cancer have, using two different corpora: (1) a corpus of online written medical advice texts, and (2) a corpus of cancer patients' narratives in interviews. This study was included in this review because of the first corpus.

Dynamism is a grammatical feature introduced by Hasan (Halliday & Hasan, 1985/89) and is based on the idea that different grammatical roles that entities are given can vary in term of their degree of control and dynamism. For example, when a patient is represented in the role of Actor with an animated Goal (example 1), she or he is construed as more dynamic than another patient who is represented in a Circumstance role (example 2).

- Example (1) I will...push them (the doctors).
- Example (2) ... they put the needle in **me**...

Driscoll (2012) examines the medical experience represented in online medical advice texts and compares it to the way this experience is portrayed in cancer patient's narratives in interviews. Rather than considering dynamism as a one-to-one function of patient-centredness, the study engages in a comprehensive descriptive analysis of grammar to show a diverse range of patient roles and experience that calls for a patient-centred approach, an approach that is conscious of patients' needs as persons with all aspects of personhood. The study looks at the grammatical patterns and choices made by medical writers that construe imagined or 'ideal' patients and compares these with the language used by real patients. Driscoll applies transitivity analysis and Hasan's cline of dynamism and Thompson's (2006) modification of the cline of dynamism to look at the roles different protagonists take in different texts. In other words, the study investigates how the key entities, most importantly patients, behave grammatically in these two sets of medical texts.

Although the study begins with the hypothesis that there would be more differences than similarities in the grammatical patterns within the advice and interview data, to the surprise of the writer the analysis ends with the overall conclusion that the similarities go beyond the differences. Driscoll ascribes this partly to the informed patient who tries to absorb and use more medical language and partly to the medical writers who more deliberately modify their language 'to assimilate features of spoken discourse and patient talk'. The study shows that in general the patient in the advice texts seems to be represented as more dynamically and in control than the way patients represent themselves in the interview data. A closer look shows that the patient construed in the advice texts is generally more dynamic in terms of 'doing' and the interview patient is more dynamic in terms of 'thinking and feeling'. The study also shows differences in the transitivity patterns within verbal processes for breaking bad news of diagnosis to others. Accordingly, 'certain differences exist between the advice patient and the interview patient in terms of how they represent the experience of conducting diagnosis disclosure'. Driscoll shows that while the advice patient talks to others about topics such as feelings and social invitations which shows the psychological and social aspect of the patient, interview patients' verbal messages to others are 'largely framed within the medical gaze'. What research such as Driscoll's makes clear is that patients do not legitimately speak only in the voice of the patient, but layer their contributions with features that we recognise as the 'voice of medicine'. Similarly, it is important that PCC approaches do not underestimate the complexity of patients' resources as meaners. A point that is not adequately addressed in Mishler's (1984) influential work where 'voice' is too easily conflated with institutional role.

2.7. Pragmatics

Studies in this category identify themselves with an approach that focuses on the contribution of context to meaning. There are two studies in this group which are represented in table 2.5.

Table 2.5 Pragmatic papers and their data

1	Odebunmi (2011)	50 audio-recorded conversations
2	Plastina and Del Vecchio (2014)	10 audio-recorded doctor-patient interactions

2.7.1. Interpersonal resources in pragmatics research

Pragmatic strategies

In a different context from the context of the rest of studies discussed in this chapter, that of Nigerian hospitals, Odebunmi (2011) examines the pragmatic strategies employed by doctors in South-Western Nigeria to achieve what they refer to as 'concealment goals' in the delivery of bad news. The data for this study included tape-recorded consultations and structured and unstructured interviews with doctors and patients. The consultation part of the corpus included fifty conversations between doctors and patients regarding various medical conditions including cancer, HIV, and tuberculosis, and even regarding death. Odebunmi applies Jacob Mey's (2001) pragmatic act theory to analyse how and why Nigerian doctors conceal medical information from the patients. Mey's pragmatic act theory stresses the deterministic influence of the contextual factors on the construction of meaning. According to Mey, "the context determines both what one can say and what one cannot say: only the pragmatics of the situation can give meaning to one's words" (Mey, 2001, p. 43).

Odebunmi's analysis suggests four types of concealment goals in medical interactions, namely, 'preventive', 'palliative', 'culture-compliant', and 'confidential':

The preventive goal is concerned with the doctor's agenda to bar, on CL's [client's] part: knowledge of their conditions or hospital facilities, fear, doubt, self-prescription, and stigmatisation. The palliative goal, which appeals to temporary relief by cutting down the psychological burden of CL, strives to avoid pandemonium in the hospital and a worsening of CL's condition. The culture-compliant goal enlists with the people's cultural (and sometimes religious) doxas. The confidential goal works with medical ethics which restricts the doctor's freedom with information relating to CL's condition (Odebunmi, 2011, p. 629).

The analysis, then, represents nine textual strategies employed by the doctors to follow these goals. Since these goals are all interpersonal in nature, we locate the textual strategies employed to follow these goals within the interpersonal function in our map. These strategies are 'veiling', 'euphemisation', 'stalling', 'mitigating', 'jargonisation', 'normalisation', 'doublespeak', 'dysphemisation' and 'forecasting'. According to Odebunmi (2011), 'jargonisation' is based on the assumption that the patient lacks knowledge of the medical terms and vocabularies and, so jargon is used to keep certain information away from the patient. 'Veiling' involves giving unclear information about the illness or medical procedure to the patient. 'Euphemisation' "simplifies CL's [client's] condition by minimising the harshness or unacceptability of negative diagnoses or contextually dispreferred news" (Odebunmi, 2011, p. 630). 'Stalling' involves keeping information away from the patient by silence or by avoiding diagnosis discussions. 'Mitigations' are "hedges which deflect the full magnitude of a diagnosis" (ibid). 'Normalisation' involves the action of representing the illness as ordinary through presenting only insignificant parts of a diagnosis. 'Doublespeak' "offers two possible interpretations or options without specifying which is locally preferred by the doctor" (ibid). 'Dysphemisation' relies on indirectness and metaphor to refer to the patient's condition in the presence of others and, according to Odebunmi serves to 'subtly castigate or pique' the patient and simultaneously save the patient's face when reference has to be made to their condition in the presence of others. An Example of dysphemisation that Odebunmi gives is the use of "illness that affects population" instead of "gonorrhoea". Finally, 'forecasting' involves giving some clues about a diagnosis or condition to elicit the interest, anxiety or suspicion of the patient.

Odebunmi (2011) concludes that "concealment in Nigerian hospitals can be regarded as a practice that takes into account the socio-psychological security needs of clients and attend[s] positively to clients' cultural expectations" (p. 643), however, it is also apparent that these practices work to support institutional agendas and Odebunmi has not addressed this tension.

Shields and mitigation devices

Within the area of pragmatics, Plastina and Del Vecchio (2014) explore the communication of bad news in diagnostic news delivery. Their corpus included 10 audio-recorded interactions between doctors and patients at an andrology centre in Southern Italy. Plastina and Del Vecchio analysed the texts in terms of the concepts of shielding (those linguistic features that reflect the speaker's degree of commitment to the utterance (Prince, Frader, & Bosk, 1982)) and

mitigation (those linguistic devices that the speaker use to reduce the unwelcome effects that a speech act has on the hearer (Fraser, 1980)) in the discourse of the doctor and the place that these elements occur in the six-step biomedical SPIKES Protocol for the delivery of bad news (Baile et al., 2000). These steps are 'setting', 'perception', 'invitation', 'knowledge', 'empathy' and 'strategy and summary'. Plastina and Del Vecchio (2014) show that shields occurred in the SPIKES step of 'knowledge' and mitigating devices were located in 'empathy' and 'strategy' steps. The authors suggest that the use of shields reflects "doctors' epistemic vigilance of deciding what the patients should know about their conditions" (p. 195) whereas the use of mitigation devices reflects "the doctors' epistemic vigilance of deciding how to explain the bad news" (p. 195) and this is confirmed by the place of their occurrence in the SPIKES interaction steps. The authors also suggest that unlike shields, mitigating devices "were not found to reduce the semantic relevance toward the truth value of propositions" (p. 197). What the findings of Plastina and Dl Vecchio can add to research on PCC is that while shielding information can contribute to epistemic asymmetry and can marginalise the patient, mitigation does not compromise the information provision and is considered as 'an empathic strategy out of consideration'. Both shielding and mitigation are interpersonal in nature and can be located within the interpersonal fuction as they construe the different ways clinicians can build a relationship with the patient.

2.8. Rhetorical Genre Studies (RGS)

RGS research, according to Schryer, McDougall, Tait, and Lingard (2012), explores reoccurring linguistic events in contexts and investigates the social action of these linguistic events. Genre in RGS is "a particular type of discourse classification, a classification based in rhetorical practice and consequently, open rather than closed and organized around situated actions (that is, pragmatic, rather than syntactic or semantic)" (Miller, 1984, p. 155). Table 2.6 represents the only study in our database that takes an RGS approach and information about its corpus.

Taking a Rhetorical Genre Studies (RGS) approach, Schryer et al. (2012) investigate two particular genres called 'dignity interview' and 'legacy document' in terms of their enabling or constraining effect on the dying patients. 'Dignity therapy' is a psychotherapeutic intervention

that includes a set of questions about a patient's life asked by a physician along with a transcript of the interview, called 'legacy document', to be given back to the patient. Schryer et al. (2012) look at 12 legacy documents resulting from dignity interviews conducted by 12 first-year resident physicians using an RGS framework. As a genre, the dignity interview according to Schryer et al. (2012, p. 132) provides patients with a form of negotiated rhetorical agency in which they can construe their own memories and create a sense of discursive order out of their life events. It is negotiated because the patients are both controlled by and in control of the semiotic resources of the genre. In dignity interviews, the linguistic tense of the questions in the interview provides the template for the patients "to temporalize their responses in the past, the present, or the future" (pp. 124). "Dignity interview' and 'legacy document' is located within the textual function of language in this review.

2.9. Ethnography: Qualitative content analysis

Proponents of CA and other discourse analysis approaches are not alone in criticizing the quantitative Interaction Analysis Systems (IAS) such as RIAS. Ethnographic researchers also disagree with such approaches on the basis that the context tends to be lost in studies that apply IASs and the psychosocial information is captured briefly and inconclusively (Fagerlind et al., 2008). Within this paradigm and in our database is Fagerlind et al. (2008) who characterizes the content of oncology consultations through a qualitative content analysis (Graneheim & Lundman, 2004; Hill, Thompson, & Williams, 1997) and investigates the presence of patient-centred topics including psychological functioning/well-being, daily life, coping with disease, expressions of concerns and feelings. Their study, therefore, is located within the experiential function in our language map. Table 2.7 gives the information of the corpus analysed by Fagerlind et al. (2008).

Table 2.7 Ethnographic paper and its data

Fagerlind et al. (2008)	25 consultations with patients with gastrointestinal
	cancer

2.10. Conclusion

Above we reported the results of a systematic literature review that targeted those studies that consider a 'semiotic order' for patient-centred care and explicitly discuss patient-centredness at the EOL as an activity that involves the exchange of meaning. The results of this review

were organised by the methodological approach that each study takes and the linguistic features that they identify as correlating with a patient-centred approach to healthcare. We used a two-dimensional SFL map of language to classify the different linguistic resources of PCC. Figure 2.3 quantifies these resources based on their 'semiotic address' in our map.

	experiential	interpersonal	textual
context	6	7	6
semantics	1	7	0
lexicogrammar	1	8	0
phonology	N/A	2	0

Figure 2.3 Number of linguistic features associated with PCC in terms of their 'semiotic address'

This report, though fragmented by the methodological approach, was not done with the intention of comparing these approaches. Nor were the classifications clear-cut and precise. Some studies have multi-disciplinary origins, especially in the case of studies grouped as CA or sociolinguistic research. Rather than comparing these studies, this review aimed at providing a wide-ranging overview of the previous work and the gaps in the relatively new area of linguistic research on patient-centredness at the EOL that can serve as the initial groundwork for taking the next step of further research in this area. With that in mind, the following conclusions can be drawn from this review:

1. Although a relatively new area of research, there is a wide range of studies on the linguistic order of PCC at the EOL in the literature. This range confirms that PCC as a linguistic practice is complex and involves various micro level and macro level linguistic features that affect and are affected by the context and that have various functions. This calls for an approach that acknowledges the stratal and functional nature of language in every act of language use, an approach that in Moore's (2004, p. 61) terms "enables the researcher to locate the phenomena being studied within a framework that can specify the relevant dimensions when necessary". The usefulness of this approach, compared to more eclectic approaches such as Chou's (2004) that do not frame their study of patient-centred care and EOL care in a socio-semiotic space like SFL's dimensions (stratification and metafunction), is that it has the potential to provide a more comprehensive picture of all the

components and functions of the language and their interrelations in a systematic way. It also enables the analyst to compare a particular context such as oncology consultation with advanced cancer patients with another similar or totally different context in terms of the variations that exist in the active experience of language (Hasan, 2009, pp. 32-33).

- 2. Research on the experiential aspect of medical encounters is confined to only those studies that applied IASs or qualitative content with the exception of two studies, one from systemic functional linguistics (Driscoll, 2012) and one from ethnography (Fagerlind et al., 2008). A lexical and grammatical analysis of the division of healthcare labour among medical practitioners, patients and caregivers is worthwhile for the understanding of what it is like to be a terminal patient from different perspectives and of how EOL care is operationalized in practice. Language consists of four layers: context, semantics or meaning, lexicogrammar, and phonology. What is ignored in the literature of patient-centred communication, especially with respect to the experiential function, is attention to the lexicogrammar layer and the lexical and grammatical patterns in medical interactions. Grammar, According to Halliday (Halliday & Matthiessen, 2014, p. 22) "is the central processing unit of language, the powerhouse where meanings are created". The understanding of the experience of patient-centred communication at the EOL would not be complete without a systematic attention to the lexical and grammatical patterns that code that experience.
- 3. No study has been done to date to look at the 'texture' (Halliday & Hasan, 1985/89) of EOL medical interactions or what can be referred to as certain kinds of meaning relations between the individual messages in a medical interaction in the context of EOL or palliative care. Analyses of texture can provide information on the contribution of the doctor and the patient to the continuity or discontinuity of topics introduced in the interaction.
- 4. While there is a relatively large amount of work on the interpersonal relationship of the clinicians, patients and family in palliative care at the level of context, a thorough contextual analysis of medical consultations that explores the activities and goings-on of a consultation (field), the interpersonal relationships (tenor), the role of language in pursuing the activities and establishing relations (mode) as well as the relationships between these different strands of meaning is yet to be done. Such analysis also involves the description and interpretation of the institutions and cultural concepts that are instantiated in EOL care practice, by examining clinical dialogue as one key strand of such practice. The analysis could be a useful and novel contribution to the question of how a cultural concept such as

patient centred care or palliative care is instantiated in the everyday practice of oncologists, intensive care unit physicians, nurses, and palliative care doctors.

5. While patient question asking has attracted attention from research that applies IASs, a relatively neglected linguistic feature is the answers that are provided in response to these questions. Analysis of the practitioners' answers to patients' questions can reveal the different ways in which patients' attempts to seek information is responded to.

References

- Ainsworth-Vaughn, N. (1998). *Claiming power in doctor-patient talk*. New York: Oxford University Press.
- Ainsworth-Vaughn, N. (2001). The Discourse of Medical Encounters. In D. Schiffrin, D. Tannen, & H. E. Hamilton (Eds.), *The handbook of discourse analysis* (pp. 454-469). Oxford: Blackwell.
- Aldridge, M., & Barton, E. (2007). Establishing terminal status in end-of-life discussions. *Qualitative health research*, 17(7), 908-918.
- Andreassen, P., Neergaard, M. A., Brogaard, T., Skorstengaard, M. H., & Jensen, A. B. (2015).
 Talking about sensitive topics during the advance care planning discussion: A peek into the black box. *Palliative and Supportive Care*, 1-8.
- Baile, W. F., Buckman, R., Lenzi, R., Glober, G., A. Beale, E., & Kudelka, A. P. (2000). SPIKES-a Six-step Protocol for Delivering Bad News: Application to the Patient with Cancer. *Oncologist*, 5, 302-311.
- Barton, E., Aldridge, M., Trimble, T., & Vidovic, J. (2005). Structure and variation in end-of-life discussions in the Surgical Intensive Care Unit. *Communication & medicine*, 2(1), 3-20.
- Boyd, E., & Heritage, J. (2006). Taking the history: Questioning during comprehensive
- history-taking. In J. Heritage & D. W. Maynard (Eds.), Communication in medical care: Interaction between primary care physicians and patients (pp. 151-184). Cambridge, UK: Cambridge University Press.
- Brandes, K., Butow, P. N., Tattersall, M. H. N., Clayton, J. M., Davidson, P. M., Young, J., . .
 Walczak, A. (2014). Advanced cancer patients' and caregivers' use of a Question Prompt List. *Patient Education and Counseling*, 97(1), 30-37.

- Brown, R., Butow, P., Butt, D. G., Moore, A. R., & Tattersall, M. H. (2004). Developing ethical strategies to assist oncologists in seeking informed consent to cancer clinical trials. *Social Science & Medicine*, 58(379-390).
- Buckman, R., Tulsky, J. A., & Rodin, G. (2011). Empathic responses in clinical practice: Intuition or tuition? *CMAJ*: Canadian Medical Association Journal, 183(5), 569–571. http://doi.org/10.1503/cmaj.090113
- Butt, D. G., Moore, A. R., & Henderson-Brooks, C. (2012). Discourse Correlates of the Therapeutic Method and Patient Progress. In R. Meares, N. Bendit, J. Haliburn, A. Korner, D. Mears, & D. G. Butt (Eds.), *Borderline Personality Disorder and The Conversational Model - A Clinician's Manual* (pp. 267-290). New York: Norton & Company.
- Butt, D. G. (1983). Semantic 'Drift' in Verbal Art. *Australian Review of Applied Linguistics*, 6, 38-48.
- Cameron, D. (2001). Working with spoken discourse. London: Sage Publications Limited.
- Chafe, W. (2003). The analysis of discourse flow. In D. Schiffrin, D. Tannen, & H. E. Hamilton (Eds.), *Handbook of Discourse Analysis* (pp. 673-687). Oxford: Blackwell.
- Chhabra, K. R., Pollak, K. I., Lee, S. J., Back, A. L., Goldman, R. E., & Tulsky, J. A. (2013). Physician communication styles in initial consultations for hematological cancer. *Patient Educ Couns*, 93(3), 573-578.
- Chou, W.-y. S. (2004). *End-of-life discourse: an analysis of agency, coherence, and questions* (Unpublished doctoral dissertation). Georgetown University, Washington, DC.
- Cordella, M. (2004). *The dynamic consultation: A discourse analytical study of doctor-patient communication*. Amsterdam: John Benjamins.
- Cordella, M. (2011). A triangle that may work well: Looking through the angles of a three-way exchange in cancer medical encounters. *Discourse & Communication*, 5(4), 337-353.
- Coupland, N., & Coupland, J. (2001). Relational frames and pronominal address/reference: the discourse of geriatric medical triads. In S. Sarangi & M. Coulthard (Eds.), *Discourse* and social life. (pp. 207-229). Oxon & New York: Routledge.

- Cunningham, S. (2012). *Physicians' Questions and a Palliative Patient's Answers Regarding Physical Pain: A Conversation Analytic Approach* (Unpublished doctoral dissertation). The University of Guelph, Guelph, Canada.
- Del Vento, A., Bavelas, J., Healing, S., MacLean, G., & Kirk, P. (2009). An experimental investigation of the dilemma of delivering bad news. *Patient Education and Counseling*, 77(3), 443-449. doi:http://dx.doi.org/10.1016/j.pec.2009.09.014
- Driscoll, J. (2012). *The Representation of Terminally Ill Cancer Patients: a Transitivity Analysis of Advice and Interview Texts* (Unpublished doctoral dissertation), University of Liverpool, Liverpool, UK.
- Eggly, S., Barton, E., Winckles, A., Penner, L. A., & Albrecht, T. L. (2013). A disparity of words: racial differences in oncologist–patient communication about clinical trials. *Health Expectations*, 18(5):1316-26. doi: 10.1111/hex.12108
- Epstein, R. M., Franks, P., Fiscella, K., Shields, C. G., Meldrum, S. C., Kravitz, R. L., & Duberstein, P. R. (2005). Measuring patient-centered communication in Patient– Physician consultations: Theoretical and practical issues. *Social science & medicine*, 61(7), 1516-1528.
- Fagerlind, H., Lindblad, A. K., Bergstrom, I., Nilsson, M., Naucler, G., Glimelius, B., & Ring, L. (2008). Patient-physician communication during oncology consultations. *Psycho*oncology, 17(10), 975.
- Fang S., Shi W., Kong N., & Shields C.G. (2014) A Preliminary Variable Selection Based Regression Analysis for Predicting Patient Satisfaction on Physician-Patient Cancer Prognosis Communication. In X. Zheng, D. Zeng, H. Chen, Y. Zhang, C. Xing, D.B. Neill (Eds.) *Smart Health* (pp. 171-180). Beijing, China: Springer. https://doi.org/10.1007/978-3-319-08416-9_18
- Fraser, B. (1980). Conversational mitigation. *Journal of Pragmatics*, 4(4), 341-350. doi:https://doi.org/10.1016/0378-2166(80)90029-6
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105-112. doi:<u>http://dx.doi.org/10.1016/j.nedt.2003.10.001</u>

- Halliday, M. A. K. (1996). On grammar and grammatics In R. Hasan, C. Cloran, & D. G. Butt (Eds.), *Functional descriptions: theory into practice* (pp. 1-38). Amsterdam: Benjamins.
- Halliday, M. A. K., & Hasan, R. (1985/89). Language, context and text: Aspects of language in a social-semiotic perspective. Victoria: Deakin University Press.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (1999). *Construing Experience Through Meaning: A Language-based Approach to Cognition*. London & New York: Cassell.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2014). *Halliday's introduction to functional grammar*. London and New York: Routledge.
- Hasan, R. (1983). A semantic network for the analysis of messages in everyday talk between mothers and their children. Unpublished work, Macquarie University, Sydney.
- Hasan, R. (1995). The Conception of Context in Text. In P. H. Fries & M. Gregory (Eds.), Discourse in Society: Systemic Functional Perspectives, Meaning and Choice in Language: Studies for Michael Halliday (pp. 183-283). Norwood, NJ: Ablex.
- Hasan, R. (2009). Semantic Variation, Meaning in Society and in Sociolinguistics, Volume 2 of the collected works of Ruqaiya Hasan. London, oakville Equibox.
- Hasan, R. (2014). Towards a paradigmatic description of context: systems, metafunctions, and semantics. *Functional Linguistics*, *1*(1), 1-54.
- Hasan, R. (2015). *Tenor: Rethinking Interactant Relations*. Unpublished manuscript, Macquarie University, Sydney.
- Heath, C. (1989). Pain talk: The expression of suffering in the medical consultation. *Social Psychology Quarterly*, 52(2), 113-125.
- Henry, S. G., Czarnecki, D., Kahn, V. C., Chou, W. Y., Fagerlin, A., Ubel, P. A., ... Holmes-Rovner, M. (2013). Patient-physician communication about early stage prostate cancer: analysis of overall visit structure. *Health Expectations*, 18, 1757-1768.
- Heritage, J. (2010). Questioning in medicine. In A. F. Freed & S. Ehrlich (Eds.), "Why do you ask?": The function of questions in institutional discourse (pp. 42-68). New York: Oxford University Press.

- Heritage, J., & Maynard, D. W. (2006). *Communication in Medical Care: Interaction between Primary Care Physicians and Patients*. Cambridge: Cambridge University Press.
- Heritage, J., & Sorjonen, M. (1994). Constituting and maintaining activities across sequences: And-prefacing as a feature of question design. *Language in Society*, 23, 1-29.
- Hill, C. E., Thompson, B. J., & Williams, E. N. (1997). A Guide to Conducting Consensual Qualitative Research. *The Counseling Psychologist*, 25(4), 517-572. doi:10.1177/0011000097254001
- Kissane, D. W. (2010). The implementation and assessment of a comprehensive communication skills training curriculum for oncologists. *Psycho-oncology*, 19, 583-593.
- Lifford, R. E. (2012). *Shared decision making in consultations about treatment for non small cell lung cancer.* (Unpublished dctoral dissertation), University of Leeds, Leeds, UK.
- Lu, A., Mohan, D., Alexander, S. C., Mescher, C., & Barnato, A. E. (2015). The Language of End-of-Life Decision Making: A Simulation Study. *Journal of palliative medicine*, 18(9), 740-746.
- Marshall, A., Kitson, A., & Zeitz, K. (2012). Patients' views of patient-centred care: a phenomenological case study in one surgical unit. *Journal of advanced nursing*, 68(12), 2664-2673.
- Matthiessen, C. M. I. M. (2013). Applying systemic functional linguistics in healthcare contexts. *Text & Talk, 33*(4-5), 437-466.
- Maynard, D. W., Cortez, D., & Campbell, T. C. (2015). 'End of life' conversations, appreciation sequences, and the interaction order in cancer clinics. *Patient Educ Couns*. doi:http://dx.doi.org/10.1016/j.pec.2015.07.015
- Mazer, B. L., Cameron, R. A., DeLuca, J. M., Mohile, S. G., & Epstein, R. M. (2014).
 "Speaking-for" and "speaking-as": Pseudo-surrogacy in physician-patient-companion medical encounters about advanced cancer. *Patient Educ Couns*, 96(1), 36-42. doi:<u>http://dx.doi.org/10.1016/j.pec.2014.05.001</u>
- McCormack, B. (2003). A conceptual framework for person-centred practice with older people. *International journal of nursing practice*, *9*(3), 202-209.
- Mey, L. J. (2001). Pragmatics: An Introduction (2nd ed.). Oxford: Blackwell.

- Miller, C. R. (1984). Genre as social action. *Quarterly Journal of Speech*, 70(2), 151-167. doi:10.1080/00335638409383686
- Mishler, E. G. (1984). *The Discourse of Medicine: Dialectics of Medical Interviews*. Norwood, NJ: Ablex.
- Moore, A. R. (2004). *The discursive construction of treatment decisions in the management of HIV disease* (Unpublished doctoral dissertation). Macquarie University, Sydney.
- Moore, A. R. (2005). Modelling agency in HIV decision-making. *Australian Review of Applied Linguistics, Special Edition S19*, 103-122.
- Moore, A. R. (2015). Can Semantic Networks Capture Intra-and Inter-Registerial Variation?
 Palliative Care Discourse Interrogates Hasan's Message Semantics. In W. L. Bowcher
 & J. Y. Liang (Eds.), Society in Language, Language in Society: Essays in Honour of Ruqaiya Hasan (pp. 83-114). UK: Palgrave Macmillan
- Odebunmi, A. (2011). Concealment in consultative encounters in Nigerian hospitals. *Pragmatics*, 21(4), 619-645.
- Öhlén, J., Elofsson, L. C., Hydén, L.-C., & Friberg, F. (2008). Exploration of communicative patterns of consultations in palliative cancer care. *European Journal of Oncology Nursing*, *12*(1), 44-52.
- Plastina, A. F., & Del Vecchio, F. (2014). Diagnostic news delivery, A microanalysis of the use of shields. In A. Zuczkowski, R. Bongelli, I. Riccioni, & C. Canestrari (Eds.), *Communicating Certainty and Uncertainty in Medical, Supportive and Scientific Contexts* (pp. 183-200). Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Prince, E. F., Frader, J., & Bosk, C. (1982). On hedging in physician-physician discourse. In
 R. J. Di Pietro (Ed.), *Linguistics and the professions*. *Proceedings of the Second Annual Delaware Symposium on Language Studies* (pp. 83-97). Norwood (NJ): Ablex.
- Roberts, C., & Sarangi, S. (2005). Theme-oriented discourse analysis of medical encounters. *Med Educ, 39*, 632-640.
- Robinson, J. D. (2006). Soliciting patients' presenting concerns. In J. Heritage & D. W.
 Maynard (Eds.), *Communication in medical care: Interaction between primary care* physicians and patients (pp. 22-47). Cambridge, UK: Cambridge University Press.

- Rodriguez, K. L., Gambino, F. J., Butow, P., Hagerty, R., & Arnold, R. M. (2007). Pushing up daisies: implicit and explicit language in oncologist–patient communication about death. *Supportive Care in Cancer*, 15(2), 153-161. doi:10.1007/s00520-006-0108-8
- Roter, D. (1995). The roter method of interaction process analysis. Unpublished work.
- Roter, D. L. (2011). The Roter Interaction Analysis System (RIAS): applicability within the context of cancer and palliative care. In D. W. Kissane, B. D. Bultz, P. N. Butow, & I. G. Finlay (Eds.), *Handbook of communication in oncology and palliative care* (pp. 717-726). Oxford and New York: Oxford.
- Roter, D. L., Larson, S., Fischer, G. S., Arnold, R. M., & Tulsky, J. A. (2000). Experts practice what they preach: A descriptive study of best and normative practices in end-of-life discussions. *Archives of Internal Medicine*, 160(22), 3477-3485.
- Sandvik M., Eide H., Lind M., Graugaard P.K., Torper J., & Finset A. (2002). Analyzing medical dialogues: Strength and weakness of Roter's interaction analysis system (RIAS). *Patient Education and Counseling*, 46 (4), pp. 235-241. https://doi.org/10.1016/S0738-3991(02)00014-9
- Schryer, C., McDougall, A., Tait, G. R., & Lingard, L. (2012). Creating discursive order at the end of life: The role of genres in palliative care settings. *Written Communication*, 0741088312439877.
- Shields, C. G., Finley, M. A., Elias, C. M., Coker, C. J., Griggs, J. J., Fiscella, K., & Epstein, R. M. (2013). Pain Assessment: The Roles of Physician Certainty and Curiosity. *Health communication*, 28(7), 740-746.
- Singh, S., Butow, P., Charles, M., & Tattersall, M. H. (2010). Shared decision making in oncology: assessing oncologist behaviour in consultations in which adjuvant therapy is considered after primary surgical treatment. *Health Expectations*, 13(3), 244-257.
- Slade, D., Manidis, M., McGregor, J., Scheeres, H., Chandler, E., Stein-Parbury, J., Dunston, R., Herke, M., Matthiessen, C. M. I. M. (2015). *Communicating in Hospital Emergency Departments*. Heidelberg: Springer.
- Stivers, T. (2007). *Prescribing under pressure: Parent-physician conversations and antibiotics*. New York: Oxford University Press.

- Stivers, T., & Heritage, J. (2001). Breaking the sequential mold: Answering 'more than the question' during medical history taking. *Text & Talk, 21*((1/2)), 151-185.
- Thompson, G. (2006). From process to pattern: methodological considerations in analysing transitivity in text. In C. Jones & E. Ventola (Eds.), *From Language to Multimodality* (pp. 17-33). London: Equinox.
- Walczak, A., Butow, P. N., Clayton, J. M., Tattersall, M. H., Davidson, P. M., Young, J., & Epstein, R. M. (2014). Discussing prognosis and end-of-life care in the final year of life: a randomised controlled trial of a nurse-led communication support programme for patients and caregivers. *BMJ open*, 4(6), e005745.
- Walczak, A., Butow, P. N., Tattersall, M. H. N., Davidson, P. M., Young, J., Epstein, R. M., .
 . Clayton, J. M. (2017). Encouraging early discussion of life expectancy and end-of-life care: A randomised controlled trial of a nurse-led communication support program for patients and caregivers. *International Journal of Nursing Studies*, 67, 31-40. doi:http://dx.doi.org/10.1016/j.ijnurstu.2016.10.008
- Walczak, A., Mazer, B., Butow, P. N., Tattersall, M. H. N., Clayton, J. M., Davidson, P. M., .
 . Epstein, R. M. (2013). A question prompt list for patients with advanced cancer in the final year of life: Development and cross-cultural evaluation. *Palliative Medicine*, 27(8), 779-788.
- Wall, L., Farmer, Z. L., Webb, M. W., Dixon, M. D., Nooka, A., & Pentz, R. D. (2015). Description of the types and content of phase 1 clinical trial consent conversations in practice. *Clinical Trials*, 1740774515601679.

Chapter 3 CANCER CARE AS AN INTEGRATED PRACTICE: CONSULTATIONS BETWEEN AN ONCOLOGIST AND PATIENTS WITH ADVANCED, INCURABLE CANCER

3.1. Introduction

Oncological care is going through a transformation from a practice in which the patient is the object of the medical practitioner's implementation of anti-tumour therapies to a multifaceted practice where the patient is an active participant in a dialogic relationship with a medical practitioner. The oncologist's role is far from simple. Surbone et al. (2012) suggest diagnostics, treatment, and communication as the three pillars of oncology. Cherny and Catane (2011) add palliation to this list. The development of oncology practice management, psycho-oncology, and palliative oncology as interdisciplinary fields of study and the introduction of palliative medicine into oncologist. This cultural shift entails a diversification in the range of business considered as part of the purview of the oncologist.

A recent statement of these diverse responsibilities (Cherny & Catane, 2011), published in the *Oxford Textbook of Palliative Care*, adds to preventative oncology, diagnostic evaluation, and anti-tumour therapies – arguably core to oncology as a professional specialization – the further tasks of 'communication', 'symptom control', the 'optimization of the social support', and 'care of the dying patient'. None of these tasks are specific to the job of an oncologist. However cultural pressures that have their roots in Carl Rogers' concept of 'client-centered therapy' (1942), Michael Balint's notion of 'patient-centered medicine' (Balint et al., 1969), Barney Glaser and Anselm Strauss's concept of 'open awareness' (1965) and Cicely Saunders' 'hospice movement' (1967) have created the conditions under which these tasks have come to be considered an essential part of medical oncology practice, even a 'moral and clinical imperative' (Cherny et al., 2003).

What is the effect of these cultural pressures on the context of oncological consultations? What do they mean for the tenor relations between oncologist and patient? Do they change the nature of the social process – the field in Halliday's terms – of the clinical dialogue? How does this changing context of culture translate into actual instances of oncology consultations? Despite the substantial influence of concepts such as patient-centred care, there is very little research

that describes or evaluates patient-centred care in terms of specific communicative and interactive patterns, leaving the question still open as to what such practice really looks like in terms of its linguistic profile – or in other words, as a register. We consider these questions drawing on a case study of one oncologist, going about the business of 'doing oncology' in consultations with ten different patients, at different stages in their cancer treatment.

The case study reported here is selected from the larger corpus that was used in this thesis and that was collected by our colleagues at the Centre for Medical Psychology and Evidence-based Decision-making (CeMPED, University of Sydney) (Walczak et al., 2014). As explained in Chapter 1, all patients in the study were diagnosed with terminal cancer. Thus, the oncologists were treating patients who could not – and did not – survive their cancers. The focus of this chapter is on the oncologist as the 'prime cancer specialist' who 'coordinates cancer care in all of its phases' (Cherny et al., 2003). The data used here is a corpus of ten consultations conducted by the same oncologist, who we call Yvette, but most of the examples are given from consultations with three patients (and their care givers) at three different stages of advanced cancer care: early stages (text I), mid-way (text II) and final stage/symptom management only (text III). The oncologist's discourse, as we will discuss in more detail throughout the chapter, suggests a philosophical stance that approaches the patient as a social human being. Yvette perceives herself not as the absolute knower but as an informed professional, who assumes and encourages partnership and facilitates a dialogic relationship with her patients. We chose this oncologist among fourteen oncologists in the corpus not only because she had patients at all three stages of the trajectory of illness but also because she seemed to be aware of all the clinical roles of the medical oncologist outlined by Cherny and Catane (2011) and interwove them seamlessly with the tasks which define her specialization. The next section presents a brief account of register and its variables (field, tenor, and mode) as the theoretical tools that were applied in this case study and explains their relevance to the study of oncology consultations. This is followed by a more elaborated account of the three contextual variables and the analyses of the oncology consultations in terms of each variable in the next three sections. Finally, a summary of the results is presented in the last section.

3.2. Register Analysis

Halliday, McIntosh, and Strevens (1964) divide the situational features that realize text into the three categories of field, tenor, and mode. Field refers to "the nature of the social action that is taking place", tenor refers to the "the nature of the participants, their statuses and roles", and

mode refers to "what part the language is playing" (Halliday & Hasan, 1985/89, p. 12). A particular set of values of the field, tenor and mode determines a functional variety of language or a 'register', for example, 'medical consultation' register or more delicately, 'oncology consultation' register (although 'register' settings need not always generate recognisable existing practices – see Moore (2017).

While traditionally field, tenor, and mode have been described intuitively and based on experience (Hasan, 2009), recent scholarly attempts have been made to model the parameters of context in a systemic fashion similar to the descriptions we see at the level of grammar and semantics (Hasan, 2014; Bowcher, 2014; Butt, 2003; Hasan, 2016 [2014]), the applications of which we see in media and medical communication research (Moore, 2015; Lukin et al., 2011; Lukin, 2008; Scott, 2009; Wegener, 2011; Moore, 2004; Moore, 2016). Describing context using system networks enables the analyst to contrast the contextual possibilities of human interaction in delicacy and order (from most general to most delicate). Building and using context networks enhances order and precision in the study of context (Hasan, 2014), something that is much needed when looking at complex situations such as oncology at the EOL.

In the perspective of the above theoretical explanations, an oncology consultation is an instance of the social practice of oncological care conducted by a specialist medical practitioner and in a broader sense an instance of the current cultural institutions of healthcare and palliative care. At the same time, the oncology consultation is the realization of meaning and grammar as text. Therefore, text and culture are related through the principles of realization and instantiation (for a more detailed account of the relation between texts, aspects of healthcare, and healthcare as an institution refer to Matthiessen (2013)). Delineating the complex choices that the oncologist makes at the level of context as well as their textual realizations when consulting patients at different stages of their cancer journey can help us understand how the expert oncologist manages to actualise this multifaceted role, constructing a new culture of medical practice at the same time being constructed by it.

3.3. The field of oncology consultations

Field of discourse has been paradigmatically modelled by Butt (Butt, 2003) and Hasan (Hasan, 1999; Hasan, 2009). In addition, Bowcher (2014) combines the FIELD networks of Hasan and Butt to propose a revised and unified network. The network used here is Hasan's 2009 network

of FIELD² (Hasan, 2009). Hasan's networks, in Bowcher's words, "are global in their application and are situated close to the system end of the cline of instantiation: context as system" (Bowcher, 2014, p. 185) and therefore seem suitable for the analysis of the context of oncology consultation, a context that has not been analysed paradigmatically to date. Hasan's (2009) FIELD network consists of three primary m-systems (member systems) of VERBAL ACTION, SPHERE OF ACTION, and PERFORMANCE OF ACTION to describe the contextual parameters of FIELD. Figure 3.1 shows the vectors and their primary systems in Hasan's (2009) FIELD network.



Figure 3.1 FIELD network (from Hasan, 2009, p. 183)

The system of VERBAL ACTION concerns the options [ancillary] and [constitutive] where [constitutive] itself selects [practical] or [conceptual]. A verbal action is practical if it is *sens-ible³* and entails "the future occurrence of some material action" (Hasan, 1999, p. 283). It is

² 'Point of origin' which refers to the system network's object of enquiry is always shown in upper case, the msystems are written in lower case, and the 'options' are displayed between square brackets. For some further information on system networks see Hasan (2014).

³ The sensible/intelligible distinction is after Russell (e.g. 2004); the hyphenisation is Hasan's.

conceptual if it is *intellig-ible*³ and "do[es] not call for any physical action" (Hasan, 1999, p. 288). The option of [practical] can be further divided into two options: [instruct] or [plan]. The option of [conceptual] opens to three simultaneous sets of option: [relation-based] or [reflection-based], [narrating] or [informing] and [first order] or [second order]. To illustrate, applying this m-system to our data showed that in the oncology consultations VERBAL ACTION is [constitutive] and that oncology consultation was not only about [practical] activities, but [conceptual] actions constituted a significant part of the oncological practice in every stage of the patient's illness.

The practical actions in the oncologist's data not only involved planning/instructing regarding the different treatments and tests (instructing regarding pain and other symptom/side-effect alleviation, and planning the next consultation) but also extended to incorporate instructions on using family and community based services such as in home care and psychological care, instruction on using special equipment for comfort and support at the end-of life, instruction regarding access to palliative care, planning non-medical activities such as vacations or family visits and coaching and navigating the patient across the healthcare system. Table 3.1 shows a list of the practical actions that we witnessed in the corpus along with instances of how these actions were realized textually by the oncologist.

Give instruction to do/Plan the	• Now you are on that tough every two week schedule.
treatment, blood test, blood	That was proven to be superior for paediatric and
transfusion, scan	adolescent sarcoma and because we wanted to get control
	of this and because you were handling it fine we said
	we'd try it. We can go to every three weeks.
Instructing regarding pain and	• and then you'll give the Aloxi to the nurses. On the
other symptom/side-effect	night of the chemo you can either have nothing or two
alleviation	Maxolon or half as often, or a whole as often if you've
	got nausea. The next morning you take two
	Dexamethasone and the small Emend
Planning the next consultation	• Now I'm away that week so I'll get XXXX to cover me
	but we might be on the week after anyway, in which case
	I'm here.
Instructions on using family	• What about getting some regular planned extra help for a
and community based services	couple of hours in the afternoon so you know you'll be

Table 3.1 Actions in the corpus instantiating the Field parameter [practical] and their textual realizations

such as in-home care and	able to get some rest. We've still got a long road ahead.
psychological care	You've got a little baby.
	• But this is an emotional disease. We're going to have
	good news at times and not so $good - so$ if you have a
	good rapport with someone And you've got to make
	that rapport now while you're well.
Instruction on using special	• Because of the back pain – the other thing is a sheepskin
equipment for comfort and	and you can buy those or rent those.
support	
Instructing regarding access to	• Have you seen the palliative care Yes, I think it is
palliative care	[worthwhile] and, you know, it's not terminal care it
	doesn't mean that because you see them that, you know
Planning non-medical	• Look usually I say to people we know what's going to
activities such as vacations,	happen next week or next month, we don't know what's
family visits or daily activities	going to happen in six months' time – so go sooner rather
	than later. Now sometimes you stay well for a long time
	but you're more sure of something in the shorter term
	than the longer term. So I think about Easter is a better
	time in terms of I would be more sure that you'll be in a
	good condition.
Gatekeeping (paperwork	• Look I'm very happy to write that I think you need two
related to other aspects of the	bedrooms and you need to be in the area.
patient's life being affected by	
the cancer)	
Patient coaching and	• Oh do you want to go and tell the NUM, the Nurse Unit
navigation of health system	Manager, Lindsay, because you're not the first person
	today and the system really needs to operate better than
	that

The conceptual actions included prognosis, reiteration of the goal of the care, medical and clinical reasoning and the promotion of evidenced-based research, psychological counselling and casual talk. The data contains instances where the oncologist reminded the patient and the care giver of the untreatable nature of the cancer and the goal of the care; engaged in a pedagogic discourse to inform the patient and the care giver about the illness, treatment options,

clinical research, the patient's body and what to expect in the future and how to deal with it; provided psychological support and invited the patients to share their feelings and thoughts; and engaged with the patient and the companion in conversations about everyday matters related to the patient's 'lifeworld' (Mishler, 1984) (table 3.2).

Prognosis and reiteration of	• Well, remember what I said in the first place, unless we
the goal of the care	can cut it all out, which is a big, big ask, we can't get rid
[conceptual: informing]	of it You need to be on continuing treatment and even
	with that at some point it stops working, okay.
Medical and clinical reasoning	• We know that if – so they did do some studies saying
and the promotion of	what about if we stop and we watch you and if it starts to
evidenced-based research	grow again we start again – and there's a bit of split in
[conceptual: informing]	oncologists about how they interpret those results. If you
	stop you need to be watched like a hawk and your
	average time before you start again is three or four
	months.
Psychological counselling	• Are you happier where you are now?
[conceptual: narrating]	
Casual talk	• Patient's mother:
[conceptual: narrating]	I'm going next week.
	Oncologist:
	Are you? You've been evicted?
	Patient:
	No, she's more than welcome to stay.

Table 3.2 Actions in the corpus instantiating the Field parameter [conceptual] and their textual realizations

In all these instances, both practical and conceptual activities (including reflection-based conceptual activities), the oncologist seemed to be constructing a new clinician-patient relationship and activating and facilitating a new 'patient' role that is different from what the patients may have perceived before or at the beginning of their journey. Even to the activities that projected a future material action, there seemed to be a relation-based dimension. They conveyed an oncologist-patient relationship that is centred around the patient as a social human-being and is based on empathy and support and continuity of care. This shows another layer of complexity in 'doing oncology'. It also suggests that the system network of field can

be further developed in this area to model this relation-based dimension of the practical and reflection-based conceptual actions.

Moving to the second primary m-system of Hasan's FIELD network, that of SPHERE OF ACTION, there are options of [specialised] or [quotidian] and [official (institutional)] or [private (individuated)]. Oncology consultation is a [specialised] and [institutional] social practice. The data showed that even in instances where the topics seemed to be quotidian topics, such as organising a vacation or a family related matter, the topic development and mapping between topics and turns was not what can be found in a casual conversational context or other quotidian situation. For example, in such a context 'holiday' correlates with 'certainty' and 'health status' in a way that it would not do in everyday chat. What explains this paradox is the oncologist patient-centred approach through which the commonplace and ordinary aspect of the patient's life also becomes the business of the care, producing what (Candlin, 1995) calls 'comprehensive coherence'. We can test [institutional] versus [individuated] by considering Hasan's (1996) notion of a context as 'multiply coded'. Accordingly, institutionalized social processes "would logically be multiply coded semiotically; that is to say the fact that they are institutionalized would be indicated by the fact that the different modes of meaning would single them out, and the boundaries set for a process by one mode would be commensurate with those set by another mode of meaning" (Hasan, 1996, p. 46). To test whether oncology consultation is an institutionalised activity, we can say that it is multiply coded through ways of behaving, the necessity of performing it in a specific setting and time and conducting it in a more or less defined way that the oncologists master throughout their long-term training and is, therefore, an institutionalised practice. These options, however, seemed to vary in degree depending on the time or the patient's stage of illness. If we consider them not as binary options but as two ends of a continuum as Hasan (1996) suggests, then we observed from the data that as the patient gets closer to the end and when the treatment is stopped the linguistic behaviour changes in a way such that the selections in these systems seemed to move closer to the [quotidian] and [individuated] end.

The last primary m-system in the FIELD network is PERFORMANCE OF ACTION which covers the spatio-temporal nature of the activity. PERFORMANCE OF ACTION consists of two options [bounded] and [continuing]. The first option refers to action that is carried on within one spatio-temporal location and the second option refers to continuing action conducted across several different but connected events at different spatio-temporal locations.

Going further in delicacy [continuing] action can be either [sequenced] or [conditional]. The work of oncology consultation is a continuing activity, spanning from the day that a patient is diagnosed with cancer (or sometimes earlier) until the last consultation. This, according to Cherny and Catane (2011, p. 113), requires a varied range of responsibilities for the oncologist as the coordinator of cancer care in all of its phases: "the diagnostic: ambulatory or inpatient", "curative primary therapy", "ambulatory palliative therapy", "sedentary palliative therapy – interactional", and "sedentary palliative therapy – non-interactional".

3.4. The tenor of oncology consultations

We adopted Hasan's system network of INTERACTANT RELATIONS (Hasan, 2015; Hasan, 2014; Hasan, 2016 [2014]) to describe the tenor of oncology consultation (figure 3.2). Hasan's tenor network consists of the three simultaneous primary m-systems of AGENTIVE ROLES, TEXTUAL ROLES, and SOCIAL ROLES. The AGENTIVE ROLES system relates to "the part an interactant is playing in the achievement of the goal implicit in the social practice" (Hasan, 2015, p. 34); the TEXTUAL ROLES are based on "the considerations around which their meaning-wording roles are calibrated" (Hasan, 2014, p. 33); and the SOCIAL ROLES refers to the interactants' "interactive biography and their social positioning" (Hasan, 2014, p. 33).

A central topic in the literature of EOL and palliative care is the topic of the goals of care and the scope of roles oncologists take not only in achieving these goals but also in guiding the patient with advanced cancer to be a protagonist in this social practice and to actively work towards reaching these goals as we briefly discussed in the previous section. Tools such as Hasan's tenor nework, and its capacity for a close mapping of how such roles configure and vary, are therefore expected to be of use in the understanding of this aspect of 'doing oncology'. In particular, we expect the INTERACTANT RELATIONS system network to tell us more about the relation-based dimension of the oncology consultation practice and its connection to a patient-centred care for advanced cancer patients.



Figure 3.2 A fragment of INTERACTANT RELATIONS network (from Hasan, 2014, p. 33 and Hasan, 2013)

As was mentioned above AGENTIVE ROLES refers to the roles the oncologist and the patient (and the companion) take in order to achieve the goals of the oncology practice. In the instances analysed here patients appeared to have the responsibility of paying careful attention to and reporting symptoms, side-effects and quality of life information, conducting self-care and

participating in the process of decision-making in an informed and active manner. The oncologist, on the other hand, paired the patient's self-reported information and other information that she elicited from the patient with biomedical results, i.e. blood test and scans, and assessed the overall wellbeing of the patient. The data shows how the expert oncologist and the patient worked collaboratively to reach a decision about the patient's care plan based on the information provided by the patient and biomedical results, but also included the patient's personal preferences.

To pursue the long-term goal of keeping a balance between more treatment and quality of life the oncologist's role, however, was not confined to the assessment of the patient's state and treatment/symptom management. Assisting the patient to navigate the healthcare system, giving advice to the patient regarding a vacation, and writing letters and reports and filling out forms in relation to other aspects of the patient life being affected by the cancer such as public housing and public home care service were among the practical activities that the oncologist performed, as outlined above. Patient education through sharing medical and clinical reasoning was another role the oncologist was engaged in. The oncologist helped the patient understand the nature of the process, explained the existing treatment options, talked about the most recent clinical research findings and their limitations, informed the patients and the care givers of the social and medical services available to them and taught them self-care in terms of pain and symptom management. She established a therapeutic relationship with her patients and provided care beyond what might be the expected order of being a cancer patient including checking up on the patient's care giver and family members.

A diverse range of roles, and their textual realizations, have been documented through the analysis of tenor in this section, corresponding to the characteristics of oncology as a field seen in the previous section. Implicit to all these agentive roles is a facilitating role observed in the consultations we analysed, which examplifies the relation-based dimension of 'doing oncology' referred to in the previous section. This facilitating role, which is a key aspect of the tenor of the oncology consultations observed, can arguably be explained as the oncologist's ongoing work of teaching the patient what it means to be in the role of a cancer patient from the philosophical point of view held by the oncologist in question, regarding the rights and responsibilities such patients have. That is, the data shows the oncologist not only facilitating greater patient agency by making the basis of her recommendations thoroughly explicit and inviting the patient to be involved in resolving the best way forward in terms of treatment/non-

treatment decisions, the oncologist can also be seen actively coaching the patient to be agentive. These features of the clinical dialogue allow us to infer a certain philosophical/ideological orientation of the physician. In the remainder of this section, using Hasan's system network of interactant relations, we will elucidate the details of how the oncologist performs this facilitating role.

Moving one step further in delicacy within the system networks, AGENTIVE ROLES consists of three simultaneous systems of GOAL-ORIENTATION, COMMENCEMENT, and ACTUAL OPENING. GOAL-ORIENTATION system is about the awareness of the interactants of the goal of the social practice and their disposition to that goal. The network opens to a simultaneous set consisting of member systems with the options [aware] or [unaware] and [one] or [both]. Before going through these options, a few words on the goals of the oncology consultations we analysed seems necessary. To do this, we make use of Butt's (2003) network of GOAL ORIENTATION (figure 3.3). In the data we analysed, there were both immediate and longitudinal goals to the consultation. The immediate goals were variable depending on time and the patient's condition and were overt most of the time. The longitudinal goal of the oncology practice for advanced cancer patients or at least the oncologist's goal was to help the patient live longer with anticancer treatments as long as the side-effects from these treatments did not significantly reduce the quality of the time left. This required an ongoing process of calibrating quantity and quality of time, based on which the care plan was decided or modified along the course of illness as the corpus showed. This goal was a constant goal that over time was made overt by the oncologist if she found out that the patients or the care givers had different expectations. In fact, the reiteration of the goal of the care and the promotion of 'open awareness' of dying (Glaser and Strauss, 1965) formed one of the primary activities of the oncologist. While the oncologist was obviously aware of this goal, the patients and the care givers could at times misunderstand the aim of the treatment as other researchers have also observed (Weeks et al., 2012) or simply had different goals that were not visible. As Hasan (2016 [2014], p. 447) puts it "[w]hen goals are not 'in' the action, there is no linguistic means of knowing which of the invisible goals is being pursued" by the patients and care givers. The mismatch between goals of the oncology consultation practice can be due to the relation based nature of this social activity based on Hasan's (1999, p. 234) argument that the interactants' awareness of the goal of the social activity is at its lowest when that activity is 'relation based'. In fact, the oncologist-patient role relationship was not simple. There were various dimensions to being a patient or an oncologist as we will see in the coming paragraphs.



Figure 3.3 Butt's (2003) network of goal-orientation

The next m-systems of AGENTIVE ROLES are COMMENCEMENT and ACTUAL OPENING. Commencement is related to the control over how the social activity commences. When commencement is not free, it can be governed internally, control is "built into conventions of social practice" (Hasan, 2013), or externally, "control is external, i.e., some feature in 'mss' [material situational setting]" (Hasan, 2013). Information about which interactant, the initiator or the respondent, actually opens the social activity is specified by ACTUAL OPENING. In most of the consultations we observed, the oncologist was both the initiator and the actual opener of the consultation. In text III the patient was the actual opener of the consultation where she initiated a greeting move to ask about the oncologist's vacation. This is perhaps because the SPHERE OF ACTION becomes more individualised as the patient gets closer to the EOL, possibly it construes the decreasing social distance that comes with many repeat consultations over time and the patient's familiarity with the setting and 'the rules of engagement' in that setting (see below); either way the patient has more control over the commencement of the consultation. In general, the oncology consultation sessions we analysed began with a run down on side-effects and symptoms initiated by the oncologist, which seems to show the oncologist role as centred in anti-tumour therapy and symptom control as Cherny and Catane outline (see previous section). One point worth considering is the influence of the broader culture of medical practice within which the oncologist has been trained and has become acculturated on how the consultations commence. In this light, oncology consultation is an instance of the healthcare as a cultural institution. It is the healthcare system within which

the clinicians have been trained and are working that governs the actual opening of the consultation and the oncologist plays the role of the 'mediator' from this perspective.

In terms of the contextual dimensions of TEXTUAL ROLES in INTERACTANT RELATIONS an account of attitude as a psychological notion seems useful. Attitude is defined as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly and Chaiken, 1993, p. 1). Although attitude is mostly communicated through non-verbal resources (Mehrabian, 1972), our analysis of the attitude of the oncologist was only based on the written transcripts as we did not have access to the audiorecords of the transcripts and there was no videorecording in this project. Accordingly, our analysis showed that the oncologist held a [biased: positive] attitude towards the patient and the focus was on [addressee]. One manifestation of the oncologist's positive attitude is her attempt at the construction of a joint project through using first person plural pronouns instead of separating herself from the patient. Of course, the institutional 'we' can also be a controlling, patronising mechanism (Pennycook, 1994; Kinsman et al., 2010). What makes us interpret it as positive attitude is the bigger picture of the oncologist's commitment to the endorsement and reinforcement of shared decision-making as we explain in this chapter. Another manifestation of the oncologist's positive attitude and her focus on her addressee was her respect for the topics that were initiated by the patient and her willingness and interest to get involved in the details of those patient-initiated moves despite the time pressure (note that the average consultation time length for the oncologist under study is not different from the average time across the whole data set which is around twenty-one minutes). An example is the oncologist's engagement in a 19-turn conversation about the patient's visit to Dubbo in text III that seems to have no bearing on the treatment and symptom control business of the consultation. We suggest that showing a positive attitude (in this sense) is one contextual aspect of the facilitating role of the oncologist. Another point that needs to be mentioned here before we move on to the last m-system is the positive attitude towards research and evidenced-based practice that we witnessed in the texts, especially when discussing treatment options and their effects, which is also stressed by Cherny and Catane (2011).

The last primary m-system in INTERACTANT RELATIONS is the system of SOCIAL ROLES that consists of two simultaneous sets of SOCIAL DISTANCE and STATUS. As a result of the oncologist's knowledge and expertise and her semiotically managed influence in the social practice of consultation, the oncologist appeared to be in a higher position than the

patients or care givers. This hierarchized relationship, though, did not seem to have an effect on the quality of the social distance between them. This can be partly due to the long history that the interactants shared together as oncologist and patient, the patients seemed to be seeing the oncologist for a long time. However, it seemed independently to be the case that the oncologist consistently chose ways of speaking that construed the patient as an active human being and as a 'meaner', an approach that realizes what Bernstein calls 'weak insulation' between the oncologist and the patient and the care giver.

What we inferred from the oncologist's practice of 'doing oncology' could arguably be described as a 'socio-semiotic' philosophy of care. We dub it a 'socio-semiotic' philosophy of care, whereas many of the contextual features of oncology consultation that we have described here have been associated with cultural movements or moments such as postmodernism and consumerism, in both celebratory and critical modes (see e.g. Morris (2000), Henderson and Petersen (2002), and Yeatman et al. (2009)) or the medical 'gaze' of modernism (Foucault, 1973), as displayed in the evidence based medicine movement and its commitment to innovation, progress and authority. One of the advantages of Hasan's contextual parameters approach is that it allows us to capture configurations of contextual features without having to declare their provenance, which can then be explored separately. This then arguably helps show how different philosophies and zeitgeists may co-occur and vary within a coherent community of practice such as oncology.

This socio-semiotic philosophy of care is transformed into the oncologist's discourse through what the sociologist Basil Bernstein terms weak 'insulation' between the social categories. This weak degree of insulation between the expert oncologist and the patient and his/her care giver creates a different division of labour and generates weak degrees of classification in their interpersonal relations. Classification refers to the degree of boundary maintenance between the social categories: agents (here the oncologist, patients and care givers) and discourses or contexts. Classification is affected by the degree of insulation between the categories. A strong insulation between categories creates a principle of strong classification and a weak insulation between categories gives rise to a principle of weak classification (Bernstein, 1990). In our data the social division of labour, as our earlier discussions in the chapter suggests, was composed of several categories: 'advisor', 'therapist' and 'transmitters' on the part of oncologists and 'advisee', 'therapee', 'acquirer' and 'reviewer' on the part of patients and care giver. In this configuration, the oncologist acted on the principle that her roles permeate each other and

constantly reclassified her roles. Not only did she provide medical advice to the patient, but also felt the need to convince the patient (and the companion) through reasoning and providing educational information on why such advice is suggested. Arguably this does not detract from patient agency but in fact enables the patient to be more agentive (cf Moore, 2004, 2017). In addition, offering advice and education to the patient was not only confined to the area of biomedicine, it extended to other areas including the healthcare system, where the oncologist navigated the patient across the healthcare system, as well as the patient's personal life, where the oncologist attended to the life of the patient as affected by the illness.

The permeable nature of the oncologist's roles suggests that weak classification is another aspect of this facilitating role of the oncologist. Consistent with this argument, our transitivity analysis of over 5000 clauses suggests that the patients did not construe themselves merely as the site of the disease and the goal of the treatment but as conscious and active participants who were semiotically agentive, as they used more mental processes and fewer relational semiotic processes to convey inner world experiences, and who exerted 'agency despite cancer' through identifying themselves as the Actors of material actions related to the realm of the mundane activities of a social human being or material actions targeted towards palliating symptoms and side-effects. Now, if we consider a discourse spectrum that ranges from a completely specialized medical voice to a completely non-medical lay voice, our analysis suggests that, since the classification seems weaker, the discourse of both oncologist and patient was not polarized at each end of the spectrum but is close to a discourse that is a mix of specialized and non-specialized voices for both the oncologist and patient. An instance of weak classification in oncology consultation is the occurrence of a 'pedagogical' move that is usually followed by treatment advice whereby the oncologist explains the rationale behind such advice. Another instance is the doctor's attention to the daily life of the patient and the effect of cancer on that.

Another aspect of social distance between the interactants is the concept of framing. Framing is defined as "the principle regulating the communicative practices of the social relations within the reproduction of discursive resources" (Bernstein, 1990, p. 36). Accordingly, when framing is strong, the oncologist explicitly regulates the distinguishing features of talk and the kind of roles she takes during the consultation. By contrast, when framing is weak, this control is not unilateral, rather the shift between the different roles is controlled by the oncologist and the patient in partnership.

Our analysis shows that the oncologist does not exercise strong control over the unfolding of the discourse and her framing is weak. Even in those consultations in which the patient is receiving active anticancer treatment, where her role as someone who offers advice and planning regarding treatment spans over a large part of the interaction, the classification between interactants was weak and the control over this weak classification was distributed between the oncologist, the patient and the companion: the weaving in and out of the different roles was jointly construed. Of course, this does not imply that the oncologist does not have a fixed agenda, neither does it imply an equal status for the oncologist and the patient as mentioned earlier. The situation can be described as what Hasan refers to as "showing respect for the other's individuality" (Hasan, 2001, p. 65). An example of the oncologist's weak framing is her readiness to entertain a shift in the activity initiated by the patient or the companion. Another example is her disposition to provide detailed and elaborated answers to the questions raised by the patient or the companion as well as her endorsement of question asking.

At the beginning of this section, we suggested a facilitating role on the part of the oncologist and argued that it is a key aspect of the tenor of the analysed consultations. Throughout this section, we have explained the different dimensions of this facilitating role. Table 3.3 summarises these dimensions and presents an example for each aspect.

	Agentive roles	As discussed in tables 1 and 2
Facilitating	Positive attitude	 The construction of a joint project But what that will do over time is start giving us some numbness in your fingers and toes and that is a cumulative thing. Respect to patient-initiated topics Promotion of evidenced-based practice and research
Tole	Weak classification	• Pedagogical moves and clinical reasoning Yes, that's right. So the Oxynorms are great for extra pain relief but if you need lots of them and regularly that means you need to up the – so the idea is that you're only on regular medication and the occasional one otherwise you're taking tablets all the time. So I would go up to Oxynorm – I would go up for the Oxycontins to 30's which you can do by two 15's if you've got those leftovers.

Table 3.3 Aspects of the facilitating role of the oncologist

	Attention to the life of the patient
	What about getting some regular planned extra help for a couple
	of hours in the afternoon so you know you'll be able to get some
	rest? We've still got a long road ahead. You've got a little baby.
	Readiness to entertain a shift in the activity initiated
	by the patient or the companion
	(During the move in which the oncologist instructed the patient to
	do some blood tests)
	Patient's wife:
	We always make sure it (the test results) has your name on it.
	Oncologist:
	Okay. Well they don't always download it but that's okay I will
	just go here.
	Patient's wife:
	in the past so we asked them to.
	Oncologist:
	I would love to be a lady there because you can just promise
Weak	anyone everything. No, they say yes it'll be ready and people
framing	come down, they go they said it be ready, like yeah okay.
	Giving detailed and elaborated answers to the
	questions
	Patient:
	[Do I reduce Dex] Down to one and then down to a half?
	Oncologist:
	Or down to one and a half, and then one. It doesn't matter.
	Cutting down on the Dex too quickly will make you feel lousy.
	Stopping it altogether quickly is bad. Your body doesn't have it
	but there's no right answer. As long as you go slowly you can
	titrate it to how you feel. So you can go to one and a half for two
	days, then one for two days, then half.
	Endorsing question asking
	Have you got any questions for me at this stage?

3.5. The mode of oncology consultations

Let us finish the discussion of the contextual parameters of oncology consultation with a review of mode as partially modelled by Hasan (Hasan, 2014; Hasan, 2016 [2014]) (figure 3.4). MODE in Hasan's words "is all together concerned with *contact*" (Hasan, 2014, p. 28). The two dimensions of MODE or the two primary m-systems are MATERIAL CONTACT and SEMANTIC CONTACT. Hasan's paradigmatic account of MODE is in her own words "a tentative fragment of MODE" (Hasan, 2014, p. 28) and needs further exploration. However, it still is the most comprehensive network as it brings into account the parameter of SEMANTIC CONTACT.



Figure 3.4 A fragment of MODE network (from Hasan, 2014, p. 27)

MATERIAL CONTACT "is an attempt to describe the possible means of expression that normal human beings can use in producing and receiving meaning-wording in many parts of the world today" (Hasan, 2016 [2014], p. 429). The material contact of oncology consultation is then phonic at the PRODUCTION POINT and direct at the RECEPTION POINT. SEMANTIC CONTACT "concern[s] the description of intellig-ible aspects of language, which would primarily facilitate access to those meanings whose choice activates continuity, coherence and textual organisation" (Hasan, 2016 [2014], 429). It consists of four simultaneous systems: ELOCUTION, TURN MANAGEMENT, READINESS, and RELEVANCE. Of these systems, we will just look at TURN MANAGEMENT and READINESS only at the point of origin level as the networks currently stop here.

Our analysis of the number of turns suggests turn-taking is roughly equal between the oncologist and the patient. However, if we look at the length of turns this equality no longer holds true. While in text III the turn length distribution between the oncologist and the patient is nearly equal, in text I and II the oncologist's share in terms of clause count is higher than the patient's and the care giver's/caregivers' overall share (67% in II and 76% in I). That is, although the oncologist had fewer turns in consultation I and II, her turns were considerably longer. Based on the information provided in table 3.4 we can form the hypothesis that there is a trend in the length of the oncologist's turns depending on where the patient is in the trajectory of illness. Accordingly, as the patient gets closer to the EOL, the semantic work on the part of the oncologist decreases and the patient contributes more to the interaction. As we saw in the section on field as this change in mode occured, the sphere of action in field moved towards being more [quotidian] and [individualised] and the role relations became more of therapisttherapee. This reciprocal relation, which was also witnessed between the field and the tenor, supports Hasan's argument that the "configration that results from the choice of symbolic mode, social process, and social relation is not a simple combination; its meaning is not additive, not just the sum of the meanings of the three; rather, contextual configuration is like a chemical solution, where each factor affects the meaning of the others" (Hasan, 1995, p. 231).
Text	Interactant	Turn count [%	Word count [%	Clause count [%
		participation]	participation]	participation]
Text	Patient	137 [50%]	1939 [51%]	338 [51%]
III	Oncologist	137 [50%]	1827 [49%]	330 [49%]
Text II	Patient, Partner, Mum	109 [56%]	1324 [32%]	240 [33%]
	Oncologist	85 [44%]	2757 [68%]	484 [67%]
Text I	Patient, Wife	133 [54%]	708 [19%]	146 [24%]
	Oncologist	113 [46%]	3109 [81%]	459 [76%]

Table 3.4 Interactants' share of discourse in texts I, II and III

Moving to the m-system of READINESS, Hasan (2014) does not define this notion but if we assume that READINESS is related to the participants' acquaintance with the function of the meaning/wording that is used in a specific social practice, then both the oncologist and the patients generally seem to be ready for what they receive. An example is the familiarity of the patients with their various roles that they had mastered throughout their cancer journey, arguably as a result of the enabling role of the oncologist. The oncologist also seemed to be ready for the topics that the patient raised and never failed to address them comprehensively which shows her ability to juggle between all these different roles that we tried to outline and that Cherny and Catane (2011) suggest.

3.5. Conclusion

Our application of the contextual system networks in the study of palliative oncology consultations suggests that oncology consultation practice as a 'contextual concern' (Matthiessen, 2013, p. 444) can be examined in detail through the analysis of recurrent patterns in a number of oncology consultation texts which are the textual realization of instances of oncology consultation practice for advanced cancer patients. It revealed the different aspects of what today is considered a good oncology practice for advanced cancer patients along with their textual realizations. Using paradigmatic models of the contextual parameters of field, tenor and mode allowed us to analyse these different aspects not as detached and self-enclosed elements but as a gestalt with all the interrelations and interdependencies discussed above. The medical oncologist's role in advanced cancer care, as we tried to show in this chapter, is multifaceted and complex and is the function of choices from various interwoven contextual elements and their texual realizations. Our contextual analysis arguably demonstrates the

actualisation of the roles that Cherny and Catane (2011) outline for the medical oncologist in the practice of the expert oncologist under study. In addition, we found two further roles, namely 'facilitator' and 'mediator' in her practice.

References

- Balint, M., Ball, D. H. & Hare, M. L. (1969). Training medical students in patient-centered medicine, *Comprehensive psychiatry*, 10, 249-258.
- Bernstein, B. (1990). Class, Codes and Control. London & New York: Routledge.
- Bowcher, W. L. (2014). Issues in developing unified systems for contextual Field and Mode. *Functions of language*, 21 (2), 176-209.
- Butt, D. G. (2003). *Parameters of context: On establishing the similarities and differences between social processes*. Unpublished monograph, Macquarie University.
- Candlin, S. (1995). Towards excellence in nursing: an analysis of the discourse of nurse and patients in the context of health assessments (Unpublished doctoral dissertation). Lancaster University, Lancaster.
- Cherny, N. I. & Catane, R. (2011). Palliative medicine and modern cancer care. In G. Hanks,
 N. I. Cherny, N. Christakis, M. Fallon, S. Kaasa, & R. K. Portenoy, (Eds.) Oxford Textbook of Palliative Medicine (4th edn., pp. 111-124). Oxford: Oxford University Press.
- Cherny, N. I., Catane, R. & Kosmidis, P. (2003). ESMO takes a stand on supportive and palliative care, *Annals of oncology*, 14, 1335-1337.
- Eagly, A. H. & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt Brace Jovanovich College Publishers.
- Foucault, M. (1973). *The birth of the clinic: An archaeology of the human sciences*. New York: Routledge.
- Glaser, B. G. & Strauss, A. L. (1965). Awareness of dying. New Jersey: Aldine Transaction.
- Halliday, M. A. K. & Hasan, R. (1985/89). Language, context and text: Aspects of language in a social-semiotic perspective. Victoria: Deakin University Press.
- Halliday, M. A. K., Mcintosh, A. & Strevens, P. (1964). The linguistic sciences and language teaching. London: Longmans.

- Hasan, R. (1995). The Conception of Context in Text. In P. H. Fries & M. Gregory, (Eds.) Discourse in society: Systemic functional perspectives (pp. 183-284). Norwood, NJ: Ablex Publishing Corporation.
- Hasan, R. (1996). What's going on: a dynamic view of context in language. In C. Cloran, D. G. Butt, & G. Williams, (Eds.) *Ways of Saying: Ways of Meaning* (pp. 37-50). London: Cassell.
- Hasan, R. (1999). Speaking with reference to context. In M. Ghadessy (Ed.) *Text and Context in Functional Linguistics* (pp. 219-329). Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Hasan, R. (2001). The Ontogenesis of Decontextualised Language: Some Achievements of Classification and Framing. In A. Morais, I. Neves, B. Davies, & H. Daniels, (Eds.) *Towards a Sociology of Pedagogy: The Contribution of Basil Bernstein to Research* (pp. 47-79). New York: Peter Lang Publishing.
- Hasan, R. (2009). The place of context in a systemic functional model. In M. A. K. Halliday & J. J. Webster (Eds.) *Continuum companion to systemic functional linguistics* (pp. 166-189). London: Continuum.
- Hasan, R. (2013). Tenor: Three primary systems in interactant Relations. Unpublished work.
- Hasan, R. (2014). Towards a paradigmatic description of context: systems, metafunctions, and semantics, *Functional Linguistics*, 1 (9), 1-54.
- Hasan, R. (2015) Tenor: Rethinking Interactant Relations. Unpublished work.
- Hasan, R. (2016 [2014]). Towards a paradigmatic description of context: systems, metafunctions, and semantics. In J. J. Webster, (Ed.) *Context in the System and Process* of Language: The collected works of Ruqaiya Hasan, Volume 4 (pp. 389-469). UK & USA: Equinox.
- Henderson, S. & Petersen, A. (2002). *Comsuming Medicine: The commodification of health care*. London: Routledge.
- Kinsman, H., Roter, D., Berkenblit, G., Saha, S., Korthuis, P. T., Wilson, I., Eggly, S., Sankar, A., Sharp, V., Cohn, J., Moore, R. & Beach, M. (2010). "We'll do this together": the role of the first person plural in fostering partnership in patient-physician relationships. *Journal of general internal medicine*, 25, 186-193.

- Lukin, A. (2008). Journalistic Voice, Register and Contextual Configuration: a case study from the Spanish and Argentinian press. In E. Thomson & P. R. R. White (Eds.) *Communicating Conflict: Multilingual Case Studies of the News Media* (pp. 143-172). London & New York: Continuum.
- Lukin, A., Moore, A. R., Herke, M., Wegener, R. & Wu, C. (2011). Halliday's model of register revisited and explored, *Linguistics and the Human Sciences*, 4, 187-213.
- Matthiessen, C. M. I. M. (2013). Applying systemic functional linguistics in healthcare contexts, *Text & Talk*, 33 (4-5), 437-467.
- Mehrabian, A. (1972). *Nonverbal communication*. New Brunswick & London: Aldine Transaction.
- Mishler, E. G. (1984). *The Discourse of Medicine: Dialectics of Medical Interviews*. Norwood, New Jersey: Ablex Publishing Corporation.
- Moore, A. R. (2004). *The discursive construction of treatment decisions in the management of HIV disease* (Unpublished doctoral dissertation). Macquarie University, Sydney.
- Moore, A. R. (2015). Can Semantic Networks Capture Intra-and Inter-Registerial Variation?
 Palliative Care Discourse Interrogates Hasan's Message Semantics. In W. L. Bowcher
 & J. Y. Liang, (Eds.) Society in Language, Language in Society: Essays in Honour of Ruqaiya Hasan (pp. 83-114). UK: Palgrave Macmillan.
- Moore, A. R. (2016). Surgical teams in action: a contextually sensitive approach to modelling body alignment and interpersonal engagement. In A. Baldry & E. Montagna (Eds.) *Interdisciplinary Perspectives on Multimodality: Theory and Practice.* Campobasso, Italy: Palladino.
- Moore, A. R. (2017). Register analysis and message semantics. In T. Bartlett, & G. O'grady (Eds.) *Routledge Handbook of Systemic Functional Linguistics* (pp. 418-437). London: Routledge.
- Morris, D. B. (2000). How to speak postmodern: medicine, illness, and cultural change, Hastings Center Report, 30, 7-16.
- Pennycook, A. (1994). The politics of pronouns. *ELT journal*, 48, 173-178.
- Rogers, C. R. (1942). *Counseling and psychotherapy: newer concepts in practice*. Boston: Houghton Mifflin Company.

Russell, B. (2004). The Analysis of Mind. New York: Cosimo Classics.

- Saunders, C. M. (1967). The care of the terminal stages of cancer, *Annals of the Royal College* of Surgeons of England, 41, 162-169.
- Scott, C. E. (2009). *Reporting Armistice: A diachronic, functional perspective* (Unpublished doctoral dissertation). Macquarie University, Sydney.
- Surbone, A., Zwitter, M., Rajer, M. & Stiefel, R. (2012). *New challenges in communication with cancer patients*. New York: Springer.
- Walczak, A., Butow, P. N., Clayton, J. M., Tattersall, M. H., Davidson, P. M., Young, J. & Epstein, R. M. (2014). Discussing prognosis and end-of-life care in the final year of life: a randomised controlled trial of a nurse-led communication support programme for patients and caregivers, *BMJ open*, 4, e005745.
- Weeks, J. C., Catalano, P. J., Cronin, A., Finkelman, M. D., Mack, J. W., Keating, N. L. & Schrag, D. (2012). Patients' expectations about effects of chemotherapy for advanced cancer, *New England Journal of Medicine*, 367, 1616-1625.
- Wegener, R. (2011). Parameters of context: from theory to model and application (Unpublished doctoral dissertation). Macquarie University, Sydney.
- Yeatman, A., Dowsett, G., Fine, M. & Gursansky, D. (2009). *Individualization and the Delivery of Welfare Services*. London: Palgrave.

Chapter 4 ADVANCED CANCER PATIENTS' CONSTRUCTION OF SELF DURING ONCOLOGY CONSULTATIONS: A TRANSITIVITY CONCORDANCE ANALYSIS

"...[W]hen the focus of attention shifted from the illness to the accompanying suffering and its transformation in divers social contexts, the foundation was laid for conceiving the patient's speech acts as a voice that was strong enough to stand up against the voice of medicine" (Hydén, 1997, p.49).

4.1. Introduction

The English noun 'patient' is defined in several ways. It is likely that the first definition that comes to the mind of the reader is "a person receiving or ... registered to receive medical treatment ... at a particular establishment or from a particular practitioner" (Oxford English Dictionary). In a grammatical sense, though, 'patient' is defined as "an entity that is directly affected or changed by the action of a verb, such as the object of a transitive verb" (ibid). This homonymy, if it can be called as such, stimulates the reader to think of the patient as "one that 'suffers' or 'undergoes' the process" (Halliday & Matthiessen, 2014, p.226). Such reading, however, is in contrast with how 'patient' is defined in patient-centred care. The patient advocated by patient-centred care is an active, autonomous and motivated patient who together with the doctor (Balint, Ball, & Hare, 1969) or in a larger team (Forsyth, Scanlan, Carter, Jordens, & Kerridge, 2011) is involved in a 'collaboration' to uncover what is more than meets the eye i.e., not just the biological aspect of the illness, but also its personal aspects.

These contrasts between different definitions of 'patient' motivated the grammatical-corpus study reported here and formed the question that this chapter tries to address, the question of 'what does it mean to be a patient'. What kinds of roles are associated with being a patient? If we take a grammatical approach to the study of patienthood will the results show that patienthood, in practice, conforms to the grammatical notion of patienthood? Where the patient has a life-limiting illness and has lost a part of her or his agency in the face of death, how does s/he construe him- or herself by reference to the grammatical roles that English offers?

To answer the questions raised above, a 'transitivity concordance' (Thompson, 2008) approach was taken to analyse the sense of identity of our 69 terminal cancer patients as reflected in their

conversations with their oncologist in a consultation. More precisely, methodological tools from corpus linguistics and theoretical tools from systemic functional linguistics were applied to analyse our corpus of 69 transcribed oncology consultations with advanced cancer patients.

Transitivity is a grammatical system within the experiential metafunction of language, which concerns those language resources that humans use to represent their experience of the world. Thompson (2008, p. 17) argues that the analysis of the transitivity choices of the language users "is one of the most effective ways of exploring the ideological assumptions that inform and are construed by the texts" and further suggests a 'transitivity concordance' approach to the analysis of transitivity as an approach that "highlight[s] the key patterns" and "make[s] the movement from the identification of these patterns to interpretation of their significance in ideological terms more transparent". The transitivity concordance approach, according to Thompson (2008, p. 18), involves the gathering together of "all the clauses in which each entity or group of entities in the text is represented in a particular participant role".

Drawing on Thompson's 'transitivity concordance' approach, this study provides a transitivity concordance profile for the 'patient' as a participant in the oncology consultation. The profile was built through performing a transitivity analysis of the clauses in which the patient was a grammatical participant in order to examine the patients' sense of self as terminal cancer patients and the construal of their outer world and inner world experiences. If "palliative care should be provided through person-centred and integrated health services that pay special attention to the specific needs and preferences of individuals" (World Health Organization, 2015), detailed analysis of how patients make sense of themselves as individuals and their experience of being incurable can inform palliative and oncology institutions about what it means to be an advanced cancer patient and help them tailor their service to meet the needs of these patients. The specific contribution made by the present chapter is to analyse the grammatical representation of self in the actual day to day interactive practice of being a palliative care patient, rather than in self-report on such experience.

4.2. Modelling experience

In the systemic functional linguistics model of language, clause as the basic unit of analysis symbolizes three types of option or three types of meanings that are mapped onto each other: experiential, interpersonal and textual. The experiential options construe the speaker's experience of the inner and outer world, the interpersonal options enact the relations among

the participants as defined by their roles in the speech event, and the textual options manage the flow of information. The focus of this chapter is the experiential options of patients with terminal cancer. The system related to the experiential options at the level of grammar is the TRANSITIVITY system. Accordingly, in the process of transforming experience into meaning, a flow of events is chunked into some quanta of change by the grammar of the clause. The clause construes a quantum of change or a 'figure' (Halliday & Matthiessen, 2014). A figure is, technically, a configuration of three basic semantic components: a process unfolding through time, the participants involved in the process, and the circumstances associated with the process.

The process element of the clause is the most central component in the configuration, and divides into three main types in the grammar of English: material, mental, and relational (Halliday & Matthiessen, 2014). Material processes construe doings and are [transitive] (e.g., *I take one Nexium in the morning*) or [intransitive] (e.g., *I'll just ring up*). Mental processes are processes of consciousness and construe sensing of perception (e.g., *I couldn't feel the sensation*), cognition (e.g., *I understand that*), desideration (e.g., *I just need this one year*), or emotion (e.g., *I love my job*). Relational processes construe the experiences of being and relate one fragment of experience to another through attribution (e.g., *I'm okay*) or identification (e.g., *I'm that odd person*) and are divided into three types of relation: intensive, possessive, and circumstantial.

There are also another three types of processes located on the three boundaries of the main process types. These categories are not always clearly distinct as they share some features of the two adjacent main process types. Nevertheless, as Halliday and Matthiessen (2014, p. 215) point out, they have a "character of their own" and are "recognizable in the grammar as intermediate between the different pairs". Behavioural processes are on the borderline of material and mental processes and represent the outer manifestation of processes of consciousness (e.g., *I occasionally cough*). Verbal processes are on the borderline of mental and relational processes and represent symbolizations constructed in human consciousness and enacted in the form of language (e.g., *They told me it was food poisoning*). Finally, existential processes are on the borderline of material and relational processes are on the borderline of material and relational processes are on the borderline of mental and relational processes and represent symbolizations constructed in human consciousness and enacted in the form of language (e.g., *They told me it was food poisoning*). Finally, existential processes are on the borderline of material and relational processes and represent that something exists or happens (e.g., *There is nothing wrong with me*).

The participants involved in the processes take on different roles according to the process type. In material clauses, Actor is an inherent participant role and participant roles of Goal, Initiator,

Scope, Recipient, Client, and Attribute may be involved in the process. Actor is the doer of the material process (e.g., 'you' in You normally give me a script for Oxynorm). Goal in material clauses receives the impact of the action (e.g., 'a script' in You normally give me a script for Oxynorm). Recipient occurs in [transitive] and [transformative: extending] clauses where a transfer of the possession of goods is taking place (e.g., 'me' in You normally give me a script for Oxynorm). Client is similar to Recipient in the sense that they both represent a benefactive role. However, while a Recipient benefits from goods, a Client benefits from services (e.g., 'me' in They took the stitches out for me). Scope either construes the material action (e.g., 'chemo' in *I had chemo two weeks ago*) or the domain over which the material action takes place (e.g., 'the nurse' in I can contact the nurse). It is different from Goal in the sense that it is not affected by the material action. Attribute may be used in a material clause 'to construe the resultant qualitative state of the Actor or Goal after the process has been completed' (e.g., 'beautiful' in And the scones came out beautiful) or 'to specify the state in which the Actor or Goal is when it takes part in the process' (Halliday and Matthiessen, 2014). Finally, Initiator construes a participant who brings about the material action performed by the Actor (e.g., 'I' in Can I get this stuff shipped out?).

In mental clauses, Senser is an inherent participant role and Phenomenon and Inducer may get involved in the mental process. The Senser is always a human and is the one that 'senses' (e.g., 'I' in *I remember the first chemotherapy*). Phenomenon is the other element in a mental clause and is the thing, act, or fact that is 'sensed' (e.g., 'the needle' in *I didn't feel the needle*). There can be another participant involved in a mental clause, that of the Inducer. The inducer gives rise to the process of 'sensing' (e.g., 'she' in *she reminds me to take the medication*).

In relational clauses, Carrier and Attribute or Token and Value are the two inherent participants (the two' be-ers' in Halliday and Matthiessen's term) and Assigner may get involved in the relational processes. In attributive clauses, the Carrier is or has the Attribute (e.g., *I'm very lucky*) and in identifying clauses the Token is the Value (e.g., *I'm that odd person*).

In behavioural clauses, Behaver is the inherent participant (e.g., 'I' in *I almost choked*) and there may be a grammatical participant that represents the Behaviour involved. In verbal clauses, Sayer is the inherent participant (e.g., 'we' in *But most of the issues we've already discussed anyway*) and Verbiage, Receiver and Target can be involved in the verbal process. Receiver is at the other end of the verbal process and Verbiage construes what is said (represented as a thing rather than a report or quote). Target is present in verbal clauses in

which the Sayer verbally acts on another party, Target. Finally, in existential clauses, Existent is the inherent participant (e.g., 'a lot of information' in *there's a lot of information on me on those things*).

Typically, texts that construe a person or a group as Actor/Agent tend to position them as active social entities with control over and/or responsibility for events or other people. In contrast, being assigned the grammatical roles of Goal/Target, Range, or Attribute typically means that the participant/s is/are construed rather passively (Hasan, 1989). Other grammatical roles fall in between of these two endpoints to create a continuum which Hasan, (1989) refer to as the 'cline of Dynamism'. However, it is important to consider grammar in context as the value the grammatical features can vary depending on the social and situational context in which those features are used.

4.3. Method

4.3.1. Data

As outlined in Chapter 1, 69 oncology consultations between 14 oncologists and 69 advanced cancer patients (and their companions) formed the corpus of this thesis. Since the focus of analysis in this chapter was on how patients modelled their experience of being a terminal cancer patient through using the transitivity resources, a sub-corpus including the patients' contribution to the conversations in the 69 consultations was created and used for the purpose of the present chapter. We called this sub-corpus 'Oncology Consultation Corpus – Patient contribution' (OCC-P). OCC-P is a searchable corpus of more than 85,000 words with each text tagged for all the extra-linguistic variables in the metadata.

4.3.2. Approach

A 'transitivity concordance' approach (Thompson, 2008) was adopted to pursue the objective of exploring how the patients enacted their role/s in oncology consultation. Transitivity concordance assembles all the clauses in which an entity is present and presents a transitivity profile of that entity including information on the grammatical roles that the entity takes as well as the process type and other participants involved in the process. Taking this approach, the present chapter not only looks at the frequencies of the lexicogrammatical features across the whole corpus but also investigates the instantiation of each feature and provides qualitative and functional interpretations of the quantitative patterns. Such an approach, according to Thompson (2008, p. 19), "allow[s] generalisations to be drawn about the ways in which significant entities are represented in a particular register or genre".

4.3.3. Procedure

With this introduction on the general approach, let us move to the details of the data analysis procedure. The key entity, as was mentioned, was the patient and the main question was how the patient construes themselves and their role/s in the events that they are experiencing. More precisely, those processes in the patients' turns that the patient participates in, as well as other entities involved in those processes were of interest in this study. The method involved the application of the concordance tool WordSmith, with the transitivity analysis conducted in an SPSS environment. The details of how these tools were applied in the analysis of the corpus consisted of two steps.

The initial step involved tagging every text with all the extra-linguistic information. Second, all first person pronouns (I, me, we and us) along with the co-text that accompany these instances were identified from the corpus. Concord from the Wordsmith Package was used for this purpose. Concord is a program that allows the user to search for a word in a corpus and presents a concordance display that gives access to the co-text of the searched word. In Concord, each chunk of discourse in which the patient is talking about themselves is shown in a separate line called a 'concordance line' along with information about the name of the text file from which each instance is extracted.

The next step was to export the concordance lines and their metadata into SPSS, the environment in which the transitivity analysis was done. Each concordance line formed a record for which the information about consultation ID, the randomised group, oncologist, age, sex, education, occupation and type of primary cancer was provided as separate variables. To do transitivity analysis, other variables including the process, the patient's grammatical role, process type, agency, Phenomenon, Attribute, Animate Goal, Inanimate Goal, and Scope were created, and values for categorical variables were defined. Categorical variables take on a number of possible values. For example, the process type can be material, mental-perceptive, mental-cognitive, mental-desiderative, mental-emotive, relational-attributive, relational-identifying, behavioural, existential or verbal. Screenshots of the different aspects the analysis of the effect of extra-textual variables on how the patients construe their experience linguistically.

For example, the analyst can show how male and female patients talk to their oncologist and determine whether there was a statistically significant difference between the ways they utilised the grammar to express their experience of being a terminal cancer patient. A total number of 5559 concordance lines (an average of 80 concordance lines per consultation) were analysed in terms of the process type, the grammatical roles that patients see themselves playing and roles of other participants involved in the process. Each concordance line included one clause. Concordance lines which showed repetitions or lacked a process were omitted from the analysis (n = 320). When the concordance line did not include the whole clause, the rest of the clause was retrieved manually from the original text. Rankshifted clauses were also included in the analysis.

4.4. Results

The remainder of this chapter will be dedicated to the discussion of the general patterns across the whole corpus as well as a short note on the intra-registerial variations.

4.4.1. The transitivity landscape of terminal patient's self-image

Process type was analysed for 5239 instances (clauses). The relative frequencies of the systemic options (material, behavioural, mental, relational, existential, and verbal) were calculated and compared with the relative frequencies of the systemic options reported in Halliday and Mathiessen (2014). Halliday and Matthiessen (2014) report a 'probability profile' (Matthiessen, 1999) for the systemic options in the system of process type in the English transitivity system based on the analysis of a corpus of texts from a varied range of registers (n= 8425 clauses). This comparison is not unproblematic, though, as Halliday and Matthiessen (2014) report the frequency of instantiation of process types associated with all the clauses in their multigeneric corpus, whereas this study only selects those processes that involve the patient. What arguably justifies such a comparison, though, is the absence of a transitivity corpus study of the experience of a social actor other than the terminal patient that could be used as a criterion based on which the results of this study could be judged. The only other transitivity corpus study available is Driscoll (2012) which also looks at the experience of the terminal patient using texts from a register distinct from oncology consultation: interviews with terminal cancer patients. Driscoll's (2012) results will also be used throughout the chapter to compare terminal patients' self-image across different registers. However, comparing the results of the instantiation of the process types as selected by patients construing themselves with that reported in Halliday and Matthiessen (2014) still seems worthwhile. The comparison reveals striking inter-registerial variations. Figure 4.1 illustrates this comparison.



Figure 4.1 Instantiation of PROCESS TYPE across the OCC-P and the corpus reported in Halliday and Matthiessen (2014), relative frequencies

As the figure shows, there is a substantial difference between the two corpora in terms of the percentage of mental and relational processes. The transitivity profile of the OCC-P, shown in Figure 4.1, is similar to the transitivity profile of the interviews reported in Driscoll (2012) in terms of the share of mental and relational processes.

Further analysis of the range of roles that the patients in the OCC-P envisaged themselves to be taking and the relative frequency of these roles was done. This is shown in Figure 4.2. The figure also compares these relative frequencies with the corresponding values reported in Driscoll (2012). It shows that Senser is the most frequent role in both corpora and that mental processes comprise about a quarter of patient's activity in both registers. The figure also shows that there is a divergence between the two corpora in terms of the share of the material and relational processes. Detailed analyses of the three process types of material, mental, and relational are discussed in the following sections of this chapter.



Figure 4.2 Instantiation of the grammatical roles across the OCC-P and the Driscoll's (2012) interviews corpus, relative frequencies

4.4.2. Material processes

In Figure 4.1 above, I showed that terminal cancer patients used roughly the same share of material clauses to describe their experience in an oncology consultation as people use in other ordinary contexts as shown in Halliday and Matthiessen (2014). The processes and the participants in the discourse of the patient in oncology are arguably different, though. In the coming parts in this section, the details of the material clauses used in the corpus are discussed.

Patient as Actor (-Goal / +Scope)

Most of the Material clauses in the corpus included [intransitive] material processes that do not extend over a Goal. In over 20 percent of the total corpus, patients construed themselves as Actors of [intransitive] material processes which were [+scope] or [-scope]. From an ergative model vantage point, the patients construed themselves as Medium. Table 4.1 represents the most frequent processes of this type (processes with the frequency of 10 or more). A number of these processes are related to the patient's activities in the medical context. Having different treatments, making appointments, waiting and coming and going to see the clinicians are among these activities. Frequently, however, these actions are related to the realm of the

mundane activities of a social human being, from the less specific act of living to the more specific activities of going to different places, doing different things including exercising, moving, walking, sitting, driving and working.

Process	Frequency	Percent
go	192	17.1
have (treatment)	120	10.7
do	116	10.3
get	56	5
see	49	4.4
come/come in/come back	45	4.1
walk	28	2.5
sit/sit down	27	2.4
make (an appointment)	17	1.5
drive	14	1.2
work	14	1.2
live	13	1.2
start	13	1.2
wait	13	1.2
move	12	1.1

Table 4.1 The most frequent [intransitive] processes, absolute numbers and relative frequencies

Patient as Actor (+ Inanimate Goal)

The role of the Actor + Inanimate Goal was the next most frequent role for the patients in the material clauses in the corpus. As Figure 4.2 shows, in 11.6 percent of the occasions the patients construed themselves as Actors performing actions that extend to an inanimate second participant. Table 4.2 shows the different kinds of inanimate entities taking the role of Goal in these occasions along with an example from the corpus. In over 56 percent of these clauses, patients exerted agency and control over 'medication, food, medical or health-related equipment or medical procedures' in their discourse and 9.4 percent of the Inanimate Goals were from the category of 'pain, symptoms, side-effects or body-related objects' such as hand, leg, immune system, phlegm and so on. On the other hand, 'cancer' and 'time' formed less than 1 percent of the Inanimate Goals. This suggests that patients did not identify these entities as the goals of their actions in their grammatical choices.

In 9.4 percent of the instances, the patients identify themselves as Actors of material actions that involved an Inanimate Goal related to the patients' social life. A close look at the concordance lines and the texts from which these concordance lines were extracted suggests that in 34.5 percent of the occasions patients were engaged in history-giving or reporting on

different health related social arrangements such as welfare services. The other 65.5 percent of the occasions (across 18 consultations) can be grouped into two broad categories in terms of actualising or conveying personal agency (empowering experiences: across 14 consultations) or on the other hand, conveying loss of personal agency (disempowering experiences: across 6 consultations). These entities range from mundane activities such as driving the car, cooking a cake, making the bed, extending work hours or wearing jewellery to more thrilling activities such as 'remodelling the kitchen cupboards', 'booking flights' or 'buying a Kombi' to travel around.

Another salient configuration was the occurrence of occasions in which the Inanimate Goal was some kind of a 'semiotic object' (Moore, 2005) such as test results, appointments or different documents or forms including Advanced Care Directive (ACD), insurance forms and social support applications. Further analysis suggests that 41 patients out of the 69 patients in the corpus used this grammatical configuration at least once in their talk to their oncologist which is pervasive enough to suggest a managerial role on the part of the patient.

The second participant	Frequency	%	Instance
Medication. Food, Equipment, Medical procedures	357	56.6	I sometimes get a sore patch in there and I put some Kenalog on it.
Semiotic object	95 (8 instances of ACD)	15.1	I've sent these photos to Paul. I said, "What do you think?" He hasn't answered me back.
Entities from the patient's life outside illness	59	9.4	I still do (work) two and a half days and I was wondering if I'll extend it to three and a half days if and when we get an all clear today.
Bodily objects, Pain, Side- effects, Symptoms	59	9.4	So I've started that and so I'm, I'm sort of getting on top of you know the bowels .
Treatment	44	7	We knocked the last lot of chemo on the head.
Objects in the Material Situational Setting	8	1.3	Yeah, I don't want to take my shoes off.
Cancer	4	0.6	So we're going, we're going to attack that (the primary) by just more chemo.
Help	2	0.3	because I'm getting government subsidies.
Time	2	0.3	No it's okay no I, I've accepted this and time you know I don't have to wait round for particular family things that are important that I, I just manage it as best I can.
Total	630	100	

Table 4.2 Categories of inanimate Goals, absolute numbers, relative frequencies and examples

Patient as Patient

Strikingly, it is only in 1.8 percent of the instances where a material action was construed that patients identified themselves as grammatical Patient or Goal. Revisiting the questions raised at the beginning of this chapter, it is now evident that patienthood, in practice, does not conform to the grammatical notion of patienthood. In addition, in those few instances where the patients identified themselves as grammatical Patient, the Actors of the processes affecting the patients varied considerably. Table 4.3 represents the groups of Actors identified by the patients as acting on them.

Actor	Frequency	Percent	Instance
Healthcare personnel (doctors, nurses, secretary)	37	37	Would you then rotate me to another chemo? Yeah. Will
Carer, family and friend	17	17	[Carer] can look after me.
Actor not mentioned	10	10	I thought I was booked for Saturday.
Medication	10	10	it doesn't keep me asleep all night.
Pain, symptoms and side-effects	7	7	it wakes me.
Treatment	4	4	it stops me from recovering
Actors related to patient's social life	4	4	It (the trolley) threw me on the road backwards.
Governmental Actors	3	3	because they want to move me out you know.
Conversation	2	2	I'm less confronted by it than I was in my first or second week here.
Insurance	2	2	My insurance covers me.
Cancer	1	1	I knew from 12 that cancer was going to take me.
Medical equipment	1	1	Because it (the portacath) didn't give me pain I'm not going to worry.
Medical procedure	1	1	(A transfusion may help) boost me up a bit for a while?
Past experiences	1	1	But I think it prepared me a lot for life.
Total	100	100	

Table 4.3 Categories of Actors, absolute numbers, relative frequencies and examples

The categories of 'pain, symptoms and side-effects', 'cancer', 'treatment', 'medical equipment' and 'medical procedure' formed only 14 percent of the Actors that the patients construed as acting upon them. This data gives little evidence that the patients identify

themselves as grammatical Patients, in contrast to the dictionary definition of the word 'patient'. There is also little evidence to support the hypothesis that the patients were under the influence of the 'medical gaze' (Foucault, 2012) ideology and the ideas that the doctors and medical personnel act upon the patient. The number of instances in which the patient is construed as the Goal of an action performed by healthcare personnel is very minimal compared to the number of instances in which the patient is construed as the Actor of an action related to her or his healthcare.

Patient as Actor (+ Animate Goal)

The share of instances in which the patients construed themselves as Actors performing material actions that extend to a second animate participant was 0.5 percent (29 instances), a very small proportion of the material clauses. As table 4.4 shows, in 34.5 percent of the occasions the second participants were the patients themselves. Such grammatical configurations, in which the patient is a self-activating Actor and which construe the patient's material control over self, are infrequent in the corpus (only 10 instances). This seems to suggest that patients experience a low degree of self-control in the face of death. In addition, 'surrogate decision maker', or the person that provides direction in decision-making if the patient loses decision-making capacity, as the second participant, is virtually absent in the material clauses. In only 3 instances and in just one consultation the second participants were from the category of 'surrogate decision-maker'.

The second participant		Frequency	Percent	instance
Patient's	Carer	3	10.35	I'll make sure I can bring [carer's name] next time
friends	Other family/friends	9	31.0	I was supposed to pick people up
	Surrogate decision-maker	3	10.35	We're going to have a night this week when we sit down and go through the advanced care directives and discuss which ones going to be the main that I put down or whether I put, can put both of them down
Patient		10	34.5	and then after five days I put myself back on the Warfarin.
Oncologist, Healthcare Personnel		4	13.8	and then I cancelled them (the nurses)
Total		29	100.0	

Table 4.4 Categories of animate Goals, absolute numbers, relative frequencies and examples

4.4.3. Mental processes

Senser emerged as the most frequent role patients identified themselves within oncology consultation, which is in agreement with what Driscoll (2012) reveals for terminal cancer patients in interviews as we saw in Figure 4.2. The distribution pattern of different mental processes, though, is slightly different across the two corpora. As shown in figure 4.3, while the most frequent mental activity appeared to be cognition in both corpora and while there was only marginal contrast in the patients' engagement in desideration, oncology patients and interview patients appeared to be different in their activities of perception and emotion. Oncology patients engaged in more perceptive activities and interview patients appeared to be doing more emotive activities. This is arguably due to variations in the field, tenor, and mode of the two registers but it still seems significant as it suggests that while the oncology patient assumes herself/himself a reviewer within the field of which they review their symptoms and side-effects and engage in history-giving (Karimi, Moore & Lukin, in press), she/he does not appear to consider the verbal expression of emotions relevant to the business of oncology.



Figure 4.3 Instantiation of different types of mental processes across the OCC-P and the Driscoll's (2012) interviews corpus, relative frequencies

Patient as Senser (+ Phenomenon)

Looking at the mental activity of the oncology patient in the context of other participants involved in the mental processes, the analysis showed that in about 7% of the records, the patients expressed their cognition, perception, desideration, and emotion in relation to a Phenomenon. Note that it was shown earlier, in Figure 1, that mental activities constitute 29% of the experience of the patients. From this 29% share, 7% involved a Phenomenon and the rest (21%) as we will see in the following section did not. Table 4.5 shows the distribution of different types of mental processes that involved the patient and a Phenomenon. Similar to the general pattern observed in figure 4.3, mental processes of desideration and cognition were more frequent than mental processes of perception and emotion where a Phenomenon was involved.

Process Type	Frequency	Percent
mental-desiderative	120	33.4
mental- cognitive	112	31.2
mental-perceptive	83	23.1
mental-emotive	44	12.3
Total	359	100.0

Table 4.5 Instantiation of the different types of mental processes that extend to a Phenomenon, absolute numbers, and relative frequencies

Looking at the categories of Phenomenon and their distribution in table 4.6, the most frequently sensed Phenomena in the patient discourse included conversations that were referred to anaphorically (e.g. *I understand that*) or through identifying relational processes (e.g. *what I really want to know is ...*). This includes conversations about plans, explanations, recommendations and suggestions, documents such as prescriptions, test results, records and research papers that, following Moore (2005), I refer to as semiotic objects. Since rankshifted clauses were also included in the analysis, a rankshifted mental clause functioning in the role of Token was still analysed as a mental clause. The relatively high frequency of semiotic objects as Phenomenon in the discourse of the patients indicates that patients exerted mental agency. In 42 consultations (31.8 percent in this category) the patients identified themselves as the Senser of a semiotic object at least once.

The next most experienced group was pain, symptoms or side-effects that the patients had felt and the medication they wanted or needed to address those problems. Lifeworld activities such as trips and family gatherings were less frequently referred to in the mental clauses. Only 14 patients expressed a mental act towards objects from their social and individual life (6%) which indicates the specialised sphere of action of the oncology consultation (Karimi, Moore, & Lukin, in press). Patients' mental actions (cognition and desideration in particular) regarding different treatments seemed to be minimal in their discourse. A widely studied factor in medical communication research is patient's expression of preferences and values (e.g., Hawkins et al., 2005; Hofmann et al., 1997; Liu et al., 1997; Meropol et al., 2008). Patients' expression of preferences and values is considered as an aspect of shared decision making and patient-centred healthcare (e.g., Barnsteiner, Disch, & Walton, 2014), and has been used as a measure (among other measures) to evaluate the effectiveness of different medical communication interventions. The analysis, though, shows that patients' expression of cognition and preference about treatments constituted a small part of the oncology consultations. Even CeMPED's communication support program intervention which targeted 35 patients in this corpus to empower them to express their preferences did not seem to be effective in encouraging these patients to articulate their preferences. Patients' expression of mental action on the Phenomena that I generally call 'cancer' was only confined to perception, for instance, 'feeling the tumour'. How patients made sense of 'time, prognosis and future' was articulated in only 6 consultations and 7 instances. These feelings include expressing hope about the future, expressing the need to live for one more year, expressing the acceptance of the prognosis, expressing surprise that

the patient made one more Christmas, and finally enquiring about what to expect in terms of prognosis.

Phenomenon	Frequency	%	Example
Semiotic object	106	31.8	I realise that (that the oncologist is
			obliged to tell the patient about all the
			possible side-effects) now but
Pain/symptoms/side-effects	64	19.2	the bleeding and the clots I could
			put up with that but
Medication, Medical procedures (tests,	58	17.4	I need some relief for my eyes
scans)			
Medical people and places	22	6.6	I don't have much faith in the hospital .
Phenomena related to the patient's life	20	6	And I've also planned a big party
Treatment	15	4.5	I'd rather prefer the full dose .
Cancer	11	3.3	On my skull, I can [find lumps]
Body related entities	10	3	I want a new body .
Food	10	3	I'm wanting tasty things
Support	10	3	I don't like the nursing home .
Time, prognosis and future	7	2.1	I'm still looking to the future .
Total	333	100	

Table 4.6 Categories of Phenomena, absolute numbers, relative frequencies and examples

Patient as (Senser)

In addition to the records in which the patient was the Senser of a Phenomenon, in 21% of the analysed clauses patients were either only the Senser or the Senser in mental clauses the linguistic content of which was another clause. In those instances, the patients either projected ideas in the form of reporting both propositions and proposals or used a mental process as a metaphor for modality or mood through which the patient was expressing uncertainty or inviting or requesting the oncologist to comment.

Table 4.7 represents the most frequent mental processes with which the patients had the grammatical role of Senser.

Process	Frequency	Percent	process	Frequency	Percent
think	390	34.3	hope	11	1
know	208	18.3	need	11	1
mean	104	9.1	forget	9	0.8
want	56	4.9	like	9	0.8
suppose	40	3.5	expect	8	0.7
see	36	3.2	reckon	7	0.6
feel	34	3	assume	6	0.5
remember	21	1.8	read	6	0.5
find	19	1.7	worry	6	0.5
guess	16	1.4	decide	5	0.4
understand	16	1.4	mind	5	0.4
wonder	16	1.4			

Table 4.7 The most frequent mental processes associated with the patients as the Senser, absolute numbers and relative frequencies

The number of cognition processes (*think*, *know*, *mean*, *suppose*, *see*, *feel*, *remember*, *find*, *guess*, *understand*, *wonder*, *forget*, *expect*, *reckon* and *assume*) is substantially greater than the number of desiderative processes (want, hope, need, decide, mind). 'Thinking' and 'knowing' constitutes over 50% of the mental activity of the patients when they are Senser in their discourse. Processes of cognition, however, do not always construe the inner experience of the Senser. They can be a metaphor of modality or mood. Consider the four examples below:

- (a) I think that's cut out in, literally in Catholic ethics and in my own conscience.
- (b) I think I've got an appointment for the 21st.
- (c) I know that my cancer wants to keep, sort of keep growing...
- (d) I don't know if I showed you the reaction that I had.

While (a) and (c) are related to the patients' experience of the world of their consciousness i.e. projection of their mental experience, (b) and (d) are arguably different in function. In (b) the patient seems to be distancing herself from her statement though using 'I think' as a metaphor

of modality. In (d) the patient is asking a question in an indirect manner (mental projection as a metaphor of mood).

Earlier it was reported that Driscoll (2012, p. 220) shows that the most frequent role for the patients emerged as Senser in mental processes and that cognition was the most significant type of their mental activity. Driscoll concludes that this finding "represents Patient [capitalised in the source] as a person with a noticeable measure of opinions, knowledge and beliefs" (p. 220). On the other hand, using two extracts of discourse between a registered nurse and patient, (Candlin, 2000, p. 237) argues that the projecting nexuses of cognition in her texts are examples of subjective modality and demonstrate "a low affinity to the proposition, and evidence of doubt".

To investigate how mental cognitive processes of *knowing* and *thinking* were used in the discourse of the patients in OCC-P, further analysis was performed. Table 4.8 represents a summary of the results of this analysis. The table represents the frequency of different functions of using mental processes of 'thinking' and 'knowing' by the patients. In instances where the patient had the role of Senser, 88 percent of the time patients used the mental process of thinking to either project ideas or perform an act of cognition without the involvement of a phenomenon or a projected clause. In only 12 percent of the instances did patients use the projecting clause as a modality or probability and represent "their thinking in dialogue" in order to assess their projection (Halliday and Matthiessen, 2014, p. 515). This suggests that the dying patient exerts mental agency and cognitive activity not only in the interviews as Driscoll (2012) concludes but also in the conversation with the oncologist during an oncology consultation. The analysis of the instances in which the patients engaged in the cognitive process of 'knowing' also confirms that patients identified themselves as cognitively active and agentive. In over 83 percent of the times, patients used the process of 'knowing' to represent their inner world experiences.

	Frequency	Percent
Know (cognition)	92	44
Know (projection)	82	39.5
(not) Know (question)	34	16.5
Think (projection)	207	53
Think (modality)	138	35
Think (cognition)	45	12

Table 4.8 Functions of using the mental processes of 'thinking' and 'knowing', absolute numbers and relative frequencies

4.4.4. Relational processes

Over 99 percent of the relational processes were attributive. 48.7 percent of the attributes were intensive, 40.5 percent were possessive and 10.8 percent were circumstantial (table 4.9). In the remainder of this section, the different categories of attributes with which patients associated themselves will be discussed. The discussion of the attributes with which the patients construed a 'class-membership' relation will be considered irrespective of the trichotomy of intensive, possessive and circumstantial attributes due to the lack of space.

Table 4.9 Instantiation of the different types of Attributes, absolute numbers, and relative frequencies

Attribute type	Frequency	Percent
intensive	516	48.7
possessive	429	40.5
circumstantial	115	10.8
Total	1060	100.0

Earlier in Figure 4.1, it was shown that the percentage of relational clauses in the corpus was lower compared to the same percentage reported in Halliday and Matthiessen (2014). This can be due to the comparatively bigger share of mental clauses. It supports the hypothesis that patients used fewer semiotic attributes and more mental processes to construe their mental experiences. Considering Moore's (2005) cline of semiotic agency, we can then form this hypothesis that if patients used more mental processes and fewer semiotic attributes, then they were more agentive semiotically. According to Moore (2005, p. 109), a "*passivated, impassive* actor" grammatically realized as the Carrier of a semiotic Attribute (e.g., *I get the impression that there's a bit more there than there was*) is less agentive than an "*activated* actor who is

self-activated in a *non-transactional* action" grammatically realized as the Senser (e.g., *I'll basically know what to expect in the next two weeks*).

Looking at the relational clauses from the perspective of 'domain of attribution' (Halliday & Matthiessen, 2014), the number of relational clauses that construed the 'outer experience' (material domain) of the patients was over double the number of clauses that construed the 'inner experience' (semiotic domain) of the patients (table 4.10). This observation again strengthens the hypothesis that patients used more mental processes and fewer relational processes to construe their inner world experiences and thus appeared more agentive.

Table 4.11 shows the distribution of mental activities that were conveyed through the use of semiotic relational processes in the patients' discourse. Similar to what was observed in the analysis of mental clauses in Figure 4.3, cognition emerged as the number one activity that the patients identified themselves with. What is different, comparing the distribution of mental activities in Figure 4.3 and the distribution of mental activities in Table 4.11, is the emergence of emotive activities that were construed through the use of relational processes. The relational clauses with emotional overtones formed 28.1 percent of the semiotic relational processes (88 instances). This share, though higher than what we saw in Figure 4.3, is still considerably lower than what Driscoll (2012) reports for the interview patient (75% of the states with mental overtone), which suggests that patients in oncology consultation talk less about their emotions when compared to patients reflecting on their experience of having a terminal cancer.

Table 4.10 Instantiation of 'domain of attribution' in the relational clauses, absolute numbers, and relative frequencies

	Frequency	Percent
Semiotic	313	29.5
Material	747	70.5
Total	1060	100.0

	Frequency	Percent	Example
cognition	118	37.7	At least I'm clear now.
emotion	88	28.1	I'd be devastated
perception	58	18.5	I get no pain whatsoever.
desideration	49	15.7	It's tolerable, like I'm totally okay with it.
Total	313	100.0	

Table 4.11 Instantiation of different types of Attributes within the semiotic domain, absolute numbers, relative frequencies, and examples

The Attributes were also analysed with regards to their content. Table 4.12 shows different content categories of Attributes. The most common kind of Attribute for the patients was pain, symptoms or side-effects that they attributed to themselves as well as their overall health state, together accounting for nearly 50% of the entire Attributes. The next most common kind of Attribute was Attributes signifying the patients' subjective sensations of cognition, emotion, and desideration, forming over 16 percent of the attributes. To be clear, this category together with the category of semiotic object and the Attributes related to pain (contentwise Attributes instantiating pain were grouped under the category of 'pain, symptoms or side-effects') form the Attributes that construe the semiotic domain of the patient's experience.

Earlier it was shown that the Phenomena 'categories of time, prognosis and future' were very infrequent in the discourse of the patients which can be a sign of denial on the part of the patient. It was also shown that while patients exerted agency over medication, food, medical equipment and medical procedure, pain, symptoms and side-effect, they did not construe themselves as Actors acting on cancer and time. Here, Table 4.12 shows that Attributes instantiating treatment appeared less than those instantiating pain, symptoms or side-effects and more than those instantiating prognosis and death. A more plausible explanation for these observations is that patients did not seem to deny being terminal (because of the relatively fewer mentions of treatment Phenomena and Attributes), however, maintaining the quality of life and living in the moment constituted a more important part of the patients' experience. The higher proportion of Attributes instantiating patient's social and personal life compared to the ones related to cancer and treatment further strengthens this conjecture. Patients seem to focus on life despite acknowledging their terminal condition grammatically. Oliver Sacks' words "I am now face to face with dying, but I'm not finished with living" (Sacks, 2015) in the beginning of his quartet of essays on his own experiences of being terminal best describe this experience.

Attribute	Frequency	Percent	Instance
Pain/symptoms/side-effects	322	30.38	I was just exhausted .
Health state	178	16.79	But I'm fine , I'm going daily.
Subjective sensations of	176	16.60	And I was very pleased with that
cognition, emotion and			flow of urine.
desideration			
Medication, medical procedure,	95	8.96	Yeah, well I've still got the patches.
diet and support			
General (related to patient's	77	7.26	we're in the middle of moving
social and personal life)			houses.
Place and time	62	5.85	Well, I had six weeks to compile it.
Semiotic object (script,	60	5.66	We didn't have the result .
appointment, results)			
Treatment	28	2.64	it didn't seem worth it until I got
			rid of the radiation .
Cancer	13	1.23	I've still got 12 lesions .
Carer, family	10	.94	It's a shame because I've got this
			bloomin' girl doing year 12.
Material	9	.85	We're all going to die and we have no
			control over.
Stage of illness	9	.85	We're not at that point?
Body/bodily function	8	.75	I've never had big breasts .
Time (prognosis)	5	.47	do you think I have another
			couple of Christmases?
Healthcare personnel	4	.38	I already have one (an
			endocrinologist).
Death	2	.19	Maybe another year maybe before
			we're history , before we pass on.
Insurance cover	2	.19	Oh look I've got the really basic
			NIB.
Total	1060	100	

Table 4.12 Categories of Attributes, absolute numbers, relative frequencies and examples

4.5. Summary of findings and discussion

Patients in oncology consultations are semiotically powerful in general. Patients in the corpus used more mental processes and fewer relational semiotic processes to convey inner world experiences. In talking about semiotic objects, patients employed mental clause resources (41% - 106 instance) more than material clause resources (36% - 95 instance) and relational clause resources (23% - 60 instance). Examples (a) to (c), below, demonstrate how using different transitivity resources indicates differences in patients' sense of agency when they talk about semiotic objects.

- (a) We didn't have the results ...
- (b) I usually know mine (my marker).
- (c) I'd like to get one (a real definite result of the scan).

Conversations about prognosis and time, however, were very infrequent. Patients did not use material processes to talk about prognosis. They employed mental clause resources in only 7 instances and they resorted to relational resources and more precisely possessive attributes in 5 instances to talk about prognosis and time. This avoidance did not seem to be a product of denial, however, because instances where patients performed a mental action or a material action in relation to treatment and cancer or instances in which they associated themselves with these categories through relational processes were considerably fewer than instances involving other entities such as symptom or side-effects, patient's overall health state, medication and medical procedures, entities related to patient's social and personal life and semiotic objects. The avoidance of conversations about prognosis, thus, can be explained and understood in the light of the patients' attempt to maintain meaningfulness and agency through what la Cour, Johannessen, and Josephsson, (2009) refer to as the experience of 'being normal and healthy while sick' and through keeping 'routines and continuity'. Patients in oncology consultation identified themselves as managers who actively took part in palliating their symptoms using medication and food to exercise their 'individual agency' and 'subjectivity'. Patients' desire to retain an active role in the healing process has also been identified as one of the reasons why cancer patients utilise complementary and alternative medicine (CAM) (Broom, 2015; Broom and Tovey, 2008). Patients identified themselves as active agents who organised and managed the different aspects of their lives to live the remainder of their life as normally as they could.

While these patients had lost a big part of their agency by becoming terminal, they were still agentive by exerting what can be called 'agency despite cancer'. In this light, everything that the patient says about their social life and the mundane activities are considered agentive. The fact that patients used fewer relational and mental clause resources (8.6% and 20.4%, respectively) than material clause resources (56.6%) to talk about medication, food, and medical procedures also shows how patients in oncology consultations attempt to maintain 'normality' while having a life-limiting illness. Finally, patients in oncology consultations do not seem to identify herself/himself as an emotional actor. Emotive mental processes were the least frequent mental processes in the discourse of the patients. This observation is in agreement with Kvåle (2007) who through an analysis of in-depth interviews with cancer patients in an oncology ward in Norway identifies that patients often preferred not to talk to the nurses about their difficult emotions regarding the future as a coping mechanism and to find meaningfulness and normalcy.

4.6. A final note on the intra-registerial variations and the limitations of a transitivity concordance account

In the previous sections, a general description of the experience of terminal cancer patients in oncology was provided. The description did not account for the variations that exist between different patients and oncologists and therefore different oncology consultations. The effect of the oncologist, the nurse-led communication support program intervention, sex, age, education, occupation are among the known factors that can affect the experience of the patient as reflected in her or his grammar. These factors among other unknown factors such as the stage of cancer and the time since the patient was first diagnosed could influence the patient's use of language as a resource in talking to the oncologist. Figure 4.4 shows the distribution of the three main process types (material, mental and relational) in the discourse of patients about themselves across the 69 texts that constituted the corpus for this study.



Figure 4.4 The distribution of PROCESS TYPE across the 69 texts

As the figure shows the share of different process types varies considerably across different consultations. The problem with the general overview resulted from concordance analysis is what Baker (2006, p. 27) calls the problem of "decontextualized examples of language", meaning that the instances are detached from the context in which they were produced at the cost of achieving a largescale overview. I tried to reduce the bias associated with this problem by providing some context available at the level of the clause through doing a transitivity concordance analysis, as we saw throughout this chapter, and by adding the extra-linguistic information (variables for which metadata is available). In terms of the effect of the extralinguistic variables available through the metadata, statistical testing did not confirm the significance of an apparent effect of CeMPED's communication support program on patients' use of process type: the intervention and the control group were not statistically significantly different in terms of the proportions of different process types. However, to better understand the unexplained variations, detailed analyses of a few texts, the selection of which is guided by the general patterns revealed by the transitivity concordance analysis, seems necessary. Pairing such analyses with a largescale concordance analysis, such as the one reported in this chapter, could provide a better understanding of how individual advance cancer patients construct themselves.

References

Baker, P. (2006). Using Corpora in Discourse Analysis. London & New York: Continuum.

- Balint, M., Ball, D. H., & Hare, M. L. (1969). Training medical students in patient-centered medicine. *Comprehensive psychiatry*, 10(4), 249-258.
- Barnsteiner, J., Disch, J., & Walton, M. (2014). Person and Family Centered Care, 2014 AJN Award Recipient. Indianapolis, IN: Sigma Theta Tau International, Center for Nursing Press.
- Broom, A. (2015). Dying: A Social Perspective on the End of Life. Farnham, UK: Ashgate.
- Broom, A., & Tovey, P. (2008). *Therapeutic Pluralism: Exploring the experiences of cancer* patients an professionals. London and New York: Routledge.
- Candlin, S. (2000). New dynamics in the nurse-patient relationship. In S. Sarangi & M. Coulthard (Eds.), *Discourse and social life* (pp. 230-245). Florence: Taylor and Francis.
- Driscoll, J. (2012). *The representation of terminally ill patients: a transitivity analysis of advice and interviews texts* (Unpublished doctoral dissertation). University of Liverpool, Liverpool.
- Forsyth, R., Scanlan, C., Carter, S. M., Jordens, C. F. C., & Kerridge, I. (2011). Decision Making in a Crowded Room. *Qualitative Health Research*, 21(9), 1260-1272. doi:10.1177/1049732311405802
- Foucault, M. (2012). The birth of the clinic. London and New York: Routledge.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2014). *Halliday's introduction to functional grammar*. London & New York: Routledge.
- Hasan, R. (1989). Linguistics, language, and verbal art. Oxford: Oxford University Press.
- Hawkins, N. A., Ditto, P. H., Danks, J. H., & Smucker, W. D. (2005). Micromanaging Death: Process Preferences, Values, and Goals in End-of-Life Medical Decision Making. *The Gerontologist*, 45(1), 107-117. doi:10.1093/geront/45.1.107
- Hofmann, J. C., Wenger, N. S., Davis, R. B., Teno, J., Connors, A. F. J., Desbiens, N., Lynn,
 L., & Phillips, R. S. (1997). Patient preferences for communication with physicians about end-of-life decisions. *Annals of Internal Medicine*, 127(1), 1-12.
- Hydén, L. C. (1997). Illness and narrative. Sociology of health & illness, 19(1), 48-69.
- Karimi, N., Moore, A. R., & Lukin, A. (in press). Cancer care as an integrated practice: consultations between an oncologist and patients with advanced, incurable cancer. In L. Fontaine & A. Baklouti (Eds.), *Perspectives from Systemic Functional Linguistics*: Routledge.

- Kvåle, K. (2007). Do cancer patients always want to talk about difficult emotions? A qualitative study of cancer inpatients communication needs. *European Journal of Oncology Nursing*, 11(4), 320-327.
- la Cour, K., Johannessen, H., & Josephsson, S. (2009). Activity and meaning making in the everyday lives of people with advanced cancer. *Palliative and Supportive care*, 7(04), 469-479.
- Liu, G., Franssen, E., Fitch, M. I., & Warner, E. (1997). Patient preferences for oral versus intravenous palliative chemotherapy. *Journal of Clinical Oncology*, 15(1), 110-115. doi:10.1200/JCO.1997.15.1.110
- Matthiessen, C. M. (1999). The system of TRANSITIVITY: an exploratory study of text-based profiles. *Functions of language*, *6*(1), 1-51.
- Meropol, N. J., Egleston, B. L., Buzaglo, J. S., Benson, A. B., Cegala, D. J., Diefenbach, M. A., . . . Group, C. S. R. (2008). Cancer patient preferences for quality and length of life. *Cancer*, 113(12), 3459-3466. doi:10.1002/cncr.23968
- Moore, A. R. (2005). Modelling Agency in HIV Treatment Decision-Making. *Australian Review of Applied Linguistics*, 103-122.
- Sacks, O. (2015). Gratitude. Toronto: Alfred A. Knopf of Canada.
- Thompson, G. (2008). From process to pattern: methodological considerations in analysing transitivity in text. In C. Jones & E. Ventola (Eds.), *New Developments in the Study of Ideational Meaning: From Language to Multimodality* (pp. 17-33). London: Equinox.
- Walczak, A., Butow, P. N., Clayton, J. M., Tattersall, M. H., Davidson, P. M., Young, J., & Epstein, R. M. (2014). Discussing prognosis and end-of-life care in the final year of life: a randomised controlled trial of a nurse-led communication support programme for patients and caregivers. *BMJ open*, 4(6), e005745.
- World Health Organization. (2015). Palliative Care, Fact sheet N°402. Retrieved from http://www.who.int/mediacentre/factsheets/fs402/en/

Chapter 5 WAYS OF MEANING: A CASE STUDY OF TWO ONCOLOGISTS' ANSWERS TO QUESTIONS ASKED BY ADVANCED CANCER PATIENTS AND THEIR COMPANIONS

"Reason is used sometimes to express the whole of those powers which elevate man above the brutes, and constitute his rational nature, more especially, perhaps, his intellectual powers" (Stowart, *Outlines*, in Fleming (1858, p. 423)).

5.1. Introduction

In a paper that reports the results of the randomised control trial of the nurse-led communication support program for advanced cancer patients and their care givers, our colleagues at CeMPED emphasise the need to "address oncologist communication skills training to maximise the likelihood that patients' attempts to seek information are recognised and responded to appropriately" (Walczak et al., 2017, p. 8). Following this line of suggestion for further research and using two consultations from our corpus which was collected and analysed by Walczak et al. (2017), the present chapter aims to explore how an oncologist, who we have previously shown to encourage partnership and to facilitate a dialogic relationship with her patients in Chapter 3 (Karimi, Moore, & Lukin, in press) answers her patients' questions. The chapter further compares the answers of this particular oncologist with the answers of another oncologist in a consultation from the same corpus to show how oncologists' answers to patient questions can vary. While question and answer is generally said to be an 'adjacency pair', that is a question is generally 'paired' with an answer, answers can be variable in terms of the meaning they convey. To quote Hasan and Cloran (2009 [1990], p. 101) language speakers "can treat a question as a point of departure for providing information that far exceeds what was strictly asked for".

Hasan's semantic network which has been proved to be a useful tool in capturing the semantic variation in the discourse of language speakers in different contexts, thus, seems an appropriate tool for the study of nuances of meaning in the oncologists' answers. The investigation of the oncologists' answers in this chapter, therefore, is guided by Hasan's semantic networks and those systems that are devised to capture variation in the answers to questions. The choice of semantic networks as the main tool follows two aims: 1) to investigate how a facilitating role

on the part of an oncologist is realized semantically in the oncologists' answers to the patient (and/or care giver) questions; and 2) to test whether Hasan's semantic networks have the ability to capture and organise variation in this context. These networks, as mentioned, proved to be worthwhile in describing variations in meaning, especially in the analysis of questions. A less explored area with respect to Hasan's semantic networks is the analysis of answers.

5.2. A brief review of the semantic networks in the Hallidayan SFL

Language in SFL is 'meaning potential' (Halliday, 2003) that is, it includes sets of semantic options that are available to the speaker. This view towards language is what Hasan calls an 'internalist' Hasan (2009 [1988], p. 136) view to meaning, denoting that meanings are internal to language, as opposed to an 'externalist' approach that views meaning as "that which is understood or expressed through the use of signs" (ibid, p. 134) and which reduces language to just a 'naming device' in Hasan's terms. In holding the internalist view, SFL models semantics as the interface of the social context and the formal structure with configurations of meaning identifying context on one hand and formal structures on the other hand (ibid, p. 137). Just like lexicogrammar, semantics is also modelled and analysed paratactically and using the networks of semantic options or 'semantic networks' (Halliday, 2003). Considering that semantics is the interface of the context and lexicogrammar, a semantic network is, thus, the linguistic realization of the 'behaviour potential' and relates the range of alternatives at the level of semantics 'upwards' to some theory of behaviour as well as 'downwards' to the formal categories in the lexicogrammar (Halliday, 2003).

The concept of semantic networks was first introduced to the literature by Halliday in 1970 in a then forthcoming paper referred to in Turner (1973). The paper applied the concept to data from a research project (directed by Bernstein at the Sociological Research Unit (SRU)) on the language of mothers and children and the semantic options they used to construe control in their discourse. Looking at the stories that children told based on a set of pictures, Turner (1973) provides a set of semantic networks that represent the meaning potential for the verbal strategies of control in the speech of the children. Using some data from the project at SRU, Halliday (2003) proposes a provisional network for the different semantic options in the maternal regulatory context in which the mother expresses her disapproval of her child's behaviour and regulates it and suggests the grammatical realizations of the semantic categories. The difference between Halliday's network and Turner's (1973) network is that Halliday (2003) provides the realization statements for the semantic options while Turner (1973) only provides instances that represent those options. The shared characteristic of Halliday's and Turner's semantic networks is that these networks are both context-specific.

The third type of semantic networks within Halliday's SFL, whose origins date back to 1968 and Hasan's work on cohesion in English, is Hasan's semantic networks. The 1968 network, however, was not developed and used as a semantic network at that time. Unlike the previous networks, Hasan's network is said to be contextually open. Hasan developed the semantic networks, that were later on applied in different contexts, in early 1983 for a major sociolinguistic project called 'The role of everyday talk in establishing ways of learning' that followed the work of Bernstein (1971, 1990). The project aim was to investigate if variation in mothers' ways of meaning during everyday care for their children (such as feeding, bathing, etc.) correlated with their social class. The study looked at the day-to-day conversations between mothers and pre-school children. Developing and using semantic networks, Hasan and colleagues identified variation at the semantic stratum correlating with the subjects' social class (for example, Hasan (1989, 1992a, 1992b) republished in the second volume of her collected works (Hasan, 2009); Cloran (1989, 2000); Williams (1995, 2001, 2005)). The extensive nature of the context of everyday life required that the entire meaning potential of English be described to some degree of delicacy (Hasan, Cloran, Williams, & Lukin, 2007). Thus, the aim was on a 'language-exhaustive' or 'contextually open' semantic network rather than a context-specific network.

Since the introduction of the contextually open semantic networks these networks have been applied to describe the nuances of meaning in different contexts, and in some cases, suggestions have been offered. For example, in a context relatively similar to the context of this study, that of palliative care practice, Moore (2015) concludes that while Hasan's contextually open network has the power to bring out the similarities and differences in the type of questions that palliative doctors asked, it needs revision to accommodate maximum description in the context of palliative care. A potential revision to the networks that seems "theoretically problematic" but is "empirically worth exploring", according to Moore (2015, p. 106), is to consider that "the terms in the system might be the same for all contexts, but the realizations are at least somewhat context-specific". In cautiously suggesting this line of further research, Moore (2015) also brings evidence from the application of Hasan's semantic networks to the analysis of meaning in other registers including surgical discourse (Lukin, Moore, Herke, Wegener, & Wu, 2011; Moore, 2016) and telephone service encounters (Matthiessen, Lukin, Butt, Clereigh,
& Nesbitt, 2005). Other contexts to which Hasan's semantic networks have been applied include joint book-reading (between mothers and four-year-old children, and between teachers and Kindergarten classes at the beginning of school) (Williams, 1995), media interviews (Lukin, 2012a, 2012b), courtroom discourse (Maley & Fahey, 1991), classroom interaction (Chu, 2011; Wake, 2006) and police interviews (Hall, 2004). The contextually open semantic networks have also been extended to another language: Cantonese. In the context of medical care, Fung (2016) uses semantic networks to analyse Cantonese doctor-patient interactions and to model the Cantonese lexicogrammatical realizations of the semantic options.

5.3. Hasan's semantic networks

In the previous section, a brief history of the semantic networks was provided and Hasan's semantic networks were succinctly introduced. Here we describe the point of origin of her contextually open semantic networks and the unit of analysis and recapitulate the theoretical principles based on which the networks were developed and summarise some semantic features of the GIVE INFORMATION network.

The semantic unit that acts as the 'point of origin' of Hasan's semantic networks is 'message'. Message is a linguistic unit at the level of semantics. Looking at the message from above, it is "the smallest significant semiotic action that an interactant might take in the context of an interaction" (Hasan, 1996, p. 117). Lexicogrammatically and from below, a message is typically realised as a 'clause', with the exception of a projecting clause which does not realise a separate message.

In developing the semantic networks, Hasan, 2009 [1991] draws on four main theoretical principles from SFL: (1) 'the continuity between language and the social systems of a speech community' and the concept of a stratal linguistic theory, (2) the conceptualisation of the interstrata relations in the form of realization, (3) the principle of metafunction, and (4) Saussure's notion of valeur and the modelling of language as a 'network of systemic choices'. The explanation of these concepts and their relation to the semantic networks follows below.

The first principle holds the assumption that language consists of different layers or strata: context, semantics, lexicogrammar and phonology/graphology. The second principle is about the realization relation between these strata. Hasan (2009 [1991], p. 236) ties the concept of realization to the idea of language as a 'creative' tool that is "implicated in the creation, maintenance, and change of all our systems of beliefs as well as institutions". Realization in

this sense is a conceptual attempt "to capture the creative nature of language" (Hasan, 2009 [1991], p. 236) and show how systems of beliefs and mental states are construed and created by meaning and how linguistic meaning is construed in the lexicogrammar.

Meanings in language identify the context and the distinctions in different meanings are accounted for by the metafunction principle, that is, the interpersonal, experiential, logical and textual functions of language. The principle of metafunction is central to Hasan's semantic networks. The interpersonal metafunction concerns those options in meaning that are selected by the language users to enact some relation with others. Hasan calls this semantic system the system of RELATION ENACTMENT. The experiential metafunction is about the different ways language users construe their experience of the world. The corresponding semantic system is called the CLASSIFICATION system. The logical metafunction concerns the logical relations between messages and the semantic system that accounts for the distinctions between the different ways messages are related to each other is called the AMPLIFICATION system. Finally, the textual metafunction which corresponds to the semantic system of CONTINUATION concerns those semantic options related to the topic of discourse and turn management that language users have. Hasan (2009 [1988], p. 151) asserts that a framework for the analysis of meaning "should permit the identification of all three strands of meaning in every message" and by the three strands of meaning she means interpersonal, ideational (the ensemble of experiential and logical) and textual meanings. A significant point that distinguishes Hasan's contextually open semantic networks from other semantic networks that are context specific is the incorporation the four metafunctions in the network. Hasan (1996, p. 120) expresses doubt "that a context specific semantic network could successfully make this case".

The last important feature of Hasan's semantic network, as the name suggests and as was discussed in the previous section, is that this model of meaning is '*paradigmatic*' and consists of a '*network of systemic choices*' in which the value of each option is determined by other potential options as well as the 'shape of the syntagm' or 'how each option is expressed in a *syntagm*'. The latter is specified through the '*realisation statement(s)*' that are attached to each option.

Above we have recapitulated the systemic functional principles based on which Hasan's semantic model is devised. Hasan's networks are extensive and cover all strands of meaning (metafunctions) to some degree of delicacy. Summarising all the systems and options cannot

be done within the scope of the present chapter. Therefore, in the remaining of this section, we narrow down our focus to those systems in the semantic networks that are relevant to the analysis of the oncologist answers to the patient questions which is the focus of this chapter. Figure 5.1 shows these systems and options. It is a fragment of Hasan's (1983) semantic network that guides the analysis of data in this chapter. The analysis of the oncologists' answers in this chapter is within Hasan's system of RELATION ENACTMENT.



Figure 5.1 A Fragment of Hasan's (1983) Semantic Networks

It was pointed out earlier that the point of origin of the semantic network is message. A message is either [punctuative] or [progressive]. A [punctuative] message is realized by a [minor] clause and construes what Hasan (1996) describes as 'locutionary and/or expressive guidance'. Rather than having a systematic organization at the level of semantics and lexicogrammar, [punctuative] messages are said to be simple content-expression pairs. Examples such as *hi*, *good morning, you know what?, that's it.* and *o.k.* are examples of a [punctuative] message. The origin of [punctuative] messages, according to Hasan (1996, p. 119), is predominantly interpersonal, and they are concerned with "speech role allocation management and the expression of internal states". By contrast, [progressive] messages that are realized by a [major] clause convey different strands of meaning or different metafunctions. That is, the feature [progressive] acts as the entry point for the systems of RELATION ENACTMENT, CONTINUATION, AMPLIFICATION, and CLASSIFICATION.

The semantic system of RELATION ENACTMENT concerns those options in meaning through which language speakers [give] or [demand] [information] or [goods & services]. When a language speaker asks another a question, the interlocutor has the option to either respond or not respond. The semantic features which distinguish between these two options are [responsive] v. [non-responsive]. Furthermore, answers with the semantic feature [responsive] can have varying degrees of relevance to the question. The options [adequate] and [inadequate] which are in systemic contrast with each other further describe [responsive] message. In Hasan (1983), the features [adequate] and [inadequate] are referred to as [non-minimal] and [minimal] respectively. The options [adequate] and [inadequate] distinguish between those [responsive] messages that provide an answer and those that do not. The feature [adequate] describes an answer that in Hasan's (2009 [1989], p. 214) terms "provides some information which addresses the question's QUERY POINT" whereas an [inadequate] answer misses or ignores the QUERY POINT. In her study of maternal discourse, Hasan found that middle class mothers would tend to produce [adequate] answers.

The systemic options [adequate] and [inadequate], thus, correspond with the systemic options [provide] and [avoid] in the network. To provide an answer ([provide: information]), language users have the options to 'confirm' (in response to polar interogative questions), to 'specify' (in respone to wh- questions), or to 'answer' (in response to why questions). On the other hand, to avoid to provide an answer ([avoid]), language users have four options: (1) to 'refuse' to give a response (e.g., 'I won't tell'); (2) to 'reject' by either (a) asking the addressee to provide

information ([counter-demand]), or (b) by asking a counter question ([counter-question]) that implies "a little thought will show you, you shouldn't have asked this question" (e.g., Q; 'Why does he (the little bird) make noise?', A: 'Why do you talk?'), or (c) by 'refuting' the basis of the question (e.g., Q: 'Why is he going?', A: 'He isn't going'); (3) to 'delay' the answer; or (4) to 'disclaim' knowledge (e.g., 'I don't know') (Hasan, 1983).

Another two systemically contrasting features that are of particular relevance to the study reported in this chapter are [related] and [unrelated]. These features seem to be called [contiguous] and [non-continguous] previously in Hasan (1983) networks. These options are related to the logical metafunction and point to the existence or lack of a logical relation between the states of affairs in the clauses that realise a [related]/[contiguous] or an [unrelated]/[non-contiguous] answer. Relations of condition, contrast, conclusion, sequence and so on are among the logical relations. The selection of the feature [related] is associated with additional information and a more precise and narrow domain of the elaborated thesis (Hasan, 2009 [1989], p. 216). Example 1, which is from Hasan's project, shows an instance of an answer with the feature [related]. Here Kristy's mother provides a [related] answer to Kristy's question of 'why is it in May that her friend, Cathy, and her family are going to move to their new house'. Findings from the study of the conversations of preschool childern and their mothers show that middle class mothers tended to use [related] answers.

Example 1

Mother: (22) they're going to wait until the end of the school term

- (24) because Cathy goes to school now
- (25) and then she will change to her new school after the holidays
- (27) if they'd moved earlier
- (28) she'd only go to the new school for a week or two
- (29) and then they'd have holidays you see
- (30) it would mess it up a bit for her

5.4. Semantics in advanced cancer care

This chapter further investigates the concept of patient-centredness in advanced cancer oncology through reporting a case study that uses 2 consultations from our corpus of 69 oncology consultations. These two consultations were conducted by two different oncologists one of which we have previously studied in Chapter 3 (Karimi et al., in press). In Chapter 3 we called this oncologist Yvette. The results of our analysis in that chapter showed that Yvette practices a facilitating role through which she reinforces partnership and a dialogic relationship with her advanced cancer patients (and their care giver/s). The results further showed that the two main aspects of Yvette's facilitating role are weak 'classification' and weak 'framing' (Bernstein, 1990). In the present chapter, we further investigate the language of Yvette and compare it with another oncologist, who we call David and whose practice seems markedly different. We apply and test Hasan's semantic networks and more specifically the GIVE INFORMATION network for its ability to capture and systemise variation in how Yvette and David answer patients and/or care givers questions. The question that this chapter aims to answer is how Yvette's practice presents itself in the meanings that she means when she answers the patient questions and whether Hasan's contextually open message semantic model is able to describe the variation in answering questions and take systematic account of context in relation to the choices in meaning. But before moving on to the analysis of the oncologists' answers, the results of the contextual analysis of Yvette's consultations are recapitulated in the coming section.

5.5. The context of oncology practice

Oncology is going through a cultural shift from a disease-focused practice to a multifaceted one in which the patient is an active participant in a dialogic relationship with the oncologist whose role is now complex and involves different aspects. Current medical communication research list several different roles for the oncologist including prevention, diagnostics, treatment, communication, palliation, optimization of the social support and care of the dying patient (Cherny & Catane, 2011; Surbone, Zwitter, Rajer, & Stiefel, 2012).

Looking at this cultural transformation from a linguistics vantage point in the paper presented in Chapter 3, we applied Hasan's contextual networks of field, tenor and mode to provide a detailed account of the various experiential, interpersonal and textual activities that the expert oncologist undertakes (Karimi et al., in press). Our finding suggests that the expert oncologist in advanced cancer oncology consultations engages in the conceptual activities of eliciting patient's report of the symptoms and side-effects, reporting and explaining the test and scan results, examination, eliciting the patient's preferences, evaluating the whole situation based on the patient's report and preferences, the test results and the result of the examination, and decision-making about the treatment. Further activities that the paper reports include:

- instructing pain and symptom/side-effect medication,
- planning of the next consultation,
- communicating prognosis,
- reiteration of the goal of the care,
- medical and clinical reasoning and the promotion of evidence-based research,
- psychological counselling,
- incorporating instructions on using family and community-based services such as inhome care and psychological care,
- instruction on using special equipment for comfort and support at the EOL,
- instruction regarding access to palliative care,
- planning non-medical activities such as vacations or family visits,
- and coaching and navigating the patient across the healthcare system.

These activities are closely interrelated with the social division of labour during the consultation which is characterised by several roles such as 'advisor', 'therapist', 'transmitters'*, and 'fellow human being' on the part of oncologists and 'advisee', 'therapee', 'acquirer'*, 'reviewer', and 'fellow human being' on the part of patients and care giver. Interwoven with all these activities and agentive roles, we witnessed a facilitating role on the part of the oncologist and the presence of a 'socio-semiotic' philosophy of care through which our oncologist not only provided medical advice but also transmitted the knowledge based on which she provides that advice and enabled the patient (and the care giver) to understand the logic behind that advice. In doing so the oncologist reduced the degree of 'classification' and 'framing' (Bernstein, 1990) between herself as an informed professional and the patient and the care giver(s) as social, psychological and logical human beings.

Classification and framing are two closely related concepts first introduced by Bernstein. Classification is a property of the relations between the participants involved in a social activity

^{*} We borrowed these terms from Bernstein who in his second volume of 'Class, Codes and Control' (Bernstein, 1990) looks at the modalities of pedagogic transmission and acquisition.

and is affected by the degree of insulation between the participants. A strong insulation between participants creates a principle of strong classification, and a weak insulation between participants creates to a principle of weak classification (Bernstein, 1990). Accordingly, a weak classification in an oncology consultation can mean that an oncologist constantly reclassifies her roles and that her roles permeate each other. Framing is defined as "the principle regulating the communicative practices of the social relations within the reproduction of discursive resources" (Bernstein, 1990, p. 36). In this sense, it can be argued that a strong framing in an oncology consultation indicates that the oncologist explicitly regulates the kind of roles she takes during the consultation and a weak framing indicates that the shift between the different roles is controlled by the oncologist and the patient or the companion in partnership. On the close relation between classification and framing, Hasan explains that "[c]lassification is a function of power, and framing is a function of control to maintain that classification: It is through framing that classification is maintained and altered; and it is one's relation to classification that furnishes the ground for specific forms of framing" (Hasan, 2001, p. 62).

How weak classification and framing is construed in and created by the meanings that the oncologist means when answering the patient's questions is the focus of the rest of this chapter.

5.6. What is it like to be an advanced cancer patient?

Before moving on to the report and discussion of the analyses a short note on the advanced cancer patients' sense of identity and self-image is in order. In Chapter 4, the experience of the patients was analysed and classified across the whole 69 consultations. This was done using a transitivity concordance analysis (Thompson, 2008) of the language of the patients across the whole corpus. The results of the analysis showed that the terminal cancer patients were far from being grammatical patients. One finding that is of particular relevance to the present chapter is that Senser emerged as the most frequent role patients identified themselves with and cognition was the most frequent mental activity. The findings suggest that the advanced cancer patient is semiotically agentive during the oncology consultation, participating in mental processes that extend to a semiotic object such as test result or healthcare plan or engaging in mental projections of ideas and thoughts. These findings suggest that patients represent themselves as active participants and identify themselves with consciousness and awareness.

These findings along with the findings of other studies (Driscoll, 2012; Sharf, 1988; Sharf & Street, 1997) suggest that the patient is now becoming distant from the biomedical patient who

essentially endures and suffers and receives medical procedures and directives. The patients today identify themselves as "*he* or *she*, not as *it*" (Halliday & Matthiessen, 2014, p. 249), they identify themselves as a 'conscious beings', participants who are "endowed with consciousness", who are capable of thinking, knowing and liking (Halliday & Matthiessen, 2014, pp. 249-250). With this transition comes a new configuration of the doctor-patient relationship whereby the patient is also a 'conscious being' that participates in the construction of the medical experience rather than a malfunctioning body that is the goal of the doctor's medical actions. This role relationship alteration, therefore, entails a change in the way the medical practitioner acts, means and says.

5.7. Semantic options in confirm answers

Extract 1 is from consultation A between Yvette and her patient and his companion. The patient is on a clinical trial and is there to see the oncologist before his planned chemotherapy session. The consultation starts with an oncologist initiated move of history taking/giving. In this part of the consultation, the oncologist elicits the patient's symptoms and side-effects, explains their source, gives some information on what the patient needs to pay attention to in the future and the possible consequences of the future side-effects in terms of treatment decision making and provides the patient with prescriptions for side-effect management medication. In the next stage of the consultation, the oncologist gives the results of the patient's latest blood test which shows that the tumour has had a very good response to the treatment. This was followed by the oncologist's initiation of the decision making stage, during which she explains what the protocol recommends, which raises several questions for the patient and his companion about his condition and the options he has as well as the future which will be discussed throughout the rest of this chapter. In addition, the patient and his companion express that they want to travel to the UK and France for 'a couple of months' which gives rise to the patient's question of whether he would take pills with him. Finally, the oncologist wraps up the consultation by reviewing the medication, planning the next chemotherapy session, blood test and consultation, and reiterating the treatment plan.

In this extract following Yvette's explanation of the study's recommendation regarding the treatment decision (which is to *keep going* with the chemotherapy *as long as you're tolerating it*) and her clarification of the prospective results, the patient's companion raises a [confirm] question regarding the treatment decision *So he just has to keep going* ...? . The oncologist

could have only affirmed or negated (corresponding to the semantic options [affirm] v. [negate]) the companion's question and this would have constituted a reply with the semantic feature [adequate]. However, she chooses to provide an answer that spans over 32 messages. She extends her negation of the patient's necessity to keep going in 155_1, 155_2 and 155_3 through an addition in 155_4 which is interrupted by the patient in 156. She makes a second attempt to extend the meaning of her negation in 157_1 and 157_2 (but we know that if ...) but she chooses not to complete and instead further elaborates the uncompleted message from 157_3 to 157_8 and gives information about how we know (so they did some studies ...). In 157_9 she adds another message to give information about the existing disagreements among oncologist about how to interpret the results of those studies and relates that to the results of the studies in the form of two conditions from 157_10 to 159_3. The oncologist then relates all the messages she has conveyed so far to the recommendation of the clinical trial that the patient is participating in through using a 'Claim'-'Reason' structure (Hasan, 1992b) which is elaborated with a reiteration of the claim and the reason in 159_5-159_7 (*that's why this study* says keep going because they believe ...). Finally based on the reasons she has given from 154-159 7, in 159 8 the oncologist claims that that is generally what they do.

Extract (1) – Transcript 85 (A) – Turns 154-160 (P = Patient, C = Companion and O = Oncologist)

С	154	So he just has to keep going because there's no -?
0	155_1	You don't have to keep going,
	155_2	there's no,
	155_3	you don't have to,
	155_4	but the thing is that -
Р	156	Well, I'll take your recommendation.
0	157_1	We know that
	157_2	if,
	157_3	so they did do some studies
	157_4	saying
	157_5	what about if we stop
	157_6	and we watch you
	157_7	and if it starts to grow again

	157_8	we start again –
	157_9	and there's a bit of split in oncologists about how they interpret
		those results.
	157_10	If you stop
	157_11	you need to be watched like a hawk
	157_12	and your average time before you start again is three or four
		months.
Р	158	Right.
0	159_1	If you keep going
	159_2	and especially if you're managing the chemo,
	159_3	you're probably better off.
	159_4	That's why this study says keep going
	159_5	because they believe
	159_6	you'd be better off
	159_7	keeping going.
	159_8	So that's generally what we do.
Р	160	Right, okay.

Extract 1 is arguably different from extract 2 from consultation B between David, the other oncologist, and his patient and his partner even though the situation and the question that the companion and the patient ask is similar. The patient in consultation B is receiving chemotherapy as well as an injecting drug called Zometa or zoledronic acid. David's patient is to receive his last dose of intravenous chemotherapy on the same day after the consultation. The consultation starts with a short patient-initiated move of result-giving followed by an oncologist-initiated move of history-giving during which the oncologist provides some recommendations and explanations regarding the symptoms and side-effects. This is followed by an oncologist-initiated, seemingly paternalistic move of treatment decision making during which the patient and his companion ask several questions about the treatment. Extract 2 is taken from this part of the consultation. Following this part, the next stage, that is initiated by the patient during which he enquires about his current state, the tumour, and the treatment plan. Finally, the oncologist closes the consultation.

Here in 49, 53, and 59_1, the oncologist chooses to respond to the [confirm] questions of the companion and the patient using single message [confirm] answers that, although they have the semantic feature of [adequate], that is, the oncologist provides an answer, they do not carry the option of [related]. In this extract, despite the patient's and the companion's several attempts to elicit more information in 48, 51, 52, 54 and 58, the oncologist does not go beyond an [adequate] answer and all his answers have the semantic feature of [unrelated]. The selection of the semantic feature [related], as explained earlier, indicates additional information and a clear definition of the propositions and proposals. Thus, it can be argued that this feature is one way the weak classification and framing in the oncologist-patient and the oncologistcompanion relationship (Karimi et al., in press) is realized semantically. Answers with the feature [related] clarify the different dimensions of the different options that the patient has and facilitate more informed and autonomous actions on the part of the patient and the care giver. Such answers can arguably construe and activate a reclassification of the oncologistpatient/companion role relationship, from advisor-advisee to transmitter-acquirer. Since this reclassification is initiated by the patient or the companion, through demanding information in the form of a question, the framing is also weak.

Extract (2) – Transcript 125 (B) – Turns 48-59 (P = Patient, C = Companion and O = Oncologist)

С	48	Does he stay on that, the Zometa?
0	49	Yes, the Zometa we stay on every four weeks.
С	50	Okay.
Р	51	So I come back in four weeks.
С	52	Just for the Zometa?
0	53	Yeah.
С	54	And how long has he got be on that for?
0	55	That's indefinite.
С	56	Oh, okay.
0	57	Yeah.
С	58	And that's the one for the bones, isn't it?
0	59_1	Yes, yeah.
	59_2	So let's have a look in terms of your last scan,
	59_3	it was only a little while ago.

Another striking difference between the two oncologists, that we tried to show using the two extracts above, is Yvette's disposition to seize every opportunity to provide reason, a characteristic that is less significant and also different in the discourse of David as we will show later in this section. This inclination on the part of Yvette to provide reason is reflected in extract 1. In this extract even though the companion asks a [confirm] question, the oncologist offers an unsolicited reason by way of justifying her earlier recommendation about the treatment. Similar to the feature [related], an unsolicited reason seems to be a semantic feature that realizes the weak classification and framing that we witnessed in the relationship of Yvette with her patients and their companions. In providing reason in response to the companion's [confirm] question, Yvette accommodates the companion with the control to reclassify her role, from adviser to transmitter and thus facilitates the weak framing. Note that despite the patient's endorsement of Yvette's role as an advisor in 156 (*Well I'll take your recommendation*.), she goes on to provide a lengthy explanation of the reason why she offers such a recommendation.

The structure of her reasoning consists of all the four elements of the structure of reasoning that Hasan (2009 [1992]) identifies (table 5.1). These are 'Claim', 'Reason', 'Principle', and 'Grounding'. According to Hasan "a Claim ... is a statement or it is a command": *you don't have to keep going ... (but) that's generally what we do*. Reason provides a justification for making that Claim: *because this study says keep going*. Principle is an element that validates the Reason. A Principle, in Hasan's term, "asserts a state of affairs which is regarded as universally applicable in the speech community": *they did do some studies ... they believe you'd be better off keeping going*. Finally, the chain of reasoning ends with the element of Grounding which points to the foundation based on which the Principle, in particular, and the chain of reasoning, in general, is legitimised and validated. The legitimacy of the Principle in extract 1 comes from the fact that it is grounded in evidence and research.

Table 5.1 The structure of reasoning in extract 1

Claim:	You don't have to keep going,	
	There is no,	
	You don't have to,	
	that's generally what we do (keep going)	
Reason:	Because this study says keep going	
Principle:	they did do some studies	
	what about if we stop	
	and we watch you	
	and if it starts to grow again	
	we start again –	
AND	there's a bit of split in oncologists about how they interpret	
	those results.	
	If you stop	
	you need to be watched like a hawk	
AND	your average time before you start again is three or four	
	months.	
	If you keep going	
AND	especially if you're managing the chemo,	
	you're probably better off.	
	That's why this study says keep going	
	because they believe	
	you'd be better off	
	keeping going.	
Grounding:	This is an evidenced-based choice	

Another salient property of Yvette's answers, which is also reflected in extract 1, is that the realisation of the elements of reasoning displays a notable degree of interspersion. Using Hasan's terminology Yvette's reasoning has the property of 'elaboration' or the semantic feature [elaborated]. In extract 1, the element of Principle and arguably the element of Claim has this feature. This is also shown schematically in table 5.1. Hasan (2009 [1992], p. 333) suggests that elaboration is an important quality of good reasoning. The oncologist could have simply said:

- (i) you don't have to keep going but that's generally what we do
- (ii) because this study says keep going
- (iii) because they believe you'd be better off keeping going

But instead, she chooses to use a set of [related] messages to elaborate the Principle. This again construes the weak classification and framing property of the oncologist-patient/companion relationship as not only does the oncologist provide an unsolicited reason, but also elaborates her reasoning to accommodate weak classification and framing.

One last point to mention before moving on to the next section is the kind of Grounding these two oncologists draw on in answering the questions they are asked. Above we have shown that in answering the companion's question the oncologist in consultation A (extract 1) provides a reason that is grounded in a culture that advocates and values evidence and an evidence-based practice: *because this study says keep going*. This is different from the kind of Grounding that is covert in the oncologist's answer in extract 3 from consultation B. The structure of reasoning in the extract 3 is schematically displayed in table 5.2. In this extract, the oncologist's reason is also based on social Grounding, however, it realizes a different culture, a paternalistic culture in which the doctor is an authority figure: *(because) I'm very happy with how it's all going*.

In her study of everyday maternal discourse Hasan (2009 [1992], p. 342) displays the contrasts that they observed in the reasoning of mothers in a system of options for different kinds of reasons in the form of a REASON network. This network is illustrated in figure 5.2. If we apply this network to describe the reasoning in these two extracts, it shows that both oncologists choose to provide a reason with the semantic feature [social: institutional], however as Hasan affirms it is possible to introduce more delicate options to distinguish between these two competing cultures in the institution of healthcare.



Figure 5.2 'A simplified system of choices in reasoning' (from Hasan, 2009 [1992]) 150

С	98_1	So while it's coming down,
	98_2	You don't change any medication?
0	99	Yeah – no.
С	100	No.
0	101	I'm very happy with how it's all going.

Extract (3) – Transcript 125 (B) – Turns 98-100 (C = Companion and O = Oncologist)

Table 5.2 The structure of reasoning in extract 1

Claim	I do not change any medication (while the Prostate Specific Antigen (PSA) is coming down).
Reason	I'm very happy with how it's all going.
Grounding	Because I have the knowledge and expertise.

5.8. Semantic options in specify answers

Extract 4 that starts with the patient's [specify] question about the primary tumour state is from consultation A, which will be compared with extract 5 from consultation B in which the patient asks a similar question. While the oncologist's initial response to the patient's question in extract 4 can be interpreted as a counter question and has the feature of [avoid: reject: return: counter-question] using the language of Hasan's network, the oncologist's use of the projection clause *I mean* in the next turn in order to clarify the purpose of her counter question, as well as her response in 130 and 132 refute that interpretation. Instead, it can be argued that the oncologist's answer is interspersed and spans over turns 126-132.

Yvette's answer to the patient's [specify] question involves reasoning and has the features [related] and [+elaborated]. She could have said something like this: *It is hard to see the primary get a bit smaller in the scan but from the symptoms that's not like a big lump*, but instead she chooses to reason that out and invite the patient to participate in the process of reasoning. Table 5.3 displays the schematic structure of reasoning in this answer. The answer consists of two courses of reasoning. In the first course, the oncologist answers the patient's question: *we'll look at it on the scan but that's not like a big lump* and supports her claims with a logical reason: (*because*) they'd (the symptoms had) already gone last year, hadn't they. In the second course of reasoning, the oncologist adds another claim: *we probably won't see too much of, at all of that on the scan* supported by another logical reason: *because that's a long*

sort of tube thing and it's very hard to see that get a bit smaller. This is added with two other clauses through the relation of extension: *Whereas the liver secondaries are lots of lumps, very easy to see the change in those.* What we are trying to indicate here is the remarkably sequenced and elaborated response of the oncologist to the patient's question and her transparency in the process of reaching an answer. Her answer has the feature of [related] which signifies additional information and preciseness in providing the answer and it involves two courses of reasoning with elaborated reasons, thus has the feature of [+elaborated]. All these features, as we argued earlier for the [confirm] questions, seem to be the semantic realizations of the facilitating role of the oncologist which itself involves a weak classification and framing in the oncologist-patient/companion relationship.

Extract (4) – Transcript 85 (A) – Turns 125-132 (P =Patient and O = Oncologist)

Р	125	And obviously we didn't get any feedback from what had
		happened with the -?
0	126_1	With the primary,
	126_2	now what's happened with your,
	126_3	have you got any symptoms at all
	126_4	when you go to the toilet
	126_5	like you had before, trouble passing?
Р	127	No. No, no it seems -
	128_1	I mean
	128_2	I know
	128_3	they'd already gone last year hadn't they,
	128_4	so it's normal to you?
Р	129	Yes.
	130_1	Yeah. So the, that won't really,
	130_2	we'll look at it on the scan
	130_3	but that's not like a big lump,
	130_4	so I'm not,
	130_5	we probably won't see too much of, at all of that on the scan,
	130_6	because that's a long sort of tube thing
	130_7	and it's very hard to see that get a bit smaller.
Р	131	Right.

152

- O 132_1 Whereas the liver secondaries are lots of lumps,
 - 132_2 very easy to see the change in those.

Table 5.3 The structure of reasoning in extract 5

Reason	With the primary,	
	now what's happened with your,	
	have you got any symptoms at all	
	when you go to the toilet	
	like you had before, trouble passing?	
	No. No, no it seems -	
	I mean	
	I know	
	they'd already gone last year hadn't they,	
	so it's normal to you?	
	Yes.	

Claim Yeah. So the, that won't really, we'll look at it on the scan but that's not like a big lump, so I'm not,

Claim we probably won't see too much of, at all of that on the scan,

Reason because that's a long sort of tube thing and it's very hard to see that get a bit smaller.Right.Whereas the liver secondaries are lots of lumps, very easy to see the change in those.

Now turning to extract 5 which shows the other oncologist's answer to a similar question by the patient in consultation B, what is striking, apart from a significantly shorter exchange, is the lack of reasoning in the oncologist's answer. The [specify] answer spans over 3 messages in 148 which has the feature of [related] but this feature is arguably partly because of the patient's use of [confirm] and [specify] questions at the same time: *this tumour in there is it*

dead or what's with it?. The companion's [confirm] question *it can flare up again?* arguably signifies their need for more information which was not satisfied in the previous answer by the oncologist.

Extract (5) – Transcript 125 (B) – Turns 147-151 (P = Patient, C = Companion and O = Oncologist)

Р	147_1	This tumour in there is it dead
	147_2	or what's with it?
0	148_1	It's shrunk
	148_2	and it's under control
	148_3	but it isn't completely dead.
Р	149	Yeah.
С	150	It can flare up again?
0	151_1	It can
	151_2	but it's not doing so at the moment
	151_3	which is important.

5.9. Rationality, elaboration, and relatedness: patient-centred advanced cancer oncological care

A key aspect of patient-centred care is a less classified doctor-patient relationship, the sharing of power and control between them and facilitating patient participation in clinical reasoning (Epstein et al., 2005). An effective strategy to facilitate patient participation is to "provide suitable information about their situation" and "help patients to acquire the skills to appraise the information available to them" (Atkins & Ersser, 2008, p. 82). This has been done using different tools including training and support programmes such as the UK Department of Health 'Expert Patient' program, social groups such as online forums and materials such as patient information leaflets and question prompt lists.

At the same time, patient empowerment can also be incorporated in the practice of the medical professionals. Using Hasan's Semantic networks in analysing oncologist answers, the analysis in this chapter showed how certain semantic options in the discourse of the oncologist can activate and construe a facilitation role through which the oncologist empowers the patient to have control over the aspects of the communication and accommodates a less classified interpersonal relationship (Karimi et al., in press). One of these options is the feature of [related] which denotes the existence of the relations of expansion between the clauses that realize messages in the lexicogrammar stratum. When clauses are related through the

relationship of expansion, "the secondary clause expands the primary clause, by (a) elaborating it, (b) extending it or (c) enhancing it" (Halliday & Matthiessen, 2014, p. 443). Another semantic option that seemed to realize the facilitating role of the oncologist is the provision of reasons in response to patient's [confirm] and [specify] questions even though these questions do not enquire about the *why* of the subject matter. Finally, the semantic feature [+elaborated] which is a property of reasoning, denoting interspersion and relatedness in reasoning, is another semantic option that can construe a facilitating role on the part of the oncologist. All these features contribute to the provision of more information and the precision of information experientially, and a less classified and strongly framed oncologist-patient/companion relationship from an interpersonal point of view.

5.10. Can Hasan's contextually open semantic networks model the variation in oncology consultation?

Hasan's semantic networks have never been published as an entire model. Some parts of the networks have been published in the papers that resulted from the project of mothers' and children's discourse and reapplied in other contexts in other studies. Perhaps the least explored area is the network of GIVE INFORMATION as the network has not been published and only some options from the network have been mentioned and explained by Hasan in her papers.

In arguing in favour of her contextually open semantic networks, Hasan (2009 [1988], p. 152) asserts that while her model "does not represent all or even nearly all that needs to be known about the meaning potential of English", "extensions of the network may need to 'presuppose' the systems of options already built into the semantic network". The analyses of oncologist answers to advanced cancer patient questions reported in this chapter affirm the arguments that Hasan made in favour her position. The analyses showed that the primary options in the system of GIVE INFORMATION are capable of modelling the nuances of meaning in oncologist answers. Specifically, the features [related] and [unrelated] and [+elaborated] and [-elaborated] showed differences between the way the expert oncologist makes meaning and the way a second oncologist does so in answering his patient's questions. The data analysed in this chapter suggest that even in answering [confirm] and [specify] questions, the oncologists can choose to provide a reason in their answers or not, and thus have the options to be [+elaborated] or [-elaborated] in their reasoning, a point that is not covered by Hasan's (1983) network. It is through investigating the variant forms of meaning in talking to patients that we can understand how, through language, different ways of seeing the patient is transformed into meaning.

References

- Atkins, S., & Ersser, S. (2008). Clinical reasoning and patient-centred care. In J. Higgs, M. Jones, S. Loftus, & N. Christensen (Eds.), *Clinical reasoning in the health professions* (3rd ed., pp. 77-87). Amsterdam: Elsevier.
- Bernstein, B. (1971). *Class Code and Control, Vol 1: Theoretical Studies towards a sociology of Language*. London: Routlege and Kegan Paul.
- Bernstein, B. (1990). The Structuring of Pedagogic Discourse, Vol IV: Class, Codes and Control. London: Routledge.
- Cherny, N. I., & Catane, R. (2011). Palliative medicine and modern cancer care. In G. Hanks, N. I. Cherny, N. Christakis, M. Fallon, S. Kaasa, & R. K. Portenoy (Eds.), Oxford Textbook of Palliative Medicine (pp. 111-124). Oxford,New York: Oxford University Press.
- Chu, C. P. Y. (2011). *Picture book reading in a new arrival context: a multimodal perspective on teaching reading.* University of Adelaide, Australia.
- Cloran, C. (1989). Learning through language: the social construction of gender. In R. Hasan & J. Martin (Eds.), *Language Development: Learning Language, Learning Culture: Meaning and Choice in Language: Studies for Michael Halliday*. Norwood: Ablex.
- Cloran, C. (2000). Socio-semantic variation: different wordings, different meanings. In L. Unsworth (Ed.), *Researching Language in Schools and Communities: Functional Linguistic Perspectives* (pp. 152-183). London & New York: cassell.
- Driscoll, J. (2012). *The representation of terminally ill patients: a transitivity analysis of advice and interviews texts* (Unpublished doctoral dissertation). University of Liverpool, Liverpool.
- Epstein, R. M., Franks, P., Fiscella, K., Shields, C. G., Meldrum, S. C., Kravitz, R. L., & Duberstein, P. R. (2005). Measuring patient-centered communication in Patient-Physician consultations: Theoretical and practical issues. *Social science & medicine*, *61*(7), 1516-1528.
- Fleming, W. (1858). *The Vocabulary of Philosophy, Mental, Moral and Metaphysical*. London and Glasgow: Richard Griffin and Company.
- Fung, A. (2016). Hasan's Semantic Networks Revisited: a Cantonese Systemic Functional Approach. In W. L. Bowcher & J. Y. liang (Eds.), Society in Language, Language in Society: Essays in Honour of Ruqaiya Hasan (pp. 115-140). UK: Palgrave Macmillan.

- Hall, P. (2004). Prone to distortion? Undue reliance on unreliable records in NSW Police Service formal interview model. In J. Gibbons, V. Prakasam, K. V. Tirumalesh, & H. Nagrajan (Eds.), *Language in the Law* (pp. 44-81). New Delhi: Orient Longman Private Limited.
- Halliday, M. A. K. (2003). Towards a sociological semantics (1972). In J. J. Webster (Ed.), *The Collected Works of M. A. K. Halliday, Vol. 3: Language and Linguistics* (pp. 323-354). London: Continuum.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2014). *Halliday's introduction to functional grammar*. London & New York: Routledge.
- Hasan, R. (1983). A semantic network for the analysis of messages in everyday talk between mothers and their children. Unpublished work, Macquarie University, Sydney.
- Hasan, R. (1989). Semantic variation and sociolinguistics. *Australian Journal of Linguistics and the Human Sciences*, *9*(2), 221-276.
- Hasan, R. (1992a). Meaning in sociolinguistic theory. In K. Bolton & H. Kwok (Eds.), Sociolinguistics Today: international perspectives (pp. 80-119). London: Routledge.
- Hasan, R. (1992b). Rationality in everyday talk: from practice to theory. In J. Svartvik (Ed.), *Directions in Corpus Linguistics* (pp. 257-307). Berlin: Walter de Gruyter.
- Hasan, R. (1996). Ways of Saying, Ways of Meaning: Selected Papers of Ruqaiya Hasan. London & New York: Cassell.
- Hasan, R. (2001). The Ontogenesis of Decontextualised Language: Some Achievements of Classification and Framing. In A. Morais, I. Neves, B. Davies, & H. Daniels (Eds.), *Towards a Sociology of Pedagogy: The Contribution of Basil Bernstein to Research* (pp. 47-79). New York: Peter Lang Publishing.
- Hasan, R. (2009). Semantic Variation, Meaning in Society and in Sociolinguistics, Volume 2 of the collected works of Ruqaiya Hasan. London, oakville Equibox.
- Hasan, R. (2009 [1988]). Language in the processes of socialisation: home and school. In L.
 Greot, J. Oldenburg (Torr), & T. van Leeuwen (Eds.), *Language and socialisation: Home and school*. Sydney: Macquarie University. Reprinted in Hasan, 2009 (pp. 119-79).
- Hasan, R. (2009 [1989]). Semantic variation and sociolinguistics. Australian Journal of Linguistics and the Human Sciences, 9, 221-275. Reprinted in Hasan, 2009 (pp. 180– 230).

- Hasan, R. (2009 [1991]). Questions as a mode of learning in everyday talk. In M. McCausland (Ed.), *Language education: Interaction and development* (pp. 70-119). Launceston: University of Tasmania. Reprinted in Hasan, 2009 (pp. 231-68).
- Hasan, R. (2009 [1992]). Rationality and everyday talk: from process to system. In J. Svartvik (Ed.), *Directions in Corpus Linguistics* (pp. 257-307). Berlin: Walter de Gruyter. Reprinted in Hasan, 2009 (pp. 309-52).
- Hasan, R., & Cloran, C. (2009 [1990]). A sociolinguistic interpretation of everyday talk between mothers and children. In M. A. K. Halliday, J. Gibbons, & H. Nicholas (Eds.), *Learning, keeping and using language, Selected papers from the Eighth World Congress of Applied Linguistics, Sydney, 16–21 August 1987* (Vol. 1, pp. 67-99). Reprinted from in Hasan, 2009 (pp. 75-118).
- Hasan, R., Cloran, C., Williams, G., & Lukin, A. V. A. f. p. (2007). Semantic networks: the description of meaning in SFL. In R. Hasan, C. M. I. M. Matthiessen, & J. J. Webster (Eds.), *Continuing discourse on language* (Vol. 2, pp. 697-738). London: Equinox.
- Karimi, N., Moore, A. R., & Lukin, A. (in press). Cancer care as an integrated practice: consultations between an oncologist and patients with advanced, incurable cancer. In L. Fontaine & A. Baklouti (Eds.), *Perspectives from Systemic Functional Linguistics*: Routledge.
- Lukin, A. (2012a). Evaluating questions in journalism: a case study of the Australian public broadcaster's coverage of the 2003 invasion of Iraq. *Journal of Applied Linguistics & Professional Practice*, 9(1), 127-147.
- Lukin, A. (2012b). Hasan's semantic network as a tool in discourse analysis. In J. Knox (Ed.), To Boldly Proceed: Papers from the 39th International Systemic Functional Congress (pp. 141-146). Sydney: ISFC Organizing Committee.
- Lukin, A., Moore, A. R., Herke, M., Wegener, R., & Wu, C. (2011). Halliday's model of register revisited and explored. *Linguistics and the Human Sciences*, 4(2), 187-213.
- Maley, Y., & Fahey, R. (1991). Presenting the evidence: constructions of reality in court. International Journal for the Semiotics of Law, 4(1), 3-17.
- Matthiessen, C. M. I. M., Lukin, A., Butt, D. G., Clereigh, C., & Nesbitt, C. (2005). A case study of multistratal analysis. *Australian Review of Applied Linguistics, Series S* (19), 123-150.
- Moore, A. R. (2015). Can Semantic Networks Capture Intra-and Inter-Registerial Variation? Palliative Care Discourse Interrogates Hasan's Message Semantics. In W. L. Bowcher

& J. Y. Liang (Eds.), Society in Language, Language in Society: Essays in Honour of Ruqaiya Hasan (pp. 83-114). UK: Palgrave Macmillan

- Moore, A. R. (2016). Surgical teams in action: a contextually sensitive approach to modelling body alignment and interpersonal engagement. In A. Baldry & E. Montagna (Eds.), *Interdisciplinary Perspectives on Multimodality: Theory and Practice*. Campobasso, Italy: Palladino.
- Sharf, B. F. (1988). Teaching patients to speak up: past and future trends. *Patient Educ Couns, 11*, 95-108.
- Sharf, B. F., & Street, R. L. (1997). The patient as a central construct: shifting the emphasis. *Health Communication*, 9, 1-11.
- Surbone, A., Zwitter, M., Rajer, M., & Stiefel, R. (2012). New challenges in communication with cancer patients. New York: Springer.
- Thompson, G. (2008). From process to pattern: methodological considerations in analysing transitivity in text. In C. Jones & E. Ventola (Eds.), *New Developments in the Study of Ideational Meaning: From Language to Multimodality* (pp. 17-33). London: Equinox.
- Turner, G. J. (1973). Social class and children's language of control at age five and age seven.
 In B. Bernstein (Ed.), *Class, Codes and Control, Volume II, Applied Studies towards a* Sociology of Language (pp. 135-201). Oxon: Routledge.
- Wake, B. J. (2006). Dialogic learning in tutorial talk: a case study of semiotic mediation as a learning resource for second language international students. The University of Adelaide, Australia.
- Walczak, A., Butow, P. N., Tattersall, M. H. N., Davidson, P. M., Young, J., Epstein, R. M., . . . Clayton, J. M. (2017). Encouraging early discussion of life expectancy and end-oflife care: A randomised controlled trial of a nurse-led communication support program for patients and caregivers. *International Journal of Nursing Studies*, 67, 31-40. doi:<u>http://dx.doi.org/10.1016/j.ijnurstu.2016.10.008</u>
- Williams, G. (1995). *Joint book-reading and literacy pedagogy: A socio-semantic examination*. (Unpublished docoral dissertation), Macquarie University.
- Williams, G. (2001). Literacy pedagogy prior to schooling: relations between social positioning and semantic variation. In A. Morais, I. Neves, B. Davies, & H. Daniels (Eds.), *Towards a Sociology of Pedagogy: the contribution of Basil Bernstein to research* (pp. 17-45). New York: Peter Lang.

Williams, G. (2005). Semantic variation. In R. Hasan, C. M. I. M. Matthiessen, & J. J. Webster (Eds.), *Continuing discourse on language: A functional perspective* (Vol. 1, pp. 457-480). London: Equinox.

Chapter 6 CONCLUSION

6.1. Introduction

The aim of this study has been to explore how patient-centred care is operationalised in language with a corpus of consultations between patients with advanced cancer and prognosis of less than 12 months and their oncologists, and to explore the linguistic features used by the oncologists and the patients and the role of these linguistic features in facilitating or blocking patient-centred care. This chapter summarises the findings of the study, outlines the limitations and the inadequacies and suggests some implications for practice. I begin with a summary of the systematic literature review of the empirical studies that address the linguistic correlates of patient-centredness.

6.2. The linguistic correlates of patient-centredness: What does the literature offer and what is missing?

This thesis investigated personhood at the EOL through a semiotic perspective. Analysing a corpus of oncology consultations with advanced cancer patients, it provided an account of how the oncologists' and advanced cancer patients' linguistic choices during an oncology consultation construe and create certain ways of social behaving and certain ways of viewing the world. In her study of shared decision-making in HIV consultations, emphasising the semiotic as well as the social order of medical interaction, Moore argues that there has been a tendency in the literature to treat medical interaction mainly as social behaviour. But in Moore's view, the linguistic order is equally important and the study of medical interaction "must be able to relate descriptions of contextual behaviour to motivated, functional descriptions of language in interaction" (Moore, 2004, p. 379). Now, over ten years later, the situation is not significantly different, at least in the context of EOL care research, as our systematic literature review confirms.

The systematic literature review provided an overview of the previous work and the gaps in the area of linguistic research on patient-centredness at the EOL and served as the initial groundwork for taking the next step of further research in this area. With an interest in the semiotic aspect of patient-centredness and its relation to the practice of patient-centred care, we performed this systematic literature review to explore whether patient-centredness at the EOL is recognised to have a linguistic aspect in the literature and if so, to consider which linguistic features have been associated with patient-centredness, and through which theoretical lens such features have been examined. The results suggest that empirical studies that look at the semiotic order of patient-centredness in doctor-patient encounters where the patient has a life-limiting illness are very few. A Google Scholar search of a large number of keywords resulted in over 7000 records out of which 25 were identified to recognise patient-centredness as a semiotic concept, that is, only about 0.3 percent of the whole results. Of course, this is not an exact measure. The Google Scholar search of different keywords was not done at the same time, which affects the exact number of the records. Some of the records were theoretical papers and some investigated other types of data such as patient narrative. Nevertheless, it indicates that more work needs to be done in this area.

Qualitatively, the findings of the systematic literature review were organised around the theoretical or methodological perspectives as well as the three language metafunctions (interpersonal, ideational and textual). The relatively wide range of methods applied to the study of medical interaction includes Interaction Analysis Systems (IASs), conversation analysis (CA), sociolinguistics, systemic functional linguistics (SFL), pragmatics, Rhetorical Genre Studies (RGS) and ethnography. Regardless of the volume of existing literature on the semiotic aspect of patient-centredness, which was shown to be relatively inadequate, the findings reveal that the scope of the existing research, both in terms of the methodological approach applied and in terms of the linguistic feature studied, is relatively wide. On one hand, this suggests the capacity of the field of linguistics and sociolinguistics, in the very general sense of the study language in its social context, to contribute to the study of medical practice. On the other hand, it confirms that patient-centredness as a linguistic construct is complex and involves various contextual, semantic, lexicogrammatical and phonological features which in turn demands a theoretical framework that describes all these dimensions (Moore, 2004).

A striking finding is a relatively limited research on patient language and patient contribution to the medical interaction. With the exception of those studies that look at the number and content of patient questions as a measure of the effectiveness of their interventions, there are only two studies in our 30 study database that looks at the language of the patients. These are Driscoll (2012) and Chou (2004). Driscoll (2012) explores the experience of dying patients in patient narratives from a grammatical point of view and compares it with the representation of

this experience in online medical advice texts and Chou (2004) looks at agency, sense of coherence and questioning in dying patients. If the patient is the most important participant in a patient-centred healthcare system, an understanding of what it is like to be a patient in healthcare practice is crucial. A study of patient-centred practice needs to take into account the perspective of the main social actor of this social practice, that of the patient. The second paper of this thesis, therefore, explored how patients identified themselves grammatically across the whole corpus (69 oncology consultations).

Looking at the linguistic realizations of patient-centredness across the three metafunctions in the results of the systematic literature review, the context of EOL care seems to be a relatively well studied area, especially with respect to the interpersonal resources. These analyses, however, are scattered across different studies that look at one or two contextual aspects in contexts slightly different from each other. In other words, not only do the contexts studied slightly vary, but also the analysis of context in these studies is selective in terms of the contextual features examined. The result is a neglect of the relations that exist amongst different contextual features. Field, tenor, and mode as the three vectors of context are interconnected and a thorough contextual analysis of the field, tenor and mode in a particular register accounts for these interrelations. This gap in the literature along with the huge diversity of the roles that we witnessed most oncologists in our corpus take in their practice of consultation motivated the formation of the third paper on this thesis.

Another salient theme in the literature was the association of the patient's question-asking with agency, power, and patient-centredness. While patients' questions have attracted attention from a relatively large body of research in the literature, the second half of the question-answer 'adjacency pair', i.e. the answers that physicians provide in response to their questions, has received little attention from the literature of medical communication research. This gap prompted a case study of two oncologists' answers to patient questions, which formed the fourth paper of this thesis.

Finally, another direction of research relatively unattended in the current linguistic literature of patient-centred EOL care is the study of coherence and continuity of discourse in the clinicianpatient interaction. Previous research has been mainly focused on the structure of the interaction and the moves involved in a medical interaction. Analyses of the minutiae of the interaction and investigation of the various ways in which cohesiveness between speakers in interaction is constructed can potentially give us some information about how patientcentredness is realized textually. Such analyses have proved worthwhile in bringing out and highlighting the discourse features that contribute to "different orders of meaning": the "voice of medicine" and the "voice of the lifeworld", as well as "the struggle between them" (Mishler, 1984, p. 89). In his study of the general practice consultations, Mishler uses Halliday and Hasan's (1976) account of cohesion to describe the way doctors can contribute or hinder the development of the coherent meaning of the patient's account or what he refers to as 'the voice of the lifeworld'. The practice of oncology consultations is different in terms of how specialised the patient is, thus resulting in a different doctor-patient role relationship, as we saw in this thesis. A textual analysis of oncology consultations can reveal how language itself and the textual resources construe a patient-centred practice. This line of research was, however, beyond the scope of this thesis timewise but is a research possibility.

The existence and discovery of these gaps, however, was not the only motive for the design of studies in this thesis. In the next section, I explain the unified methodology of this thesis and combine and interpret the results of the analytic chapters in the light of this unified methodology.

6.3. Patient-centred care: an integrated view

The three data analysis chapters bring Halliday's trinocular approach to the study of oncology consultations. To begin, patient-centred communication was explored as a contextual construct, looking at it "from above" by looking at the context of oncology consultations and the actualisation of different roles one oncologist perform during a consultation. Then I shifted my focus from the oncologist to the patient and explored patient-centred communication "from below" by looking at the grammatical choices the advanced cancer patients made to identify and construct themselves during an oncology consultation. Finally, in the last paper, I looked at the exchange of patient questions and oncologist answers from "round about" and explored how two distinct oncologists' construct their roles and that of the patients and companions by making different semantic choices in giving answers to the patients and companions' questions. The trinocular approach taken in this thesis was an integrated attempt to look at the register of oncology consultation from the point of view of 'the users of the system' (Matthiessen, 1993) and explore how they deploy these different resources of the register of oncology consultation to construct different 'personae' and 'personalities' and whether there is harmony between these constructions.

I borrow the terms 'personae' and 'personality' from (Firth, 1950). Firth (1950, p. 9) defines 'personae' as "parts we are called upon to play in the routine of life" and adds that "every social person is a bundle of personae, a bundle of parts, each part having its lines. If you do not know your lines, you are no use in the play. It is very good for you and society if you are cast for your parts and remember your lines". In defining 'personality', Firth (1950) quotes Locke (1894, p. 467) from Johnson's dictionary: "this personality extends itself beyond present existence to what is past, only by consciousness whereby it imputes to itself past actions just upon the same grounds that it does the present" to explain the close relationship between personality and language because, according to Firth, language, like personality is "a systematic linking of the past with the present and with the future". Language, according to Firth, places a central role in creating persons and the personalities that constitute them. If we agree with Firth's view about language and personality, the analyses conducted in this thesis, I would argue, shed some light on how advanced cancer patients as collections of personalities are created through the interaction with their oncologist and how these patients, in Matthiessen's (1993, p. 241) terms, "are learned and negotiated as personae", as I try to show below.

In Chapter 3 it was shown that the advanced cancer care practice is interpersonal in nature. Yvette, whose practice was studied in Chapter 3, constructed a facilitator role for herself in her practice. At the level of context, this facilitator role is enacted through weak classification and weak framing in the oncologist-patient/carer relationship, reflected in the way she performs her various agentive roles, and through taking a positive attitude in interaction with the patient and the companion. The weak classification in the oncologist-patient/companion relationship is instantiated in the permeable nature of the oncologist roles. These roles include providing biomedical advice and advice in relation to the healthcare system and the patient's personal life, as well as reasoning and providing educational information on why such advice is suggested. The weak framing in the oncologist-patient/companion relationship is instantiated in the oncologist's weak control over the weaving in and out of the different roles and her disposition to switch between roles depending on the patient and/or the companion's discourse. One way that the facilitator role was realized semantically was through the elaborated and related answers that she provided in response to the patient and companion's questions.

Looking at how the advanced cancer patients construct themselves during an oncology consultation discussed in chapter 4, there is a considerable degree of harmony between the

patients' self-construction and their sense of self and personae, which is not entirely independent of the practice of the other end of the interaction, i.e. the oncologist, and the oncologist practice of oncological care. In the coming section, I go into the details of the interaction between the findings resulting from these two perspectives towards medical interaction, and I attempt to synthesize a conclusion that may answer some questions in the existing literature on EOL care.

6.4. Weak classification

It was said earlier that the facilitating role of the oncologist is manifested in the weak classification in the oncologist practice of conceptual and practical activities with the patient. It was also shown that the weak classification is instantiated through (1) informing the patients about their body, illness, treatment options and medicine and medical system in general; (2) referring and discussing the different aspects of the patient's life that are affected by the illness; and (3) enabling the patient to be this new informed patient who, in her or his entirety, is at the centre of the healthcare. Let us recall the way the oncologist performs the different activities of oncology against the roles that advanced cancer patients construct for themselves. This is shown in Table 6.1, below.

Oncologist's activity	The contextual manifestation of a	Patient self-construction	
	weak classification in the		
	oncologist-patient/companion		
	social role relationship		
Give instruction to do/plan	• Giving elaborated and detailed	Patients construct themselves	
the treatment, blood test,	information on the instructed	as informed participants and	
blood transfusion, scan	medical action (treatment,	semiotic agents	
	blood test, scan, etc.) and the		
	reasoning behind the		
	suggestion to take that medical		
	action		
	• Considering patient's personal		
	circumstances and concerns in		
	the activity of instructing to		
	do/plan a medical action		

T 11 (1	$T1 1 \cdot \cdot$	1	, , , ,	C 1 1 1	· · ·	,
IANIPOL	Ι ΝΟ ΟΝΟΟΙΟΤΙ Ο ΠΝΟ	της ηστισητε	CONSTRUCTION OF	' the aavancea	cancer nationt	s norsonao
10000.1	The Uncologist s une	ine pailents	construction of		cuncer punchi	s personae
			./			

Medical and clinical	Patient education and transparent	
reasoning and the	medical reasoning which is evident	
promotion of evidenced-	all through the consultation	
based research		
Instructing regarding pain	• Giving elaborated and detailed	Patients construct themselves
and other symptom/side-	information on the drugs, their	as grammatically active agents
effect alleviation	application, dosage, and side-	in terms of palliating their
	effects	symptoms
	• Considering and caring about	
	the patient's life and her or his	
	everyday activities	
Planning the next	Considering the patient's personal	
consultation	plans, general well-being and	
	potential needs as well as giving	
	information on her own work	
	schedule to convey continuity of	
	care	
Instructions on using	Expanding the circle of care to the	Using actions and entities
family and community-	domain of the patient's personal	related to the realm of the
based services such as	and social life as affected by cancer	mundane activities of a social
in-home care and	and referring to the meaning of	human being, patients
psychological care as	cancer in the patient's life	identified themselves with
well as instruction on		organising and managing the
using special		different aspects of their lives
equipment for comfort		to live the remaining of their
and support		life as normally as they could.
• Gatekeeping		
(paperwork related to		
other aspects of the		
patient's life being		
affected by cancer)		
Planning non-medical	• Putting the non-medical	
activities such as vacations	activity in the context of the	
or family visits	illness	

	• giving information on the	
	patient's trajectory of illness	
	and prognosis	
Instructing regarding access	Explaining the institution of	No exact information on
to palliative care	palliative care and reassuring the	palliative care from the
	patient of the continuity of the	transitivity concordance
	oncological care she provides	analysis
Patient coaching and	Constructing the patient as a	Patients construct themselves
navigation of health system	powerful entity with rights and	more frequently as patient
	entitlements within the healthcare	than agent in relation to the
	system	clinicians and medical staff
Prognosis and reiteration of	Informing the patient of the future	Patients' mention of prognosis
the goal of the care	and available option during the	and time was very infrequent
	discussions about treatment plans	
	and future non-medical plans to	
	promote open awareness	
Psychological counselling	Providing the space for the patients	Patients do not tend to
	to talk about their emotions	communicate their emotions
		during the oncology
		consultation, they use
		relatively fewer processes of
		emotion and relational
		emotive attributes

As the first two columns in Table 6.1 show, each main activity consists of several different interwoven activities, and these illustrate the permeable nature of the oncologist's roles and the weak classification in her relationship with the patient and the companion. Taking the last column into account, there is a relatively high degree of agreement in the way the oncologist, who I argued to be patient-centred, constructed oncological roles and the way the advanced cancer patients constructed themselves. Both the patients and the oncologist seem to identify an active and informed role for the patient in terms of self-care, decision-making and other administrative spheres. They also seem to have a similar conception of patienthood in terms of the domain of the business of medicine: both seem to identify the everyday life of the patient as an indispensable part of this domain. These arguments are not made for the first time in this thesis and have been elaborately discussed in the previous chapters, in part because the thesis-

by-publication format of this research necessitates a separate conclusion section for each individual study.

What I would like to draw the reader's attention to in this part and through the synthesis of findings represented in the above table are the differences that exist between the two perspectives: that of the oncologist and that of the patient. It is through this synthesis that new findings emerge. Looking at the last three rows of Table 6.1, while the advanced cancer patients identified themselves as a grammatical Patient (37 times in the whole corpus) rather than a grammatical Agent (4 times in the whole corpus) in relation to the clinicians, the patientcentred oncologist empowered the patients in their relationship with the clinicians within the healthcare system and constructed them as powerful social actors with rights and entitlements. Such a contrast in the oncologist's construction of the advanced cancer patient is arguably a positive one. Of course, how the patients construct their relation with the clinicians is construed through various linguistic resources and the material clause resource is one of them. Therefore, a strong claim cannot be made solely based on how the patients used the material clause resources. However, if we accept that Yvette took a socio-semiotic approach in providing care for the patient, meaning that she considered the patient a meaner or meaning maker, and considering that she has had several years of experience as an oncologist and has a general knowledge and understanding of the advanced cancer patient as a meaning maker, her action of coaching and navigating the patient across the healthcare system can be interpreted as a response to how patients identify themselves in relation to the clinicians and healthcare providers.

The second point of divergence is how the two protagonists constructed the patient in relation to death. The findings of the contextual analysis suggest that communicating prognosis and time was among the activities that the oncologist did in the sub-corpus of 10 consultations. In contrast, the findings of the transitivity concordance analysis reveal that patients rarely identified their experience with entities such as prognosis, time and death. Findings of the transitivity concordance analysis suggested that this gap in the discourse of the patient did not seem to be a product of denial. The results of the frequency of different entities used in the discourse of the patients suggest that they identified symptom management and palliation more important than treatment. In Chapter 4, I suggested that this gap can be interpreted as the patient's attempt to maintain meaningfulness and agency. Therefore, the disparity in the language of the oncologist and the patient in terms of talking about time and death can initially mean that the oncologist is broaching a conversation that is not welcomed by the patient. Looking at the place of prognosis conversations in terms of the structure of the consultations, mentions of time and prognosis were initiated by the oncologists during the discussion of treatment options or where the patient (or companion) and the oncologist were discussing future non-medical plans such as trips or family visits and not as a separate structural move. So in a way, these 'open awareness' (Glaser & Strauss, 1965) promoting conversations seem to affirm meaning and life by empowering the patient to make the most of the remaining time. Extract 1 is from a conversation between Yvette and her patient who wanted to visit her family in England. Yvette's discussion of how much time the patient has is framed within the context of discussing the fulfilment of her future plan in life.

Extract (1): Transcript 81– Turns 128-139 (P = Patient and O = Oncologist)

- 128 P ... yes people ask me you know are you still planning to go to England and I say look I'll worry about that when the time comes.
- 129 O Well you know we could use that you know if it all looks pretty good we'll also talk about that next time.
- 130 P Yes, yes.
- 131 O About whether we actually, you know whether it is a good time to go to England.
- 132 P I wouldn't want to go until after July because my Japan family's moving to England in June so I would wait to go, they're all going to be in the same town you see.
- 133 O Are they?
- 134 P Yes.
- 135 O Look the only thing about waiting is the bird in the hand.
- 136 P Exactly.
- 137 O So you know what you're like now, we don't know what you're like then, but.
- 138 P Yeah, yeah. But you see what determines, the first thing that determines whether I go is what suits them because they've all got very complicated lives and things that you know.
- 139 O I think they would say what suits you.

To finish this part I bring a quote from Amanda Bennett, an award winning journalist and a writer who has written a book about her seven-year experience of "saving her husband from cancer" and has given a TED talk on the same topic from which this quote is taken. Amanda

and her husband's decision was to continue aggressive treatment and she refers to this decision as "hope". In her TED talk, she speaks out that she did not regret their "heroic" fight against cancer but she regrets their non-"heroic" farewell as her husband's death happened in an intensive care ward. Yvette's broaching of the topic of prognosis and time, I think, seems to be part of an attempt to contribute to the construction of what Amanda calls "a narrative for acknowledging the end":

"... we just kept redefining hope. I believed I could keep him from dying, and I'd be embarrassed to say that if I hadn't seen so many people and have talked to so many people who have felt exactly the same way. Right up until days before his death, I felt strongly and powerfully, and, you might say, irrationally, that I could keep him from dying ever.

Now, what do the experts call this? They say it's denial. It's a strong word, isn't it? Yet I will tell you that denial isn't even close to a strong enough word to describe what those of us facing the death of our loved ones go through.

... So what the experts call "denial" I call "hope" and I'd like to borrow a phrase from my friends in software design. You just redefine denial and hope, and it becomes a feature of being human. It's not a bug. It's a feature.

... We have a noble path to curing the disease, patients and doctors alike, but there doesn't seem to be a noble path to dying. Dying is seen as failing, and we had a heroic narrative for fighting together, but we didn't have a heroic narrative for letting go. So maybe we need a narrative for acknowledging the end, and for saying goodbye, and maybe our new story will be about a hero's fight, and a hero's goodbye". (Bennett, 2013)

The third and last point of divergence in the way Yvette and the patients constructed the advanced cancer patient, shown in table 6.1, is in relation to the construction of patient as an emotional participant. Although patients generally did not seem to identify themselves as emotional participants in the consultation through the use of processes of emotion and relational emotive attributes, the results of the contextual analysis of the consultations suggested that Yvette engaged in psychological counselling and exploring patients' emotions at times. Does this mean that she broached topics related the patients' inner world of emotion while the patient was uncomfortable talking about it? Further investigations using Yvette's sub-corpus and the OCC-P suggests that all the instances were patient-initiated and Yvette responded to all those instances through the activity of psychological counselling.
6.5. Weak framing

Another aspect of the facilitating role of the oncologist is the weak framing in the oncologistpatient/companion relationship or, in other words, the oncologist's disposition towards a mutual control over the transitions between the activities and the roles shared between and the patient (and companion) and herself. A weak framing in the practice of the oncologist implies that she affirms the patient's agency over the flow of discourse and, in Hasan's words, "sets up a tone of mutual negotiation" (Hasan, 2001, p. 71). Now if we compare Yvette's practice of weak framing with the perspective of the patients explored through the transitivity-concordance analysis of the patients' experience, we witness harmony and concordance. Patients did, also, identify themselves as semiotic agents, as we saw in Chapter 4. The most frequently sensed Phenomena in the discourse of the patients were semiotic objects: conversations about plans, explanations, recommendations and suggestions, documents such as prescriptions, test results, records and research papers. Yvette acknowledged the patient's individuality through her weak framing.

6.6. Positive attitude

It was argued in Chapter 3 that one of the linguistic resources through which Yvette maintained a positive attitude is the construction of a joint project through the use of first person plural pronoun. To explore whether the patients supported the oncologist's attempt to construct a joint project or initiated its construction, information about the patients' group identification was extracted from the OCC-P. For each record in the OCC-P, the pronoun used by the patients to identify themselves was assigned a value from a set of values. This set includes 'I', 'me', 'we = patient and companion', 'we = patient and friends and family', 'we = patient and oncologist' and 'we = patient and other clinicians'. A look at the instances in which the patients identify themselves in the same group as Yvette shows that the construction of a joint project was mostly initiated by the oncologist and supported and sustained by the patient through the use of first person plural pronoun. In a few instances, the construction of a joint project was initiated by the patients to the history of their relationship with the oncologist.

6.7. Study limitations and suggestions for further research

This study is not of course without limitations. There are a lot of inadequacies that rule out any claim that a full understanding of patient-centred communication as a discourse practice has been achieved. These limitations can be divided into two categories of data and analysis.

The number one limitation is in regards to the corpus itself. The practice of oncology consultation as was explained in Chapter 3 is a continuing activity that spans from when a patient is diagnosed with cancer (or sometimes earlier) until the last consultation. The study of patient-centred care in this context, therefore, needs to take into account this property. The data for the present thesis, however, consists of a single snapshot of this continuing practice for each patient making the design of the study cross-sectional which is a limitation in terms of the representativeness and validity of the sample and results. I tried to partially address this issue in chapter 3 by paying special attention to the different stages of advanced cancer care (early stages, mid-way, and final stage/symptom management only) however, stage of the illness is only one variable. Other factors such as the patient's personal circumstances and plans or the history of the oncologist- patient relationship could not be considered in these analyses. One way this study can be improved is to switch to a longitudinal design in which the researcher analyses several transcripts of the same patient and oncologist over a period of time.

A further limitation of the corpus was that the data may not be a representative sample of the typical oncology consultation practice, as the oncologists who participated in the CeMPED randomised control trial were mostly experienced oncologists who felt comfortable being recorded and analysed for the purpose of the study. From their consent to participate in a communication support intervention it can be inferred that these oncologists most likely hold a certain view about the practice of oncology that is oriented to the semiotic aspect and the empowerment of patients through semiosis. As a result of this, it was difficult, for example, to find transcripts that were sharply different from each other. This relative lack of diversity limits the empirical criteria against which different aspects of a patient-centred communication can be described. The only sharply different transcript was the one analysed in Chapter 5.

In terms of the analysis, a concern to be taken into consideration is that in analysing the patients' sense of self the transitivity-concordance methodological approach resulted in a generalised account of the advanced cancer patient's sense of self and role construction based on an analysis of the collective instances produced by all the patients regardless of their

individuality and personality. The problem of "decontextualized examples of language" (Baker, 2006, p. 27) is an inherent part of corpus analysis which is the price the researcher pays for achieving a largescale overview. I tried to minimise the bias through the incorporation of transitivity analysis and semantic categorisation of different entities involved and by adding extra-linguistic information such as age, sex, occupation, education, oncologist and other variables that were explained earlier to the database. However, the problem of not considering individual experiences still continues to exist. Another issue, again rooted in the decontextualized nature of the concordance data, was that in analysing patients' construction of self the contribution of the oncologist and the companion(s) to the interaction was ignored. This bias could be reduced by doing a transitivity concordance analysis of the oncologists' construction of the advanced cancer patient. However, the factor of time did not allow such analysis. Instead, I tried to partially address this issue through the contextual analysis of one oncologist's construction of roles. A research possibility that can reduce the two limitations discussed in this paragraph is to pair this largescale transitivity concordance analysis with a detailed transitivity analysis of how the patient and the oncologist construct the advanced cancer patient in a few consultations.

6.8. The potential implications for patient-centred advanced cancer care practice

The linguistic study of oncology consultations presented in this thesis embodies a specific view about advanced cancer care practice which has emerged over the course of the three analytic chapters. This view is characterised by a facilitating role for the oncologist, instantiated in her language, through which she reduces the social distance in her relationship with the patient and the companion. This approach to the provision of health care that, to use Bernstein's terms, promotes weak classification between the oncologist and the patient/companion and weakly framed interactive practices is mediated through the language of the oncologist (and the patient/companion), and is based on a theory of healthcare that the views the patient not only as a biological and social being but as a meaning maker.

In this section, I present six strategies that can potentially construe a facilitator role. Of course, the presence of these strategies does not promise the occurrence of facilitation since, as I have argued and shown in Chapter 1, the value of the linguistic choices is determined by the context and co-text. Therefore, this list should not be regarded as a deterministic tool or manual but rather as a guide.

6.8.1. Pedagogical moves and transparent clinical reasoning

It is recommended that oncologists provide clinical reasoning for any advice that they give to the patients, explain the rationale behind their recommendations and engage in transparent clinical reasoning. Evidence from the investigation of the patients' sense of identity confirms that patients expect to be given clinical information. The same recommendation is made in the context of emergency department by Slade et al. (2015). Slade et al. (2015) suggest that explanations about the diagnosis and treatment plan of the emergency department patients and the reasoning process behind them should be provided to the patients. Whether this recommendation is appropriate across all social classes and whether different groups would be differently prepared for elaborated code from their doctors is a question on which more research is needed.

6.8.2. Reasoning in providing answers

It is recommended that oncologists provide 'elaborated' and 'related' answers even in response to the questions that do not enquire into the why of the subject matter to ensure that the patients have adequate and clear information about their situation and to help them gain the skills and knowledge to evaluate the information. Elaboration is a property of reasoning and 'elaborated' answers are characterised by detailed and precise and elaborated 'reasoning'. 'Related' answers are characterised by the use logical relations (relations of condition, contrast, conclusion, sequence and so on) between the states of affairs to ensure that adequate information is provided and the domain of the subject matter is precise and clear. Extract 2 shows an example of a 'related' and 'elaborated' answer that I reuse from Chapter 5 to clarify the notion of 'related'. Note how the oncologist gives precise and additional information to the patient's question of '*What had happened with the primary?*' through the use of various logical relations and elaborated reasoning.

Extract (2): Transcript 85 – Turns 130-132 (P = Patient and O = Oncologist)

	•••	
0	130_2	we'll look at it on the scan
	130_3	but that's not like a big lump,
	130_4	so I'm not,
	130_5	we probably won't see too much of, at all of that on the scan

	130_6	because that's a long sort of tube thing
	130_7	and it's very hard to see that get a bit smaller.
Р	131	Right.
0	132_1	Whereas the liver secondaries are lots of lumps,
	132_2	very easy to see the change in those.

6.8.3. Understanding and attending to the meaning of cancer in the life of the patient

Oncologists are recommended to treat patients and their illness as a whole. They are recommended to pay attention to the meaning of cancer in the personal life of the patients and refer to and articulate that. What cancer patients lose exceeds the body (Bishop, 2011) and they often show this by introducing contents from the realm of the mundane activities to their conversation with their oncologist and seek to find agency in performing everyday activities. Oncologists are recommended to respect, facilitate and initiate such conversations. Some ways of facilitating such communications is through giving instructions on using family and community based services such as in-home care and psychological care, giving instruction on using special equipment for comfort and support planning non-medical activities such as vacations or family visits, and gatekeeping or doing paperwork related to other aspects of the patient's life being affected by the cancer.

6.8.4. Readiness to entertain a shift in the activity initiated by the patient

Oncologists are recommended to pay attention to the discourse of the patients (and their companions) and switch roles when the patient (or the companion) initiates a shift in their activity. For example, if a patient expresses a personal concern or asks for more information at the time that the oncologist is giving instructions regarding medications or planning medical procedures, the oncologist should entertain that shift in the activity and respond to the patient's need for more information or the patient's concern. Extract 3 is an example of the opposite: the oncologist's control over the flow of the discourse is strong. Note how in 48, 51, 52, 54, 56 and 58 the patient's and his companion's attempt at obtaining information regarding the patient's treatment plan, and the oncologist aborts that path to plan the next scan.

Extract (3): Transcript 125 – Turns 48-59 (P = Patient, C = Companion and O = Oncologist)

48 C Does he stay on that, the Zometa?

49	0	Yes, the Zometa we stay on every four weeks.
50	С	Okay.
51	Р	So I come back in four weeks.
52	С	Just for the Zometa?
53	Ο	Yeah.
54	С	And how long has he got to be on that for?
55	Ο	That's indefinite.
56	С	Oh okay.
57	Ο	Yeah.
58	С	And that's the one for the bones, isn't it.
59	Ο	Yes, yeah. So let's have a look in terms of your last scan was, it was
		only a little while ago.

6.8.5. The construction of a joint project

To build rapport and positive attitude that is focused on the patient oncologists are recommended to include themselves in the experience of the patient and include the patient in medical decision-making and in general construct a joint project inclusive of both sides. One way to do so is the use of inclusive 'we' pronoun. Of course, it must not be forgotten that institutional first person can also be a controlling, patronising mechanism as mentioned in Chapter 3 and its value is determined by the context, co-text and other options which could have been used. However, findings show that a successful construction of a joint project that represents a positive attitude is endorsed and sustained by the patient.

6.8.6. Placing the discussion of prognosis and time within the discussion of patient's future plans

Oncologists are recommended to broach the sensitive topics of time and prognosis within a broader conversation about future medical and non-medical plans depending on the context to promote 'open awareness' and to empower the patients to make important and right decisions for the remaining of their life. Placing such conversations as a separate structural move, though, may be regarded unwelcome by the patients as it can be a threat to the advanced cancer patients' attempt to maintain meaningfulness and agency.

6.9. Conclusion

I hope that this thesis will contribute to the understanding of a more patient-centred practice of oncological care for terminal patients. The study of oncology consultations reported here shows how a less hierarchized oncologist-patient relationship that is patient-empowering can be built through patient education and informing, transparent reasoning, attending to how the life of the patient as affected by the cancer, and showing positive attitude. It explains how the promotion of 'open awareness' of dying and the discussion of prognosis can be facilitating and life-affirming. EOL conversations is a part of a patient-centred advanced cancer oncological care however, their presence on the oncologist agenda does not promise a patient-centred consultation. The way these conversations are broached and continued determines how the oncologist identifies the patient. Conversations about EOL can be life affirming if they are placed within the larger discussion of decisions about the future life of the patient.

Using systemic functional linguistics as my main theoretical and methodological framework, I described how patients and oncologists construct and negotiate their roles and personae and where these constructions sometimes meet. This linguistic description was done with the hope of raising awareness and attention towards how the advanced cancer patients and the oncologists make sense of themselves and each other as in Cassell's (1985, p. 195) words: "the attentive listener hears not only what the speaker's narrative tells but also what the speaker is like, as suggested by language choice". Such an understanding in turn can improve the practice of oncology and lead to patient-centredness. Advanced cancer care practice is very much a semiotic practice and language plays a powerful role in providing oncological care to the patients who suffer from terminal cancer. I hope by making the linguistic choices of the advanced cancer patients and the oncologists visible that I have helped make visible the strong semiotic aspect of advanced cancer care practice.

Reference

Baker, P. (2006). Using Corpora in Discourse Analysis. London & New York: Continuum.

- Bennett, A. (Producer). (2013). We need a heroic narrative for death. Retrieved from https://www.ted.com/talks/amanda_bennett_a_heroic_narrative_for_letting_go
- Bishop, J. P. (2011). *The anticipatory corpse: Medicine, power, and the care of the dying*.Notre Dame, Indiana: University of Notre Dame Press.

Cassell, E. J. (1985). Talking with patients (Vol. 2). Cambridge, Mass: MIT Press.

- Chou, W.-y. S. (2004). *End-of-life discourse: an analysis of agency, coherence, and questions* (Unpublished doctoral dissertation), Georgetown University, Washington, DC.
- Driscoll, J. (2012). The representation of terminally ill patients: a transitivity analysis of advice and interviews texts (Unpublished doctoral dissertation). University of Liverpool, Liverpool.
- Firth, J. R. (1950). Personality and language in society. Sociological Review, 42, 37-52.
- Glaser, B. G., & Strauss, A. L. (1965). Awareness of dying. New Jersey: Aldine Transaction
- Hasan, R. (2001). The Ontogenesis of Decontextualised Language: Some Achievements of Classification and Framing. In A. Morais, I. Neves, B. Davies, & H. Daniels (Eds.), *Towards a Sociology of Pedagogy:The Contribution of Basil Bernstein to Research* (pp. 47-79). New York: Peter Lang Publishing.

Locke, J. (1894). An Essay concerning human understanding. Oxford: Clarendon Press.

- Matthiessen, C. M. I. M. (1993). Register in the round: diversity in a unified theory of register analysis. In M. Ghadessy (Ed.), *Register analysis: theory and practice* (pp. 221-292). London: Pinter.
- Mishler, E. G. (1984). *The Discourse of Medicine: Dialectics of Medical Interviews*. Norwood, New Jersey: Ablex Publishing Corporation.
- Moore, A. R. (2004). *The discursive construction of treatment decisions in the management of HIV disease*. (Unpublished doctoral dissertation), Macquarie University, Sydney.
- Slade, D., Manidis, M., McGregor, J., Scheeres, H., Chandler, E., Stein-Parbury, J., Dunston, R., Herke, M., Matthiessen, C. M. I. M. (2015). *Communicating in Hospital Emergency Departments*. Heidelberg: Springer.

-		Data View	1		3	22	21	20	19	18	11	5	15	14	13	12	н	10	w	60	7	on	en	4	J	2	4			File Edit	T
		Variable View		Goal_Animated_Cat	Goal Inanimated Cat	Goal	notes	projected_clause	Agency_System	Attribute	Actor	Scope	Phenomenon	Goal Inanimate reduced cat	Grammatical Role	Process_Type_Extended	Process_Type	Process	Concordance	Work	Education	Mantal	Oncologist	Group	Sex	Age	SID	Name		Yew Data Transform Analyc	
			il second	Numeric	Numeric	String	String	String	Numeric	String	String	String	String	Numeric	Numeric	Numeric	Numeric	String	String	Numeric	Numeric	Numeric	Numeric	Numeric	Numeric	Numeric	Numeric	Type		e Direct Marketin	
0			1	đ	48	100	100	300	20	100	40	100	100	40	20	20	20	30	320	60	89	8	00	5	t,	8	n	Widt		g Graphs	
			3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	h Decim		Utilities	analy
																				Occupation or	Highest educati	Marital Status	Treating Oncolo			Age at Random		als Label		Add-gns Window	sis.sav [DataSet1] -
 <td></td><td></td><td></td><td>[1, patient]</td><td>[1, medication]</td><td>None</td><td>None</td><td>None</td><td>[1, effective]</td><td>None</td><td>None</td><td>None</td><td>None</td><td>[1, medication].</td><td>(1, initiator)</td><td>(1. matenal)</td><td>(1. matenaŭ</td><td>None</td><td>None</td><td>[1, Managers/own business].</td><td>[1, Year 10 or below]</td><td>[1, Mamied]</td><td>[1, Tattersal]</td><td>[1, control]</td><td>[1, female]</td><td>None</td><td>None</td><td>Values</td><td></td><td>Hep</td><td>18M SPSS Statistics Data b</td>				[1, patient]	[1, medication]	None	None	None	[1, effective]	None	None	None	None	[1, medication].	(1, initiator)	(1. matenal)	(1. matenaŭ	None	None	[1, Managers/own business].	[1, Year 10 or below]	[1, Mamied]	[1, Tattersal]	[1, control]	[1, female]	None	None	Values		Hep	18M SPSS Statistics Data b
	EN SP		steers	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	Missin	-		ditor
() Z	PSS Statistics F			W	=	8	ದ	¥	თ	20	13	17	8	17	8	20	5	ದ	47	8	10	8	8	.00	00	œ	ω	g Column			
	Processor is read			ill Hight	i≣ Right	≣ Let	≣ left	m la	三 Left	m Left	≣ left	副 Left	in an	≣ Right	≣ Left	間し続	≣ Leit	≣ Let	≣ Left	重 Right	를 Right	≣ Right	를 Right	≣let	<u>≡</u> Leit	I Right	≣ Right	IS Align			
	Y Cases 100		a tismusal	S Nominal	Nominal	Nominal	Nominal	Nominal	💑 Nominal	🛃 Nominal	Nominal	Nominal	뤚 Nominal	🛃 Nominal	& Nominal	Nominal	Nominal	Nominal	Nominal	-Ordinal	-Ordinal	🚓 Nominal	& Nominal	& Nominal	🜲 Nominal	Scale	& Nominal	Measure			
0.70	Unicode:ON			> Input	Y Input	> Input	Y Input	> Input	Y Input	> Input	> Input	> Input	Y Input	> Input	Y Input	> Input	Y Input	> Input	> Input	Y Input	Y Input	> Input	Y Input	Y Input	Y Input	> Input	> Input	Role			i
1,01 PM 24/05/2017			7	41	-	7												7													*

Appendix: Selected aspects of the transitivity-concordance analysis

a) Snapshots of the analysed variables and their properties in SPSS environment

Æ		Data View	27	24	23	22	21	20	19	18	17	16	15	14	13	12	=	10	9	0	7	6	5	4	з	2				<u>File</u> Edit	E
B		Variable Vie		Goal_Anii	Goal_Inar	Goal	notes	projected	Agency_S	Attribute	Actor	Scope	Phenome	Goal_Inar	Grammati	Process	Process	Process	Concorda	Work	Education	Marital	Oncologis	Group	Sex	Age	SID		Ð	⊻iew [
E.		Wé		mated_Cat	iimated_Ca			clause	System				non	iimate_redu	ical_Role	Type_Exte	Туре		nce		-		t					N		jata Irar	
					A									uced_cat		nded												ame	2	nsform <u>A</u>	
																														nalyze E	
			2	Numeric	Numeric	String	String	String	Numeric	String	String	String	String	Numeric	Numeric	Numeric	Numeric	String	String	Numeric	Numeric	Numeric	Numeric	Numeric	Numeric	Numeric	Numeric	Туре)irect <u>M</u> arket	
			400	40	40	100	100	300	20	100	40	100	100	40	20	20	20	30	320	00	00	00	00	15	15	00	6	N N	3	ing <u>G</u> ra	
			5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	/idth D	8	phs <u>U</u> til	8×
																				0	T	N	-			Þ		ecimals		ities Ado	inalysis.sa
																				Occupation or	lighest educati	Aarital Status	reating Oncolo			Age at Random		Label		d- <u>o</u> ns <u>W</u> indow	av [DataSet1] -
 ○ 			N	{1, patient}	{1, medication}	None	None	None	{1, effective}	None	None	None	None	{1, medication}	{1, initiator}	{1, material}	{1, material}	None	None	{1. Managers/own business}	. {1, Year 10 or below}	{1, Married}	. {1, Tattersall}	{1, control}	{1, female}	None	None	Values		Help	IBM SPSS Statistics Data I
2	IBM SPS		Mana	None	None	None	None	None	7	7	7	7	N	7	7	2	N	N	N Value	N Value	N	R B	None	None	None	None	None	Missing	A		Editor
(je	3S Statistic		þ	17	1	18	13	34			1		Remove	Change	Add		, _			Labels		,	7	5	6	ω	ω	Colu			
2	s Processor is read			Right	🚎 Right	📰 Left	i Left	📰 Left		OK C		3 = "actor -goal or +	i = "actor +inanimat	t = "actor +animate	2 = assigner = "attributor"	I = "initiator"		W			A DIN	— n. i.	I Right	📰 Left	<u></u> ≣ Left	Right	Right	nns Align			
	ty Cases: 100			Nominal 8	Nominal	Nominal	💑 Nominal	💑 Nominal		ancel Help		scope"	ted goal"	d goal"							e Laucis	labole	💑 Nominal	💑 Nominal	🐣 Nominal	Scale 🔗	💑 Nominal	Measure			
	Unicode:ON		1	Y Input	Y Input	Y Input	Y Input	Y Input								-0			Spelling			•	🔪 Input	Y Input	Y Input	Y Input	🔪 Input	Role			1
2:24 PM 4/05/2017				4																		×					Þ			-	Q ×

Æ.		Data View		24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	ω	2	1			<u>File</u> Edit	G
•		Variable Vie		Goal_Anir	Goal_Inan	Goal	notes	projected	Agency_S	Attribute	Actor	Scope	Phenome	Goal_Inan	Grammati	Process_	Process_	Process	Concorda	Work	Education	Marital	Oncologis	Group	Sex	Age	SID		Ð	⊻iew [
		W		nated_Cat	iimated_Ca			clause	system				non	imate_redu	cal_Role	Type_Exter	Type		nce				Ŧ					Na		jata Iran	
														ced_cat		Ided												ime	5	sform Ana	
				z	Z	S	S	S	z	S	S	S	S	z	z	z	Z	S	S	z	z	z	z	z	Z	Z	z			ilyze Direc	
Ð			ļ	lumeric	lumeric	tring	tring	tring	lumeric	tring	tring	tring	tring	lumeric	lumeric	lumeric	lumeric	tring	tring	lumeric	lumeric	lumeric	lumeric	lumeric	lumeric	lumeric	lumeric	Type		ct Marketing	
۵			Ann	40	40	100	100	300	20	100	40	100	100	40	20	20	20	30	320	00	œ	00	00	15	15	00	6	Width	3	Graphs	
			þ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Decima		Utilities	*analys
																				Occupation or	Highest educati	Marital Status	Treating Oncolo		-	Age at Random		ils Label		Add-ons Windo	sis.sav [DataSet1]
 <!--</td--><td></td><td></td><td></td><td>{1, patient}</td><td>{1, medication}</td><td>None</td><td>None</td><td>None</td><td>{1, effective}</td><td>None</td><td>None</td><td>None</td><td>None</td><td>{1, medication}</td><td>{1, initiator}</td><td>{1, material}</td><td>{1, material}</td><td>None</td><td>None</td><td>. {1. Managers/own business}.</td><td> {1, Year 10 or below}</td><td>{1, Married}</td><td> {1, Tattersall}</td><td>{1. control}</td><td>{1, female}</td><td> None</td><td>None</td><td>Values</td><td></td><td>v Help</td><td>- IBM SPSS Statistics Data E</td>				{1, patient}	{1, medication}	None	None	None	{1, effective}	None	None	None	None	{1, medication}	{1, initiator}	{1, material}	{1, material}	None	None	. {1. Managers/own business}.	{1, Year 10 or below}	{1, Married}	{1, Tattersall}	{1. control}	{1, female}	None	None	Values		v Help	- IBM SPSS Statistics Data E
	IBM SPS			None	None	None	None	None	None					R				li uterer,	I ahel	Value:	- Value L	1	đ	None	None	None	None	Missing	Alle		ditor
χ <u>ε</u>	S Statistics F		a	17	1	18	13	34	6			Ī	6=	= 5 anome	hange 4=	Add 2=) <u>-</u>	1			abels		ĩ	IJ	6	ω	ω	Column			
A	^o rocessor is read		- 1 - #	I Right	I Right	≣ Left	📰 Left	📰 Left	i Left		OK Ca		"relational-attribu	"mental-emotive"	mental-desidera	mental-continum"	"material"					V aiuc	Value	📰 Left	📰 Left	Right	Right	is Align			
Þ	y Cases: 100 I		N	Nominal	Nominal	Nominal	Nominal	Nominal	Nominal		Incel Help		tive"		ative"							Lancia	l shele	Nominal	🐣 Nominal	🔗 Scale	🐣 Nominal	Measure			
	Unicode:ON			> Input	Y Input	🔪 Input	Y Input	🖌 Input	Y Input											Spelling.				🖌 Input	Y Input	🖌 Input	🔪 Input	Role			1
2:26 PM 94/05/2017			1	4																	- 220		×				4				Q ×

Ħ		Data View	10	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	0	7	6	51	4	ω	2	4			<u>File</u> Edi	Ø
₿		Variable \																mental	Domain	Attribute	Attribute	Attribute	Process	Clause	Age	Oncolog	SID		Þ	t ⊻iew	
(1)		liew																type		e_Cat	e_Type	a				jist		Name	E	Data Ir	
																		Numeric	Numeric	Numeric	Numeric	String	String	String	Numeric	Numeric	Numeric	Тур	5	ansform 1	
Ŵ																		13	13	40	40	100	30	318	0	ø	6	e N		Analyze [
ULG.																		0	0	0	0	0	0	0	2	0	0	lidth De		Direct Marke	
0																										Tre		cimals	3	ting <u>G</u> ra	
																										eating Oncolo		Label		phs Utilities	Carri
																	3	{1, cognition.	{1, semiotic	{1, mental}	{1, intensive	None	None	None	None	. {1, Tattersal	None	Values		Add-ons	er.sav [DataS
							othove	Domo	Chanc	Add		Label:	vai <u>u</u> e:	Value Lave	- Valua Laba	æ		. None	. None	None	. None	None	None	None	None	. None	None	Missing	2	Window Hel	iet2] - IBM SF
<u>></u>						-	0 = "me	4 = gen	3 = "sym	2 = "over	1 = "mer	100		Ŭ	5			8	8	20	00	13	6	49	8	13	6	Columns		P	SS Statisti
<					OK Cance		ication, diet and	eral	ptoms"	all state"	ıtal"					Value La		🔳 Right	🔳 Right	Right Right	Right	≣ Left	≣ Left	≣ Left	Right	Right	Right	Align	0		cs Data Edito
	IBM SPSS				Help		d support"									bels		🐣 Nomina	📣 Nomina	🛞 Nomina	💰 Nomina	🐣 Nomina	📣 Nomina	🐊 Nomina	Scale 🖉	🐣 Nomina	🐣 Nomina	Measu	A	e -	-
V2	Statistics P										M		g	٦				N	N. 1	<u> </u>		N	<u>.</u>	- -	1	N		ure			
S.	rocessor is r			-									elling			×		Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Role			
	ready Cas																														
> 10	es: 100 Unicou																														
all ()) 2	de:ON																														I
2:16 PM 4/05/2017			-	4					_		_			_													Þ				×

Æ		Data View	2	24	23	22	21	20	19	18	17	16	15	14	13	12	=	10	9	00	7	6	съ	4	ω	2	4			<u>File</u> Edit	Ø
		Variable Viev		Goal_Anim	Goal_Inanii	Goal	notes	projected_c	Agency_Sy	Attribute	Actor	Scope	Phenomen	Goal_Inanii	Grammatic	Process_T	Process_T	Process	Concordan	Work	Education	Marital	Oncologist	Group	Sex	Age	SID		Ð	⊻iew <u>D</u> a	
		V		ated_Cat	mated_Cat			clause	/stem				on	mate_reduced_c	al_Role	ype_Extended	ype		Ce									Name	5	ita Transform	
														at																Analyze	
			2	Numerio	Numerio	String	String	String	Numeric	String	String	String	String	Numeric	Numerio	Numeric	Numeric	String	String	Numeric	Numeric	Numeric	Numerio	Numerio	Numerio	Numeric	Numerio	Ту		Direct Mark	
0			40	: 40	40	10	10	30	20	10	40	10	10	40	20	: 20	20	30	32	00	00	00	0	15	15	00	6	be	3	eting <u>G</u> r	
				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Width	B	U syde.	
													10000		-			-			30000		-					Decimals		tilities A	*analysis.
																				Occupation or	Highest educati	Marital Status	Treating Oncolo		18	Age at Random		Label		.dd- <u>o</u> ns <u>W</u> indow	sav [DataSet1] -
 <td></td><td></td><td>Mana</td><td>{1, patient}</td><td>{1, medication}</td><td>None</td><td>None</td><td>None</td><td>{1, effective}</td><td>None</td><td>None</td><td>None</td><td>None</td><td>{1, medication}</td><td>{1, initiator}</td><td>{1, material}</td><td>{1, material}</td><td>None</td><td>None</td><td>{1. Managers/own business</td><td>. {1, Year 10 or below}</td><td>{1, Married}</td><td>. {1, Tattersall}</td><td>{1, control}</td><td>{1, female}</td><td>. None</td><td>None</td><td>Values</td><td></td><td>/ Help</td><td>- IBM SPSS Statistics Data</td>			Mana	{1, patient}	{1, medication}	None	None	None	{1, effective}	None	None	None	None	{1, medication}	{1, initiator}	{1, material}	{1, material}	None	None	{1. Managers/own business	. {1, Year 10 or below}	{1, Married}	. {1, Tattersall}	{1, control}	{1, female}	. None	None	Values		/ Help	- IBM SPSS Statistics Data
	IBM SPS		Mana	None	None	None	None	None	Ng	Nc	Ng	Ng	Ng	Ng	No	No	NC Fac	No 1 ab	Nc Valu	No rvalu	Ng	No	None	None	None	None	None	Missing	Sav .		Editor
(²	3S Statistic		Þ	17	11	18	13	34					Remove	Change	Add		ę][le	ie Labels -		7	7	5	6	ω	ω	Colu			
2	s Processor is reac		= 1 - A	Tright	🚎 Right	📰 Left	📰 Left	i Left		OK OK		G - "nomiotio obio	5 = "things related	4 = "cancer"	2 = "equipmente" 3 = "equipmente"	1 = "medication"					Value	- n: ta	Right	📰 Left	I Left	Right	Right	nns Align			
	ty Cases: 100		C Mensional	Nominal 🕺	Nominal	Nominal	Nominal	Nominal		Cancel Help			to the patient's soc								ne rapeis		Nominal	💑 Nominal	Nominal 🌒	Scale 🔗	🐣 Nominal	Measure			
	Unicode:ON		- Inna	N Input	Y Input	Y Input	Y Input	Y Input					Yia			Þ			Spelling				Y Input	Y Input	Y Input	Y Input	🔪 Input	Role			1
2:19 PM 24/05/2017				4						_		_			_							×					*				<u>0</u>

	Data view	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10			Eile Edit
	Variable View					Age_Group	Primary	Pronoun	DECTICITY_System	Tense	Circumstance	Goal_Animated_Cat	Goal_Inanimated_Cat	Goal	notes	projected_clause	Agency_System	Attribute	Actor	Scope	Phenomenon	Goal_Inanimate_reduced_cat	Grammatical_Role	Process_Type_Extended	Process_Type	Process	Name		<u>V</u> iew <u>D</u> ata <u>I</u> ransform <u>A</u> nalyze
2 C						Numeric	Numeric	Numeric	Numeric	Numeric	String	Numeric	Numeric	String	String	String	Numeric	String	String	String	String	Numeric	Numeric	Numeric	Numeric	String	Type		Direct Marketing
\$						00	00	00	20	20	100	40	40	100	100	300	20	100	40	100	100	40	20	20	20	30	Width	an an	Graphs
						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Decimals		Utilities Ad
							Primary site of																				Label		Id-ons Window
0 >						{1, 30s}	{1, Bladder}	{1, I}	{1, temporal}	{1, simple past}	None	{1, patient}	{1, medication}	None	None	None	{1, effective}	None	None	None	None	{1, medication}	{1, initiator}	{1, material}	{1, material}	None	Values		Help
2	IBM SP	_				None	No	No	No	No	No	No	No	No	No La	No	No	No - Val	No	Nono	None	None	None	None	None	None	Missing	AND A	
(E	SS Statistics P					8			F	9	Pamova 5 4	Change 3	Add 2	-	belt		hin-	iie I ahele		17	8	17	00	12	10	10	Columns		
3	ocessor is read					I Right		OK		= "other"	= "oncologist"	= "carer" - "family"	= "medical peop	= "patient"		-			Vali	≡ L ∧θ	i Left	🚐 Right	📰 Left	📰 Left	E Left	i≣ Left	Align		
Þ	y Cases: 100					Nominal		Cancel Help					lle"						ue Labels	Q Nominal	🐥 Nominal	🔗 Nominal	🐥 Nominal	😞 Nominal	🐣 Nominal	🌲 Nominal	Measure		
	Unicode:ON					🖌 Input				1				P						🔪 lonut	🖌 Input	🖌 Input	🔪 Input	🖌 Input	🖌 Input	Y Input	Role		

Æ		Data Vie	0.2	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	0	7	6	5	4	ω	2				<u>File</u>	đ
₽		w Variabl	1															menta	Doma	Attrib	Attrib	Attrib	Proce	Claus	Age	Onco	SID			dit ⊻iew	
(1)		e View																al_type	ain	ute_Cat	ute_Type	ute	SS	ö		logist		Name		Data	
																		Nur	Nur	Nur	Nur	Stri	Stri	Stri	Nur	Nur	Nur		5	Transform	
																		neric	neric	neric	neric	Вu	рŋ	Вu	neric	neric	neric	Type	2	m <u>A</u> naly	
P																		13	13	40	40	100	30	318	00	00	6	Width		ze Dire	
C																		0	0	0	0	0	0	0	2	0	0	Decin		t Marketing	
Ö																										Treat		nals	2	g Graph	
																										ting Oncolo		Label		is Utilities	Carrie
×																		{1, cognition.	{1, semiotic	{1, mental}	{1, intensive	None	None	None	None	{1, Tattersal.	None	Values		Add-ons	er.sav [DataS
																		None	. None	None	None	None	None	None	None	. None	None	Missing		<u>W</u> indow <u>H</u> e	et2] - IBM S
9 																		00	8	20	00	13	6	49	œ	13	6	Columns		β p	PSS Statistic
<																		Right	Right	温 Right	Right	📰 Left	≣ Left	≣ Left	Right	를 Right	Right	Align	0		cs Data Edit
	IBM SP	1																Non 😪	🎭 Non	Non 🏀	💦 Non	Non 😪	Non 😪	🔗 Non	Sca 🖉	Non 😪	Non 😪	Me	Alle		or
	SS Statisti																	ninal	ninal	ninal	ninal	ninal	ninal	ninal	ile	ninal	ninal	easure			
3	cs Processor is																	🔪 Input	🖌 Input	🔪 Input	Y Input	🔪 Input	🔪 Input	🔪 Input	Y Input	🔪 Input	🔪 Input	Role			
	ready																														
> 10	Cases: 100 Unico																														
	de:ON																														1
1:42 PM 24/05/2017																															Q ×

Æ	Data-Via	Data Vi	77	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	0	7	6	IJ	4	з	2	1			<u>File</u>	Ø
D	Valiat	Watter																	phen	Pher	Proc	Ment	Clau	Age	Grou	Onco	SID			dit ⊻iew	
(1)	Main al																		omenon_o	Iomenon	ess	tal	se		p	ologist		Nam		/ Data	
																			category									ē	5	Transfor	
A																			Numeric	String	String	Numeric	String	Numeric	Numeric	Numeric	String	Туре		m <u>A</u> nalyze	
																			13	41	32	1	130	40	œ	00	27	W		Direct	
C																			0	0	0	0	0	0	0	0	0	dth De		larketing	
۵																									R	T		cimals	3	Graphs	*sen
																									andomisation	reating Oncolo		Label		Utilities A	ser+phenom
																			{1, sem	None	None	{1, cogr	None	None	{0, Cont	{1, Tatte	None	V.		dd-ons	enon_2.sa
] {																			iotic obj			nitive}			trol}	ersall}		alues		Window	av [DataS
0								R		2	ň		Label:	Val <u>u</u> e:	- Value I		ß		None	None	None	None	None	None	None	None	None	Missi		Help	iet3] - IBN
>								9 BADUIC	iange 4	3	Add 2:	1			abels			-	19	13	10	œ	56	11	8	00	9	ng Co			A SPSS St
4					NO.	2	1	= "pain"	- ioou = "medicat	= "cancer"	= "body/bo	= semioud							16	1111	100	364	100	361	ild.	ild		lumns			atistics [
					Cancel				ion"		dy part"	cobject					Value Lab		Right	<u></u> E Left	⊊ Left	Right	Left	Right	Right	Right	ELeft	Align	Mark		Data Editor
(je	IBM SPSS				нер	Ĵ											els		Non 🏀	Non 🍣	Non 🏀	Non 😪	Non 😪	Sca 🍫	🐣 Non	Non 😵	Non 😪	Me			
R.	Statistics							4				M			25				ninal	ninal	ninal	ninal	ninal	lle	ninal	ninal	ninal	easure			
-	Processor is re													Spelling		-	×		🖌 Input	🔪 Input	Y Input	Y Input	Y Input	Y Input	Y Input	🔪 Input	Y Input	Role			
	ady				1.																1	I									
	Unicode																														
all (1) 2	e:ON																														I
2:12 PM 4/05/2017			-	1																											×

Ħ		Data View	10	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	0	7	6	51	4	ω	2	4			<u>File</u> Edi	Ø
₿		Variable \																mental	Domain	Attribute	Attribute	Attribute	Process	Clause	Age	Oncolog	SID		Þ	t ⊻iew	
(1)		liew																type		e_Cat	e_Type	a				gist		Name	E	Data Ir	
																		Numeric	Numeric	Numeric	Numeric	String	String	String	Numeric	Numeric	Numeric	Тур	5	ansform 1	
Ŵ																		13	13	40	40	100	30	318	0	ø	6	e N		Analyze [
ULG.																		0	0	0	0	0	0	0	2	0	0	lidth De		Direct Marke	
0																										Tre		cimals	3	ting <u>G</u> ra	
																										eating Oncolo		Label		phs Utilities	Carri
																	3	{1, cognition.	{1, semiotic	{1, mental}	{1, intensive	None	None	None	None	. {1, Tattersal	None	Values		Add-ons	er.sav [DataS
							othove	Domo	Chanc	Add		Label:	vai <u>u</u> e:	Value Lave	- Valua Laba	æ		. None	. None	None	. None	None	None	None	None	. None	None	Missing	2	Window Hel	iet2] - IBM SF
<u>></u>						-	0 = "me	4 = gen	3 = "sym	2 = "over	1 = "mer	100		Ŭ	5			8	8	20	00	13	6	49	8	13	6	Columns		P	SS Statisti
<					OK Cance		ication, diet and	eral	ptoms"	all state"	ıtal"					Value La		🔳 Right	🔳 Right	Right Right	Right	≣ Left	≣ Left	≣ Left	Right	Right	Right	Align	0		cs Data Edito
	IBM SPSS				Help		d support"									bels		🔗 Nomina	📣 Nomina	🛞 Nomina	💰 Nomina	🐣 Nomina	📣 Nomina	🐊 Nomina	Scale 🖉	🐣 Nomina	🐣 Nomina	Measu	A	e -	-
V2	Statistics P										M		g	٦				N	N. 1	<u> </u>		N	<u>.</u>	- -	1	N		ure			
S.	rocessor is r			-									elling			*		Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Role			
	ready Cas																														
> 10	es: 100 Unicou																														
all ()) 2	de:ON																														I
2:16 PM 4/05/2017			-	4					_		_			_													Þ				×

Æ		Data View	2	24	23	22	21	20	19	18	17	16	15	14	13	12	=	10	9	00	7	6	съ	4	3	2	4			<u>File</u> Edit	Ø
		Variable Viev		Goal_Anim	Goal_Inanii	Goal	notes	projected_c	Agency_Sy	Attribute	Actor	Scope	Phenomen	Goal_Inanii	Grammatic	Process_T	Process_T	Process	Concordan	Work	Education	Marital	Oncologist	Group	Sex	Age	SID		Ð	⊻iew <u>D</u> a	
		V		ated_Cat	mated_Cat			clause	/stem				on	mate_reduced_c	al_Role	ype_Extended	ype		Ce									Name	5	ita Transform	
														at																Analyze	
			2	Numerio	Numerio	String	String	String	Numeric	String	String	String	String	Numeric	Numerio	Numeric	Numeric	String	String	Numeric	Numeric	Numeric	Numerio	Numerio	Numeric	Numeric	Numerio	Ту		Direct Mark	
0			40	: 40	40	10	10	30	20	10	40	10	10	40	20	: 20	20	30	32	00	00	00	0	15	15	00	6	be	3	eting <u>G</u> r	
			0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Width	B	aphs U	
					.0236	0.792			1920				19230															Decimals		tilities A	analysis.s
																				Occupation or	Highest educati	Marital Status	Treating Oncolo			Age at Random		Label		dd- <u>o</u> ns <u>W</u> indow	sav [DataSet1] -
 <td></td><td></td><td>Mana</td><td>{1, patient}</td><td>{1, medication}</td><td>None</td><td>None</td><td>None</td><td>{1, effective}</td><td>None</td><td>None</td><td>None</td><td>None</td><td>{1, medication}</td><td>{1, initiator}</td><td>{1, material}</td><td>{1, material}</td><td>None</td><td>None</td><td>{1, Managers/own busines</td><td>{1, Year 10 or below}</td><td>{1, Married}</td><td>. {1, Tattersall}</td><td>{1, control}</td><td>{1, female}</td><td>None</td><td>None</td><td>Values</td><td></td><td>Help</td><td>IBM SPSS Statistics Data</td>			Mana	{1, patient}	{1, medication}	None	None	None	{1, effective}	None	None	None	None	{1, medication}	{1, initiator}	{1, material}	{1, material}	None	None	{1, Managers/own busines	{1, Year 10 or below}	{1, Married}	. {1, Tattersall}	{1, control}	{1, female}	None	None	Values		Help	IBM SPSS Statistics Data
	IBM SP		Mana	None	None	None	None	None	Nd	Nc	No	N	Nc	Nc	No	N	Nc	No	Nc Val	s} Nc rval	Nc	N	None	None	None	None	None	Missing	All A		Editor
(²	SS Statistic		þ	17	11	18	13	34					Remove	Change	Add][ue	ue Labels -		7	7	5	6	ω	ω	g Colu			
3	s Processor is read		<u>ه</u> ا -	Right	Right	📰 Left	I Left	in the second se		OK (ſ	C - "comintio obio	5 = "things related	4 = "cancer"	2 = "couinmente"	1 = "medication"	100 million (100 m	0			Value		I Right	I Left	I Left	Right	📰 Right	mns Align			
	ty Cases: 100		B Maniant	Nominal 🕺	Nominal	Nominal	💑 Nominal	💑 Nominal		Cancel Help			to the patient's soci								ne rapeis	a labala	💑 Nominal	🐣 Nominal	🐣 Nominal	Scale 🔗	💑 Nominal	Measure			
	Unicode:ON		1	► Input	Y Input	🔪 Input	🖌 Input	🖌 Input								•			Spelling			•	🖌 Input	🖌 Input	Y Input	🖌 Input	🔪 Input	Role			1
2:19 PM 4/05/2017			-	4					2	_												×					*				×

H	Data		22	21	20	坊	10	17	16	15	14	ದ	12	11	10	9	8	7	6	5	4	w	2	4		13:Ed		File	-
8	New Van			1000					25	250			1							0.05					S	loation		East Vie	
0	able View		2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	2 76	D Age	63		ew Da	
-			N	N	N	N	N	2	N	2	N	N	N	N	N	N	N	2	N	N	N	N	N	N	Sex			a Iran	
					-		an b		-			-nA	-			h	-				-				Group			Isform :	
Ĩ																									Onco			Analyze	
			N	2	N	N	N	2	2	2	2	2	N	N	2	2	2	2	2	2	N	2	2	2	logist N		-	Direct M	
Э			w	ω	ω	u	w	ω	ω	w	w	w	ω	ω	w	ω	ω	w	ω	ധ	w	w	w	۰u	lantal E			arketing	
0			Ν	2	2	2	2	2	2	2	2	12	2	2	2	2	2	2	2	2	2	2	2	2	n ducatio			Graphs	
			4 ust	4 k ag	4 s in	4 t tire	4 noc	4 you	4 od 1	4 No,	4 e's	4 h. Y	4 ike 1	4 here	4_0	4 the	4 e, y	4 n ar	4 the	4 mir	418	4 . sh	4 all s	4 the	Vork			Units	ue.
			get tired a	jain. Prett	worse tro	ed of it isr	ked that o	r list there	think the	well abou	gat more	ep. And t	hat. Yeal	haven't y	not shor	chest, ye	eah. Aboi	id bone n	time befo	there? C	ot of pres	ow ui s'a	kin and b	last time				is Add	BS/SIS/SB/
TIM			and, yeah	ty much t	uble than	r't she. A	one on the	e haven't	last lot. I	t up arou	faith in it	the liver?	h, the las	you, I not	tness of	ah. Yeah	ut the sar	ow aren't	re that wa)kay, Yea	sure on it	rse troubl	one now	I had the				M sug	(Inglap
M §			n tired 1 su	the same	11 am. Pr	re we sti	e head, w	you, I not	No, we ka	ind here I	than I ha	Oh, de l I	t time I h	iced. We	breath, I j	Yeah, I	me, yeah	L No, we	as when I	ah, okay.	t. Oh I'm	e than I a	aren't L I	scan l go	_		\$7	lindow	etil - In
0		1	un asoddr	l suppos	n going to	I recordin	e realise	liced. We	nocked th	do (have	ve (faith).	have it on	ad the sc	went thro	ust get ti	got very t	l get pufi	re just s	was sick	I'm all sk	way over	m. Pm g	Vo, we're	st, it had :	Joncorda			Help	CCAC IN
7			ostly yea	e, yeah. J	have to	g here or	d that I sh	went thr	at one (th	pain). To	Yeah. O	the liver	an I got, i	ough a lis	red and, y	ired yest	ed out. O	ort of sta	Yeah. Y	in and bo	that, yea	oing to ha	just sort	shrunk a	109				Statistic
<			h. More f	About the	start look	? Alt	nould"ve b	ough a l	he last lot	p of the h	h good. N	too? Li	t had	t of them	reah tir	erday bec	h not sho	ble. No.	leah sure	ine now a	h. Yep.	we to sta	of stab	bit on			0		s Data t
	8		<u></u>	sam	ing after		æ		of chem	ip there.	lo, you			(question			a		<u>ب</u>	Iren							AR		ditor
	W SPSS S		w	s	you s	8		3	o) o k	ye h		5	3	6 (su	9	g	9												
(†2 3	itatistics Proce		uppose	uppose	tart looking a	acord	balise	otice	nock	346	ave	ave	ave	o through	ቋ	ቋ	A	æ	æ	æ	æ	æ			Process				
~	ISSOF IS TE		2	2	-	-	2	2	-	ω	ω	ω	-	-	ω	ω	w	ω	ω	ω	ω	ω	14	4	Proce				
	ady																								ess_Type				
	Cases: 4		ω	ω		+	ω	N	-	σ	ອ	σ	-	+	σ	on	σ	σ	ອ	σ	σ	ອ	1	3	Proce				
•	100 Unicod																								ss_Type_Ext ended	Visi			
0.0	IE:ON		#	=	din.	on	#	=	Q1	сħ	ಕ	하	6	on	ಕ	靕	5	a,	ಕ	과	5	a,		(ir)	t Gramn Ro	ble: 30 of			1
234 PN 24/05/20																									natical G	30 Varia			L
17		Ľ	4																					Ð	W.	digs			Ľ

190

		Data View		1472	1471	1470	1469	1468	1467	1466	1465	1464	1463	1462	1461	1460	1459	1458	1457	1456	1455	1454	1453	1452	1451		13 : Educatio		<u>File</u> Edit	ß
B		Variable	4	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	SID	n	Ð	⊻iew	
(1)		View		76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	76 2	Age	2	E	Data	
				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	Sex G		5	Transform	
																										roup O	5		Analyz	
TO LLu				ω	ω	ы	ы	ω	ω	ω	ы	ы	ω	ω	ы	ω	ω	ω	ы	ω	ω	ы	ы	ы	ω	ncologist			te Direct	
C				ന	5	5	5	5	5	5	5	5	5	თ	5	5	5	5	5	5	5	5	5	5	5	Marital			Marketing	
ö				IJ	5	5	5	5	5	5	5	5	5	თ	5	съ	5	5	5	ъ ъ	5	5	5	5	5	Educatio		3	Grapt	
				2 - W	2 ser	2 bei	2 forg	2 No	2 ally	2 thir	2 xar	2 OWI	2 en	2 - s	2 wn	2 wee	2 ive	2 ing	2 o b	2 pus	2 ic.	2 t's	2 tha	2 ho	2 fe,	Work			ns Utiliti	*an
				ell whate	it interstat	ng recorde	jet I'm bei	l didn't, l	read the	ik was on	nple, get :	n at Fiji ar	you've go	he's not t	strangely	ek than la	message.	, looking a	e indepen	th myself	Righto. N	about 151	ťs, oh I d	wanted to	was borr				es Add	alysis.sa
				ver you sai	te, so I forg	ed. No I did	ng recorde	don't usua	Australian	e was, who	a few thing:	nd now here	t to say, ar	here full-tin	to say this	st week if i	, but pretty	at these thi	dent as I a	up you kno	o I can do t	strong. OI	o that, I, le	record stu	i into a fam				-ons Wi	v [DataSe
				d was, I re	et I'm bei	n't, I don'	d. No I di	lly, I usua	when I re	took me	s out, I ha	e and I rat	nd yet I m	ne. I need	when I n	ťs, I mea	much, I r	ngs. I me	m. And I'v	w. But Pr	hat, I don	n let me s	t me see,	ff and I let	iily, I left i	S			ndow H	t1] - IBN
9				emember	ing record	t usually	dn't (read	lly read th	ad the pap	off it and	we to pusl	her prefer	uch prefer	more info	nean anyti	n that sou	nean l' m i	an even if	ve been liv	n living wit	't like the	see, in the	I have to	t them, wa	t (the fam	ncordanc			jelp	I SPSS St
7				hose thing	ed. No I di	read Hera	that thing	e Australia	ers. Yeah	put me on	n myself u	it. I go out	to be inde	in this. Fi	ning could	nds rapid	not being fi	something	ing in a co	h that with	Warfarin a	hospital I	go through	ısn't too fu	ly) and join	U				atistics D
<				ys and yo	dn'	ld), I usua	in Herald)	n	, but l	that -	p you k	ſ	pendent	ne	happen y	but I	oolish w	happe	mmunit	lout t	Ind	was o	a	ssed	ned a relig			0		ata Edit
	IBM SPS					ally rea	, I don't u																		gious co			ARV		OF
(E	SS Statistics Pro			remember	record	read	. read	read	read	put	push	prefer	prefer	need	mean	mean	mean	mean	live	live	like	let	let	let	leave	Process				
S.	cessor is			2	-	2	2	2	2	-	-	2	2	2	2	2	2	2		-	2	-	-	2	-	Pro				
	ready																									icess_Type				
	Cases: 4,1			ω	-	2	2	2	2		-	4	4	4	ω	ω	ω	ω	-	-	5	-	-	4	-	Proces				
Þ T	100 Unicod																									s_Type_Ex	Visi			
	de:ON			12	19	12	12	12	12	19	4	12	1	12	1	1	11	11	6	6	12	19	19	1	6	t Gramm Rol	ble: 30 of 3			Ŧ
2:35 PM 94/05/2017			7																							atical Gc e	30 Variabl			
1000				1	_				_			_				_		_					_		1		es			100

T)		Data Viev		3972	3971	3970	3969	3968	3967	3966	3965	3964	3963	3962	3961	3960	3959	3958	3957	3956	3955	3954	3953	3952	3951		13 : Educa		<u>File</u> Ed	ß
17		v Variable		87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	SID	tion	il Mo	it ⊻iew	
(e		e View		75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	75 2	Age	2	F	Data	
											-				-				-			-				Sex		5	Transfor	
Þ				1.000	1000							1.780	000							0.780				0.100	1000	Group		2	m <u>A</u> na	
					_		_		_	-	_	123			_		_		_	123			_			Oncologis			lyze Din	
2				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	t Marita			ect Marketi	
									-			***			<u>د.</u>		-	-		***					_	l Educati n		3	ng <u>G</u> ra	
0.				5 2 e	5 21	5 2 V	5 2 e	5 2 t	5 2 2	5 2 t	5 21	5 2 2	5 2 e	5 21	5 2 4	5 2 t	5 2 V	5 29	5 2 1	5 2 e	5 2 e	5 2 t	5 2 t	5 20	5 2 0	io Work		B	phs Ut	*
				. I have no	have no ti	vere very t	- Yeah, v	will be on	id and I co	hat. I write	nily, just N	ich, gently	at. Yes. (ty. It didn	at the mo	on. There	e it out of	ht which i	before th	sponse. (d to. No,	hinking ab	he operati	kly then?	l it. Look a				lities A	analysis.
×				o trouble o	rouble driv	ousy. That	ve sit on t	the 3rd a	orrespond.	e and I rea	Maxine an	/ of cours	Oh instead	't really he	oment - If	you are,	the port b	s a good	is. This la	Quite right	no, it's co	out. At th	on. There	If I get up	at the mor				dd-ons	sav [Data
				friving. I pr	ing	's what w	he bed. W	nd then I'l	Yeah but	d and I co	d Gabbie.	e and now	1 of here?	elp. We ch	I'm okay I	ľ m 730. l	ecause l'i	time for m	bility, I've	too. No, I	instant. Pr	e moment	you are, t	slowly I'n	nent - If l'i				Window	3Set1] - I
0				efer not to		e do. No,	le both do	l be disco	I correspo	rrespond.	I couldn't	I come in	l'd rather	natted a bi	'll just car	brought it	n used to	e, quarter	been emo	've been c	n labile at	I'm okay.	m 730. 1 I	n fine, oth	n okay l'll	Concorda			Help	BM SPSS
۲				drive in th		yes but th	it (sit). Ne	nnected o	ond with s	Yeah but	cope with	at 9 inste	come here	t about it.	icel the ap	(some pa	it. I'm a c	to eight in	tionally la	kay. I don	out any e	lt's an er	prought it i	erwise - Y	just canc	nce				Statistic
<				ie eastern		ey've told	ither of us	1 the 5t	many pe	corre	a big thin	ad of 10 a	and have	He s	pointment	perwork) ir	eature	the mor	oile f	't think	ent whi	notional th	n didn'	eah, we	al the			0		; Data Ec
2	IBM			suburbs :			ge		ople		9		it out of t		a	ı didn't l?						-						A		ditor
T	SPSS Stat			for drive	drive	do (do	disc	corr	COTT	cop	com	he com	chat	can	Oh t bring	be u	be	be	be	be	be	be	be	be					
3	istics Proc					come and		onnect	espond	espond	e with	le in	Ð	200	cel	u	sed to									Process				
3	essor is r			-	-	1	-		-	-	2		-	6	-	-	2	ω	ω	ω	ω	ω	ω	ω	ω	Proc				
	eady																									ess_Type				
	Cases: 4,1			-	-		-		-		5		-	10	-		4	6	6	6	6	6	6	6	6	Proces				
Þ	00 Unico																									s_Type_E nded	Vis			
	ode:ON			6	6	6	6	19	6	6	12	6	6	10	თ	σ	12	16	15	15	15	15	15	15	15	xt Gram	sible: 30 o			1
2:36 PN			7		-																				_	natical G	f 30 Variat			0
				1	1	1			1	R			1	1		-	1	1			1				1	č	bles			×

Data View		5560	5559	5558	5557	5556	5555	5554	5553	5552	5551	5550	5549	5548	5547	5546	5545	5544	5543	5542	5541	5540	5539		13 : Educatio		<u>File</u> Edit	6
Variable	-		125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	SID	7	Ð	⊻iew	
View			66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	66 2	Age	2	F	Data	
		-		-			-	-					-		-	-	-1			-			-	Sex		5	Transform	
																								Group		2	n <u>A</u> nal	
			17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	Oncologist			yze Dire	
			-	10.40			-				tor.	10.40			-									Marital			t Marketir	
			-	-	-		-	_	-		_	-	-		-	-	-		-	-	-		-	Educati n		3	ng Gra	
							-				-												-	o Work		B	phs U	
			s with it?	just like	ary, oh th	morning a	Vincent's	don't wan	stop getti	ght. That	, can I sti	weeks. Yo	nose thing	one way a	Zometa, r	g Zometa	other stuff	s off just l	kay. Just	The throat	having it	him what	ng any. V				tilities /	analysis
			Yeah. Ye	a cramp,	at's alright	ind night.	aren't yo	t that pai	ng this st	's just the	ill - Yeah	ou're goir	gs in the I	and then i	ot the ch	is what?	f today? N	ike a crai	mention	t, yeah th	t. Oh yea	does non	Vhat does				Add- <u>o</u> ns	.sav [Da
			ah becau	you knov	it, yeah. I	Oh Endo	u? When	n again. V	uff, when	e Endone,	but can I	ig to send	egs wher	t bites an	emo? An	Okay. Sc	lo Zomet:	np. Yeah	my name	e throat,	h my legs	nal mean	that do t			\$	Window	taSet1]
			se I don't	v I could t	thought y	ne l'm no	do I stop	Ve could	I stop the	I can't st	stop both	me over	e I seem .	d I manip	d so l've ç	if I had a	a, I don't I	I had four	and I'll go	sometim	, I get cra	. Do I get	o me, tha	Concor			Help	IBM SP
			want that	urn that v	/ou just s	t taking a	getting th	always st	Zometa,	op that F	(Oxycon	to St Vin	to get a c	ulate it (tl	jot to hav	II false te	nave that	beers ye	o straight	es get a	imp or se	that othe	t just sto	dance		1		SS Statis
			t pain aga	ay or one	aid I'd co	ny. What	nis stuff, v	op it (Ox)	the other	rednisone	tin and Pa	cent's are	ramp. Ye	le cramp)	e Zometa	eth I'd be	today. Sc	sterday.	in. 2nd of	sore throa	ems like	r stuff tod	os pain do			0		tics Data
			ain.	e way		does	vhe	/contin) a	S	e hey?	anadol)?	en't	ah bu ***	and it so	every fou	a	1	Wh	ſJa	Ħ	cram	ay?	besn					a Editor
								ind see			Oh fati			ort of	Ir weeks											C F	÷	
			want	turn	think	take	stop getting	stop	stop	stop	stop	send	seem to get	manipulate	have got to hav	have	have	have	go	get	get	get	do	Process				
			2	-	2		-	-	-	-	-	-	ω	+	/e 1	ω	ω	-	-	ω	ω	in te	-	Proc				
																								ess_Type				
			4	-	ω		-	-	-	-	-	-	6	-	-	6	6	-	-	6	6	-	-	Proces				
																								s_Type_E	V	ē		
			12	6	11	5	6	5	5	5	5	19	15	5	6	15	15	5	6	15	15	5	19	Ext Gran	isible: 30			
																								nmatical Role	of 30 Var.			Q
	7	1																					1	Gc	ables			×