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Interactional Asymmetry in Doctor-Patient Communication in Algeria

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Declaration of authorship

I, Khadidja Belaskri, hereby declare that I am the sole author of this thesis and that all its content is my own, except where I have explicitly indicated the sources of quoted material, which I have included either literally or in modified form. I also confirm that the research findings this thesis presents are generated by my own investigation. According to my best knowledge, no part of this thesis has been submitted to any other examination authority for the award of any other degree or other qualification.

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Abstract

This study adopts the sequentially focused approach of conversation analysis to examine interactions between doctors and patients in the Algerian public primary and specialised medical consultation units. The research is based on transcribed data built up from audio recordings produced at in and out departments of the University Hospital Centre (CHU) and the public hospital (EPH) of Sidi Bel Abbes (SBA). It uses data from 21 audio-recorded medical encounters with 6 general and specialist doctors. The study delineates the overall structure of interactions and analyse doctors and patients' interactional activities in different phases of the consultations. It explores interactions to locate the fundamental interactional practices that characterise doctor-patient interaction in Algeria and describes the ways in which doctors and patients accomplish tasks through organized sequences of actions. The primary focus of this research is to describe some interactional forms of utterances for a better understanding of asymmetry and authority construction embedded in the design of language in social interactions. It draws attention on the doctors' resources to invoke medical agenda over the ongoing events through controlling topics, action formatting, and participation role distribution using linguistic and interactional devices to manage the direction of talk. It also sheds light on patients' collaborative orientation towards doctors' agenda and the role of talk-in-interaction in negotiating relationships and social meanings. Using conversation analysis, a detailed qualitative methodology, this study identifies the discursive resources doctors rely on to enact control, which consequently affects patients' contribution and participation. Conversational elements including turn-taking system, the overall structure, turn design, linguistic choices and epistemological aspects of doctor-patient interaction that embody attributes of asymmetry in institutional interactions are addressed in this research. Results provide evidences that asymmetry between doctors' authority and patients' experiences lies at the asymmetrical distribution and design of utterances and actions built by the doctor and the patient. It shows that doctors possess various discursive and linguistic means to exert control over the flow of events to support their agendas in medical encounters. Besides, in spite of the available resources that patients can deploy to voice their agendas, their attempts are rare and when made they often fail to be addressed.

Key words: Doctor-patient interaction, medical consultation, conversation analysis, asymmetry, authority, control, social actions.

Table of content

List of Acronyms and abbreviations

Acronyms	Definitions
AA	Algerian Arabic
AAE	African American English
AP	Adjacency pair
CA	Conversation Analysis
CF	Communication formats
CHU	Centre Hospitalier Universitaire (University Teaching Hospital)
CS	Code-switching
DA	Discourse Analysis
DF	Discussion Format
Doc	Doctor
DPI	Doctor-patient interaction.
EL	Everyday language
EPH	Etablissement Public Hospitalier (Public Hospital)
FPP	first pair part
GRAS	Groupe de Recherche en Anthropology de la Santé (Group of Research on Anthropology of Health)
HPMA	Head of pedagogical and medical activities
IDF	Information delivery format
IF	Interview format
IPA	Interaction Process Analysis
IRM/MRI	Magnetic resonance imaging
ML	Medical language
Mot	Mother
MSA	Modern Standard Arabic
Pat	Patient
PBUH	Peace be upon Him (The Prophet Mohammed)
PhD	Philosophiæ doctor
Rstu	Resident student
SBA	Sidi Bel Abbes
SD	Silence duration
Son	Son
SPP	second pair part
TCU	turn-constructional-unit
TRP	transition-relevance place

N.B

The acronyms listed above are the conventions I have used in my chapters and in transcribing my own data. Transcripts and texts quoted from other sources may vary in conventions of use of acronyms. They are summarised in the following list:

Acronyms	Definitions
Clr	Caller
D	Doctor
D	Deborah
D	Doctor
DM	Discourse marker
DOC	Doctor
Dsk	Emergency service desk operator
EL	Everyday language
F	Father
HV	Health Visitor
K-	non-knowing
M	Mother
ML	Medical language
MOM	Mother
P	Patient
P	Peter
P	Patient

List of tables

List of figures

List of Phonetic Symbols of Arabic Phonemes

Arabic Consonants	Phonetic Symbols	Short Vowels	Long Vowels
أ	ʔ	a	a:
ب	b	u	u:
ت	t	i	i:
ث	ɵ		
ج	ʒ		
ح	ħ		
خ	x		
د	d		
ذ	ð		
ر	r		
ز	z		
س	s		
ش	ʃ		
ص	ʂ		
ض	ɖ		
ط	ʈ		
ظ			
ع	ʕ		
غ	ɤ		
ف	f		
ق	q		
ك	k		
ل	l		
م	m		
ن	n		
ه	h		
و	w		
ي	j		

N.B

The phonetic symbols listed above are the conventions I have used in transcribing my own data. Other types of symbols may be used by other researchers to phonetically transcribe their data, in Arabic language varieties.

Transcription Symbols for Conversational Analysis (Jeffeson system)

Symbols	Definition and use
[yeah] [okay]	Square brackets show Overlapping talk
=	End of one TCU and beginning of next begin with no gap/pause in between. Can also be used when TCU continues on new line in transcript.
(.)	Brief interval, usually between 0.08 and 0.2 seconds
(1.4)	Time (in absolute seconds) between end of a word and beginning of next. Alternative method: "none-one-thousand-two-one-thousand…": 0.2, 0.5, 0.7, 1.0 seconds, etc.
<u>Word</u>	Underlining indicates emphasis. Placement indicates which syllable(s) are emphasised.
wo:::rd	Colon indicates prolonged vowel or consonant.
↑word ↓word	Marked shift in pitch, up (↑) or down (↓). Double arrows can be used with extreme pitch shifts.
.,?	Markers of final pitch direction at TCU boundary: Final falling intonation (.) Slight rising intonation (,) Sharp rising intonation (?)
WORD	Upper case indicates syllables or words louder than surrounding speech by the same speaker
°word°	Degree sign indicate syllables or words distinctly quieter than surrounding speech by the same speaker
word-	A dash indicates a cut-off. In phonetic terms this is typically a glottal stop
>word<	Right/left carats indicate increased speaking rate (speeding up)
<word>	Left/right carats indicate decreased speaking rate (slowing down)
.hh	Inbreath.
hh.	Outbreath.
whhord	Can also indicate aspiration/breathiness if within a word (not laughter)
w(h)ord	Indicates abrupt spurts of breathiness, as in laughing while talking
(word)	Parentheses indicate uncertain word; no plausible candidate if empty
(( ))	Double parentheses contain analyst comments or descriptions
[----]	Dashes between square brackets indicate omitted talk by the analyst, such as names

N.B

The symbols listed above are the conventions I have used in my own data. Transcripts quoted from other sources may vary in conventions of annotation.

General introduction

Studies on talk in social interactions are advantageous for uncovering significant information about social behaviour. They are increasingly gaining much popularity and interest in social and linguistic studies. Interactional linguists for instance are interested in how language operates to establish interpersonal relationships since conversations are necessary opportunities where a simple contact between people can develop into a long interaction, which may also lead to a long-lasting relationship. The aim, in this sense, is to explore how people interactionally use language, in real situations.

Indeed, interactions and conversations are not limited to serve simple functions such as communicating or exchanging information. When interacting, speakers construct different identities through the roles they ascribe to themselves and to others in the different conversational activities, they engage in. This is common in all social contexts regardless whether the interaction is casual where ordinary conversations occur between relatives, friends, and acquaintances, or formal that involves institutional structures, task-based motivations that involve the participation of one or more institutional agents.

However, formal and institutional interactions are not necessarily determined by specific settings. It happens that for some reasons they occur in settings other than the workplace or the institutional ones, including, streets, restaurants, etc. In other circumstances, institutional interactions take place while the participants are in different places. This mainly concerns interactions through video and audio telephone calls, social media and others. The latter examples, the telephone call in particular, triggered and enabled research on real occurring interactions because real conversations could be recorded and examined for research purposes.

Unlike it might be expected, a great deal of research on interactions emanates from disciplines other than linguistics such as sociology, psychology and social psychology where focus is mainly oriented on behaviour rather than language. However, over the past years, many new studies, which focused on language in talk, have remarkably increased. Drew and Heritage's volume: *Talk at Work* (1992), for instance, presents a collection of studies of institutional interactions and language use in which conversation analytic research is conducted to identify some key distinctions between ordinary conversations and institutional

interactions in terms of the organizational structures and discursive action accomplishment. In like manner before this volume, in the late 1970s, Atkinson and Drew (1979) published their work on interactions in courtrooms and identified distinctive features, which characterised institutional talk and described the main differences from ordinary conversations.

Hence, the beginning of research on talk in the workplace domain concentrated, namely, on language of the courtroom interactions and later on interactions between doctors and patients in medical contexts (e.g., Fisher and Todd 1983). However, the last three decades are characterised by the general focus of analysts on interactions with specific goal orientations, especially, interactions that involve one party that is at the service of another one such as teacher-student in schools, doctor-patient in hospitals, lawyer-client in courtrooms, and shopkeeper-customer in supermarket stores among other kind of social service encounters. These all constitute a kind of 'institutional talk' in which the participants make recurrent distinctive practice formats of interactions, which according to Sacks (1972) findings, still draw on the ordinary forms of the social conversations.

Ordinary conversations cover the largest set of talk practices, purposes and rules that all language users rely on to organise their interactional activities in specific contexts. Nevertheless, interest in medical and legal discourse remained dominant until the mid-1980s, eventually allowing the scope of research to expand considerably and begun to explore different kinds of interactions in both institutional, semi-institutional and non-institutional contexts.

This is a research on social interaction and language use in a particular institutional context where talk exchange generally occurs between professionals and lay people. It is limited to face-to-face interactions and examines real talk between doctors and patients in the Algerian public primary and specialised healthcare settings. As a class of social interaction, doctor-patient interaction (henceforth DPI) involves a doctor as the institutional or professional participant and a patient or sometimes a person accompanying the patient as the lay participant. The interactions are analysed to investigate interactional asymmetries in the discursive practices between doctors and patients during medical consultations.

Communication between doctors and patients was regarded as the basic vehicle for information exchange to achieve successful medical care. Therefore, many studies were carried out to examine the typical aspects of doctor-patient communication and the factors influencing its effectiveness. Most of them were sociologists interested in medical studies. Talcott Parson one of the pioneers in studying DPIs put forward that the knowledge gap existing between doctors and patients was so wide that it highly affected mutual understanding, patients' satisfaction and adherence to treatment recommendation. For instance, in one of his works 'The Social System' (1951), Talcott Parson provided an influential analysis of doctor-patient relationship where he explored how DPI operated. He expounded his theory that legitimised an asymmetrical relationship in which the physician was dominating by virtue of his role as the medical expert and the most knowledgeable i.e., adopting a 'paternalistic' approach, which suggested that an asymmetric relationship was essential.

Accordingly, doctors examine patients and make decisions they consider best for the patient's interest. While patients dependent on the doctor's technical competencies and merely act as a cooperators whose role is to follow the orders and instructions issued by doctors. This model (Parsons, 1951) is presented as the 'ideal type' of DPI and claims that the biomedical perspective justifies doctors' maintenance of medical authority and gives doctors the right to enact control over patients and the medical interaction. It disregards the social and the psychological aspects of both of them and overlook the illness and care contexts of the interactions. It suggests that asymmetry in medical interactions is functionally significant given its institutional organisation.

As a result, many sociologists and critics, such as Foucault (1975), Conrad and Schneider (1992) criticise Parsons' and his followers' classic views on the doctor-patient relationship. They regard them as abstract conceptualisations, which overlook the interactional complexities and specificities of actions accomplished by doctors and patients in a co-participative way. Furthermore, the methodological advancement and the use of sophisticated technology have allowed for concrete data elicitation and accurate analysis of medical dialogues. Thus, studies on DPIs and relationships have significantly improved in an attempt to alternatively offer rather comprehensive assessments and consistent reviews mainly through research, which relies on discourse analysis and studies of language in use

that considers social contexts as non-static, i.e., constantly produced and reproduced by the participants.

A consensus on the importance of focusing on the interactional realisation of actions that constitutes the medical encounter has emerged to include the different elements that constitute talk and actions. This new direction of research on doctor-patient relationship approaches language use from the point of view of those who actually experience it in real time situations.

The assumption that DPI is asymmetric, is now advocated as a social fact by a large number of researchers in medical sociology and scholars in psychology, philosophy, language study, all contributing to the understanding of this peculiar relationship and all agree that doctors and patients perform different roles and their relationship is not built on even grounds. Yet, it was during the late 1970 and early 1980s that deep analytic research has been directed to study asymmetry within the structure and the details of DPI. Previous research paid attention to measuring the instrumental (i.e., asking/giving information, counselling, giving directions...) and the affective (i.e., encouraging, showing concern, reassuring, etc.) behaviours, which focused only on asymmetry as an outcome of institutional factors.

Nevertheless, these studies ignored in their examination the organization and sequencing of events in interactions during the medical consultations. They did not examine the interaction per se to uncover how asymmetry is produced in talk-in-interaction. To put it differently, a new trend of researchers consisting of ethnomethodologists and then conversation analysts interested in medical discourse emerged. They directs their attention to the interactional procedure through which asymmetries can be formed and reformed in real situated DPI.

DPIs constitute a specific type of institutional interactions because they are made up of a set of fixed and organized events. Therefore, at a macro-level, medical encounters are standardly organized into recognizable phases that occur in a specific order and accomplish closely related consecutive tasks, which include problem presentation, examination, diagnosis, and treatment and recommendation. But, on a micro-level, organization is also traced in the overall structure of the interaction through the locally managed and sequentially

organized activities that doctors and patients accomplish on a turn-by-turn basis, i.e., the role of turn design in shaping the overall organization of the consultation. This research is concerned with the latter level of analysis. It studies mainly how asymmetry is locally produced in DPI, in the Algerian healthcare settings. It carefully examines utterances as conversational activities, in sequences of talk. In addition to that, and since medical encounters comprise a number of different phases, the macro-level of analysis will also be used to determine the nature of activities according to the phase in which they occur.

The topic of DPI is understudied in Algeria. Most of the existing studies on DPI in Algeria fall in social sciences and social health studies i.e., on social activities with the goal of working towards social welfare. These studies focus mainly on the social (and psychological) problems that patients face during their illness experiences in life. They treat broad topics that concern doctors and patients in terms of rights and duties, health accessibility and availability, as well as the Algerian health policies and their impact on healthcare services and their quality. They also address the issues related to the reality of hospitals and health institutions that hinders doctors and health professionals from performing their work efficiently.

On the other hand, much attention is oriented to patients with chronic diseases, disabled people, and patients with serious communicable diseases, and the kind of problems they may encounter with their families due to lack of adapted care. Such researches regard patients as vulnerable members of society and focus on how social problems like discrimination, marginalization, poverty, inaccessibility to jobs, facilities and public services, etc., increase the complexity of their life. A significant amount of this research is carried out in the GRAS (Groupe de Recherche en Anthropology de la Santé) a research centre at Oran University 2 situated in the West of Algeria where research is all based only on ethnographic research methodology. Professor M. Mebtoul a renowned Algerian sociologist founded the GRAS in 1991, and it is the only existing research centre, which conducts social studies on healthcare in the country.

However, to the best of my knowledge, the current research is the first micro-analytic research which investigates language in doctor-patient communication and interaction to examine what really happens between doctors and patients during medical consultation in Algeria. No other research of this kind and treating DPI has been carried out in Algeria,

except for another research I conducted, in 2012 during my magister studies (Belaskri, 2012), in which I have examined problems of communication that arise due to linguistic barriers between doctors and patients. Yet, it was an ethnographic research based on data collected through questionnaires and interviews. The findings of my magister study revealed that the doctors' command and use of French and medical jargon enlarged the already existing gap, between doctors and their patients as a result of differences in education levels, socioeconomic status, place of residence and other socio-demographic factors.

The predominance of French over Arabic, in medical settings, is in the first place due to the introduction of modern medicine by the French in Algeria during the colonial period. In the second place, it is owing to the maintained instructional function French still possess in medicine and the other scientific fields in the Algerian universities even after independence. Consequently, French gained considerably in prestige by Algerians who associated it with educated and knowledgeable members of the society. According to Fairclough (1989), the amount of prestige that members of a society attach to one variety depends highly on the power of its users. In Algeria, French is regarded as the language of the intelligentsia; it is preferred by doctors, lawyers, academics, journalists, writers, etc. Simmons' (1998: 95) study of doctors' choices of codes points out that ' "speaking the same language" is one way to establish rapport with an interlocutor, but "speaking the same language" also, in a way, classifies the two participants as members of the same group'. This implies according to Simmons that if the doctor chooses to speak like patients, using the vocabulary, register, style, etc., that patients are familiar with, the doctor will be said seeking solidarity with the patient. This, consequently, can mean that doctors give up the status and the power that their institutional position gives them and, yield their authority as expert participants. Therefore, in her perspective, doctors might lose the patient's confidence. This suggestion supports the view that doctors choose not to speak like patients to maintain distance with the latter and solidarity with the physicians as well as their position as medical professionals, which is associated with higher education and higher socioeconomic power and status.

In our context, French the language of medicine in Algeria has deeply influenced the linguistic practices of the majority of doctors, who remarkably distinguish themselves as practitioners of the science of medicine, a well-respected occupation by members of the

Algerian society, through their frequent use of French rather than Arabic. Hence, the situation becomes troublesome and leads to ineffective communication, incomprehension and most importantly mutual dissatisfaction. Surprisingly, when patients had difficulties understanding their doctors, they did not ask for clarification and translation, furthermore they rarely initiated topic and asked for information.

The observation that patients abstained from performing particular interactional activities such as questioning motivated me to think about conducting a closer research on language in interaction for a deeper exploration by adopting a micro-analytic methodology to study asymmetry in DPI in Algeria from different facets. So, the idea of conducting research on interactional asymmetry in DPI is mainly motivated by the assumption that doctors wield more potential for controlling medical interaction than their interlocutors, the patients. Furthermore, there is a need for research in this area, which is understudied in Algeria, to unearth the hidden real interactional procedures and the linguistic tools that constitute the grounding of asymmetries in talk between Algerian doctors and patients.

While many studies worldwide have focused on the sociolinguistic and conversational aspects of DPI, no research of this kind has been carried out to study the discursive practices of doctors and patients in Algeria. This study aims to investigate asymmetry in DPI in an Algerian public hospital to analyse the linguistic and conversational techniques that doctors use to exert control over patients. It does not focus only on the doctors' practices; it addresses also the patients' roles in constructing and maintaining the asymmetrical balance. The focus lies on exploring the nature of the DPI enterprise in Algeria and attempts to describe the turn-taking model and the patterns of exchanges occurring in medical contexts in our country, which is characterised by a complex multilingual situation.

In many Western countries mainly USA and UK, trainings and great efforts are deployed to encourage patient-centred healthcare to reduce doctors' dominance and promote mutual participation between patients and doctors. Unfortunately, such kind of trainings do no constitute a part of the medical curriculum and do not take place during the years of medical trainings of doctors in Algeria where the doctor-centered approach is generally adopted. The current research uses a descriptive approach to study language in real-life situations. It uses qualitative analysis of transcripts of audio-tape recordings of medical consultations in order to achieve two main objectives. First, it examines the overall conversation system of DPI,

i.e., the conversational rules and roles that Algerian doctors and patients orient to. The second objective represents the fundamental character of this study.

It examines the asymmetric relations of control and authority. It takes into account the discursive contributions and moves of each participant to find where asymmetry resides in the interactional practices. That is, the subject matter of this study is to provide a more comprehensive picture of DPI, in the Algerian healthcare settings, with a special focus on talk in medical interaction. It addresses the characteristic features of medical talk in Algeria. The conversational features such as turn-taking, overlaps, adjacency pairs, preferences, repairs, backchannels, etc., and social properties such as status, knowledge, power distribution and the role of context will be examined to find out how sequences of talk are organised to create asymmetry which characterises DPI. Yet, this will be limited to study doctors' questing design and treatment recommendation formats. In addition, it looks at Arabic-French code-switching (CS) from an interactional perspective, i.e., I will take into consideration its sequential location and function in interaction between doctors and patients.

To provide evidences that are available in the details of talk in real situation rather than drawing on theoretical views and assumption, the study attempts to address the following research questions:

- How do doctors and patients organise their talk-in-interaction in medical encounters in Algeria?
- What conversational and linguistic devices do doctors use to enact medical authority in consultations that make DPIs in Algeria asymmetric?
- How do doctors pursue medical agenda, and how do patients deal with authority to voice their own agenda?
- What is the role of French and medical terminology in the enactment of control in medical interactions in Algeria?

This research is limited to analyse face-to-face spoken interactions between doctors and patients in the Algerian healthcare settings. It does not take into account the other types of medical interactions such as doctor-doctor interaction, nurse-patient interaction, doctor-nurse interaction, etc. It also excludes from its analysis any type of written medical discourse.

The focus of this study is to analyse DPI to identify the connection between grammar, i.e., utterance structure, and social organisation. In other words, it examines talk between doctors and patients in medical consultation in the Algerian context to describe the discursive resources both doctors and patients employ in their utterance design to construct social identities through their grammatical formatting of language. It analyses the proceeding of both participants to investigate aspects of control and interactional asymmetry in the doctor-patient relationship.

I will examine the linguistic and interactional resources available to doctors and the ways in which they draw on these resources to advance their professional dominance and control the encounter's activities such as questioning, topic initiation and development, and the strategies employed to stop or limit the patients' contributions during the medical visit. Also, I will consider the ways in which patients resist doctors' control and how doctor deal with this resistance to maintain their authority. The research will provide a detailed look at the roles both doctors and patients play to jointly produce and reproduce asymmetry throughout the interactions.

The research sites are the University Hospital Centre (CHU) and the public establishment hospital (EPH) of Sidi Bel Abbes (SBA), which is situated in the northwest of Algeria and one of the largest towns of the region. Data is collected in the hospital's consultation rooms in different departments as well as their outer specialised consultation units. This study focus only on interactions between doctors and outpatients and does not study interactions between inpatients and doctors.

The current research explores an important aspect of institutional interactions, which is asymmetry in doctor-patient relationship in Algeria. The study will apply conversation analysis (CA for short) methodology to describe language use and talk related issues between doctors and patients. Its major goal is to examine how asymmetrical relations are organized in the medical interactions. It is an attempt to contribute to the understanding of the doctor-patient relationship and to learn more about the rules that govern medical consultations.

This research will help academics as well as practitioners and patients by yielding significant information and gaining insight related to the content of language use, interactional procedures and their implications in DPI, to improve communication

effectiveness and raise awareness about the effect of doctor-centeredness on DPI. That is, it will help in the reassessment of the actual reasoning about DPI and might influence a step towards positive change by reviewing the possibility of implementing new processes of interactional behavior and integrating new forms of patterning talk.

Additionally, the current research will serve other students and researchers in the future to carry out further explorations by using it as a basis and developing its research methodology and findings to realize their work and identify other aspects and issues of medical discourse. Furthermore, it will encourage researchers and allow them to springboard into qualitative research and CA to investigate other areas in institutional and non-institutional interactions. However, in order for this to occur, attitudes towards data collection for qualitative research on naturally occurring conversations need to change.

In order to address the objectives if this research, my thesis will be organized to include seven chapters that are presented as follows:

Chapter one presents a review on qualitative research on social interaction that encompasses the various types of interactions and conversations. It deals particularly with the organization of interactions and CA, the approach adopted here to carry out this research, and aims to provide a wide range of information on this approach for a better understanding of its conceptualisation of language in use. It displays how CA challenges the other methods in the social sciences with its micro analytic perspective to study inductively the interactional properties of talk and orderliness in interactions by exploring the shared regularities that enable participants to produce and achieve shared understanding of actions in talk in a systematic way through a local turn-by-turn organisation.

Chapter two discusses previous research on doctor-patient relationship and interactions. It sketches out the main traditional but influential models of medical encounters as proposed by social scientists in an attempt to address issues of power and control in doctor-patient relationship from a theoretical perspective. The chapter then considers the modern studies that applies empirical investigations, which involved: 1) quantification of phenomena allowing researcher to identify the dominant communication styles of DPI. 2) The linguistic and the sociolinguistic type of research on medical interaction that addressed the communication gaps found to be arising from differences between professional medical

and lay languages. 3) CA's findings on doctor-patient behaviour and its utility of as a tool to investigate DPI to reveal the strategies that doctors and patients use to voice and/or maintain agendas.

Chapter three is designed to cover three themes, 1) the ethnographic context and linguistic profile of Algeria. The aim is to provide a description of language diversity in Algeria to lead to an understanding why different languages and language varieties (Algerian Arabic, French and Standard Arabic) are present in my transcripts. 2) The research setting background, the objective here is to provide an account on the development of medicine and the establishment of modern medicine in Algeria. I also give a description of the Algerian healthcare system and the major challenges it had to face. 3) The research process and the methodology. Particular focus is directed on the third theme where I discuss in detail the series of tasks accomplished in my fieldwork. Information regarding the procedures of data collection, transcription and analysis are provided.

In chapter four deals with data analysis using CA's principle, i.e., turn-by-turn system of analysis, I will look at order in the overall structure of the interactions and the sequential structures in accomplishing social activities that constitute the medical phases of the consultation, to identify the relevant types of communication formats involved in this kind of institutional interactions and the ways in which roles are negotiated managed. It aims at providing explanations for differences in the levels of communication involvement between doctors and patients based on their local interactional behavior.

Chapter five deals with questioning which represents one of the most fundamental activities in DPI because in the majority of cases, especially in primary care contexts, the establishment of the diagnosis requires sufficient information elicitation by the doctor from the patient. In this chapter, I will study the construction of asymmetry not in terms of the quantity of questions asked by doctors but I will take the CA's view on the local context of actions to look at how questing is organised in sequences, I will analyse questioning dimensions to explore the embodiment of agendas, in the structures used by doctors to build their questioning activities. I will then consider their consequential effect on patients' responses.

Chapter six discusses the primary formulations in which doctors deliver the treatment recommendations. It also studies the patients' interactional behaviour and involvement in this phase. Focus will be on the resources doctors and patients use to take treatment decisions and the ways in which they are negotiated. Using CA's qualitative perspective to analyse data and taking into account the findings of similar research previously realised in the USA and UK, in this chapter I will identify the major practices adopted in the making of prescriptions in relation to the level of authority indexed in the design of treatment actions in our doctor patient encounters.

Chapter seven will examine two kinds of code-switching (CS) occurring in DPIs in Algeria: Arabic-French CS and switches to technical medical terminology. The purpose is to pay attention to the details of the moment-by-moment development of talk and the local processes where language alternation occurs in order to make appropriate interpretations about asymmetry and control in relation to the language alternation. This will involve situations where French and technical terminology are used in sequences between doctors and the present resident students and in situations where they occur between doctors and patients.

The conclusion discusses and summarises the global findings of the thesis. It deals with the characteristic features of the studied activities and discusses authority and control distribution based on the grammatical building of utterances in relation the interactional roles of the participants in primary care interaction in Algeria. The conclusion also compares findings with previous researches to support some generalisations in DPI studies and contribute to the existing literature. Finally, it highlights the implications and limitations of the work and offers suggestions for future research on medical interactions, in particular and social interactions in general.

Chapter one: Interactions as the primary focus of social study of language

1.1 Introduction

Understanding human interaction is influencing research in linguistics and sociolinguistics in particular where the focus is no longer limited to the study language separated from its users, context and purpose of use. Linguists now turn attention on verbal (and non-verbal) language as it is actually used in interactions to understand how language operates to build interpersonal relationships and how patterns and regularities in structures (grammatical, syntactic, discourse organization, etc.) emerge to satisfy the speakers' interactional needs. To this end, they explore how language is used in real situations among individuals or groups of individuals applying different methodological perspectives varying from quantitative to qualitative research studies and to mixing them. To locate my study of DPI as a type social interaction, I set out in this chapter some of the related key background concepts that support the theoretical and analytic approach adopted throughout this research.

1.2 Research on social interactions

Perhaps of all the existing social phenomena language is the only one, which occupies a significant place and has a crucial importance in the conduct of social behaviours. Actually, the reason behind this view, which is shared by many scientists affiliated with the fields of linguistics, sociolinguistics, sociology, anthropology, philosophy, psychology, etc, lies in the fact that since the earliest interest, at least since Aristotle's time and philosophy of mind as an active period of thought, in studying the human development and social behaviour, our capacity of using language as a complex system of systems of communication and construction of reality marked us as a distinctive species among all the others existing on earth.

However, there are different approaches, which study, language, spoken discourse and face-to-face interaction from different disciplines and perspectives that all contribute to demonstrate that language not only describes but also systematically and extraordinarily shapes the nature of the social world. Hence, these diverse approaches including, sociolinguistics, CA, discourse analysis and critical analysis, ethnomethodology,

ethnography of communication, and many other qualitative and quantitative studies, show that they are inescapably responsive to linguistic devices and the exigencies of language use to make sense about the world (Weinberg, 2006: 1).

In this regard, Pitkin (1972:3) asserts that 'an increasing number of writers appear to regard language as holding possibilities for a new synthesis in the study of man, for once again understanding man as an integral whole'. That is, in addition to understanding the phisical propoeties of a human beings, research on language allwos us to understand not how language is processed by the brain but also give us access to the latter's resoaning.

1.2.1 Qualitative research

The research methods stated above are all employed to investigate language and social interaction in different real-life contexts, including interpersonal, small group, educational, health, political, media relationships, and others. Qualitative approaches have become very popular and have gained more ground in the social domain to analyse elicited data from the spontaneous naturally occurring talk. However, these approaches that have expanded exponentially in the past decades are also handled as self-sufficient, they mainly study the world social order and behaviour rather than pure linguistic phenomena. Furthermore, they stress the socially constructed nature of language and talk-in-interaction in terms of qualities, meanings, and critical commentaries, which require contextual interpretations. Hence, they seek to generate descriptions and situational explanations of phenomena.

Perhaps this tangible trend toward qualitative research is due to the great advances in elicitation tools and the advent of new technologies, which growingly offer an effective ground to generate, transcribe, and make sense of the captured data. Therefore, inductive methods rather than deductive methods are applied to generate a type of data, which is sensitive to the social context where it is produced. Thus, qualitative research adopts the

perspective that reality is self- and context determined (c.f., Bryman, 1988; Danzin and Lincoln, 1994; Mason, 1996; Punch, 1998). Qualitative research follows an exploratory approach to help understanding the world by searching answers to 'what', 'how' and 'why' questions about a particular phenomenon or event happen in a particular context (Polkinghorne, 2005).

They are based on positivist and interpretivist approaches that explain people's beliefs, experiences, behaviours, feelings, attitudes, etc., not from the researchers' perspective but rather from peoples' own understanding of their lived situations and experiences (Punch, 1998). Hence, most of qualitative research excludes statistical procedures and empirical calculation from its analysis (Brink, 1993).

1.2.2 Discourse Analysis

To start with, 'discourse analysis' (DA henceforth) is regarded as a major field of research. It is seen as a mode of analysis which drew upon development in linguistics, sociology, and ethnomethodology, during the 1970s and 1980s. It grew to substitute a long-standing interest in science and the belief that scientific knowledge is based on accurate, objective and valid universal facts which are not affected by factors like culture, context, personal attitudes or scientists' motivations and so on (Wooffitt, 2005: 14). Yet, researchers are confronted with the problem that very often the would-be correct scientific truths are proven to be false or fail to provide an objective explanation for the interplay of the world structural properties. It is then in this sense that sociologists, namely, could be of significant use, because it turned out that neglecting the social factors led scholars to advance unsound and false claims about language and language use.

In doing so, discourse analysis emerged to deal with the ways in which speakers interact in everyday life and in institutional settings. It also investigates how meaning and identity are negotiated through talk and texts (Willig, 2008). Therefore, discourse analysis aims at revealing the socio-psychological aspects of talk organisation and text structure. It

examines language use in terms of construction and function. Cameron (2001: 8) claims that analysts of spoken discourse 'begin from the assumption that people are, with few exceptions, highly skilled users of spoken language'.

In this respect, Leech's (1983) and Schiffrin's (1994) arguments distinguish two main approaches to discourse analysis: formal and functional, where in the former discourse is regarded as a unit of language beyond the sentence level, however, in the latter discourse is defined as language use. In other words, the first approach views language as a means to construct social reality rather than simply reflecting it, whereas the second approach regards language as a form of social action, i.e., a social phenomenon rather than a purely linguistic one. Besides, language is considered to have multiple functions; i.e., language is used to achieve social and interpersonal goals in specific interactional contexts. That is, the task of discourse analysis is, in this stream, to analyse and explore these functions.

Concern in this research will not be with all forms of discourse, but only with spoken discourse. One reason for this choice is that the data I will be analysing is a kind of discourse, which is elicited from face-to-face interactions between doctors and patients in medical settings. Cameron (2001: 8) claims that analysts of spoken discourse 'begin from the assumption that people are, with few exceptions, highly skilled users of spoken language'. When linguists, social scientists and of course other scholars from the interdisciplinary enterprise of discourse analysis seek to analyse talk, their fundamental purpose is in the first place to make explicit what laypeople ordinarily do but are unaware of and usually take for granted in their usage of language. In the second place, they aim to show that talking is not a mere means of communication to express one's ideas and thoughts but in fact it accomplishes actions in the lives of individuals and in society as a whole (Cameron, 2001: 7).

However, this reference to linguists and other social scientists is meant to stress an important aspect of discourse which is its 'multidisciplinarity' given the variety of meanings and goals linguists and scholars from other disciplines in the humanities attribute to the term 'discourse' and their ultimate purpose to enhance our conceptualization of the concept of language. Also, definitions vary from a narrow to a broad sense. From the first perspective, discourse can be seen as language embedded in social interaction (language in use) i.e., ways of behaving while speaking, interacting, reading, writing, etc.,(Gee, 1990:3). Boréus and Bergström (2017: 209) explain that this narrow conceptualization of discourse refers to chunks of written or spoken texts without taking into consideration their context.

In the broader sense, discourse is understood as a system of language use i.e., linguistic practices with other types of social practices such as meaning-making through 'Combinations of ways with words and ways with "other stuff" (bodies, clothes, objects, tools, actions, interactions, values, and beliefs) that can get people recognized as having certain socially significant identities' (Gee, 2015:2).

Discourse analysis whether viewed as an approach or a methodology, has conceptualized language differently. Some analysts are basically interested in describing the structural aspects of talk and its formulaic regularities. This trend sees talk as an end per se, thus their emphasis is on issues such as: how turn-taking in conversation works, whether the structure of questions influences the structure of answers, or how misunderstanding and misinterpretation occur in conversations (Cameron, 2001:7). On the other side, another trend of researchers, (e.g., Smith, 1987; Mills, 1997; Fairclough, 2003), mostly psychologists and sociologists whose main purpose is to achieve different goals and use discourse and discourse analysis to improve our knowledge on other aspects of social life rather than purely linguistic discursive regularities. This group of researchers ask questions such as how can powerful groups create dominant discourse? How can discourse produce inequalities among participants? How do people negotiate ideologies through discursive practices? What is the role of discourse in directing people's actions and activities (Van Dijk, 1997b; Boutain, 1999; Smith 1999; Smith, 2005; Mccloskey, 2008).

Hence, the ultimate goal is to make sense of people's everyday experiences and how their lives are organised in terms of social experiences, relations, control, power, domination etc. A large part of this kind of work has been developed later into what is now known as critical discourse analysis where inquiry comes down to focus mainly on uncovering the hidden agendas and ideologies contained in discourse but not appearing on its surface. It looks at the negative social outcomes of the concept of power and its use, or the abuse of power (produced and reproduced) to create inequalities among individuals and groups. This approach differs from the one applied throughout my research, which is CA, in that it does not look at power in asymmetric interactions between doctors and patients, but it studies doctors' institutional 'authority' which differs from power in that the latter has acquired a negative value whereas authority has not.

Put simply, authority is more or less legitimate namely connected with institutional talk which entails varied degrees of institutional agency and therefore the deployment of professional, epistemological, deontological authority as a tool that often necessary for the accomplishment of services that institutions primarily work for. This may include providing healthcare vital services and treatments to patients presenting health problems. Therefore, the current research looks at where and how this authority is expressed in DPIs, how it is grammatically organised in the building of utterances and sequences and to what ends.

1.2.3 Conversation analysis

CA has emerged during the late 1960s and the beginning of the 1970s in based on the work of the well-known sociologists: Harold Garfinkel (1967), Erving Goffman (1955), and founded by Harvey Sacks and his associates Emmanuel Schegloff and Gail Jefferson (1972). But, it was Garfinkel's influential work in ethnomethodology, a branch of sociology, which paved the way for the others to emanate ideas that are involved with interaction order. A concept brought by Goffman[1], where the term 'order' is meant to refer to a 'domain of activity' and 'interaction' as the orderly activity. Goffman claims that 'this orderliness is

[1] Goffman provided precious insights about the logic for why and the method for how, to investigate face-to-face behaviour in general and face-to-face interaction in particular as a social behaviour.

predicated on a large base of shared cognitive presuppositions, if not normative ones, and self-sustained restraints' (1983: 5). Boxer (2002: 11) qualified the work as 'a supreme accomplishment of synchrony', i.e., a significant contribution to the study of face-to-face interaction that prioritises the study of order of actual instances of social interaction as an important subject for investigation.

Conversation analysts offers detailed and extensive descriptions of data, which is elicited from naturally occurring talk rather than experimental research on intentionally generated data that usually entails that researchers get through structured and non-structured interviews, focus group discussions and other methods to elicit data. Sacks (1984a) asserts that one of the major discoveries of CA is that conversations are not random or as we may think, have no orderly structures. He takes as a matter of fact that participants organize their talk in ordered ways. Accordingly, the primarily, task to be carried out by conversation analysts is to find out the orderly organised practices and the general patterns in conversations as well as the devices participants employ to understand each other's behaviour in social interactions.

In other words, conversation analysts presume the existence of order and rules at all points in the course of talk. They support that conversations are built efficiently according to certain dynamic structures and rules. Heritage who had collaborated with Schegloff since the 1980s argues that:

> The central goal of conversation analytic research is the description and explication of the competences that ordinary speakers use and rely on in participating in intelligible socially organized interaction. At its most basic, this objective is one of describing the procedures by which conversationalists produce their own behaviour and understand that of others.
>
> (Heritage, 1984b: 1)

Therefore, they seek to find out the procedures that speakers employ to structure their talk, e.i., the ways in which: turns at talk (verbal conducts) are distributed between interlocutors, sequences are ordered; taking into account pauses, overlaps, backchannels, etc., as well as structural differences in asking and answering questions, delivering and receiving news, making complaints, etc.

Equally important, two illustrious conversation analysts make a distinction between two forms of CA research: John Heritage (2005) and Ten Have (2007). In his article: Conversation analysis and institutional talk (2005), Heritage differentiates between 'basic CA' and 'institutional CA', while Ten Have (2007) used the terms 'pure CA' and 'applied CA'. They both used a dichotomous distinction to refer respectively to two types of talk-in-interaction: ordinary conversation and institutional interaction.

- **Basic or pure CA**

Basic or pure CA refers to the kind of CA which studies, in Heritage's words, ordinary conversation as an institution, is organised into systems that participants make use of to control a set of dimentions such as turn taking, repair, and other systemic elements of the interaction's organization (Heritage, 2005: 104). In other words, basic CA regards ordinary conversation as an institution per se, i.e., it regards participants' practices (actions) and the activity of making sense of turns, sequences, and the other elements of the organization of conversation as a system grounded in an institutionlised set of rules that are primordial in the understanding of social action (Schegloff, 1996b: 4).

However, this kind of conversations should not be confused with interactions that fulfill the institution-specific goals that take place in workplaces to achieve particular institutional purposes. CA in this sense is involved in discovering 'the machinery of conversation' (Sacks, 1984b: 26). Besides, basic CA does not require gathering detailed information about the participants' social background, their identities or cultural beliefs,

instead it explores the conversation itself and treats it as a container of all the features and relevant details for a close and comprehensive analysis.

- **Institutional or applied CA**

Heritage regards the second type of CA, institutional CA, as the form of analytic research, which examines institutional talk rather than ordinary conversations. Still, institutional CA draws on basic CA in its investigations to study institutional types of interactions. This is because ordinary or mundane conversations constitute the whole possible interactional formats of talk, regardless whether they are context-free or context-dependent interactions that one can experience in whatever social context. In this respect, Drew and Heritage (1992) argue that speakers experience and use structural forms of ordinary conversation before the institutional context-dependent forms. This assumption has also been eloquently expressed by Schegloff as follows:

> […] and ordinary conversation is very likely the basic form of organization for talk-in-interaction. Conversational interaction may then be thought of as a form of social organization through which the work of the constitutive institutions of societies get done—institutions such as the economy, the polity, the family, socialization, etc. It is, so to speak, sociological bedrock. And it surely appears to be the basic and primordial environment for the development, the use, and the learning of natural language.
>
> (Schegloff, 1996a: 4)

Accordingly, Schegloff explicitly explains that all formats of social talk-in-interaction occur fundamentally between people in face-to-face interactions in everyday social life (ordinary conversations). Whereas, specific formats of talk-in-interaction, institutional talk for example, are rather 'transformations of ordinary conversation' (Drew, 2004: 74). Thus, institutional CA examines not only the structure and the organizational order of institutional talk, but also inspects the ways in which institutional talk organization derives from ordinary conversation to show to a greater or lesser degree the systematic variations and limitations which appear in the design of institutional talk, but still remains connected to ordinary conversations (c.f. Drew and Heritage, 1992a).

1.2.4 CA vs structural linguistic analysis

As it has been mentioned earlier, the framework, which is adopted in CA, for understanding language-in-use particularly, studies the combination of the actions produced by interlocutors. This framework is different from the structural concern of linguistics, which focuses on studying language per se. A plain indication of the contrast between linguistic approach to language and the one of CA is provided by Hutchby and Wooffitt in the following quote:

> CA is only marginally interested in language as such: its actual object of study is the *interactional organization of social activities*[2]. CA is a radical departure from other forms of linguistically oriented analysis in that the production of utterances, and more particularly the sense they obtain, is seen not in terms of the structure of language, but first and foremost as a practical social accomplishment.
>
> (Hutchby and Wooffitt, 1998: 14)

Hence, while in linguistic analysis meaning of written or spoken texts is not disputed, in CA meaning is seen as constantly negotiated by the parties involved in the interaction throughout the flow of the interaction in real time . Yet, conversation analysts do not make suggestion or impose assumptions about conversational data. Rather, conversation analysts are intersted in formulating plain descriptions that reflect the procedures and expectations as they naturally employed by interlocutors in producing and understanding conversation (Levinson, 1983: 319).

1.3 Conversation is a system of actions

Despite the fact that carrying on a face-to-face conversation is usually thought of as a simple and effortless activity, which any normal speaker is able to do without having to think about how it is actually accomplished. A careful examination reveals that conversations exhibit regularity (orderliness) and a high level of organized language use. Surprisingly, ordinary people always engage in conversations but are unaware of the

[2] Italics for emphasis in the original text.

systematic progression of actions within conversations. Language users, do not think carefully on the simplest aspects of conversation such as when it starts, how it is managed, what it does, when it ends, etc., although they regularly and systematically accomplish, themselves, the conversational actions.

Actually, managing a conversation whether it is formal or informal is, technically speaking, a highly complex task that requires its participants to structure it according to a set of conversational rules to which they extraordinarily orient. Ethnomethodologists (e.g., Garfinkel, Sacks) and conversation analysts (e.g., Schegloff, Jefferson) have pointed out that conversation exhibits regularity and patterns, and it is shaped by interactional rules which determine the occurrence position of units, how they can be identified, by which a unit can be preceded or followed in a sequence, to fit into the overall structure of conversation.

Correspondingly, Taylor and Cameron define these 'rules' as the participants' expectations from each other's utterances, which are 'formulable in terms of interactional rules (or mechanisms, norm, systems, organization, devices: these terms are all used in the ethnomethodological literature with no consistently apparent differences)'(1987: 105). That is to say, individuals comply, in their contributions to a conversation, with rules (or expectations) to produce the expected response (utterance) that is accepted as 'normal' and unproblematic by the other interlocutor and that fits in the conversation. Interestingly, humans as social actors tacitly know and co-operatively follow (or may choose to flout) these conversational rules in a systematic way.

It is for this reason that conversation structure, in this tradition, is assumed to be best explained through reference to the notion of organizational rules. The first thing to notice about a conversation in CA is that it does not consist of a set of separate actions. Rather each unit, utterance, action, turn or any other that is produced by one participant relies completely on the other interlocutor's contribution in the same conversation. Linell (1998:70) argues that participants' contributions in an interaction are sequentially organized and cannot be

significantly understood if they are treated in isolation from each other. He refers to the individuals' communicative or interactional events as *social practices* in which 'each utterance, act or turn by any speaker is thoroughly dependent on what his or her interlocutor (s) do (es) in the same interaction'.

In other words, the utterances or turns are sequentially organized and they count on their placement in the sequence. The following extract taken from an example provided by Deborah Tannen (2005: 103) of a conversation, between her and her colleague Peter[3], in which they discuss their reading habits:

(…)
1. D: Do you read?
   (0.1)
2. P: Do I read?
   (0.5)
3. D: Do you read things just for fun?

(Tannen, 2005: 103)

This example displays significant information about the idea of dependence of utterances (or turns) on each other, discussed above, and their sequential positioning to make sense of the actions produced by the participants. P's answer 'Do I read?' in line (2) to D's question 'Do you read?' in line (1), obviously shows that P is quite surprised because he either was not expecting this question or he did not understand it appropriately. So, by repeating the question he is making reference to the preceding question and calls for additional details or clarifications from D. In other words, P's question is 'doubly contextual' in the sense that it is context-shaped and context-renewing as explained by Heritage (1984a: 242), i.e., it is responsive to the previous question and shaping the next D's response.

This is, particularly, apparent in D's orientation in line (3) that demonstrates her understanding and interpretation of P's turn (line 2). In line (3) D restates her own prior

[3] D stands for Deborah and P for Peter.

question (line 1), but this time accounting for P's purpose in repeating her question and his search for further clarification that she accomplishes by specifying an additional detail which is 'reading things just for fun'. From an analytic point of view, this addition is sequentially dependent on both previous turns. Interestingly, this example demonstrates how meaning is generated not only from the linguistic composition of utterances, but also demonstrate how meaning in talk considerably derives from the sequential positioning of utterances in a conversation. Actually, this principal of sequential organization, shown in this example, applies for all types of conversation. In this way the placement of utterances within a sequence of actions is taken into consideration to assign meaning to actions.

Clearly, conversation analysts do not advance claims based on their own intuition to make sense of the participants actions, 'the participants themselves manifest their identifications in their subsequent actions and reactions' (Taylor and Cameron, 1987: 107) and consequently, the conversation itself exhibits its own internal systematic procedures which are inherent in the ways in which participants interact to each other.

1.4 Dimensions of organization in interaction

The principle of organization in interaction refers to the dimentions of order that participant draw on to organise their talk. Yet, this should not be understood to eliminate the idea that utterances and turns never overlap or occur simultaneously or that actions in conversation never get flouted. Hence, order in interactions is not invariably strict. Listeners do not always wait for speakers until they finish their utterances to intervene. They can take over turns, interrupt or backchannel their interlocutors or even talk simultaneously. Hence, CA examines such details in the structure of conversations to make discoveries about the shared major dimensions of the organization of conversations.

1.4.1 Turn taking organisation

One of the outstanding and core premises of the CA concern is that all interactions are characterised by involving a system of an organised 'turn-taking' activity. This was one of the major findings of the work of Sacks and his collaborators Schegloff and Jefferson (1974), who were for about a half dozen years engaged in examining recordings of naturally occurring conversations. Their major interest was focused on characterizing and deriving the interrelationships of the different types of sequential organization in use in conversation.

In their article 'A Simplest Systematics for the Organization of Turn-Taking for Conversation' they proposed a model which, henceforward, served as a guide for many conversation analysts for the turn-taking organization for conversations. Sacks et al. report that:

> The existence of organized turn-taking is something that the data of conversation have made increasingly plain. It has become obvious that, overwhelmingly, one party talks at a time, though speakers change, and though the size of turns and ordering of turns vary; that transitions are finely coordinated; that techniques are used for allocating turns, whose characterization would be part of any model for describing some turn-taking materials; and that there are techniques for the construction of utterances relevant to their turn status, which bear on the coordination of transfer and on the allocation of speakership.
>
> (Sacks et al., 1974: 699)

In short, in the above quote, sacks and his associates point out that, regularly, in conversations only one single participant speaks at a time, and the other participant(s) listen (s). However, there are techniques that interlocutors employ to manage turn-taking transition. By the same token, Ten have confirms that 'This 'fact' is seen as a continuous achievement of the parties to the conversation, which they accomplish on a turn-by-turn basis.'(Ten Have, 2007: 128).

Indeed, speakers do change, and usually, one speaker stops talking and yields the floor to another interlocutor, but it is observed that the passing of speakership mainly recurs with slight silence or slight interruption. In other words, there are occasions in which one

speaker chooses to speak while the other speaker(s) choose(s) only to listen. Whereas, there are other more frequent occasions when the speaker-change recurs, i.e., one participant stops talking, and another one takes the floor, however, as it is remarked by Sacks et al., the speaker-change is not a random activity. Instead, it is systematically organized and turn-taking coordination is very finely tuned. The transition from one speaker to another is remarkably an ordered phenomenon, which is characterized by a minimal gap or minimal overlap (these represent but a few of the fundamental regularities found in ordinary conversations).

Equally important, in a more accurate version of their previous seminal study, Sacks, Schegloff and Jefferson (1978) introduced the basic units used in studying the turn-taking system. This extensive analysis has established a set of rules and basic units (components) through which turn-taking organization can be described. Actually, the system (turn-taking organization) is described to answer two basic questions concerning turn-taking:

1) How is the next speaker selected? And 2) how do participants know when to end one turn and when to begin another?

These units are:

- **The turn-constructional-unit** (henceforth TCU) it 'consists of a sequence of talk which is grammatically and pragmatically compete and is produced as one entity'(Ruusuvuori, 2000: 31).

- **The transition-relevance place** (henceforth TRP), which refers to the place where TCU is complete and where turn transition is relevant but not necessarily.

Schegloff (1996:55) claims, that: 'By 'turn-constructional unit,' it is meant that 'these units can constitute possibly complete turns; on their possible completion, transition to a next speaker becomes relevant (although not necessarily accomplished) [i.e., at the TRP]'. In this way, transfer coordination is managed to allow very little or no gap and

overlap. Notably, in situations when the speaker chooses to keep talking, certain specific devices can also be used to not allow the turn to the other interlocutor. Another key point is that there are various types of TCUs; they can be sentential, lexical, phrasal, clausal constrictions. To illustrate, the following invented example is suggested:

1. A: I've a lecture at room 17. (sentential)
2. B: where? (lexical)
3. A: room 17. (phrasal)
4. B: if it is available. (clausal)

In the light of what has been said, the following algorithm is the one proposed by Sacks et al and widely accepted and used by CA users to analyse talk in both ordinary and institutional contexts:

> 1. At initial turn-constructional unit's initial transition-relevance place:
> (a) If the turn-so-far is so constructed as to involve the use of a "current speaker selects next" technique, then the party so selected has rights, and is obliged, to take next turn to speak, and no others have such rights or obligations, transfer occurring at that place.
> (b) If the turn-so-far is so constructed as not to involve the use of a "current speaker selects next" technique, self-selection for next speakership may, but need not, be instituted, with first starter acquiring rights to a turn, transfer occurring at the place.
> (c) If the turn-so-far is so constructed as not to involve the use of "current speaker selects next" technique, then current speaker may, but need not, continue, unless another self-selects.
> 2. If, at initial turn-constructional unit's initial transition-relevance place, neither 1(a) nor 1(b) has operated, and, following the provision of 1(c), current speaker has continued, then the Rule-set (a)-(c) reapplies at next transition-relevance place, and recursively at each next transition-relevance place, until transfer is effected.
>
> (Sacks et al., 1978: 13)

Indeed, these turn-taking organizations are very significant, namely in analysing formal talk and, especially, institutional interactions, where some other specific constrains come into play. Particularly, because the organizational resources will be tied to specific institutional goals, in these specific contexts. Although, Heritage (2013) advocates Sacks' et al. (1974) view that in ordinary conversation, the order of turn-change and the size of the turn are not predetermined and that the participants themselves manage 'in the moment' everything 'locally' including the performed actions and the order in which they are set out, he maintains that,

> In contrast, in some forms of institutional interaction, such as ceremonies, debates and some kind of meetings, the topics, contributions and orders of speakership are organized from the outset in an explicit and predictable way through special turn-taking procedures that are systematically different from conversation.
>
> (Heritage, 2013: 5)

To this view, other settings are added such as courtrooms (Atkinson and Drew, 1979), classrooms (McHoul, 1978; Mehan, 1979), news interviews (Greatbatch, 1988; Clayman and Heritage, 2002a), medical settings (Peräkylä, 1995) and others where variation in the turn size, turn content and turn order does not apply and is not subject to local management. Besides, in these types of institutional settings, the specialized organizations impose constraints on the participants. Most of them are task-oriented interactions that take into consideration who speaks, when, and the types of contributions the participants can produce.

Moreover, these special turn-taking organizations differ from each other according to whether they are taking place in large-scale formal settings or in more private and less formal contexts. For instance, in DPI only two parties are usually involved and both participants practically know in advance the procedures and activities each will perform and the general rules, specific to DPI that they will orient to, especially, concerning who speaks first, who asks questions, who answers them, and when and what to say. Besides, in two-party DPI turns are distributed between the two present participants, so obviously, the other speaker either self-selects or is selected by the initial speaker since no other participant is

involved. Nevertheless, social interactions in general show more complexities and the turn-taking organization is not the only system that speakers deploy to structure their talk and their actions.

1.4.2 Sequence organization

In addition to turn-taking organization, conversation analysts have found that participants orient to another type of rules to accomplish their actions. This regards the dimention of 'sequence organization', i.e. sequences of turns and utterances, are not produced in haphazard way, but in most cases they are arranged in a pattern of organization and follow a fixed sequence order (Schegloff, 2007; Young, 2008). Hence, the idea that sequences are organized is regarded as one of the basic insights of CA. Heritage (2004, 123) considers sequence organization as the interaction's 'engine room' where the fundamental interactional activities and tasks are managed. On the other hand, Schegloff defines sequence organization as follows:

> "Sequence organization" is another type of sequential organization[4]. Its scope is the organization of courses of actions enacted through turn-at-talk – coherent, orderly, meaningful successions or "sequences" of actions or "moves". Sequences are the vehicle for getting some activity accomplished.
>
> (Schegloff, 2007: 2)

Correspondingly, actions are accomplished by participants in an organised way that participants follow to orderly arrange turns into sequences (and sequences into sequence of sequences), i.e., conversation is sequentially organized and turns in an interaction are linked to each other in systematically organized sequences. Put simply, an action in a conversation fills a slot in a sequence of utterances that are produced by two or more co-participants who

[4] Schegloff makes a distinction between 'sequence organization' and 'sequential organization'. He regards the latter as a general term to refer to any type of organization which 'concerns the relative positioning of utterances or actions' (2007: 2). Accordingly, turn-taking organization, sequence organization, overall structure organization, etc., are all kinds of sequential organization.

shape their utterances not only in relation to the preceding utterances but also around the next utterances that they expect their co-participants will produce.

- **Adjacency pair**

Chiefly, sequence organization analysis is largely based on the concept of adjacency pair (AP) which is predominately developed by Sacks and Schegloff (1973) who believe that it is one of the primary forms of talk in conversation, i.e., quite largely, speakers construct their talk in a form of sequences of orderly structured APs. In this regard, Heritage and Clayman also argue that AP rule is one of the most fundamental rules of interaction 'it operates as a method of producing actions, and achieving intersubjectivity[5]. The rule organizes the ordering of actions into pairs' (Heritage, 2010: 22) because a large number of actions in conversations are arranged as pairs of actions.

This concept refers to a pair of two utterances, which regularly occur one after the other in a sequence and involve two different speakers. Important to realize, is that the first pair part (FPP) is produced by one speaker and invites the other to produce a relevant second pair part (SPP). APs, as characterised by Sacks and Schegloff (1973), have five primary characteristics:

1- It is a sequence of two actions, which are
2- adjacent, and
3- produced by different speakers, and are
4- ordered as first pair parts and second pair parts (even when the parts are identical as in greetings like hello–hello), and
5- pair–type related so that a particular type of first pair part requires a particular type of second pair part.

(Heritage and Clayman, 2010: 23)

[5] By intersubjectivity it is meant the participants' shared interpretation of their respective actions and the rules they orient to.

Examples of APs include: greeting/greeting, question/answer; invitation/ acceptance or refusal, etc. According to Heritage, AP is a primary tool that CA uses to understand the structural organization of sequences and interactions. He claims that in studying APs, researchers in CA are after the '*normative* framework for actions which is *accountably*[6] implemented' (Heritage, 1984b: 247) in sequences by the participants. In this sense, participants do not account for what would seem normal (what is expected); like returning a greeting for example, but speaker account for the absence of expected actions. In other words, when a speaker formulate a particular FPP, they are aware of and expect a next appropriate SPP, hence it is probable that certain implications can be drawn because of the non-accomplishment of those expectations.

Besides, there is another key aspect in sequence organization related to AP. It concerns the 'preference system' to which participants orient to in the design of sequences.

- **Preference organization**

In many cases, after a FPP is produced, two possible types of SPP may follow; a 'preferred' or a 'dispreferred' one. Yule (1996: 79) argues that 'The preferred is the structurally expected next act and the dispreferred is the structurally unexpected next act'. To put it another way, the issuing of a social act such as an invitation, offer, proposal, etc., usually leads to an expectation of two options: the next speaker will either accept the action's orientation, which is regarded as the preferred option or reject it, which is in this sense viewed as the dispreferred option. Nevertheless, Levinson (1983) and Heritage (1984a) point out that the preferred and the dispreferred SPPs behave differently. The former typically occurs immediately after the completion of the relevant FPP. Furthermore, it can even

[6] Accountability functions as a device (internalized rules) that speakers use to find explanations for the absence or inappropriateness of the SPPs, i.e., the first speaker will normally look for some reasons such as whether the interlocutor was angry, distracted or did not hear what has been said, etc. By accountability it is meant that the absence of a response (or if it is irrelevant and does not fit in the sequence) is not without consequences; that is the result is a 'noticeable absence'. (cf. Taylor and Cameron (1987: 102 – 107) for further details about the Garfinkelian principle of accountability).

overlap with it without any special features of 'markedness'. Whereas, the latter is in general characterized by a set of 'markedness' features that usually occur together with the dispereferred SPP. This can involve the following features that Taylor and Cameron condensed and simplified from Levinson (1983: 334-335):

> (a) pausing before delivery
> (b) the use of a 'preface'
> e.g. (i) markers like 'uh' or 'well'
> (ii) token agreements, appreciations and apologies
>
> (iii) qualifiers
>
> (c) the use of accounts, i.e., explanations for why the preferred second pair part is not forthcoming
> (d) the use of 'declination component': a form suited to the nature of the first part of the pair, but characteristically indirect or mitigated
>
> (Taylor and Cameron, 1987: 111-112)

In essence, the above markedness features accompany dispreferred SPP to indicate that the second speaker is aware of the dispreferredness of his/her response and the implication of this action for the first speaker and the overall structure of the conversation. So by including one or more of the markedness features they acknowledge their failure to respond affirmatively and display their awareness of the appropriate rules of adjacency pairs participants, normally, orient to in their interactions.

- **Sequence-closing third**

In addition to the above discussion, it is important to realize that sequence organization is the systematic central tool through which interactional activities and tasks are managed. Actually, it is through sequence organization, in both ordinary or institutional settings, that social identities and roles are established, maintained and manipulated (Heritage, 2013). Besides, among the findings of CA is that the social identities and roles of

the participants are interrelated with the type of turn sequences they produce, especially, in the institutional contexts.

For example, in many institutional contexts, institutional agents mainly ask questions while the others have the role of answering them. Furthermore, many question-answer sequences are clearly seen to be characterized by another aspect of conversational sequence organization that is: 'sequence-closing third' action as it is asserted by Heritage (1984b) and Schegloff (2007) in their investigation on the use of tokens like 'oh' and 'okay'. Schegloff (2007) distinguishes between three types of sequence-closing third and maintains that:

> "Sequence-closing thirds" get done by information-registering "oh," by action-accepting "okay," by assessment terms, and by relatively few other forms. But it turns out that this sequence-organizational third-position is a significant locus of variation.
>
> (Schegloff, 2007: 221)

Variation is the consequence of the different types of tasks and activities that participants do and adapt according to the context where talk occurs. Significantly, Heritage and Schegloff have both identified, in their comparative studies on ordinary conversations and institutional interaction, that question-answer sequences are frequently completed by a sequence-closing third action that is produced by the question producer, i.e., the information seeker, immediately after the requested information is produced. Heritage suggests a straightforward logic to this practice he states that: 'By the act of requesting information, a questioner commits a lack of knowledge (a non-knowing or K- position) with regard to the matter at hand, and projects the answerer to be in a 'knowing' (or K+) position with regard to the matter at hand.'(2013: 10).

Accordingly, each question is a solicitation of some information. Once the questioner receives a response, i.e., the needed information, a projection of 'state change' from K- to K+ is made with an acknowledgement token 'oh'. This occurs namely in ordinary conversations that feature requests for information. However, in many cases of institutional

interaction, this type of sequence-closing third 'oh' is not prevalent and usually the questioner does not acknowledge the given response as being a 'new' information, but it rather, according to Beach (1993), signifies that the questioner is now willing to move to something new. The absence of the 'oh' particle and the use of the 'okay' type are illustrated in the following sequence of an interaction between a pediatric doctor and a mother:

1. DOC: Has he been coughing uh lot?
2. (0.2)
3. MOM: .hh Not uh lot.=h[h
4. DOC: --> [Mkay:?,
5. MOM: But it- it <sound:s:> deep.
6. (1.0)
7. MOM: An' with everything we heard on tee v(h)ee=hhhh
8. £we got sca:re.£
9. DOC: --> Kay. (An fer i-) It sounds deep?
10. (.)
11. MOM: Mm hm.
12. DOC: Like uh barky cough?
13. MOM: .hh (1.1) Uhhhm=hhh It sounds very:=uhm (.)
14. (I don't know:=wwlike:) (0.2) It sounds- (2.5) Tlk
15. .hh Tlk Not like that like:
16. DOC: [Not (barky.)
17. MOM: [Like when someone has bronchitis that it sounds
18. ( )
19. DOC: --> Okay.
20. DOC: Does he sound like uh dog er uh seal barking?
21. MOM: No.
22. DOC: --> Okay.

(Heritage, 2013:11)

The example shows that in all the cases in which the doctor asked for information, there is no use of 'oh' token at the third position to acknowledge the mother's answer as being 'new' and that the doctor ignored it before. This has been interpreted by Heritage (2010) to mean that; by using the 'okay' token instead of the 'oh', the doctors not only displays their readiness to move forward and talk about something else, but also avoids that their patients make inferences about the doctor's lacks of knowledge about their condition or that it is a rare one. Hence, both cases can be seen as alarming and worrisome by patients.

It is for this reason that 'okay' is considered to be more appropriate in medical contexts because it works here as a sign of acceptance and readiness to discuss something new with attention to ensure trust in the doctor-patient relationship. However, it is worth mentioning that the third position particle can serve varied functions in different contexts (cf. Heritage (1985), Heritage and Roth (1995) in news interviews; Atkinson (1992), Drew and Heritage (1992) in legal proceeding; ten Have (1991) in medical consultations; and Mehan (1979) in classrooms).

1.4.3 Turn design organization

In face-to-face interaction, speakers take turns to interact with one another. Nevertheless, by turns speakers do not only deliver meaning, they more importantly conduct actions. In other words, speakers shape their turns in such a way to carry out some action taking into account its locus within the turn in a sequence and the identity of the addressed at that very moment. These three components: action, position and recipient refer to the most important principals, which constitute 'turn design', which is another organizational dimension of analysis in interaction.

According to Paul Drew 'Turn design refers to how a speaker constructs a turn - at - talk — what is selected or what goes into ' building ' a turn to do the action it is designed to do, in such a way as to be understood as doing that action (which is the accountability of a turn ' s design.)'(2012: 132). So, in designing a turn, all linguistic levels are involved, comprising 'word selection, syntactic and grammatical features, phonetic and prosodic aspects, as well as (in face-to-face interaction) gaze, posture, bodily orientation and the like.'(Drew and Curl, 2008: 25).

In addition to this, Heritage asserts that all turns, including turns in institutional interactions, are produced and evaluated by interactants with regard to the circumstances in which they occur. Hence, conversation analysts address two distinct phenomena that

characterize turn design: First, the action that the turn is designed to conduct and second, the verbal shape the action takes to get accomplished (Drew and Heritage, 1992: 32-33).

- **Action selection**

In designing a turn speakers perform actions in a way that is responsive to the previous turn. The following exchange shows how two parents designed differently their turns to reply to a health visitor and thus performed completely different actions.

(A new born who is chewing on something.)

1.	HV:		He's enjoying that [isn't he.
2.	F:	→	[°Yes, he certainly is=°
3.	M:	→	=He's not hungry cuz' (h) he's ju(h)st (h)had
4.		→	'iz bo:ttle hhh
5.			(0.5)
6.	HV:		You're feeding him on (.) Cow and Gate
7.			Premium.

(Drew and Heritage, 1992: 33)

In the above sequence of turns, it is analytically noticeable that the mother (M) and the father (F) interpreted differently the remark made by the heath visitor (HV) 'He is enjoying that'. Although it is not mentioned in this sequence that the baby was sucking or chewing something; one can guess that the HV saw the baby doing this; but the parents designed distinctly their turns to perform different actions. The F's response reflects his 'agreement' with the HV and that he interpreted the HV remark as being free from any blame. Whereas, the M's response is designed in a way that shows that she did not innocently interpret the HV's remark. she rather took a 'defensive' position against it by stating that 'He's not hungry'. This means that she treats the HV as implying something like M is guilty about her baby being hungry and that the HV is criticizing her or accusing her of improper care of the baby.

- **Verbal shape selection**

On the other hand, speakers can also perform similar actions but construct differently their turns. The following excerpt from the same previous medical visit displays that although the parents conduct the same activity, each has designed distinctly his/her turn by employing different linguistic resources.

1	HV:	It's amazing, there's no stopping him now,
2		you'll be amazed at all the di [fferent things=
3	F:	[(hnh hn)
4	HV:	=he'll start doing.
5		(1.0)
6	M:	Yeh. They learn so quickly don't they.
7	F:	We noticed hav'n't w-
8	HV:	That's right.
9	F:	We have noticed (0.8) making a grab for your
10		bottles.
11		(1.0)
12	F:	Hm ::.
13	HV:	Does he: (.) How often does he go between
14		his feeds?

(Drew and Heritage, 1992: 33)

In the previous extract, we have noticed that F and M treated differently HV's remark by performing different actions. However, this time they have both designed their utterances to agree (performing the same action) with the HV's idea that they will be amazed at all the different things the baby will start doing. Hence, the difference lies in what linguistic resources each employs to carry out his/her action. This is the second aspect of turn design.

Speakers select from the available alternative ways to say the same thing or perform the same activity. So, in looking at the details contained in lines 6 and 7 that are, respectively, produced by M and F to reply to HV's suggestion, one can easily distinguish that while M uses the personal pronoun 'they' to refer to the quick progress of babies in general at this stage, F, on the other hand, used the pronoun 'we' to refer to their own experience as parents

and to speak about the development of their own baby. Despite of the fact that the parents have fashioned alternatively their turns, they have generally achieve the same end and accomplished the same action.

Two further contrasting aspects can be derived from the verbal choices that M and F have made to express their agreement with the HV. First, F used the word 'noticed' to convey that they are watchful and devote careful attention to its development; whereas M avoids purposefully a similar term because she again takes the HV remark as a challenge to her experience as mother. As a consequence she is trying to distance this belief by employing a rather broad term 'they' and thus conveys that she already has general knowledge about children development.

In this concern, Drew and Heritage (1992:36) claim that: 'because there is always a range of alternative ways to saying something, a speaker's selection of a particular formulation will, unavoidably, tend to be heard as "motivated" and perhaps chosen'. In other words, the authors argue that word selection in utterances does not occur without a reason. Selecting words in turn design often indexes not only information about how action is to be carried out to convey meaning and understanding, but it also incorporate some motivation. Thus, speakers do not make selections randomly instead they are usually influenced by some interactional factors.

1.4.4 Overall structural organization

While thus far, we have mainly focused on the turn level of organisation and the actions that participants enact through turn design. It is equally important to realise that turns and sequences of turns are, nevertheless, part of larger patterning matters, i.e., order can also be observed in many types of interactions at a higher level. What Sacks referred to as the 'big packages' of interaction and Robinson (2013) as 'supra-sequential coherence'. In many cases, interactions of different types exhibit an overall structural organization. Accordingly,

participants identify some particular activities to follow a certain expected sequential order, which also involves identifying the transition points at which a current activity is closed and a next one emerges.

Research in CA has revealed that each type of interaction appears to have its own routinised structural order of activities to which participants orient to. That is, speakers and hearers employ structural procedures to conduct actions, and thus co-construct orderly the ongoing talk. This is accountably done in a way that participants recognise what will logically be the next activity in the interaction. Referring to this large scale structure that characterizes most forms of interactions, Robinsons (2013) claims that 'like turns, sequences of action are also sometimes organized into groups that. 'hang together' or cohere'.

In the same vein, Heritage (2005: 20) points out that ordinary conversation exhibit structural feature, which include 'specific located activities such as openings and closings and slots for first topics […], whose absence may be noticeable and accountable'. However, he emphasizes that while in ordinary conversations 'matters are comparatively fluid and free to vary with the inclinations of the participants', institutional talk, on the other hand, contrasts with the former in that 'some kind of institutional talk have quite specific internal shape or overall organization that is constructed from component phases or activities'. To put it another way, both ordinary and institutional talk have an overall structural organisation, however, because of the institutional and the goal-oriented nature of the latter, it is easier for analysts to separate the activities and phases.

Raymond and Zimmerman (2016) argue that particular contextual constrains allow conversation analysts to systematically identify the component activities that form the whole interaction. For example, Robinson (2003) summarises the primary care medical consultations as involving the following activities: opening, establishing the reason for the visit (problem presentation), diagnosis, and then treatment and closing (cf. Byrne and Long

1976). Each activity can include a number of turns and participants shift from one phase to the next one at transition points[7]. In ordinary conversation and some less formal institutional interactions, phases are not predictable except for the opening and the closing, which appear in different types of informal talk such as informal phone calls, street chat, etc.

Linell (1998) states that ordinary conversation presents less clear phase structures compared to institutional interaction, however, this is not meant to state that casual a conversation does not involve recurrent structural features. This is in agreement with Briggs and Bauman's (1992: 156) who view that 'While "ordinary conversation" affords much greater room for disorder, heterogeneity, and open-endedness, some genres of ritual discourse provide almost no room for these characteristics or for structural flexibility in general'. Ordinary conversation can include more or less varied and salient (sub) activities such as telling a joke, telling a story, gossiping, conversational argumentation, argument, conversational teaching, etc., that are, matching Linell's (1998: 244) view, loosely organized but are still characterized by recurrent structural properties. On the whole, the phases that constitute the overall structural organization of interactions function as an engine's moving parts that take the encounter forward towards its goal.

1.4.5 Lexical choice

Closely related to the aim of the current research is the dimension of lexical choice in the organization of interactions. The relevance of lexical choice in the activities to be accomplished and the relationship between the participants in talk is well documented, especially in institutional contexts. The kind of word and phrase choice made by speakers in the institutional settings is indicative of the type of the institutional tasks to be carried out and of the speakers' understanding and control of the situation. This also includes their command and appropriate selection of codes, styles and specific or general terms that fit in

[7] Transition point refers to the place where a current activity is closed and another emerges. Transition in conversation can be projected by the participants no interest in carrying out further talk on the current topic or by [6] the occurrence of many pauses and silences in talk or by little or no participation (Maynard,1980), repeating and talking about old information (Schegloff and Sacks, 1973), the use of minimal responses (Button, 1987) and discourse markers (Schiffirin, 1987)

a particular situation. According to Heritage (2013: 14) lexical choice can index information about the participant's stance vis-à-vis the particular circumstance, interactional context, and the identity and role of the other relevant participants who are also engaged in talk with them in a specific context.

This implies that other linguistic possibilities are available and can be used. However, the choice is made according to the situational requirements. For instance, participants in institutional settings orient to their institutional role and identity and use specific reference forms. To illustrate, they usually refer to themselves using the personal pronoun 'we' instead of 'I'. This choice of the third personal pronoun rather than the first personal pronoun embodies elements of institutionality rather than elements of personal identity, i.e., it is an inclusive 'we' that indicates cooperativeness with the other members of the same institution. The speaker conveys that he or she is speaking on behalf of an institution, following particular institutional constraints, and thus imparting that the matter is not personal. In such situations, reference forms are fashioned by 'institutional considerations' as it is noted by Drew and Sorjonen (1997: 99) who direct our attention towards the notion that lexical choices:

> not only illustrate aspects of how participants exhibit and orient to their institutional identities through person reference forms; [but] they also begin to show the inseparable constitutive relationship between the linguistic devices for person reference and managing institutional activities.
>
> (Drew and Sorjonen, 1997: 99)

To paraphrase Heritage (2013), interactants make particular selection from the alternative lexical resources available to them to index a particular stance towards a particular matter. In the same respect, he highlights that 'Specialized vocabularies are characteristic of almost every occupation and occupational subculture, and are frequently used to index degrees of epistemic access to esoteric institutional knowledge.' (2013: 14). Heritage is drawing our attention to the occupational identities, which are embodied through the distinctive use of specialized vocabularies in the institutional settings. With this in mind,

he adds that the use of specialized lexical forms distinguishes the occupational/institutional members from ordinary people who are likely to ignore them and thus can be marked as non-members or outsiders who lack sufficient knowledge to make sense of such esoteric terms.

This view can be coupled with Drew and Sorjonen (1997:99) who connect this with 'linguistic notions of setting-specific, situationally appropriate registers, codes or styles'. To which speakers orient to with respect to the type of institutional context concerned (e.g. whether legal, educational, medical etc.). Drawing on the work of both Heritage and Drew on the analysis of institutional interactions, Carmen Valero-Garcés points to a set of resources which participants orients to in formulating their lexical choices:

- The use of terms restricted to the institutional context.
- Variation in the use of technical or colloquial vocabulary.
- Explanation of terms.
- Preference of descriptive words.
- Variation in the choice of "I" or "we' on the part of the professional to refer to the institution.
- Tendency to use institutional euphemism[8].

(Garcés, 2002: 487)

As mentioned by Garcés, Drew's and Heritage's reasoning rely on the professionals' use of these resources to maintain control over the conversation and the exchange of information, as well as the role relationship between the participants involved in the encounter.

Other studies have documented lexical choice in institutional context such as Schegloff (1972), who also shows that speakers give high considerations to who their interlocutors are (what he refers to as 'recipient design') in selecting vocabulary items that

[8] Heritage defines institutional euphemism as the 'the tendency of representatives of institutions to be less than specific or affirmatively ambiguous in the terms they select to characterize objects and events.'

neither overestimate nor underestimate the interlocutor's ability to understand or interpret them; whether talk is taking place in institutional context or is a type of ordinary conversational interaction. On the other hand, Heritage (2013) demonstrates in his investigations on medical, legal and educational interactions, that lexical choice is a profoundly complex aspect of institutional talk in which they identified many cases of euphemism and ambiguous language used by institutional agents to reflect and reinforce the institution's position towards certain events[9].

A related view holds that the use of technical vocabularies, especially in medical settings, foreshadows exclusive access to specialized technical knowledge by professionals and institutional representatives. Correspondingly, Drew and Sorjonen (1997) support Roter and Hall's (1992) findings of research on medical interactions about the use of specialized vocabularies which they relate to asymmetries of specialized knowledge between specialized and lay people and as a strategy the former employ to control and influence the flow of information in particular and the conversation as a whole.

1.5 Interactional asymmetries

The last two decades have witnessed a significant increase in interest in research on institutional interactions and more specifically on what Heritage referred to as 'interactional institutionality' that he couples with interactional asymmetries. Heritage (1997: 175) outlines four broad types of asymmetries that according to him characterize a wide range of institutional interactions:

1. Participation asymmetry.
2. Asymmetries of interactional and institutional "knowhow".
3. Asymmetries of knowledge and epistemological caution.
4. Rights of access to knowledge.

[9] cf. Heritage (2004), Heritage (2013) work on school calls between school officials and parents in dealing with truant children

1.5.1 Participation asymmetry

In participation asymmetry, a distinction is made between ordinary conversation and institutional interaction. Studies have shown that speakers in ordinary conversation have broadly equal opportunities of participation, i.e., to initiate talk, take turns, hold the floor, etc., while in institutional interactions, institutionals, professionals, service-providers, etc., participate more than the lay-persons who are also involved in the encounter. Yet, Heritage (2004) and Linell and Luckmann (1991) recommend that this distinction of the existence and non-existence of asymmetry in conversations as opposed to institutional discourse should be treated with caution given their different natures, i.e., without oversimplifying the nature of asymmetry and overlooking how talk in ordinary conversation can be asymmetric (Heritage, 2004: 236).

On the other hand, Linell and Luckmann explain that assuming ordinary conversation to be purely symmetric can be misleading. Their argument is that: 'if there were no asymmetries at all between people, i.e. if communicatively relevant inequalities of knowledge were non-existing, there would be little or no need for most kinds of communication!' (1991: 4). The two perspectives run in the same stream to mean that it is very rare to have an equal participation among participants in a conversation, and that face-to-face interaction is, in theory, seldom symmetrical.

Furthermore, Linell and Luckmann (1991: 9) consider that asymmetry is 'an intrinsic feature of dialogue' in general, and that researchers' focus is mainly on cross-categorical interactions (such as institutional interaction in which a professional has to deal with a layperson, like in doctor-patient relationship) simply because asymmetry is more apparent and tangible in cross-categorical than in intra-categorical dialogues. Hence, as language delivers more actions−and more importantly specialized and situationally-relevant actions and activities−than meaning (Drew and Sorjonen, 1997) and since asymmetry in ordinary conversation is not connected with the roles of the participants and their identities since it is directly related to the activities and tasks they are entitled to perform in institutional settings

(Heritage, 2004). Therefore, asymmetry in institutional interactions emerges from the differences in the institutional roles, tasks, rights and obligations they have as members or representatives of an institution.

While asymmetry in ordinary conversation 'is not tied to any particular set of social roles, identities, or tasks. If it were, conversation would be much less flexible and sophisticated institution' (Heritage, 2004: 237). In other words, there is an agreement that, broadly speaking, all types of talk can exhibit asymmetry of participation. However the main differences that make asymmetry in conversation oversimplified and overlooked, is that institutional interactions implicate factors like institutional roles and tasks to be accomplished. Whereas in ordinary conversation, asymmetry is regarded as inherent, simply because some participants are more active and willing to initiate talk, take turns, shape and launch new topics, etc., than are others. For instance, in many forms of institutional interaction, the professionals are generally the ones who ask questions while clients or service seekers answer the question. In addition to this, the questions in institutional talk can be designed in ways that restrict the type of the answers to provide, strictly, the appropriate and required information needed by the professionals.

1.5.2 Asymmetries of interactional and institutional "knowhow"

Again, from the standpoint of Heritage, another type is asymmetries of interactional and institutional knowledge, which in his words refer to 'gaps in knowledge and knowhow' (2013: 16) between the participants. This dimension of asymmetry characterizes mainly institutional interactions and most significantly the field of medicine. It develops out of differences between participants and their different needs and interests, as well as their different perspectives in evaluating the current situation. Hence, very often institutionals, such as doctors, treat situations as 'routine cases' and patients as 'routine subjects', whereas lay individuals, like patients, regard the situation as a new one, i.e., a case which is 'personal and unique'. In this respect Heritage (2004: 237) indicates that:

> All agencies have procedures for the routine management of multiple cases, for "processing" cases by assigning them to routine categories, and so on. However, the clients – whose enquiries, troubles, illnesses, claims, and the like constitute an organization's routine cases – may not be really aware of, or concerned with, the pattern into which their individual cases fit. The client's perspective often arise out of the particular circumstances which bring him or her into contact with the organization, perhaps for the first or only time, or at least not frequently enough to have developed a self-conception as a routine case.
>
> (Heritage, 2004: 237)

So, the existing gaps in knowledge between the participants about the context and the institutional procedures influence the understanding of actions performed by each party. Accordingly, the parties produce asymmetric interactions triggered by their contrasting experiences and reasoning. The following example is a short piece of an interaction provided as an example by (Whalen et al., 1988) between an emergency service desk operator and a caller whose mother is dying and requesting an ambulance.

1	Dsk:	Okay iz this uh house or n' apartmen' ?
2	Clr:	It- it is a ho:me.

(Whalen et al., 1988: 337)

The desk operator's question about whether the caller is in a house or an apartment is meant to serve institutional needs, i.e., to know how the ambulance crew can get into the building, however, this question seems irrelevant from the caller's perspective and does not serve his personal needs and priority; the emergency service he is seeking by calling. This shows that the caller lacks the routine organizational and institutional knowledge, we can say that he failed to understand the purpose of the question, (i.e., the action) and consequently provided a response, which is irrelevant from the perspective of the desk operator. Although it is evident from his question, that he purposefully designed it in a way to restrict the caller's answer by limiting the choice 'a house' or 'an apartment'. So, from what has been said, asymmetries in institutional and organizational knowhow can be a source of confusion and tension between professionals and lay people and can also lead to arguments between the participants in many occasions, especially when the clients find difficulties to grasp the institutionals' actions due to knowhow gaps.

1.5.3 Asymmetries of knowledge and epistemological caution

The third dimension of asymmetry is the kind of asymmetries of knowledge and caution. It is also referred to as asymmetries of knowledge and epistemological avoidance. Institutional interactions require institutionals to manage interactions with cautiousness, especially in certain contexts such as news interview, court interactions, and more commonly in medical encounters. These often occur to avoid conflicts and misunderstanding and also to guarantee exactness without holding firm positions. So, professionals are always cautious when it comes to making claims. Hence, according to Heritage (2004: 239) professionals 'deploy distinctive, functionally specialized, and superior knowledge bases that can impart a specific authority to claims made within the relevant knowledge domain'. Then he adds that 'The epistemological superiority of expert knowledge is something that is recurrently renewed in talk [and coproduced by both experts and laypersons] and in many ways'.

One can say that, unlike lay people, institutionals are more competent and knowledgeable i.e., they possess additional and superior knowledge, since in their life they have experienced the two types of lives the ordinary life as laypersons and the life of professionals, thus, they have lay knowledge and professional knowledge. Consequently they are more advantageous and may behave in terms of the two circumstances. All that allow them to have control over the conversation.

In her influential research on discourse of medicine, Milsher (1984) refers to the doctor patient distinction as two normative orders: the voice[10] of medicine and the voice of the lifeword. The former is an instance of routine clinical practice, which is regarded as the dominant one, while the latter may be submissive and willing to accept doctors' authority of medical knowledge. On the other hand, Fisher (1983) and Silverman (1987) support the above statements by arguing that patients may ignore particular medical knowledge or

[10] Mishler argues that 'a voice represents a particular assumption about the relationship between appearance, reality, and language, or, more generally, a voice represents a specific normative order' (Mishler, 1984: 63)

moreover cannot grasp the purpose lying behind certain questions and even the order in which they are asked. They may fail to make a link between their condition and the topics the doctors raise as well as the order of questions. Heritage (2004) refers to this dilemma as the 'hidden agenda' of doctors' questioning which in his view requires attention and represents a significant area of research in the analysis of asymmetry in medical interaction.

1.5.4 Asymmetry of rights of access to knowledge

The last piece of asymmetry hinges on the concepts of 'status' and 'rights'. A person's status according to Enfield (2011: 291) is defined in terms of their entitlements or 'rights' and responsibilities at a given moment, relative to other members of his social group. In other words, a person can be entitled a particular status according to their qualifications and entitlements or 'rights' such as being a teacher at school, a doctor in a hospital, a mother at home, etc. However, this status is only enacted in its specific context according to the responsibilities and duties a particular parson is required to accomplish. Additionally, it is according to the person's status that their social behaviour is evaluated. That is, based on whether it is relevant and appropriate or not in a specific situation (ibid: 292).

Institutionals and lay people may have unequal levels of status and rights to possess some knowledge resources with the lay resources being limited. So in this case, asymmetry arises when lay participants are not entitled (i.e., from a professional point of view are not allowed) to know things that only the professionals such as doctors in the medical field, have the right to possess and act accordingly. Enfield (2011: 300) distinguishes two components of knowledge: 'access' to knowledge and 'authority' of knowledge:

> *access*, that is, our source of information and thus our citable reasons for being committed to the truth of it; and *authority*, our capacity to demonstrate the effects of knowing that information, through the dispositions enabled by whatever access we have had. (Access leads *to* the knowledge; authority leads *from* it.
>
> (Enfield, 2011: 300)

Based on this, Enfield assumes that possessing knowledge is not enough. One needs status-based authority of knowledge, which attributes rights to its owners such as; professionals in institutional contexts or parents in family contexts. They not only have access to knowledge but can also articulate that knowledge to fulfill their responsibilities, given the status and the rights entitled to them. In the same vein, Heritage (2004: 239-240) documents the fact that, unlike the professionals and the institutional agents, lay people are reluctant when they attempt to voice what they know and may be at pain or feel compelled to justify what they know and how they come to know it. Other studies have highlighted this issue of rights imbalance.

For instance, Helman points to the doctors' medical training period during which doctors acquire, in addition to the medical knowledge, a set of beliefs that makes them see their profession as distinct from any other type of profession. Helman claims that such beliefs make them characterize it as one of 'high social status, high earning power and socially legitimated role of healers, which carries with it a certain rights and obligations' (1994: 101). On the other hand, Fairclough and Wodak (1997: 258) advance that major ideological outcomes may result from the discursive practices in interactions between professionals and laypersons as in DPI.

In another work, Wodak (1996: 2) distinguishes between the 'insiders' who have all the authority and the 'outsiders' who have no medical credibility. Hence, unequal power relations arise from the representation of things that participants make and which can be seen in the way they position themselves in their discursive practices. Thus, the very institutional organization of particular contexts promotes and justifies some ideologies and consequently maintain and impose asymmetric relations of rights to knowledge access.

1.6 Conclusion

This chapter focused on interactions as the primary focus of social study of language. This is essential to situate the topic of DPI as a type of social interaction to pave the way for its exploration by presenting beforehand the basics of an analytic research to study the local interactional properties of any type of talk. It emphasizes CA, with a context-free rationale, as the appropriate approach to study face-to-face interaction by reviewing the relevant literature on social activities, giving particular attention to how the local organization of social activities can be shared in institutional contexts to achieve institutional goals. That is, as a product of social interactions rather than focusing on the local cultures and identities of participants.

Chapter two: Research on doctor patient interaction

2.1 Introduction

Meetings between doctors and patients occur in sick consultation rooms because the patient, a person presenting a health problem, needs help that can be a treatment or an advice from the doctor, a knowledgeable person who has the necessary resources to deal with illness situations and the medical skills to fix their health problems. Hence, a particular social relationship has developed between doctors and patients, which interested first social and psychological researchers in the field of health and communication and later linguists whose studies are focused on language-in-interactions. They examine the behaviour of doctors and patients to gain insight on the factors influencing their interpersonal relationship for a better understanding of their communication process in its varied existing forms. This chapter reviews the literature to consider the development of research on DPI in the pursuit of an understanding of the relationship between doctors and patients.

2.2 Sociological research on doctor-patient relationship

We say that a relationship develops between two individuals when they are mutually involved in certain activities either in a complementary or non-complementary way. One of the first sociologists to examine the relationship between doctors and patients was the American sociologist Talcott Parsons. In his distinctive theoretical analysis about health and sickness 'The social System' (1951), Parsons introduces his prescriptive conceptualisation of the functioning of society to involve institutionalised social roles that are embodied in a complementary relationship.

In his view, the institution of medicine is a social system with a normative mechanism. On the one hand, the doctor has the 'practitioner role', that requires him to assist patients with the purpose of returning them to their normal condition, i.e., to restore their regular work-related and social contributory capacities. This is fundamentally to remediate any situation of impairment of performances within the society since this can result in exemption from the normal and everyday working duties (Heritage and Maynard, 2006). On the other hand, Parsons attributes the 'sick role' to the patient who is required to be motivated

and seek help from a doctor for that same mentioned purpose which is the society's welfare and the proper functioning of its organisations, of whatever kind they can be, ie., family, school, bank, transport company or any other. Accordingly, patients are obliged to cooperate fully with doctors, abide by their decisions instructions s that they can regain quickly their capacities.

Parsons's model of the sick role and the doctor's role is regarded as an 'ideal type' model. However, it is criticised for its abstractness that Parsons himself has acknowledged and claimed it to be inevitable in giving a general account about the relationship between doctors and patients due to the existence of different types of illness with different levels of seriousness (Parsons, 1951: 440). Besides, he argues that the sick role is presented as social solution in his formulation and that sickness should not be understood as purely biological. Hence, medicine is in this sense an institution of biological and social control that determines patients' condition and behaviour. This explanation is partly advocated by Szasz and Hollender (1956) who relate the degree of the doctor's authority and patients' passivity to the type of the illness and the degree of it severity.

On the other hand, while Parsons focuses on the relationship between doctors and patients as a social system, Foucault (1975) stresses the influence of the development of bureaucracy in modern society on health and the emergence of administrative and disciplinary power that maintain control of bodies in the same way as machines are manipulated. In other words, he focuses on the separation of the individual's body and their identity. He treats knowledge and power as synonyms and thereby regards doctors as owner of power over the bodies of patients just like state agents have power over their populations. He assumes that it is this bureaucratic state of modern society, which renders patients docile, because they are in vulnerable state and need medical expertise, regardless of who they might be (referring to their social class).Foucault regards medical power as relational to mean that it is not exerted by a dominating party over a dominated one since the latter (the patient) is deliberately seeking help and not resisting it.

2.2.1 Models of the relationship between doctors and patients

Although Parsons identified a general form of the behavior of doctors and patients viewed as a paternalistic relationship that he describes as imbalanced and asymmetrical by virtue of the doctors' superiority of specialized knowledge and their high skills to treatment and in taking the right decisions. Other models emerged later where varied degrees of the exercise of power and control are ascribed to both doctors and patients.

- **Paternalistic relationship,** Hellin (2002) compares it to parent-child relationship because the patient is completely dependent on doctor especially for decision-making. It is also regarded as the traditional value base of the medical model (Parsons's model), which gives a high level of control to doctors and regards submissive and passive patients as 'good' ones who for their best clinical interest do not challenge doctors authority. Szasz and Hollender (1956) distinguish two models of the paternalistic relationship. The 'activity-passivity' model when the patient is unable to participate actively in the interaction because they are very weak and helpless. The other model is the 'guidance-cooperation' that occurs in less acute situations. Yet, the patient willingly cooperates and places oneself in a powerless position. On the other hand, for the best interest of patients, the doctor expects their total adherence and unquestioning compliance.

- **Mutual relationship**, which is advocated by Balint (1964) gives equal partnership to doctors and patients. They are both actively involved in the consultation and are viewed as experts, each within their respective area of knowledge and expertise. While doctors use their medical knowledge of diseases, symptoms, procedures and skills of treatments, etc., the patients use their illness experiences and bring knowledge in terms of description of the pain, the symptoms, their feelings and their circumstances. Besides, mutual relationship is based on the principle of equality, not only in terms of power and control of the consultation, but also in knowledge and responsibility. The doctor for instance is not seen as the one or the

only one who knows what is best for the patient. Hence, it is important that the latter's preferences and anxieties be taken into consideration.

- **Consumerist relationship** refers to situations when power relations are reversed. This model is understood to mean that, compared to doctors, patients are more knowledgeable about their own, feelings, needs, expectations and this because of their lived and direct experience with the illness and health condition. Therefore, the patient is empowered and has the active role. Whereas, the doctor should accede to the patients demands and adopt, to some extent, a passive role. One of the advantages of this model is the contribution of patients in the decision-making process. Nevertheless, the greatest disadvantage is that it may put at risk the patient's health if doctors' medical expertise is disregarded.

- **Default relationship** is characterized by patients' persistence in adopting the passive behaviour even if the doctor relinquishes some of their power and control of the consultation, i.e., they both take low levels of control. Morgan (1991) argues that default relationship 'arises if patients are not aware of the alternatives to a passive patient role or are timid in adopting a more participative relationship'. That is, the doctor orients to involve the patient in the decision-making process but the patient fail to take the offered opportunities to voice their own concerns and wishes.

These models are based on Stewart and Roter (1989) formulation of the types of doctor-patient relationship. They highlight the varying amounts of control that both parties can enact in a medical encounter. Although they may not exist in pure form they can serve as a tool to understand the nature of doctor-patient relationship but they are not supposed to depict every possible real situation in different circumstances. For instance, it is possible to have different types of relationships in different stages of the same consultation (Morgan 1991).

2.3 Empirical research on DPI

In the 1970s, two leading researches on DPI were carried out by Korsch and Negrete (1972) and Bryne and Long (1976) in the USA and the UK, respectively. The first applied a modified version of Bales's (1950) quantitative method IPA (Interaction Process Analysis). They used observation to code data from 800 visits in a children's hospital. The results of the analysis of the interviews and follow-up interviews with the mothers statistically suggest that communication failures manifest in a large number of ill-informed mothers, ignorance of their children's problems, dissatisfaction with doctors' conduct, as well as complains about lack of opportunities of speakership. These negative outcomes significantly decrease patients' (mothers) satisfaction and adherence to the physician's instructions.

The second research's outstanding success was mainly due to the stimulating use of type-recorders, which allowed them to analyse 2500 audio recordings and distinguish six phases in naturally occurring consultations. Their significant finding is that doctors function as agents who control events in every phase. Instead of observations, the researchers provide a detailed description of doctors' behaviour in each phase and different consultation styles. Bryne and Long demonstrate that doctor-centred style, which excludes the patient from the medical enterprise, is the dominant one and they invite doctors to orient toward a more patient-cetered style. The impact of these two behavioural and psychoanalytical studies has been significant and paved the way for other researchers who took further steps in the analysis of DPIs.

2.4 The linguistic approaches to DPI

During the twentieth century, professional use of language, especially in the domain of medicine, starts receiving great interest from linguists and researchers in the social sciences, medical education, communication, anthropology, and psychology. The main concern was to look at the gap existing between technical (expert language) and lay use of language. The researchers studied patients' abilities to understand doctors' specialized

terminology, and DPI and encounters between doctors and patients may be affected due to linguistic gaps. Their shared perspective is that talk is the cornerstone of medical consultations. Hence coming to an understanding of how talk is conducted will inevitably lead to great contribution in unfolding and evaluating medical consultations.

This direction of research is concerned with the transfer of information and it views talk as a transmission channel, i.e., a means of transmission accomplishment that allows doctors to collect information about the patients' condition. Talk is also seen as means of persuasion that doctors rely on to get patient take certain actions that are regarded as appropriate from a medical point of view. Concern is on issues such as: How talk can be effective to deliver negative prognosis, how talk between doctors and patients fails to get patients comply with the treatment instructions, and whether detailed explanations can influence patients' adherence to doctors' treatment decisions.

These studies are largely correlational that adopt surveys to study doctors and patient attitudes in relation to their perceptions. For instance, in an analysis of a sample of 336 encounters, Waitzkin evaluates a number of associations between information giving and the characteristics of doctors, patients, and the medical setting of the interaction. The results reveal that doctors spend little time informing their patients, overestimate the time the consultation takes, and underestimate patients' desire for information. He makes an association between failure to transfer information and satisfaction with the medical care, compliance with doctors' advices, and even with the physiologic responses to surgery. Waitzkin (1985:81) argues that:

> information transmittal was associated with (1) doctors' income, social class background, political ideology, and perceptions of patients' informative needs; (2) patients' age, sex, social class, education, and prognosis; and (3) situational characteristics such as the length of acquaintance, numbers of patients seen per day, and the types of patients in the doctors' practices.
>
> Waitzkin (1985:81)

In the same vein, Hagstrom (2004) claims that patients desire to receive information but fail to ask questions during the medical encounters because they believe it irritates doctors. Whereas physicians explain that, what patients regard as disinterest in them is not real and relate it to the linguistic and competence gap between doctors and patients. Within the same context, Morgan (2003) asserts that doctors overestimate the amount of information they deliver to patients. In addition, The medical terminology stands as a barrier to effective communication because on the one hand it is unavoidable when giving information and difficult to understand, and on the other it can be misleading if incorrectly used or interpreted by patients (Belaskri, 2017). In what follows we consider some of the linguistic aspects that are found to create communication gaps between doctors and patients.

2.4.1 Medical terminology

Medical terminology is one of the most easily identifiable linguistic criteria in DPI, because it is often inaccessible to patients, especially those with low social and educational status. Margaret Simmons (1998) asserts that it is difficult for any patient to use or understand scientific vocabulary or scientific description of illness and treatments. Arguably, a patient may not be able to participate smoothly in a conversation with a physician if the latter uses a scientific register loaded with incomprehensible medical terms.

Yet, doctors who tend to use jargon and medical terminology with their patients and in their professional conversations are perceived as good, competent and knowledgeable doctors. However, most of the time, this creates not only barriers to communication but also enlarges the social distance between doctors and patients. As Trudgill (1974: 13) suggests 'Languages is not simply a means of communicating information […] It is also a very important means of establishing and maintaining relationships with other people'.

Furthermore, dissatisfaction and frustration among patients can also be owing to language differences, which inhibit patients from describing the symptoms they experience and ask for information or clarification. Woloshin and his associates indicate that doctors' limitation to talk to their patients can clearly and seriously impair the relationship with patients (Woloshin et al., 1995: 727).

2.4.2 Questions and answers in DPI

Frankel (1983) notes that compared to ordinary conversations, where there are equal chances that both parties can ask or answer questions, an asymmetrical distribution of questioning and answering activities between doctors and patients is anticipated in medical interaction. In her study of the constraints on talk between physicians and patients to document the most common communication problems, West (1983) asserts that patients are the best source of information given their lived experiences with health and illness. Therefore, it is understandable that doctors are apt to ask questions illness without neglecting that there are good reasons for patients to ask questions too.

In addition to doctors' institutional position that dictates that they, rather than patients, initiate much more questioning, West's (1983: 13) analysis demonstrates that 'patient-initiated questions are "dispreferred" in medical dialogue. Structural evidence for this dispreference is apparent in the very organization of patients' questions and physicians replies to them'. She also perceives patients find difficulty and stammer when they attempt to question their doctors. Simmons (1998: 92) shares West's claims and explains that 'Doctors often structure questions in such a way as to ask patients several questions but allow space for only one answer […]. Additionally, doctors sometimes begin asking new questions during the patient's answer to the previous question(s)'.

On the other hand, it appears that doctors spend more time on asking questions to patients rather than using other types of utterances. Ong et al. (1995: 22) state that asking questions is the frequent kind of exchange for physicians. They argue that these questions

are mostly 'yes or no questions' or 'multiple choice questions' that constraint the patients' subsequent actions. Furthermore, Waitzkin (1984) reports that in spite of the long time spent on asking questions, little information is given to patients, on average as little as one minute in interviews of 20 minutes is spent on giving information. In the same respect, Simmons (1998) observes that, doctors take more turns than patients do, and most often doctors interrupt patients and tend to respond to questions by asking other questions. Consequently, patients may get frustrated and think that doctors disregard their concerns.

Hence, given these linguistic and interactional disparities between doctors and patients, CA studies on DPI have increased considerably, during the last decades, to conduct close and thorough investigations that aim to unfold medical encounters by applying sequential (turn-by-turn) analysis.

2.4.3 Code-switching in DPI

Studies on code switching (CS) in DPI mainly examine doctors' alternate use of medical language and everyday language. This trend of research focuses on the communication problem that may arise in PDI due to the use of unintelligible language to patients. This is because effective delivery of healthcare information is regarded as the heart of medicine for many reasons that include building collaborative and caring relationship of trust, eliciting necessary information, making accurate diagnosis and delivering appropriate treatment instructions (Ha et al, 2010).

Tannen and Wallat (1986) shed light on an important point that obviously doctors, compared to patients, at certain time of their lives have themselves been patients. Therefore, doctors know how to be physicians and how to be patients. They may switch between 'doctor talk' and 'patient talk' (Simmons, 1998: 96). Hence, they alternate between the medical terminology, jargon and usual terminology. In the same vein, Ong et al. consider that doctors are bilingual, since they speak their everyday language and at the same time are fluent in medical language. Ong et al. (1995: 27) argue that 'Doctors are bilingual: they speak their

native everyday language (EL), but they are also fluent in medical language (ML)', while patients are mostly monolingual 'Patients are typically unfamiliar with ML and are only conversant in their everyday language'. Likewise, Bourhis et al. (1989) regard the use of ML by physicians as problematic to patients unlike the use of EL, which rather promotes understanding.

However, only a few research addresses doctors' linguistic behaviour, in multilingual speech communities where doctors and patients can be bilingual and switch between their native and a foreign language in medical encounters. Crawhall (1991: 1) defines CS as 'the juxtaposition within the same speech of passages of speech belonging to two different subsystems'. Concentrating on multilingualism and dialects of American English, Nathan Wood observes that American black physicians alternate dialects, African American English (AAE) and Standard American English, when they speak to black American patients. Wood (2019: 464) claims that:

> A pattern began revealing itself as I continued to analyze the contexts in which each dialect was utilized: AAE to connect with the patient when discussing personal matters and SAE to professionally communicate and elicit information regarding medical issues. By addressing distinct components of the patient encounter with distinct dialects, the doctor employed a strategic and meaningful use of code-switching.
>
> Wood (2019: 464)

Wood's analysis also demonstrates that physicians make an instrumental use of CS as a strategy to improve communication and build rapports with patients who speak other languages by acknowledging shared race, language and culture aspects to influence the patients' adherence to treatment. However, it should be noted that linguistic studies on CS in medical interactions are still in their early stages. They do not reveal everything about the motives for CS.

Like in many formerly colonised countries, Algerians use Arabic or Berberas as their native languages (depending on their regional affiliation), and French[11], in their conversations. In Belaskri (2017) ethnographic research on linguistic barriers in doctor-patient communication in the Algerian healthcare settings, findings , based on doctors' and patients' responses to questionnaires and interviews, show that switches from Arabic to French by doctors create disparities between doctors and patients and contribute in rendering DPI more asymmetric. But the present study, will address situations in which switches from Arabic to French occur in the midst of a conversation from a sequential perspective following Auer 's approach (1995) that views Myers- Scotton's (1983) Markedness model as simplistic because it accounts for fixed sets of social information (such as topic, setting and participants.).

Auer suggests that CS should be approached from another angle. In his view, speakers' linguistic choices are not influenced by external contextual features. He applies CA to study CS from a sequential (turn-by-turn) perspective, which interprets CS meaning in relation to its position in the conversation. Auer (1995:116) argues that 'any theory of conversational code-alternation[12] is bound to fall if it does not take into account that the meaning of code-alternation depends in essential ways on its 'sequential environment' '. To put it simply, Auer's sequential theory interprets CS meaning with regard to the preceding and following utterances. Auer (1998:04) also claims that the social meaning of code switching is constituted locally, and it is 'sufficiently autonomous' from grammar and the societal (i.e., macro-sociolinguistic) level.

2.5 CA studies on DPI

The medical encounters have been studied differently in different streams of research. However, the CA tradition is the one, which brought together tools to investigate medical interviews as a sphere of naturally occurring interactions and as comprising a set of

[11] The next chapter will give more information about how French arrived to Algeria and became the language of medicine and science.
[12] Auer uses the term 'code-alternation' as a cover term.

phases. As mentioned in the first chapter, CA does not rely only on the anecdotal evidences collected through ethnographic research. By contrast, it examines sequential order of actions and the systematic organization of interactions as they occur in real time.

CA contributes to the understanding of DPI by highlighting the relationship between doctors and patients particularly as ' a *co-construction* or collaborative enterprise, on its own terms and as it occurs in real time, rather than as something to be treated through various kinds of abstraction' (Maynard and Heritage, 2005: 428). In other words, CA examination of medical encounters neither incorporate doctors' or patients' beliefs and narrative accounts about their relationship and experiences, nor does it include other types of data that is gathered through the researcher's own participant and non-participant observations, as in ethnographic research.

Analysing the medical interview on this basis involves two basic task. First, it requires an audio or video tape of the interview in order to transcribe the recorded data. This task can be effort and time consuming, as it requires repeated listening or viewing of the audio or video recordings. The second task consists in a turn-by-turn analysis of doctors' and patients' organization of utterances to understand how they jointly manage their relationship and co-construct the medical encounter.

2.5.1 Utterances and social activities

In the medical interview, the social action can include greeting, requesting, complaining about and describing symptoms, giving information about illness and pain, and giving instructions and advices among other actions. Therefore, conversation analysts are interested in describing and explaining how doctors and patients carry out these actions, especially because it has been noticed that in different types of conversations, medical interaction included, the participant may perform one action while producing utterances that may convey other types of actions. For example, Maynard and Heritage (2006) claim that in many cases, patients do not ask questions or make requests for symptom explanations.

Rather, they do it implicitly through the realization of declarative utterances instead of interrogative utterances as shown in the following example (Gill, 1998: 350):

1 P: Also (1.3) my stools lately have seemed dark?
2 and I'm wondering if that's because I did start
3 taking the vitamins with iron too
4 (0.3)
5 P: .hh An I'm wondering if the iron in those
6 vitamins could be doing it.
7 D: (possibly) ((nods his head))

(Gill, 1998: 350)

This example shows that the patient is tacitly asking questions through 'speculative explanations', a term used by Gill (1998b) to refer to a strategy used by patients to elicit answers from doctors. The patients in the above example is carefully pursuing answers through explanation (lines 1 and 2) and reformulation of her explanation (lines 5 and 6) as the former is met by a silence (line 4). Although the patient's utterance are not structured in the interrogative design they accomplish questioning activity.

2.5.2 Sequencing

In CA, the meaning of an utterance or an activity in an interaction is derived not only from the social context where the interaction is taking place, but basically from its position in a systematically organized sequence in talk. In studying DPI, conversation analysts examine the turn-taking and adjacency pairs systems deployed in talk, from the opening to the closing of the interview. They conduct a detailed inspection of every aspect of the greeting/greeting sequence, the conversational feature details occurring in the history and symptom questions and answers, and the diagnosis announcement followed by the treatment discussion as well as the acceptance/rejection adjacency pairs these announcements will entail.

Like in ordinary conversation, researchers have found out that, in medical interviews actions are doubly contextual. First, they are context shaped. Both the doctor and the patient co-construct the meaning of an utterance by generating it from the turn or sequence of turns (or activities) that have occurred immediately before the current utterance. Maynard and Heritage (2005: 428) argue that: 'in medical interview, the phase of the encounter in which a sequence appears, helps to configure its meaning'. For instance the phrase 'How do you feel' can be understood differently depending on the phase in which it occurs. It can be understood as a simple greeting if it occurs at the very beginning of the encounter, or a request or an invitation to the history-taking initiation, or a symptom elicitation during the physical examination phase.

Second, actions in the medical interviews are also context-renewing since they, too, shape the next utterance or utterances (i.e. the next actions) in the sequence. In this sense, CA research, on DPI has found that 'online commentaries', term coined by Heritage (1999) to refer to 'talk that describes what the physician is seeing, feeling or hearing during physical examination of the patient', lead to the acceptance of the treatment. That is, the explanations and the verbal diagnosis pronouncements doctors make during the physical examination usually influence patients' utterances in the treatment phase where as a result more acceptance and little resistance from patients occur.

2.5.3 Overall structural organization

Research in CA has demonstrated that DPI is characterized by a deep structural organization which can easily be noticed everywhere in the interaction. Many conversation analysts; such as Byrne and Long (1976), Heritage and Maynard (2006), Robinson (2003), Ten Have (2006) agree on the existence of the same patterning of phases of doctor-patient encounters. Heritage and Maynard (2006: 363) explain that 'an ordered structure of component activities, beginning with an opening sequence, progressing through problem presentation, history taking, physical examination, diagnosis, and treatment recommendations, and then on to a closing sequence'.

Interestingly, the doctors' and patients' social orientation to this particular institutionalized order, is the result of patients' familiarity with the structure of medical encounter since childhood. As a whole, everyone has visited a doctor, probably several times, in their life, including doctors too, who themselves like any ordinary human being must have experienced situations of health issues and had to visit other doctors. Moreover, in their academic training they learn to follow a specific institutional internal order to accomplish their work.

Another significant finding of CA in studying the overall structure of the medical interview concerns the orderliness of silence, interruption and overlaps, laugher and responsiveness to laugher and other conversational aspects of talk. They are examined to find out how they are patterned in terms of where they occurs in turns and sequences and what kind of social action they accomplish in medical interactions.

2.5.4 Participant orientation (turn-taking organization and turn design)

In DPI analysis of turn-taking system, a researchers' basic interest is on finding out how a participant, whether they are a doctor or a patient, exhibits comprehension of the precedent turn and how both the doctor and the patient manage the distribution of turns. Robinson (2006: 45) argues in his paper 'Soliciting patient's presenting concerns' that there exist subtle distinctions in the ways in which physicians design questions to solicit patients' to present their concerns. Consequently, the actions that those questions perform affect the structure of answers where complaints and information are presented.

For the sake of illustration, the physician's opening questions can be designed differently, through the use of different wordings, for example: 'What can I do for you?', 'How are you feeling today?', and 'What's new?' can refer to a health concern in first time visit, or a follow-up case, or a chronic-routine visit, respectively. In order to understand the effect of these differences on the patients' orientation and patterning design of answers,

Robinson (2006: 45) advances that patients are very sensitive to such differences. Thus, researchers draw on their understanding of the questions and the way they account for the differences.

2.5.5 Asymmetry and authority in DPI

It has been mentioned in section (2.2) that Parsons and his advocates rely on the institutional authority and doctors' social status to provide explanation for the interactional asymmetry of power and control DPI. However, they have neglected the conversational devices speakers use to exert and fulfil interactionally their authoritative actions. Parsons' premises on asymmetry have been met with strong criticism, especially, by conversation analysts who stress the idea that asymmetry is interactionally achieved in the medical discourse. Maynard (1991: 448) argues that in clinical discourse 'describing manifestations of institutional power and authority should include analysis of the ways in which participants organize interaction in the first place'.

Hence, relying solely on describing asymmetries of knowledge and authority would be insufficient. Similarly, Byrne and Long (1976) claim that asymmetry, between physicians and patients, is interactionally maintained. For instance, Heath (1992) draws on Byrne and Long study to point on a significant discovery concerning silences in relation to authority in DPI, which paved the way for other researchers to look differently at asymmetry in DPI. He states:

> Withholding reply to the diagnosis or medical assessment or producing a downward-intoned grunt or yeh, is one way in which patients display and accomplish their differential status with respect to the assessment and management of illness and the condition at hand. By withholding response, patients not only provide the doctor with the opportunity of developing the consultation as they so wish, but preserve the objective, scientific, and professional status of the diagnosis or medical assessment; the silence or acknowledgment operating retroactively to underscore the significance of the practitioner's "opinion" of the condition.
>
> (Heath, 1992: 262)

Heath analyses excerpts of medical encounters where doctors present the diagnosis and provide patients with information about the nature of their condition. In many cases, when doctors uncover medical assessment or provide some description of the nature of the condition, patients remain silent. Patients systematically, fail to take turns, although doctors mark pauses to give them speakership opportunities to respond and comment on the received informatio. However, patient, At the most, produce minimal responses usually realised with downward intonation such as 'yeh' or 'er'. As a result, doctors take back the floor and continue their speech moving directly to the next activity.

Another finding suggest that when patients fail to uncover their diagnosis concerns during this phase, doctors tend to overlook or disregard their concerns if they are raised later while doctors are projecting to deliver treatment recommendation or closing the consultation. In this respect, Heath asserts that interactional asymmetry is embodied in the forms of responses patients produce after the diagnosis and the medical assessment are revealed by doctors. So the passivity that patients orient to when they receive information and news, is regarded as an interactional projection towards an asymmetrical relationship maintained (produced and reproduced) by patients.

Maynard (1991:449) agrees with Heath that asymmetry is locally embedded in the organizational structure of DPI and it is internally accomplished, since patients help in preserving the doctors' objective and scientific status of the diagnosis, rather than being merely imposed by doctors' power. In what follows, I define a set of concepts, which in Maynard and others' view can provide explanations to asymmetry as an interactional product.

- **Institutional authority**

In discourse analysis literature, the term 'authority' is distinguished from 'power' in the sense that the former refers to the legitimate exercise of control in an asymmetrical relationship with the aim of creating order 'either by virtue of specialised knowledge or by holding a particular political or social position' (Swinglehurst, 2014 : 17). While power is attributed a negative value because it refers to situation where power and control are used illegitimately to create inequalities among members of groups or participants in a conversation. Freidson (1970b) provides a simplistic view that attributes authority to the doctors as a product of patients' acquiescence and adherence to the physicians' perspective and advice.

In the same way, Starr (1982: 10) sees authority as flowing from the patients' 'surrender of private judgment', which means that doctors are authoritative because patients depend on their advices and recommendations. Hence, from a sociological point of view, authority is exercised when patients cannot trust their personal assumptions and worries, unless they are confirmed or disconfirmed by doctors. Starr (ibid) points out to two sources of professional authority. The first emerges from the patients' dependency on doctors' assistance and their inability to treat themselves. The second stems from the doctors' cultural authority as members of a professional group who have rights 'to make definitive pronouncements about the nature of the world and its properties', thereby imposing their treatment and recommendations.

However, there is a shared belief among CA researchers that authority emerges well before the medical consultation. From the moment the patient starts feeling the need for or think of seeing a doctor because of pain or body malfunctioning, i.e., since the appearance of some particular symptoms that lead the patient to advance a theory that they are unwell and cannot treat themselves. Thus, a particular medical attention is sought from another person with specialised command of the needed knowledge to heal the illness and to whom the patients will submit themselves for examination. In addition to that, authority reappears

discursively afterwards when patients, during the history taking phase present their health issues.

Heritage and Robinson (2006: 58) argue that 'at the beginning of the medical visit, the patients can face the task of presenting their medical concern as "doctorable"'. That is to say, patients have to justify the *doctorability* of the visit. Put simply, patients are constrained to communicate a justification to doctors that their health problem is legitimate and relevant to a medical examination. This is tangible, especially, when patients tend to intensify the pain level and its frequency in their assessment of experience with the condition their present with as a strategy to persuade the doctor that their situation requires medical care. Furthermore, patients are careful in their presentation of symptoms to look neither exaggerating, by avoiding to mention too much details and issues, nor too lax, by avoiding to present themselves as careless about their health.

Consistent with Heritage and Robinson findings, Halkowski (2006) has studied the patients' narratives of the symptom discovery and, argues that to avoid any possible negative perceptions from doctors, patients make overt and tacit explanations to describe how signs and symptoms build-up to require a medical examination. Therefore, viewing authority as conferred to doctors by their institutionalised procedures is built on a priori reasoning. CA research works to find patterns in DPI where authority is co-constructed by doctors and patients through their discursive practices.

- **Asymmetry in communicational structures**

Actually, there is an agreement among many scholars who believe that the socio-political structures that characterise the medical interview entail an asymmetrical character that is noticeable in the communicative structure of DPI, i.e., asymmetry is a by-product of socio-political order as stressed by West (1984). Maynard notes that drawing on this premise and through ethnographic research, cognitively oriented sociologists and anthropologists have observed that conflicting situations manifest between doctors and patients because

patients carry with them everyday life orientations that involve both personal and community understandings to the medical encounter.

However, such informal meanings often clash with the formal, biomedical, impersonal, objective and scientific orientations that doctors employ. As a result, communication problems arise and can undermine the quality of the health care outcomes including patients' satisfaction, adherence to treatment as well as the understanding of the medical information and recommendations. Accordingly, a resolution usually occurs because of patients' 'compliance with physicians speech acts' (Cicourel, 1982: 72). In line with this perspective, Pilnick and Dingwall (2011: 1377) claim that 'even where patients disagree with a diagnosis, they do so in ways that orient to the doctor's authority in the medical domain'. As an explanation to patients' compliance to doctor, Pilnick and Dingwall provide two suggestions: the first, is because of patients' fundamental objective in consulting a doctor is to search for an accurate diagnosis and an appropriate medical treatment. The second reason is that they use submission as a strategy to reach efficient treatment. Stated differently, patients are not troubled by doctors' authority and asymmetrical nature of the interview. They are more concerned with regaining their health than with enjoying a balanced exchange free of conflicts with doctors.

To take account of the use of medical terminology, Nordby (2008) claims that it is always doctors, who influence the style of language that will be used in the interview, i.e., whether they will use lay terms or medical vocabulary. He explains that doctors first assess the context of the interaction and the patients' ability to understand the medical language. Moreover, in cases where patients have no or little specialised linguistic medical knowledge, doctors assess the patients' acceptance and willingness to know and learn these technical terms.

In a study of twenty-one encounters on the conversational structures carried out by Candace West (1984) who examines the turn-by-turn system in DPI and sheds light on the

sources of dominance and control in doctor-patients exchange. The aim lies, not in demonstrating that asymmetries of authority and control merely emerge because of the institutional nature of the context, but in uncovering aspects of the social exchange mechanism that show how these asymmetries are interactionally co-produced and achieved by the participants. For instance, her analysis reveals that the patients' potential of producing valuable diagnostic information is disrupted by the close-ordered questioning techniques that doctors employ and the frequent interruptions. Another finding is about the patients' few instances of asking questions to doctors. Consistent with this point is Nordby's (2008) assumption, which states that because of their lack of medical knowledge, patients are usually reluctant to pose questions to doctors and consequently they leave the doctors' consultation rooms without limited understanding of their medical condition.

Besides, West (1984: 60) asserts that 'we must examine the dynamics of actual medical exchanges to see how power and control are constituted'. Again, it is to her credit that aspects such as 'repairs', 'corrections', 'laugher' etc., are analysed as conversational activities. An important contribution to the study of asymmetry in DPI is her analysis of laugher particles, demonstrates that doctors decline patients' initiation of laugher 94 percent of the time. Her explanation plainly states that laugher implies that patients are making invitations of some sociability and intimacy to doctors. Hence, in case these invitations are declined, then refusals may be understood as a social act meant to maintain or even to increase social distance between doctors and patients. Therefore, they preserve doctors' social control.

2.6 Conclusion

In this chapter, I have discussed previous research on doctor-patient relationship and interactions. I presented the traditional sociological conceptualisation of issues of power and control in doctor-patient relationship from a theoretical perspective. The chapter then considered a set of modern studies that applied empirical investigations from different perspectives. First, IPA, which used the quantification of phenomena to identify the dominant communication styles of DPI. Second, the linguistic and the sociolinguistic examination of medical encounter where differences between professional medical and lay languages are believed to cause communication problem and dissatisfaction between both parties. Third, I concentrated on CA's consequential findings in yielding significant information about doctor-patient interactional experiences and CA's utility as a tool to investigate DPI to reveal the details and strategies that doctors and patients use to negotiate social activities.

Chapter three: Ethnographic context, data & method

3.1 Introduction

The previous chapters considered the related literature on social interaction and DPI and I have referred to the scarcity, not to say absence, of research on interactional practices between doctors and patients in Algeria. This chapter provides a picture about the current research core concern. It presents the methodology adopted to examine interactions between doctors and patients in primary care settings in our country. However, it begins by giving a glimpse of the ethnographic context and linguistic profile of Algeria, a multilingual country to introduce the reader to the nature of language use by Algerians and help them understand why different languages or language varieties (Algerian Arabic, French and Standard Arabic) can be present in the transcripts of my audiotapes. In addition, background information on the research setting is presented for a broad description of the Algerian healthcare system. I turn then to consider the research process and CA methodology requirement to examine naturally occurring interactions. I discuss in detail the series of tasks accomplished in my fieldwork and provide my reader with sufficient information regarding the procedures of data collection, transcription and analysis as well as the challenges I had to overcome to realize a study of this kind.

3.2 The Algerian linguistic profile

It is by no mere chance that Algeria has a multilinguistic profile. The linguistic diversity of Algeria is due to the significant events that the country lived through. According to the literature, the Berbers were the first people to settle in Algeria and North Africa. However, for long centuries, Algeria was repeatedly invaded for centuries by different foreign powers that included the Romans, the Vandals, the Byzantines, the Arabs, the Turks, the Spanish in the West, the Italians in the East, and finally by the French.

This situation of consecutive contacts with foreign people had implications for the linguistic profile and it generated an inevitable linguistic variation and multilingualism that now characterise language use and choices in the linguistic practices of contemporary Algerians. Although linguistic items and features of the languages of the above-mentioned

conquerors are still present in the linguistic varieties spoken in Algeria, Arabic, Berber, and French are the ones, which prominently survived and continue to be used by Algerians to this day.

Though the linguistic variation is not the core topic of this research, nevertheless, in what follows, I will give a broad picture of each of the living linguistic varieties of Algeria to justify why in the next analysis chapters, there is language alternation in the transcripts of data.

3.2.1 Algerian Arabic

Algerian Arabic (AA) has various regional dialects and accents. Actually, it is a simplified version of Classical Arabic, which had undergone some simplifications, especially in terms of its phonology and grammar. AA borrowed linguistic items from the languages of Algeria's formers conquerors. Hence, there still remains traces of Spanish words, especially, in the dialects of the North-western areas such as Oran, Mostaganem and Sidi Bel Abbes, some traces of Turkish terms are still found the dialects of many Northern places such as Tlemcen, Algiers, Constantine, etc. There are even some remains of Italian and Maltese words, in the vernaculars spoken in the centre and the-eastern coast of Algeria (Bouhadiba, 2010: 44). But the major foreign influence comes, particularly from the French language. AA has adopted and adapted a lot of French words and syntagmatic units (lexical borrowings) to its grammatical and phonological system. These are indiscriminately used and mixed with Arabic in conversations by Algerians who treat them as part of AA.

Indeed, in all the arabophone areas AA is the first variety acquired at home which makes of it the mother tongue of the vast majority of Algerians. The contextual distribution between AA and Classical Arabic can be described as a diglossic division of labour between the two varieties. It is worth mentioning that all the AA varieties are mutually intelligible. With this in mind, local language variation in Algeria does not present linguistic barriers to communication among members of the Algerian society.

3.2.2 Classical Arabic

In Arabic, Classical Arabic is called /al ʕarabijja alfuʂħaa/, which means 'clear Arabic' (Dendane, 2006: 78) rather than classical, literary or old Arabic as it is generally used, especially, by authors who use Western languages. This distinguishes it from the other classical languages that are no longer in use now such as Latin and Greek. Linguistically speaking, Classical Arabic is very close to Modern Standard Arabic (MSA), which is often misleadingly defined as a standardised and simplified version of Classical Arabic, as the latter's name implies. In fact, the distinction between the two is basically grounded in the association of the Classical Arabic with the religious books of Islam such as the Holy book 'Quran', the books of 'Hadith', the collections of sayings of the Prophet Mohamed (PBUH), which explains why sometimes it is also referred to as the Quranic language, but also with the ancient literary heritage, that is the Arabic poetry of the period before Islam, in particular.

Actually, MSA is used and written in the same way as Classical Arabic. They have the same grammatical structures and use the same rules. Indeed, thanks to the Arabic system of word generation, and in order to keep pace with the new development, MSA contains a very large amount of new terms, which have been generated from other existing Arabic words. In addition, other terms are newly coined or borrowed from other languages (but very often there are still equivalents from Arabic which are not used simply because the foreign ones are favoured by their users who can also be indifferent to think of creating words from Arabic) but this does not make of MSA a different version of Classical Arabic as it is claimed in some the literature. Besides, both are used and can be easily understood by anyone with Arabic language literacy.

Yet, the Arabisation policy that was implemented by the government after independence aimed at replacing French and the other local spoken varieties by Arabic, i.e., Classical Arabic or MSA, as assumes it Benrabah (2007: 195)

> One of the main objectives of Arabization was to make Algerians abandon French as well as their first languages (Algerian Arabic and Tamazight or Berber) in favour of Literary Arabic as the primary means of communication and socialization (in the media, administration, education, home and employment).
>
> Benrabah (2007: 195)

However, this could not be achieved. Hence, Classical Arabic and/or MSA are exclusively learnt at schools and mosques (Quoranic schools or classes) and are only used for formal purposes in both spoken and written forms.

3.2.3 Berber

The Berber language is also called 'Tamazight' although the latter name refers particularly to the variety accepted as a standardised version of Berber, which in fact, exists in different regional and tribal varieties (Kabyle, Chaoui, Targui, Chelha, Mzabi, etc). If Berber contains so many Arabic lexical items, this is because, according to Benrabah (2014:44), both Arabic and Berber belong to the Semitic language family and consequently they have a genetic predisposition to take in linguistic features and structures from each other. However, due to the uneven language exposure, Berber people can understand and speak AA while the opposite is not true.

After independence in 1962, Berber, which is the original language of the Maghreb, was reduced to a minority language and was discriminately disregarded by the Algerian government that was more interested in promoting Arabic as the only language of the nation. Yet, this did not stop Berbers, from claiming tirelessly for the recognition of their linguistic and cultural rights. Eventually, their efforts and fights have borne some fruits. Berber, is today recognised as a Algeria's second national and official language after Arabic.

3.2.4 French

The French language is mainly used for teaching purposes in scientific fields at universities but it is also used in formal contexts, in spoken and written media, business purposes and by many bilingual Algerians in their different types of conversations. French is the only foreign language taught at primary schools and has long been the first foreign language taught at middle schools. It is also the language of instruction in medical studies and the scientific fields at university. This makes of it the language of communication in the majority of professions. Besides, Algerians mix and/or alternate between French and the other local varieties (AA and Berber) in their everyday conversations.

Many researchers agree that this alternation is used as a strategy to facilitate the interaction flow or to compensate for certain deficiencies in one language or another, i.e., to fill linguistic and conversational gaps that may occur in interactions (cf. Kebbas and Abbes, 2012: 44). In addition, it is worth mentioning that there are various French terms that are adopted in AA and Berber as borrowing and they are frequently used as components of these vernacular local varieties.

On the other hand, it is important to realise that the French language as the medium of instruction in medical studies is associated with some main historical factors that will be explained in details in the next section of this chapter. First, the French coloniser introduced modern medicine in Algeria during the colonial period. Second, after independence the Algerian doctors and teaching doctors who received French education could not deliver medical teaching in Arabic or other languages such as English because of their French literacy. Third, Algeria had to cooperate with France to solve the problem of teachers' shortage, which greatly contributed to maintaining French. Hence, for long decades after independence, French has been preserved as the language of medicine, doctors, science and modernisation in general.

3.3 Overview of the evolution of medicine in Algeria

Although, the French were the first to introduce modern medicine in Algeria, medical practices dates back to periods before the French colonisation in 1830. Ancient practices of medicine coexisted during the Ottoman period, which lasted from the establishment of the Barbarossa brothers in Algiers from 1516 until 1830. In what follow, I present an overview of how medicine evolved in Algeria over time, from the Ottoman period through the present.

3.3.1 Medicine in Algeria during the Ottoman period[13]

During this period, three approaches coexisted but were designed and addressed to different types of people depending on their position in the social ladder. Some practitioners knew how to use and cultivate medicinal plants to calm pain and treat illnesses, to heal wounds and burns, they used methods like gargling liquids, inhaling boiling liquids using water and salt, oils, plants and other natural based products. Others were barbers and apothecaries who offered treatment service during market days and whose practices, essentially, intertwined with religion, culture and even with magic to treat different kinds of illnesses, injuries or infections.

- **Turkish medicine**

Turkish medicine was basically military and it was oriented to the Turks who came to Algeria as young military recruits and returned to Turkey soon after they accomplished their mission. Hassan the son of Barbarossa Kheir-Eddine built the first Turkish hospital in 1550. In fact, there were relatively few Turks in Algeria, therefore, they needed little health provision.

The Bech-Djerrah[14] (i.e., a surgeon physician) or the Amine of physicians was regarded as top health official at the hospital. They were responsible of the highest medical

[13] The information in this section is taken from:
http://www.santetropicale.com/santemag/algerie/hist/index.asp (16/02/2016) Mostéfa Khiati (2000).
[14] The word 'Bachdjarah' is now given to a city in the South-east of Algiers.

missions that were carried out in what is currently known as CHU of Bab El Oued. As part of their military service, the medical crew included military Turkish doctors who came from Egypt and Turkey. The Turkish physicians practiced for a specified period in Algeria, but some of them also went to private practices when their military service ended. Besides, the Turks also created nursing homes that continued to provide healthcare services until 1830.

- **European medicine**

Indeed European medicine was also available during the Ottoman period but it was reserved, for the most part, to the notables of Algiers, the Turkish civil servants and their families and to the European captives. It was practiced and delivered by European physicians who worked for the European consulates established in the main towns of the country or by other doctors who were also kept as prisoners by the Turkish.

The hospitals and care facilities were, mainly, built in prisons by Christian religious people. For instance, in 1551, the Spanish priest Sebastian Duport created a care home for the captives. In 1575, a Capuchin monk founded the hospital of Spain, which was the largest of Algiers. In 1612, another priest, Bernard de Monroy founded the hospital of the Holy Trinity, in the prison of the Pasha at Bab Azzoun, a district in Algiers. In 1646, a religious missionary founded another hospital in Algiers, which remained open until 1827.

- **Folk medicine**

Folk medicine was a continuation of Arab medicine. It was essentially used by and delivered for the indigenous people. Folk medicine drew on natural medicine and used medicinal plants that were collected locally to teat people. The doctor was referred to as /ħaki:m/ (i.e., 'a wise man'). It was practiced especially during market days. In addition, many resorted to barbers' help who were known for some healthcare skills. Health services were also delivered by some tribes and family members who practiced some spiritual healing arts and were well-known for their skills and knowledge to treat certain diseases, especially, wounds and fractures. On the other hand, women were mostly treated by some midwives

called /qabla/. Those ancient medical practices, however, have influenced the contemporary health culture and behaviours.

Actually, many hospitals existed in Algeria during that period, particularly in the main towns such as Algiers, Tlemcen, Oran, constantine and Bedjaïa. Among the famous physicians of this period one can mention El Djazouli, doctor who lived in Tlemcen in 1068 of the Hegira, Mohamed Ibn Ahmed El Hassani, who also lived in Tlemcen, Nour Eddine Ibn Nasr Eddine El Makky, Ahmed Ibn El Kassem Bouni (1653-1726), born in Annaba, Khalil ibn Ismail al Jazairi known for his book: 'The treasures of the soul to overcome the difficult diseases', Abderezak Hamadouche Ibn al Jazairi, born in 1107 of the Hegira, Ahmed Ben Belkacem, a surgeon who lived during the time of Ahmed Bey of Constantine who excelled in neurosurgery and even the Turks and Europeans sought his help.

3.3.2 Medicine in Algeria during the French colonial period

Modern medicine began with the arrival of the French colonizers to Algeria from 1830 to 1962. In fact, at first the French army reserved medical care and services to the French soldiers, fellow citizens, and for their indigenous laborers to preserve and ensure safety. However, medicine during this time was marked by two periods; the first period extended from 1830 to WWI, during which medicine was used as a means to spread their aganda that glorified colonialism and elaborated a glittering façade through some actions of civilization and modernization, thus, could ensure a social penetration. The second period lasted from the beginning of the 20th century to independence. It was mainly characterized by the gradual marginalization of the local population and then the possibility for some Algerian students to join university and enroll in medical studies.

The French turned the former Turkish barracks of Caratine in Algiers to a military hospital. Then, in 1832, this hospital was displaced to the gardens of the former country home of the Dey Hassan Pasha, which became a military hospital of medical instruction thanks to a young military surgeon, Lucien Jean Baptiste Baudens (1804-1857). He was

convinced of the role of inclusive medical education in influencing the local Algerian population[15], especially in accepting the French civilising actions.

- **The French medical education**

Later the military hospital of medical instruction developed into the faculty of medicine and pharmacy of Algiers, which one century later, became one of the prominent French universities. Later, other hospitals were built in the other main towns like Oran, Mostaganem, Guelma, and Constantine, where were based French settlers and French soldiers and in which Europeans, were particularly treated. Whereas, Algerians could only have some sick-bays in some areas and very few of them could enjoy a permanent doctor due to the high shortage in the number of doctors. Meanwhile, the Algerian population continued to rely on traditional folk medicine.

Consequently, diverse epidemics developed across the country. The French authorities feared possible outbreaks of infectious diseases around the country, so they sought support from some charitable missionaries such as: The Sisters of Christian Doctrine settled in Constantine, Trinitarian nuns in Oran, the Sisters of St. Joseph in Algiers to provide the indigenous people with some adequate health services.

In fact, the French medical education began in 1833[16]. At first, some pathology courses were delivered in Algiers. Indeed, medical education was limited to students of European origins. Although, theoretically speaking, it was also open to the indigenous students by the decrees of 14th of March and 3rd of April, 1857. However, in 1865, only five Algerian students were registered. Besides, in the period between 1875 and 1878, 85 Algerian students were enrolled in medical studies but they could not carry out more than

[15] Les anatomistes d'Alger durant la période coloniale française (1830-1962) par Jean-Marie LE MINOR. Source :
http://www.biusante.parisdescartes.fr/sfhm/hsm/HSMx2005x039x004/HSMx2005x039x004x0385.pdf
Accessed on: 25/03/2016

[16] Boufenara and Labii (2009:14)

the first two years. From 1879 to 1909, only one Algerian student was graduated in medical studies, Mohamed Benlarbi, the first Algerian physician who defended with honors his dissertation in Paris, the 16th of July, 1884.

In 1939, there were 200 university graduate Algerian students: 41 doctors, 22 pharmacists and 9 dentists. Nevertheless, it was until 1954, that the number of doctors, pharmacists and surgeons increased to 165 and, thus could meet, to some extent, the health needs of Algerian population, especially during the independence revolution.

3.3.3 Medicine in Algeria from 1962 to present day

After independence, the healthcare professional body was predominately comprised of French doctors and health workers. To give some statistics, Salhi (2005) states that in 1963 there were 1674 European professionals who continued to provide their services to the remaining European settlers and soldiers. Whereas the overall number of the Algerian medical graduates was estimated at 387, of which, 285 were physicians, 15 dentists and 70 pharmacists. This numbers were very low and could not address the needs of the local population that was estimated at 10 million. Therefore, during the first years of independence, the Algerian government had the challenge to readapt the healthcare sector to the new situation. So, reform plans were launched to improve services and increase the caring capacity.

- **From 1962 to 1972**

Starting from 1965, an amendment to the law on free healthcare right to all Algerians was introduced and all the hospitals were soon nationalised. Furthermore, doctors were compelled to work in the public sector. Also, due to the acute need for higher-ranking medical teachers, the Algerian government was forced to ask for help from its former colonizer. The two governments agreed to run cooperative activities that included opening positions for the French to make up for the shortage in Algeria's medical technical staff.

The ten years following independence were characterized by the democratisation of the heathcare sector, but also by the spread of communicable diseases, which were associated with the large context of poverty in the newly independent country. The government had to face the burden of the lack of up-to-date skills among the healthcare body as well as the inadequate infrastructure, laboratories and equipment supplies. Some measures were taken to eradicate communicable diseases, the main ones were: increasing support to the health sector, reducing health disparities and introducing compulsory vaccination for all the children.

- **From 1972 to 1982**

This period was marked by the generalization of free health to all the population. It also witnessed some reforms regarding the medical studies but the programs and trainings continued to be delivered in French language. The institute of medical sciences of Algiers was linked to the University of Algiers and in order to enhance the quality of medical education and research, and to compensate for the persistent shortage of teaching doctors and medical trainers, the higher-raking teachers were banned from having additional part-time jobs in the private sector starting from in 1975.

- **From 1982 to 1992**

Actually, this period was characterised by the construction of a number of hospitals, teaching hospitals, and health facilities. However, the oil crisis in 1986 had not been without harmful consequences. The crisis badly affected the health system and led to its collapse, as it heavily depended on the oil revenues. The economic situation generated a decline in public healthcare and primary care in terms of caring capacity and equipment and pharmaceutical supplies and caused high and long-term unemployment among doctors and medical workers.

This led to the immigration of a large number of Algerian doctor and people whith scientific and medical knowledge to France and other European and western countries. As a result, to deal with the economic disruption two main actions were taken: In 1983 doctors were allowed again to practice in the private sector to relieve pressure on the public hospitals

and care faculties. Then in 1990, the government gave permission for the opening of private clinics while maintaining its policy of free health services in the public sector.

- **From 1992 to 2012**

The strong recovery in oil prices during this period had a positive impact on both the public and private sectors. A set of reforms were carried out by the government, with the aim of modernising the health institution to provide and organise the caring activities so that they can match the need of the growing population, which had tripled by that time. In fact, colossal efforts were made to improve healthcare infrastructures. More health facilities were built as well as community and nearby health services. In 2008, the hospitals were separated from primary care practices and about 800 healthcare infrastructures were built by 2012.

- **The present situation**

Although the medical sector has benefited from important investments and has registered high results in terms of infrastructure, during the last decade, the situation is still far from satisfactory. No real significant steps are made to transform the healthcare sector towards development, modernization, and efficiency in health delivery. Consequently, doctors and medical practitioners continue to manifest their dissatisfaction with the policies implemented by the government.

On the other hand, despite the efforts and attempts to provide healthcare services to all the population across the country, and to improve its standards, they remain insufficient. Disparities and inequalities persist in the healthcare coverage in Algeria. Besides, the private sector, which is not, one can admit, within everyone's reach, is concentrated in a few urban centres. Furthermore, the private clinics rely greatly on the human resources of the public sector. A situation, which creates much more problems and disorganization to both sectors.

3.4 The research process

In the following, I outline my research process to familiarise the reader with of the nature of my fieldwork experience and the analysis methodology.

3.4.1 Research site

The data collection took place, during the years 2016 and 2017, at two important teaching hospitals in the West of Algeria, the University Hospital Centre (CHU) and the public hospital (EPH) of Sidi Bel Abbes (SBA), a town situated in the Northwest of Algeria. My fieldwork was conducted in different departments of the hospitals: the general internal medicine, diabetes and endocrinology, oncology, the emergency general practices and the occupational healthcare departments as well as their consultation specialised units where routine and follow-up visits take place.

However, I should clarify that although I attended and recorded more than 100 consultations in different departments, but because of the fact that data transcription and analysis are really time consuming, the interactions analysed in the current research occurred mainly in the internal medicine department consultation rooms and its specialised unit. This is because it was the first department where I gathered data and started the transcription task. In addition, to the specialised unit of the diabetes and endocrinology, and the general medicine emergency room. Furthermore, the current study does not include consultations within the private practices, all the analysed interactions come under the public university hospital, and all the samples are recorded in outpatients departments. That is, interactions between physicians and the confined patients in the hospital are not part of this study.

3.4.2 Research participants

I have transcribed 27 consultations but the data studied in the current research consisted of 21 consultations that involved 6 doctors (3 females and 3 males all high rank doctors), 21 patients, (11 female and 10 male patients) whose ages ranged between 19 and 90 years old, all were recruited randomly. Besides, in two consultations in the specialised units, a resident female doctor was present with the main doctor as part of her specialisation training. And in 5 consultations the patients were accompanied with one family member; a son, a daughter, a hansband, a wife or a mother. In two consultations the patients (males) were too old and had speech diffeculty, so the interactions were between the doctors and their sons. In another case, the mother of a male patient, in his 30s with a mental health disease, was the main participant in the intercation with the doctor.

CA research methodology imposes no rules on the optimum size of the sample of interactons. This is because, as explained by Drew (2014, 233) 'Typically in CA research the numbers are low; recording, transcription, and analysis are labour intensive, inhibiting the collection of large data samples'.

In fact, in Algeria, the medical services are provided free of charge in all the public hospitals. Hence, the patients were from different socio-economic classes with a majority of patients of low and middle income and a low educational level. In addition, most of them came from the surrounding rural and sub-rural areas of the town of SBA. The largest part of data was collected in the specialised consultation departments, which were separated from the hospitals and oriented to the public polyclinics, since 2015. A decision taken by the Ministry of Health, of Population, and of Hospital Reform in order to reduce the overload on the hospitals as I explained above in this chapter. In effect, most of the consultations that took place in the specialised services included patients who were visiting their doctors for regular follow-up care but there were also patient visiting for the first time.

3.4.3 Data collection process

To carry out this research, I performed different tasks. First, the primary relevant permissions to conduct research and attend medical checkups in the consultation rooms were obtained from the head of pedagogical and medical activities of the hospital (HPMA). Then, when I got acquainted with the environment of the hospital and the nature of work of doctors, I could notice that doctors worked in different conditions in the different departments depending on the architecture of each department and their position in the buildings, as well as the nature of each branch and the kind of materials used therein. Some consultation rooms were larger than others, some were in open common areas.

In some departments, consultation rooms served other functions and operated also as rooms where nurses provided health care while doctors are examining other patients and were mostly characterised by a permanent coming and going of the medical personal. This means that multiparty interactions were taking place which on the one side cannot be part of the current investigation. On the other side such areas were rather noisy which affected the quality of many of my audio-recorded tapes which had to be cancelled from the research data. So, I decided to get directly in touch with doctors in other departments that seemed quieter and I demanded verbally from them a permission to attend the medical checkups even though I had not an official written authorization from the (HPMA) to carry out research there. Of course, there were doctors who declined my request, yet other doctors in the oncology, emergency general practice and occupational healthcare departments, favourably, accepted that I carry out data collection as they examined patients.

3.4.4 Data and Ethics

In all cases, I had to explain the objectives of my research. But to avoid bias in data collection, little information about the research was given to doctors, the general aim of the study was explained to be an investigation of the ways doctors and patients exchange information. Patients, on the other hand, were more interested in being examined than on

who I was and what my work consisted of. Furthermore, I was the only one responsible of recording the interactions during my presence in examination rooms and there were no other assistants or researchers to help with this task. Actually, it is worth mentioning that before in 2014 and 2015, I attempted several times to obtain consents from doctors and patients to make my recordings but my requests were unanymously met with refusals for reasons of privacy inspite of my sincere guarantee that all data would be treated as strictly confidential and would only serve the research scientific objectives.

Obtaining authentic naturally occurring data was the most challenging task I had to overcome in order to accomplish this research study which is the first of its kind in Algeria, due to ethics values, professional considerations, problems of self-conceptions and other. This occurs, particularly, in a non-western societies like ours, which are deeply involved in privacy respect as one of the basic cultural values and that are are not yet open on qualitative social research because of the face-threat sensitvity it may imply. Unfortunately, many doctors and patients were against recording. It is mainly for these reasons that a social scientist can be regarded as something of a spy. This was reflected in one of the doctors' comments about my research and my presence in the hospital after I had introduced myself as a researcher and showed him the administrative document that allowed me to attend the medical encounter. That doctor clearly said in jest to one of his students: '/jətʒassu: ʕli:na ((laugh))/' meaning in English 'they are spying us ((laugh))'.

However, all the recorded consultations employed in the current study were treated carefully and anonymously so that no personal information could be disclosed to the public.

3.4.5 Recording method and devices

In addition to fieldwork, I also realised the transcription tasks of the recorded data. This implied the use of a set of devices. I was close to the doctor's desk during all the

consultations. Data was recorded using a free recording application called 'Voice recorder, audio recorder', which is available on Google Play store that I set up on my mobile phone. This voice recorder, compared to others applications of similar functions, allowed me to capture a good quality of voice and sound. It facilitated the reproduction and transcription of the interactions with a few cases of inaudible and indistinct talk.

The advantage of using tape-recorded authentic data enables the researcher to carry out direct observations and make deep exploration through repeated listening (observation) whenever necessary for careful and detailed analysis of language. In addition I was always recording on my ethnographic diary any information about the environmental context and any other salient details that could be missed by the mere use of an audio recorder. Then, I used Audacity® (2.1.3) a free software to process my audio tapes. Audacity enabled me to convert easily my audio files into WAV format, which was supported by the transcription software that I used to produce precise transcriptions for the research inspection.

CA and qualitative researchers are employing various software programs for the transcription activity. I have used software because of its combined features for manual segmentation, annotation and transcription of data as shown in the pictures below.

On the other hand, ©Tavultesoft Keyman Desktop (9.0) software was used as a keyboard for the phonetic transcription of the participants' Arabic utterances. However, given that French is written in Roman letters, the phonetic transcription was not used to phonetically transcribe the French utterances when produced by doctors and/or patients.

3.5 Transcription and analysis method (CA)

After data recording, the interactions were fully transcribed for analysis following, to a large extent, the transcription system developed by Gail Jefferson (1974), one of the founders of CA in the 1960. Jefferson-style transcription is still relied on to this day and it focuses on the organization of talk. This system has been developed to cover more aspects of talk including the verbal and even the nonverbal features.

3.5.1 Transcription

Data transcription is realised in a fashion that requires researchers to consider every detail in talk as an important activity to investigate the relationship between language use and the construction of social reality. CA transcripts differ from the other kind of transcripts realised in the other disciplines that study language, in that the latter overlook the details CA researchers use to reproduce real talk. For instance, overlaps, silences and pauses and their durations, hesitations, laughs, in breath and out breath, tone, volume, repairs, etc., exclusively reflected in CA transcripts.

These are regarded as very important features and fundamental components that speakers produce in a mechanical and habitual way. They convey essential information, about where, when, and how they occur in sequences of real talk and consequently should not be neglected. Nevertheless, this is not to mean that by employing a set of conventional symbols to indicate as much features as possible, the transcripts will look exactly like the original versions of the real recorded speech. Obviously, no matter how much any researcher tries, transcripts can never fully reproduce all the details and features contained in spoken discourses especially when it comes to capturing the non-verbal conduct of the participants, and particularly, as in my case, if data is based on audiotapes recordings rather than videotapes recordings.

In fact, the analysis focuses only on the verbal conducts and does not include interpretations of the participants' non-verbal practices due to the lack of video-recorded data, which in very few cases stood as a barrier to differentiate who is speaking, particularly, in situations when more than one party were involved in the interactions. Indeed, in such situations, the use of the research diary and relying, occasionally and only when necessary on my ethnographic memory, since I carried out myself the fieldwork and I intended purposefully to be very close to the doctors and the patients to capture more valuable details about the interactions. My observations were very helpful particularly in the analysis of the use of the French utterances to identify the function of CS. They helped me recognise to whom doctors were talking to in French: the patients or the resident student (see chapter 7).

I should explain that this is my first experience with CA and the Jefferson-style of transcription. Thus, in order to accomplish all the tasks that CA research entails and to meet its standards, I took part in four short courses and workshops in the UK at Loughbough University in 2017 and at York University between 2018 and 2019. In addition, I participated in a number of data sessions with PhD students and researchers from both universities where researchers meet on a weekly basis to discuss their data and research progress. Actually, these introduced me to CA methodology, which remains hardly used by our researchers in

examining language use in Algeria, and helped me improve my skills of transcription and analysis.

Given that data is in Arabic (AA) with instances of French use, I also had to translate my transcripts into English, which is the language in which this research is written. However, Arabic has a different word and morpheme order compared to English. Therefore, to present my transcripts, I used the three-line convention as suggested by Gumperz and Berenz (1993) which is largely used for non-English transcription. The three-line lay out is important to preserve the linguistic properties of the original language and it facilitates the grasping of its structural order for readers whose language is not Arabic and it is also appreciated and even required for publications. So, data was presented according to the following lay-out:

Line 1: The original language (I used the phonetic transcription to present the Arabic characters)
Line 2: A literal (morpheme-by-morpheme) English translation.
Line 3: An idiomatic English translation.

But, in sequences where the word-order in Arabic was the same as in English, the second line was assumed to be unnecessary and thus omitted.

3.5.2 Analysis method (CA)

In chapters one and two, I have already indicated that CA is the research methodology adopted to carry out this research. The choice of CA is underpinned by its systematic and inductive reasoning in documenting how participants in an interaction sequentially position themselves in relation to each other through the development of moment-to-moment events in naturally occurring interactions. Put simply, Drew (2014:232) defines CA as 'a naturalistic, (largely) qualitative, micro-analytic, systematic comparative and inductive methodology for studying real-life interaction'.

By examining the orderly turn-by-turn organisation of talk-in-interaction, we can unearth how people construct their utterances and turns in a design, which displays their shared understanding of the prior action(s) in the preceding turn(s) and how both participants interactionally negotiate meanings. To put another way, to explore language use without associating linguistic phenomena to the social identity and characteristics of language users. CA looks at social facts and social actions in interactions rather than focusing on social factors. It analyses the sequential organisation of talk to identify the socially shared patterns, the general social interactional practices that ensue meanings and actions in interactions (Drew and Heritage, 2006; Drew, 2014; Heritage and Maynard, 2006). The Goal is to avoid perpetuating generalisations about the role of independent variables (Sidnell, 2012)

Therefore, social factors such as class, region, gender, age, ethnicity, culture etc., which have permeated the literature especially in the variationist sociological approaches to the study of language are not part of the analysis in my current research. Indeed, gender and age of patients and only the gender of doctors are identified in every consultation with the simple aim of providing a broad picture of the general context of every consultation but I did not study them as social variables in the analysis of sequences. In tune with this, Sacks (1984), Goodwin (2002), Schegloff (1997), argue that the investigator should not impose these social categories on the material they are examining rather the investigator should focus on the participants' forms of conduct, their orientations to features of interactional context to able to recognise the aspect of identity they embody (Goodwin, 2002).

Using CA methodology, my research studies the dynamics of control in DPI in Algeria. It examines the discursive details in medical interactions to locate the interactional asymmetries between doctors and patients in primary care contexts. Hence, to explore how interactions are organised and determine how asymmetry and authority are constructed, I conducted a number of analytic activities. I looked at:

1) The overall structure of consultations and their interview format.
2) The question forms in the history taking and examination phases.
3) The treatment and recommendation formats.
4) The patients' initiatives and resistances of diagnosis and treatment (some instances).
5) The role of CS in relation to authority and control.

This involved the application of CA procedure that consisted in repeated observation, the specification of the type of the discursive actions in utterances and turns, the descriptions of these discursive practices (explaining how they are conducted). Then, they are interpreted in relation to their joint construction, i.e., in relation to their sequential order in the interaction (and/or in the phase/activity they serve).

This is a purely qualitative research. It did not include any quantitative techniques in the interpretation of data, based on the shared assumption among CA researchers, such as Schegloff (1993), Drew (2005), Hoey and Kendrick (2017), who all agree that it is unnecessary to provide quantification of phenomena, moreover it may lead to invalid interpretations, especially, when the quantification fails to notice certain meaningful interactional properties (Drew, 2005).

Schegloff (1993: 100) asserts that CA's considerations do not pertain to quantitative research, which has different analytic commitment. While Drew (2005) adds that CA focuses on the interactional properties in talk to provide explanations for the participants' shared understanding of meanings and the succession of events rather than being concerned with quantifying turn types. I organise the analytic part into separate chapters that will unfold progressively and I will disclose further details about the properties and the models of analysis implemented in each chapter.

3.6 Conclusion

The objective of this chapter was to situate my research in the field. I gave an overview of the linguistic situation and provided information about the functioning of the medical institution in Algeria. I went on to describe access to the public hospital and its specialised units where I conducted direct observation and realised my audio recordings that constitute the basis of my research. I also gave a broad overview on the procedures followed to reproduce my tape-recordings into transcribed data for analysis. Although CA is presented as the research methodology of this study from the beginning, the chapter explained how I used and been influenced by CA's perspective to guide me in accomplishing the tasks of data analysis.

Chapter four: Medical authority in the communicative formats of the consultation

4.1 Introduction

This chapter examines the overall structure of DPI. It looks at its activities and the order to which the co-participants (doctors and patients) project to organize these medical activities in their communicative practices. First, I have examined the overall organisation of all my transcribed data to confirm that they are globally structured according to the model proposed by Byrne and Long's (1976)[17]. Then, in order to cover all these recognisable phases as they progress through the flow of activities, I will examine an entire interaction divided into extracts that relates to a distinct phase.

Two tasks will be performed, simultaneously. The first task is to describe the overall structural organization of the DPI in primary care context. The second task consists in looking at the communication formats (hereafter CF) in the consultation, especially, the alternation between the 'interview format' (IF) and the 'information delivery format' (IDF) as they are used by Peräkylä and Silverman (1991). CF represents one aspect of the recurrent shifts in roles (or alignments) between participants, in a conversation, as the Speaker and the Recipent and/or the Questioner and the Answerer. Goffman (1981b: 128) refers to this as 'footing', he claims that: 'A change in footing implies a change in the alignment we take up to ourselves and the others present as expressed in the way we manage the production or reception of an utterance'. The focus of the interaction analysis is to demonstrate that authority is evident in the IF and IDF, which are locally managed in the consultations.

4.2 New medical problem presentation as reason for the visit (Activity 1)

The following interaction occurred in the general medicine practice at the public emergency department of the (EPH) hospital in Sidi Bel Abbes. The participants are a female doctor and a nineteen years old male patient with a problem in his knee because he fell down

[17] Byrne and Long's (1976) phase model for entire physician-patient visits: (a) relating to patients (i.e., opening visits); (b) discovering patients' reasons for attendance (i.e., either physicians or patients establishing the reason for the visit); (c) conducting verbal (i.e., history taking) and/or physical examinations; (d) considering patients' conditions (i.e., diagnosis); (e) detailing treatment or further investigation; and (f) terminating (i.e., closing visits).

during a football match three days before he visited the general practice of the emergency department.

The encounter starts with a complaint by the patient who rushes[18] into the consultation room and quickly takes the opportunity in the same turn to be the first to speak and provide the reason for the visit immediately soon after he greets the doctor /ţuɦţ/ (I fell down) in line (4).

In the majority of medical visits, the reason for the visit (the problem presentation) is initiated by doctors as it has been documented by many researchers in health communication (Bates et al., 1995; Cohen-Cole, 1991; Swartz, 1998; Coupland et al., 1994; Frankel, 1995) through questions such as the following examples taken from Heritage and Robinson (2006) extracts:

1) What is happening to you?
2) So what is going on today? What brings you in?
3) What can I do for you day?
4) How you doing today?

In extract (4.2) below for example (from another consultation), the doctor orients to the IF to ask the question /ki:ra:ki: darwak?/ (How are you now?) in line (16) that not only initiates the sequence of medical problem presentation but also sets the reason of the visit as a second or routine check-up examination.

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[18] An account based on my personal observation and ethnographic memory.

However, in Extract (4.1), the patient initiates the problem presentation without the doctor's solicitation. Although this is rare, but in fact, this format is quite common in emergency departments where quick and appropriate healthcare is required to provide care to the many emergency service seekers and because doctors are subject to high time pressure and work stress. So, the current patient is orienting to the emergency problem presentation model. Interestingly, the patient mentions also that he has not received any assistance from the other doctors, when he says / maka:nʃ ga:ʕ əlli ʃa:fni/(nobody examined me) in the same turn (line 4) after that the doctor produces a continuer /wa::h?/ (yes?) in line (9) and that she realizes with a final rising intonation and in overlap with the patient's one word utterance /ţufiţ/ (line4).

The doctor's utterance embodies her alignment to the patient's IDF, i.e., the continuer functions as a questioning utterance that invites the patient to give the reason for the visit. It sets the Patient as the speaker and the doctor as the recipient of information But, through the patient's indirect blame (nobody examined me), the patient is, in fact, accounting for and indirectly justifying his behavior and footing (rushing into the room and initiating the problem presentation), i.e., justifying his orientation to IDF, in /ţufiţ/ (I fell down) in line (4), without being asked any question by the doctor. Thus, the problem presentation is initiated by the patient, but not without consequences; the patient accounts for his action by justifying it.

The problem presentation initiated by the patient continues until line (46), in this sequence the patient talks about his experience and the circumstances that caused this pain in his knee. He also complains that the pain persists in spite of his attempts to treat it by taking paracetamol. Remarkably, the patient's utterances are brief and followed by considerably long pauses (lines: 15, 21, 34) that offer opportunities to the doctor to take on.

The IDF is maintained throughout the whole sequence between lines (4) and (42). The doctor produces the acknowledgement tokens /wa:h/ (yes) in lines (17, 23, 39) to acknowledge information recienpiency and to invite the patient to continue his presentation of the problem, i.e., they also function as initiators of the patient's next action (to give further information) and entail control of the flow of the interaction. The doctor and the patient are respectively aligned as the recipient and the speaker and collaboratively work to maintain IDF.

The doctor does not actively take the speakership until line (44) at TRP where she is about to change the footing from the recipient to the speaker. However, she soon drops out as she realizes that the patient, the first speaker, has not yet completed his turn yet. In line (49), shown in extract (4.3) below, the doctor takes on and recycles her utterance as a question (cf., Schegloff's paper: Recycled Turns Beginnings (1987)). The doctor's previous turns (lines: 15, 21, 34) are designed to give the patient complete opportunities to make his presentation before she engages him in IF (question-answer) next activity. Actually, the overlap in line (44) is an announcement that the doctor is upcoming to a resumption of a more active role and the beginning of a new activity as well as a shift towards the IF in which additional information will be gathered (i.e., history taking and/or physical examination) and correspondingly establishes the patient as the answerer.

4.3 History taking and physical examination (Activity 2)

The second activity begins at line (49) and closes at the end of the examination (line 175). Throughout this phase, the doctor engages the patient in questioning. It establishes the doctor as the interviewer (questioner), that is the inquiring (examining) subject and the patient as the interviewee, therefore, the object of the medical examination. It corresponds with the IF, which is maintained throughout this phase.

The doctor asks questions to gather information and evaluate the patient's answers. Five types of series of question-answer adjacency pairs are distinguished:

Series 1: lines (49-67).
Series 2: lines (74-89).
Series 3: lines (97-106).
Series 4: lines (115-140).
Series 5: lines (144-165).

Series 1 and 2 are related to the history taking, and series 4 is related to physical examination. More history taking occurs in series 5. However, series 3 is related to an incident that happened during the examination as the doctor was unable to roll up the patient's trousers to check his knee. The five series are separated by directive utterances which are all produced by the doctor to instruct the patient to do actions: /ţlaʕli lhi:h ʃwi:ja/ (go up there a bit) line (70), /arwa:ɦ hna/ (come here) line (93), /ʁi: ʒəmaʕ tʃu:f ʒəmaʕ/ (just sit sit) line (110). Paul ten have (1995) refers to such directives as instructions for physical cooperation, in medical examinations, that often mix with the IF. The two parties engage in IF, however, the patient in line (63), after he answers a polar question with /wa:h/ (yes), abandons the role of answerer and shifts to a speaker when he says /ţuɦţ ʕla ʒəmbi/ (I fell on my side), but he is still orienting to the doctor's IF order of roles.

This can be supported by the gap of half a second (line 65), that is considerably long, and which he could have filled by taking over a new turn if he was projecting to change the footing, but he did not. In doing so, the patient is only using his current turn (his sequential location) to provide another detail but he is not shifting to another format. Robinson and Stivers (2001) regard this as a projection to the physical examination in the service of the problem diagnosis.

Notice that the first series (sub-activity) in this phase is initiated by the doctor and closed by the doctor through her use of the acknowledgement token (line 67) /ʂaħa/ (ok/alright) which functions in this sequential location as a 'closing' and a 'relevant-transition' marker to shift to a new activity (here a sub-activity). In his research paper: "Conversation Analysis: "Okay" as a Clue for Understanding Consequentiality", Beach (1995a: 154) finds that speakers use "Okays" to achieve routinely different actions. Among these actions appear closure and transition toward next activities or topics.

In line (70), using the imperative form, the doctor directs the patients to sit on the examination table /ʈlaʕli lhi:h ʃwi:ja/ (go up there a bit), then she starts another series of history taking questioning where both parties collaboratively (question-answer adjacency pairs) maintain IF and their same roles as questioner doctor and an answerer patient (lines (74-89). Another directive occurs in line (93), /arwa:ħ hna/ (come here). It announces a change to another sub-activity that is the physical examination phase where a set of questions about the pain and the place of the pain[19] are initiated by the doctor (lines 115-140). The doctor changes the topic and launches another series of questions related to history taking activity in lines (144-165). In line (115) the doctor asks a question to which the patient fails to respond. As a result, the doctor asks the question again.

[19] The doctor is, apparently, showing the place and trying to reproduce the pain.

This occurs because questions require answers, and when the answers do not follow or take a quite long time to take place, their absence is regarded as an accountable action. Hence, the doctor not only repeats her question (line 120) accounting for the four-tenths a second pause (line 118) made by the patient but she also reformulates her question by uttering the verb that embodies the whole question in Arabic / tənḍar tənḍar/ (does it hurt you does it hurt you), in line (120), twice for emphasis. She, also, takes the opportunity to control the patient's answer by specifying the place under examination and the state in which she tries to reproduce the pain that the patient complains about /hna ha:ka/ (here like this).

Yet again, the doctor initiates another series of more history taking questions that mark the end of the examination sub-activity and prepare for a transition towards the next activity (the diagnosis delivery). Interestingly, in line (171) the patient volunteers an unsolicited information that the doctor disregards to maintain the IF and avoid any possible change in roles that might set the patient as a speaker and the doctor as a recipient and tp prevent an extension of the current activity. Afterwards, the doctor explicitly makes a statement that closes the history taking and physical examination phase in line (175) /ça y est kəməlt xu:ja/ (that's it I finished my brother). She follows it with a directive /arwa:ɦ tʃu:f arwa:ɦ rijaɦ/ that invites the patient to come and sit at her desk (line 137) in order to deliver the diagnosis.

4.4 Diagnosis delivery (Activity 3)

After she has obtained the medical history and performed the physical examination, the doctor shifts to IDF and delivers diagnosis (187). In doing so, she orients to what Peräkylä (1997a: 206) identifies as 'straight factual assertions' that are 'regularly used when the reasons or grounds for the diagnosis are obvious either on physical examination or from the medical document such as an x-ray' i.e., the evidence is available to the doctor and the patient.

Through an unproblematic diagnosis the doctor underestimates the seriousness of the problem /matku:nʃ ɦa:ʒa/ (it isn't something/ it is nothing). She indicates by a negative assertion that there is nothing serious to worry about and goes further to deny the possibility of a fracture. An inference she has make about the patient's unspoken possible reason for the visit. This way of delivering the diagnosis (the straight factual assertion) is argued to embody a strong orientation to the doctor's authority. Yet, it should not be understood as unconditional; Peräkylä finds that it is blended with intersubjectivity since the diagnosis is evidenced to the patient. (cf., Peräkylä, 1997, 1998; Drew et al, 2001; Heritage and Clyman, 2010). In three locations in the interaction, the patient affirms that he has 'little' and 'just a little' pain (lines 132, 140, respectively), also no bruise on his knee (line 165).

From a CA standpoint, the diagnosis delivery statement is regarded as an information delivery statement (Silverman, 1997a; Maynard, 2003). Its reception – registered either by an acknowledgement or a change-of-state token (such as 'oh') from the patient – would be its relevant-next action (Peräkylä et al, 2010: 508). In line (191), the patient produces the token '/əm?/' realised with a rising final intonation. In this case an alternative to'/əm?/' might be 'what?'. Either the patient fails to hear the diagnosis or he is surprised and questions it. Because no problem diagnoses do challenge the patients' justifiability of the consultation. Subsequently, the doctor repeats her diagnosis (line 193) with a slowed down pace. She definitely confirms the impossibility of a fracture. Again, the doctor's turn is designed so that the information it contains will be accepted on authority from the viewpoint of a medical expert with superior knowledge and ability to make medical interpretations that the patient should accept.

Therefore, the patient starts his turn with an alignment to the doctor's diagnosis as a typical relevant-next action (line 196). However, although his turn starts with an acknowledgement of the diagnosis /wa:h ma:jku:nʃ/ (yes it isn't), the patient soon follows-up with a counter argument marker /bəṣaɦ/ (but) to emphasize his justification in the account he provides in lines (196, 204) where he claims that the pain has been increasing. Nevertheless, this account is not implied to counter the diagnosis. Rather, it accounts for the unproblematic diagnosis and functions as justification for his decision to see a doctor, now that it has been shown that nothing is wrong with his knee. This format of responding supports the format identified by Peräkylä (1997, 1998, 2010) concerning the straight factual assertion that Peräkylä claims that it can rarely result in resistence because the diagnosis is not opaque. Furthermore the patient's use of the adverb 'when' /ki:/ demonstrates that the patient is merely reporting an event rather than countering or resisting the diagnosis.

But, the doctor, on the other hand, takes on immediately after the patient says the word /bəṣaɦ/ (but) and thereby anticipates a counter argument (resistance) to her diagnosis from the patient. In overlap with the patient's talk, she puts forwards an argument in which she up grades the outcomes of fractures that she evidences by his ability to move. Furthermore, the doctor takes on when the patient displays his projection towards speakership after diagnosis acknowledgement. Through this conduct, the doctor declines the patient's attempt to shift his role from recipient to speaker and the doctor's roles from speaker to recipient. Another possibility is the doctor's rejection of the patient roles negotiation to turns the current CF into a Discussion Format (DF), which will position the doctor and the patient on equal footing (Ten Have, 1995). Apparently, the doctor is not interested in yielding her role as a speaker yet, and rejects equal positioning as co-discussants.

In doing so the doctor maintains the interactional control over the CFs and the identities allocated to the participants. This is supported by her self-select to take over in the next turn (line199) as well and maintains IDF to provide more information (assessment). In the same way, she continues with further assessment in line (208) where she undervalues the patient's experience and attempt to stop the pain by taking paracetamol. The doctor identifies herself not only as a speaker but also as the professional and the knowledgeable one by producing specialist knowledge (199, 208). This way, the doctor is relying on her epistemological superiority to exert control over the flow of interaction and the patient's conversational contributions. However, by clarifying the evidence of the diagnosis after its delivery, the doctor is sharing her reasoning with the patient. That is what Peräkylä refers to as doctors treating patients as *understanding recipients* (Peräkylä, 1998: 30) which does not occur when doctors underestimate the patient's understandability.

Very importantly, the doctor has managed the patient's alignment as a recipient rather than a speaker and she can now allow for a gap (line 210), that the patient fails to fill with further talk. Thereby, both of them orient to closing the current activity and move to the next one; the treatment and recommendation phase.

4.5 Treatment and recommendation (Activity 4)

Robinson (2003: 42) claims that 'physicians are trained to initiate treatment-related activities immediately following the delivery of diagnosis and this training is reproduced in practice'.

In the above extract (4.5), the treatment recommendation project is initiated by the doctor with a directive (line 212). This directive is designed to suggest that 'not playing (football) these days' is preferable. The suggestion is formulated through the use of the French word 'essaie' which means 'try' in English. It reflects the doctor's responsiveness to the 'unproblematic diagnosis' while she could have incarnated a prohibition through the use of the imperative form to say 'don't play these days' but she does not, because if she did, it would have carried the meaning that the problem is rather serious and thus would contradict the diagnosis.

Nevertheless, through this format, the doctor maintains her authority and assert agency over making the recommendation advice that is provided to the patient to act on it (Stivers et al, 2018). Generally speaking, the preferred relevant-next action after a suggestion is an acceptance, however, the patient responds with an acknowledgement token /wa::h/ (yes) in line (216) instead of an acceptance (that would be /ṣafia/ (ok/alright)). This is done to reflect the patient's no change-of-state that he soon, in the same turn, consolidates with an assertion that 'he does not get off the bed at all'. This can be interpreted by what is known in the medical literature as 'catastrophisation' (cf., Robson et al., 2012; Smeets et al., 2006; Bartley J et al., 2008; Fabian LA et al., 2011).

The patient implicitly claims that his problem is more serious than what the doctor believes or states in her negative diagnosis. He uses the upgrade marker /ga:ʕ/ (at all) in his utterance /ma:ni:ʃ nətħarak ga:ʕ/, so that the pain he complains about would not be dismissed as minor. This is done mainly because the rationality of patient's concern is threatened by the doctor's evaluation of problem as non-serious (unproblematic diagnosis) (cf., Heath, 1992; Heritage, 2005). Hence, he tends to report further information in other locations in the interaction where he takes opportunities during the treatment activity to extend implicitly more reasons and descriptions to portray the pain as worthy of the complaint and influence the doctor's responsiveness. In this regard, Heritage (2005: 83) argues that doctors' authority is above all embedded in patients' tendency to justify the medical visit and legitimise their complaints to the doctors.

However, this doctor abstains from considering the patient's claim. She marks a rather long pause (one second and two tenth) in line (219) before she takes over (line 221) to initiates topic and activity (taking a record of his name). This can be explained in two ways. On the one hand, the doctor aims at maintaining control over the flow of activities, in other word she does not wish to orient back to a completed task, which is the diagnosis activity. On the other hand, it displays again that the doctor refuses to orient to DF in which both of them can align on equal footings. Accordingly, the only CF types she allows for so for in this consultation are the IF and IDF which give her a superior footing whether as a speaker (informer) or questioner (interviewer).

While she is presumably writing the prescription, the doctors launches a series of questions (lines: 212-242), thereby she orients to IF. These questions serve a bureaucratic and biomedical purposes. Even though the patient takes a chance after a considerable pause of five seconds and two-tenths of second (line 247) to volunteer a new description and engage in more catastrophisation (line: 249), the IF remains the dominant format of this

sequence and preserves the same roles. In effect, the patient's initiative, this time, is successful in getting a response. However, the doctor responds with a question (line 253) then engages in IDF that represents her as the possessor of knowledge, which gives her the right to evaluate the patient's experience.

In addition, authority is most explicit in her normalization /hija c'est normal/ (it's normal) and downgrading /maʃi:: ɦa:ʒa/ (it's nothing) of the reported symptoms in spite of the patient's recurrent and vigorous assertions that they reappear at night. Finally, the patient subsides and gives way (line 268) by rapidly producing an acknowledgement token 'əmm' which exhibits a shift to 'passive recipiency' (cf., Gail Jefferson (1984)) and gives a hint to the doctor that the patient aligns as a recipient and not a co-discussant. Then again, she takes over (line 271), after a five-tenths pause, and carries on with another explanation of the pain persistence.

The doctor resumes the treatment and recommendation activity either as an interviewer or a speaker. Finally, this phase is closed by the doctor who provides a set of instructions that she follows by a confirmation question 'ça y est?' (alright?), in lines (328, 333). Stivers (2005c) claims that physicians rarely close consultations without the patients' acceptance of the treatment.

4.6 Closing (Activity 5)

Based on Schegloff and Sacks' (1973) work on turn-taking system in conversations, Robinson claims that DPI cannot appropriately be terminated merely by stopping talking or leaving the office. He advocates Schegloff and Sacks finding that 'a standard solution to this problem is a sequence of talk specialized for this particular job, called "terminal" sequence' (Robinson, 2001: 641). However, the closure does not occur abruptly, it is necessary for

participants to create an environment in which they can propose the closure. In other words, closure utterances are often preceded by pre-closings.

Thus, in overlap the doctor and the patient initiate the pre-closing in this extract (4.6) (lines 333, 338). The both orient to closing the consultation as the treatment and recommendation activity is completed or points towards its completion, i.e., an environment where ending the visit is the relevant next activity. But the actual closing is initiated by the patient (line 338) / aja əllah jʕa:wənkum / (i.e., so may Allah help you) in a form of a payer; a cultural Muslim polite way to express gratitude and pull out of an encounter, in Algeria. In return, the doctor responds by another prayer / əllah jʃa:fi:k / (may Allah heal you) which is also commonly produced by Algerian doctors by the end of the consultation and reflect Muslim beliefs that embedded in their way of language use.

4.7 Conclusion

The analysis of the sample interaction selected in this chapter showed that medical consultations are well organized events, not only in terms of the order displayed in the performance of a set of consecutive activities that both the doctor and the patient oriented to. That is, showing shared understanding of the arrangement of phases in conformity with the general and conventional framework proposed by Byrne and Long's. Additionally, the sequences in the interaction were examined for a closer consideration of the details of participation status in formatting the consultation. The chapter presented a two level analysis of the manner in which interrelated actions are developed and negotiated to allocate specific identities to the doctor and the patient. The examination of the local roles in the sequences demonstrated that asymmetry in the distribution of CFs was stable, locally and jointly maintained by the participants who work toward achieving the medical goal of the visit.

Chapter five: Medical authority is grammaticalised in question forms

5.1 Introduction

Questions can embody particular grammatical constructions designed to perform specific tasks in order to secure or undermine the advantage of one party over the other. The purpose of this chapter is to examine the formats of doctors' questions and their subsequent answers to demonstrate how authority is grammatically embedded in the structure of questions, and how control is managed between the social roles of doctors and patients. In other words, to show that control is not only negotiated through participants' roles in the interaction but also through the choice of formats of questions and their content contributing thereby to render DPI more asymmetrical. Although a significant number of questions, generally, emerge during the taking-history phase, in the analysis, focus will not be limited to the history-taking question-answer sequences. Questions and answers, which emerge in other segments of the visit, are also included and analysed, in this study.

5.2 Questioning and answering design

Like interactions in many institutional contexts 'questioning' as a discursive resource is one of the major aspects that characterise DPIs. Questioning can occur during all the phases that constitute the medical encounter. However, questions occur more significantly during the history taking activity as it has been demonstrated in the work of many researchers such as Bates et al. (1995), Roter and Hall (2006), Stivers and Majid (2007), and Heritage (2010). During this phase, doctors use different forms of questions to make inquiries about patients as a means to gather significant information related to the patients' illness and the medical history.

Given the general importance of questions in the exchange of information in both ordinary and institutional contexts and because information about the patients' medical and personal experiences (for example, family, social and psychological circumstances) can only be elicited through questionings, doctors are predisposed to question their patients in pursuit of a diagnosis to the illness (West, 1984:71). In order to examine how doctors and patients

design their questions and answers, I adopt a model proposed by Heritage (2010) to analyse the basic features of question design. The following table summarises his most important dimensions of analysis:

Table 5.1 Dimensions of Questioning and Answering (Heritage, 2010: 44)

Physician Questions	**Patient Responses**
Set agendas	Conform/does not conform with
(i) topical agendas	(i) topical agendas
(ii) action agendas	(ii) action agendas
Embody presuppositions	Confirm/disconfirm presuppositions
Convey epistemic stance	Display congruent/incongruent epistemic stance
Incorporate preferences	Align/disalign with preferences

The above table shows that doctors' questions have four features: First, they set particular agendas for patients to respond to, either by engaging or by declining to engage. Second, questions include the doctors' presuppositions about patients and their conditions. Accordingly, patients formulate their responses either to confirm these presuppositions or to disconfirm them. Third, doctors' questions communicate the epistemic stance[20] (unknowing vs. knowledgeable) towards the sought information from the patient. Forth, doctors design questions in such a way that demonstrate their preferences and dispreferences vis-à-vis the patient's forthcoming answer.

5.2.1 Medical questioning enacts authority through agenda setting

One of the basic characteristics of institutional interactions is the distinctive roles participants perform when they talk. Usually the institutional agent, the doctor in this study, asks questions while the client/service seeker, i.e. the patient here, answers them. The first dimension I will examine, in data analysis, addresses the function of questions in setting two

[20] This parameter will not be analysed in this chapter. Epistemic stance will be discussed in the coming chapters 6 and 7.

types of agendas: topical agenda and action agenda. That is I look at the grammatical features doctors use to discourage patients from moving beyond the agendas set by doctors (Mishler, 1984; Heritage, 2010; Boyd and Heritage, 2006).

The first dimension 'topic agenda' is set through questions to index the desired content of the subsequent answer, i.e., questions establish constrains on the patients' choice of their topical ingredients and specify what to be included in their responses next. On the other hand, in 'action design' doctors design questions to invite patients to perform particular actions: for example, patients' answer either by yes or no to: confirm or disconfirm, accept or reject an idea or a situation. Consequently, patients not only answer questions but, in effect, they perform particular actions such as giving information, clarifying, justifying; expressing feelings, etc.

- **Action and topic agendas alignment**

The above excerpt is extracted from an interaction between a female doctor and male patient during a routine follow-up visit at the specialised consultation unit of the internal medicine department. After the greeting is accomplished, the question asked by the doctor (line 20) initiates a new topic to solicit an information from the patient. The doctor uses the Arabic question word /winta/ (when) which functions like a wh-question[21] word in English, to ask about the date of the appointment for a routine visit /winta rah ʕandek ərrendez-vous?/ (When is you appointment?). The question 'when is your appointment?' is typically institutional and indexes the suggestion that the respondent is not allowed to visit the questioner, i.e. the doctor, without an earlier formal arrangement.

[21] This type of questions are equivalent to the English wh-questions, which make relevant the occurrence of a person, a place, or a time in the build of the response (Raymond, 2003).

Moreover, it is uncommon in ordinary situations, especially in the Algerian culture, that one speaker asks a similar question to their visitors even if they have not planned to meet or to visit them. Hence, this type of questions mainly occur in institutional contexts where one participant's position allows them to make such queries without appearing rude. Actually, the question is, asked to find out whether the patient is visiting the doctor in the right date according to the doctor's schedule. The doctor designs her utterance in an interrogative form to initiate an adjacency pair, i.e., FPP that requires an answer as SPP from the patient. Correspondingly, in line (24) the patient, answers the doctor's question, hence, he performs the desired action. Also, he provides the solicited information about the arranged time for the medical follow-up visit by providing an approximate date 'last week', by which he conforms to the topic agenda. In doing so, the patient conforms both to topic and action types of agenda as set by the doctor question.

Then, in line (28), the doctor asks another question by which she accomplishes, as argued by Ford et al. (2002: 33): 'separate, further actions such as stance displays or assessments'. In other words, the doctor uses a yes/no question as gauge to achieve a particular purpose. In this current instance, the doctor is fishing for an answer that is designed to be presented as an admission or an assertion of an act performed by the patient. (cf. Bennett, 1982; Schegloff, 2007) and that she will exploit later to criticise or blame him for having done it. To achieve her goal, she designs her question in a closed-ended interrogative format which, systematically, set constraints on the answer format type. That is, the relevant next action is under the constraint to be performed through a yes/ no relevant next answer (or a variant to a yes/no answer) to confirm or disconfirm her assumption (anticipation) that the patient has come to the appointment the previous week.

Actually, the consultation should have taken place the week before but did not, because it coincided with Achourra, which is a public religious holiday in Algeria during which most of public institutions are closed and among them the specialised consultation units. The aim of the question (line 28) is to evaluate the patient's behaviour, whether he has observed that the specialised consultation unit is a public institution and will logically, close on public national and religious holidays and thus it is unnecessary to come to the appointment. What comes next in lines (33, 36, and 40) demonstrates that the doctor's design and choice upon a polar question (line 8) has been successful in getting the patient accomplish all her set topical and action agendas and allows her to maintain control over the next actions.

In effect, the way the patient formulates his answer, not only conform to the agendas-setting, it also embodies the patient' understanding of the doctor's hidden agenda (the doctor's fishing for an assertion to blame him later). Notice that his answer is significantly delayed (line 31) but ultimately responds positively to the question. However, what is interesting about his answer is his use of the verb in first plural form /ʒi:na/ (we came) instead of /ʒi:t/ (I came).

Presumably, his choice of conjugating the verb with first person plural is meant to save his face and reasoning, which is shared by the other patients also present that day. In other words, he implies that he is not the only one who came that day, all or many patients came too because their visits were planned for the twenty eight. In effect, the fact that the patient and other patient arrival to the specialised consultation unit on a public day also shows the extent to which patient are obedient to their doctors and the institutional order of appointments in hospitals. The doctor takes the floor to further question the patient reasoning and advance her opinion about his decision to come on a public holiday as being a waste (of time and money).

DPIs are seen as quasi-formal interactions. They occur in formal institutional contexts but can involve features of mundane conversations. For instance, doctors and patients can step outside the scope of the medical framework of the visit and talk about everyday matters of life. Nevertheless, when this happens, the overall organization of the conversation remains constrained by the institutional structure of interaction, which attributes doctors with more rights to control the flow of events during the consultation to set boundaries about the topics discussed, the length of sequences, actions, etc.

- **Action and topic agendas disalignment**

This is another excerpt from the same previous consultation. The doctor uses an alternative question[22] in line (74) to enquire about whether the patient has done a colonoscopy or not. But the patient designs his answer (line78) in a format type that neither conforms with the action set by the question, nor directly addresses its topical content. In other words, the answer does not include a content like: 'Yes, I repeated it' or 'No, I didn't repeat it' or simply other brief 'yes' or 'no' answers that the question can grammatically afford.

Actually, the type of design of the answer provided by the patient in line (78): 'last year' departs from the constraints posed by the grammatical form of the alternative question asked by the doctor. Significantly, this type of answer that the patient has used conforms

[22] An *alternative question* is a *question* that presents two or more possible answers and presupposes that only one is true

mainly, with questions that solicit time-related information and include the Arabic question word /wi:nta/, (when). For example, /wi:nta dərt əlcoloscopie/ or /wi:nta ʕawət əlcoloscopie/ (i.e., 'when did you do the colonoscopy' or 'when did you repeat the colonoscopy').

Arguably, this departure from the question's agendas is not purposeless and is informative in two ways: First, it displays the patient's understanding of the doctor's intention, and awareness of the direction and trajectory of the next actions, especially, because questions give clues about what will come next (planning for a colonoscopy to be realised before the next routine visit). Second, patients with chronic diseases become familiar with some routine medical procedures, such as repeating the colonoscopy every year as in this case. Therefore, the patient is probably reluctant to do the colonoscopy again for some reasons that may include unaffordability due his low socioeconomic status and thereby inability to afford its cost, or because of the painful and unpleasant experience of the procedure itself. Raymond (2003: 946) refers to this type or departures as 'non-conforming responses' which occur because 'speakers design their turns to depart from, disappoint, or avoid the constraints set in motion by the grammatical form'.

However, observe that the doctor considers that her question has not produced the desired content in the answer as whether the colonoscopy has been repeated this year or not. Accountably, a precision is missing, therefore, she repeats her question, now producing a repair (line 85) in which she changes the form of her question to a polar question. She uses a negative interrogative formulation /madərnaha:ʃ/, meaning 'we haven't done it', which anticipates a 'no response' (see preference design section 5.4) . The question is structured as follows:

pre-negative particle (/ma:/ + verb + final negative particle /ʃ/ (The AA structure of verbs in negative form)

This format will allow her to get either a confirmation or disconfirmation that the colonoscopy has or has not been done this year, nevertheless the use of the negative form projects to a negative answer. Such design will further constrain the patient to produce a SPP that aligns with the question in terms of the action type and the topical agenda type. Although, the patient disaligns in answering the first question with the agendas set by the doctor, the latter does not abandon her query and ultimately manages to get a type-conforming response 'no we haven't done it yet' (line 88) that will enable her to take the decision to repeat the colonoscopy.

On the other hand, the doctor's uses the plural form: /ma:dərna:ha:ʃ / (we haven't done it) and /nʕa:wdu:ha/ (we repeat it) indexes a division of labour between the doctor and the patient. The doctor takes it common sense that she is the one who takes decisions while the patient accomplishes the requested actions. Notice that the patient abstains from taking a turn in line (93) where he could have produced an acknowledgement token to accept the request (designed as an invitation) or even said something else to decline it.

- **Action agenda alignment and topical agenda disalignment**

In this extract, a male doctor sees a male patient in the internal medicine specialised consultation unit for the first time. The patient had a stroke a day before and is sent by the emergency department to specialised consultation unit. In line (109) the doctor asks a question that raises the topic about 'how long the patient remained in that state'. However, by contrast to the previous examples, the patient in line (114) designs his answer in a way that does not entirely engage the doctors agendas-setting. He orients to answering the question (action alignment) but flouts the topical agenda. In fact, the patient initiates a narrative which does not conform with the topic of the question: 'how long' or 'how much time'.

Questions of this type await answers that include periods of time stated in days, hours, minutes, etc., especially, in institutional contexts that require accuracy. Noticebly, the acknowledgement token produced by the doctor in line (121) functions as a continuer to encourage the patient to add further details in pursuit of the exact period of time spent in the hospital, but to no avail. The long pause of seven-tenth of a second (line 127) gives the doctor a clue that a repair of his question is required to delimit the type of information the patient is required to include in his answer and to overcome the embiguity his first question has resulted in (i.e., the answer's unfonformity with the topic aganda).

In line (124), the doctor repairs his question and design it to directly solicit information about the time he remained in that condition in the hospital. This time, the question is designed to be specific in its focus. This is embodied in the doctor's statement and repitition of the phrase 'how much time'. Eventually, the patient produces an answer that conforms with the action and topical agendas set by the doctor's questions. Yet, the answer is prefaced by an hesitation that reflects the patient's lack of an immediate exact information, then the patient provides an estimation by giving the starting and ending times. Possibly, it is the lack of an exact information which has led to a departure from the agendas set by the first question.

Evidently, departures from agendas-setting may potentially occur. However, in the two above examples, they have been easily overcome by the doctors to address the action and topical content set by their questions. The above two examples shows that when departures accour doctors do not give up on the sought information they repeat or reformulate their question to to get the content desired according to the agandas they set up.

- **Action agenda disalignment and topical agenda alignment**

The above example is an excerpt of a consultation, which took place in the consultation room at the internal medicine department of the CHU of SBA, between a female doctor and a female patient, in March 2016. The patient is 37 years old presenting fingertips necrosis. She has first been to the emergency department where they oriented her to the internal medicine department of the same hospital. This is her first visit in this department. This is a particular example because of the events that have preceded this consultation. First, the patient has been consulting other doctors for more than five years, in the private sector and in the public medical centre of her rural town where she lives but her disease has not been diagnosed, and it has progressed too far. That is why the current patient has been resistant all over the consultation. Second, an argument between the doctor, the patient and another patient on whose turn was, took place just before the beginning of the consultation (data not shown). This explains why no opening phase is taking place at the beginning of this interaction.

In line (37) the doctor asks a yes/no question and follows it with a detail in which she employs a medical term 'necrosis'. Then in line (42), the doctor asks a yes/no question fishing for a confirmation of understanding as she has been attempting to explain to the patient in the sequences before that the latter needs to get examined by another doctor in another department. Soon after, in the same turn, she substitutes her question by another yes/no question that looks for an assertion from the patient whether she is certain that she has been sent to the ninth department (internal medicine department) by the emergency doctors.

Although, in the second part of her answer (second TCU), the patient in line (46) conforms with the topic agenda set by the doctor 'being sent to the ninth department', she has declined to engage to the doctor's action agenda by her departure from a yes/no response format. Instead, the patient designs her response to initiates a narrative that consists of two TCUs /hija ga:tli: ha:ki di ha:di wru:ɦi [LNEUVIEME BI:H]/ (she told me take take this and go to [THE NINTH WITH]). Consequently, the doctor takes up at the end of the patient's first TCU which flouts both the topical and action agendas of her question to produce, in overlapping talk, another question (declarative with final rising intonation) that fishes for a conforming answer and stresses the content that the patient is required to addressed in the answer. The doctor repeats the first question's main topical content /ru:ɦi lneuvieme?/ (go to the ninth?) while the patient is realising simultaneously the same content in an emphasised way (increased volume).

The doctor's immediate self-selected speakership after the end of the patient's first TCU (lines 46 and 48) and content repetition is responsive to the patient departure. It shows that the doctor disallows the patient's disalignment, i.e., the doctor declines the patient's narrative in TCU1. She intervenes by taking up speech (line 48) to redirect the patient on the

design of her choice in the question to prevent that the patient engages in another flouting content and projection in the second TCU.

The examination of doctors' questions uncovers the role of questioning in setting action/topic agendas in the patients' design of their responses. Moreover looking at question-answer sequences shows that doctors pursuit their agendas-setting when departures occur intentionally or unintentionally by patients.

5.3 Medical questioning embodies presuppositions

Utterances not only have meanings, but they also carry implicit assumptions that linguists refer to as presuppositions and define as 'assumptions the speaker makes about what the hearer is likely to accept without challenge' (Givòn, 1979a: 50), either because it is a common ground knowledge (Stalnaker, 1978: 321) or because the information does not arouse any controversy between the participants and thus, there is no need to assert it (Grice, 1981: 190). However, a speaker can use presuppositions as a strategy to convey socio-political authority on the hearer and/or to control the interaction (van Dijk, 2010; Wodak and van Dijk, 2000). In DPI, this authority is enacted through recipient design because doctors' questions communicate information about themselves as well as information associated with their patients intent, reasoning, beliefs, and expectations (Cassell, 1985).

In the above extract, I analyse the questions and answers of a female doctor and a female patient respectively at the internal medicine department. The problem opening question is of wh-type (line 15), which linguistically presupposes that the patient had a problem with her mouth for which she has been examined and received a treatment by the same doctor. It also presupposes implicitly, that the doctor is expecting/hoping for recovery or at least some positive improvement after the time passed since they last met. The patient's response (line 19) on the other hand declines the implicit associated assumption (that she has been cured) and opposes the doctor's optimistic expectation. This can be indicated in the important pause of two seconds and six tenths that the doctor makes in line (21).

Most probably, the doctor is not expecting such an answer or at best she has been expecting (or working for) some extent of improvement or a better outcome of the treatment in the patient answer. Often, doctors project towards optimisation a term that Heritage and Douglas (2006) use to refer to the design of questions that doctors use to favour 'best case' answers rather than catastrophisation.

Considering that patient's response is exaggerated, in her next turn, the doctor asks again another question in (line 23) that she formulates in a negative yes/no question where 'an extreme case' (Pomerantz, 1986) is used /walu:?/ (nothing/at all?), which not only limits the patient's answer but also questions its accuracy and requires a negative answer only if no improvement at all is felt. This would imply that the treatment was not successful at all. In fact, by this conduct, the doctor is challenging the patient. The doctor asserts her first

position and works to maintain control over the design of the patient's answer that will soon be reflected in the patient's next mitigated answer as well as the forthcoming answers. The patient revises her answers and gradually change them to align with the presupposition formerly embodied in the doctor's question. In line (27) the patient produces a mitigated answer: /ha: da:jmən tʒi:ni di:k ɦaba zu:ʒ ɦaba zu:ʒ/ (ha: there's always one or two (pimples)) compared to her first one (line 19): /a:h hu:wa hu:wa/ (a:h the same the same).

In line (32) the doctor, first, presupposes that the patient's answer is ambiguous and not clear. Then she uses the patient's own words, in an alternative question type, as an argument but this time the doctor is rather cautious about her choice of words. Interestingly, the doctor substitutes the term /da:jmən/ (always) that the patient used in her answer in line (27) with /fəzma:n/ (in a while) that the doctor uses in line (33) to reject the patient's theory and to presuppose that there is a distinction between 'the same' and 'once in a while' and subsequently that the patient's condition should have improved. Nevertheless and although the patient goes on alleviating the problem in her description as a result of the doctor's manoeuvre she does not give in completely and continues to resist the doctor's presupposition. Probably, in line (43) the patient is about to say /əlla ma:ʃi hu:wa hu:wa/ (no not the same) before she cuts off and self-correct to provide another description (lines 43-44): /bɦa:l waɦida mm- waɦida ʁi:r waɦida tnu:d wtəʈfa luxra tʒi/ (no ma- it's like one mm-one once one grows and disappears the other comes (appears)).

To push back against the patient's resistance, and prefaced by a counter argument word, the doctor designs her question in line (49) in a way that makes reference to how much serious the patient problem was long ago. The doctor also uses the extreme case marker /ga:ʕ/ (all) to counter the patient's challenge by virtue of the patient condition when she first visited the doctor.

In using these strategies, the doctor uses her position as an expert whose assumptions are based on logic to put pressure on the patient so that the latter changes her words and her mind. The result is first seen in the repairs and hesitations occurring in the patient's answer in lines (43-44). These demonstrates that the patient undergoes a phase of transition from disconfirming to confirming the doctor's presuppositions. Eventually, in lines (64-69) the patient retracts her claim about the non-improvement of her mouth condition and aligns with doctor' presupposition.

This is another example, extract (5.6), retrieved from a consultation between a male doctor and female patient with a history of vein thrombosis. The patient is, now, presenting uterine fibroids that requires a surgery, which consists in her womb removal. The patient is very anxious about this surgery and she is asking why she does not do an MRI[23] scan and/or take tests before undergoing the surgery. However, instead of answering her question the doctor replies by asking her a question thereby maintaining his exclusive role of a questioner. The doctor's question in line (320) /ʕla:ʃ l'IRM?/ (why the MRI) not only departs from the action agenda the patient's sets but also indexes presupposition that MRI is only performed when there is a valid reason. It also presupposes that unlike a layperson, a physician is more knowledgeable and his experience as an expert allows him to judge when it is relevant or irrelevant to perform an MRI scan in her current medical case.

Thereby, he rejects her request or suggestion. On the other hand, the doctor's question in this particular context does not look for eliciting an information from the patient it is rather an indirect evaluation of the patient's reasoning. An evidence is that when the patient replies that 'she wants to see' in line (323) the doctor orients in his answer to closing

[23] Notice that the patient is mispronouncing the term IRM, /lijaram/ (line 310) and /lərijam/ (line 317) this shows that she has a limited ability to use the medical jargon.

the sequence (lines: 327, 334, 342) rather than pursuing an answer to fish for what the patient would like to see by performing a MRI.

The next example shows another situation that occurred between a female doctor and an elderly female patient in her eighties who is complaining about walking difficulty and off legs.

In line (62) the doctor asks a question, /lgwa:jəm, rah fi: ʕumrək ʃħa::lʔ/ (the legs how old are you?), which does not directly address the problem raised by the patient in her account in line (50) /ha: əlgwa:jəm rahum ga:ʕ mfri:nji:n ʕlija/ (ha: my legs are completely heavy). Rather, the doctor's question presupposes that what the patient is complaining about is an age-related condition. The doctor assumes that there exist a proportional relationship between age and off legs, which implies that it cannot be cured at this stage. In this example, the doctor does not ask this question because she does not know the age of her patient. Lines (67, 71) show that the doctor knows the age of the patient since she takes the next two turns to answer the question herself after the patient fails to do it in lines (65, 69)[24].

This can be explained that the doctor uses the question as a strategy to advance her assumption that there is nothing they can do and that the patient is bound to live with it. On the other hand, the pauses marked by the patient also, demonstrate that she understands the doctor's implicature as an act of medical epistemic authority that gives the right to the doctor to decide upon when to expect improvement and whether a treatment is necessary.

[24] The patient choice to remain silent shows the patient's understanding of the doctor's projection towards declining her indirect request of leg examination

Another example about the use of indexed authority within questions asked by doctors is shown in the above extract from a routine consultation that took place in the specialised consultation unit of the endocrinology and diabetes department. The participants involved are a female doctor and a middle-aged mother of a male patient in his 30s. Prior to the talk in this sequence, the mother explained that another doctor changed the pills the patient used to take as well as the dosage. She also told the doctor that her son fainted in the hospital the day before. On the other hand, the patient, who rarely take part in the conversation, complained about feeling nervous and forgetting things.

In this sequence, the doctor takes three turns (lines: 480, 486, 490) to explain to the mother that the doctor's main concern is diabetes and blood pressure and that she cannot treat the patient's problems of stress and tendency to forget things as they are not related to her scope of speciality. However, it seems that the doctor's attempts have failed to persuade the mother, who continues to ask about her son's problem (line 494). Hence, at line (497), without assuming that the overlap is violating since it occurs at a TRP, the doctor takes up to account again for the patient problems and then ask a question that not only elicits an information, but also presupposes that the patient is already being seen by another specialised doctor (a psychiatrist), who treats such kind of problems.

From this perspective, authority is originating from the assumption embedded in the question's design. It communicates epistemic position projected at the mother who is indirectly invited to confirm that her son is being treated by another physician before the

doctor moves to the next action. In doing so the doctor gets the confirmation she has worked for through her presupposition and could, consequently, based on this ground, make an instruction, as a final decision, to tell the mother to take her son back to this other doctor as shown in the following extract line (524) in stipe of the mother's reluctance apparent in her narratives in lines (511, 519).

A similar case is presented in the following example, which occurred in the same consultation specialised unit at the endocrinology and diabetes department. The patient is a female in her 40s accompagnied by her 20 years old daughter, and she is consulting a female doctor for a routine check-up.

The doctor's question in line (409) presupposes that the patient already has children since it does not ask whether the patient has children or not. The purpose behind this question is to get an affirmation so that the doctor can lay down her conclusion that the patient should not get pregnant again as she does in line (433). This type of wh-question 'how many' not only provides a powerful means to restrict the answer type, i.e. through a minimal response such as stating the number of children, but it also controls the interaction since the patient confirms the doctor's assumption and puts herself in a position that gives the doctor the right to come up with a decision that; no more children are needed (lines: 417, 433).

5.4 Authority is enacted through preference of particular responses

Doctor's questions influence the responses provided by patients. The latter can either align or disalign in their responses with doctors' question design. Hence, another dimension of analysis regarding questions' design in DPI concerns the concepts of preference, i.e., the preferred orientation a question seeks (Sacks, 1987; Pomerantz, 1984; Levinson, 1983; Heritage, 1984, Schegloff, 1988). Preference design occurs mainly when close questions are

used because both of the grammatical framing of these questions and the lexical choices convey the questioner's orientation and they unavoidably favour particular types of answers rather than other possible alternatives (Heritage, 2010).

Frequently, this design of question can serve to exert control by limiting how patients can appropriately respond to the questions. However, it is important to realize, as identified by Heritage (ibid), that two principals are linked to this phenomenon: optimisation and problem attentiveness. The former refers to the design of questions that favour a 'no-problem' answer, which will confirm no illness indication and will allow the doctor to move to the next action. By contrast, the second principle of problem attentiveness is employed to presuppose that a particular problem exists and requires examination.

In this respect, Heritage states that 'The principle of problem attentiveness makes it inappropriate for physicians to question patients about their primary symptoms using optimized questions' (ibid: 54). Furthermore, the literature holds that a set of features characterise preferred and dispreferred responses. Coupled with this, preference orientation is responsible of the occurrence of these features in the framing of responses.

> While preferred responses tend to be produced in brief and simple fashion, and with little or no delay, dispreferred responses routinely embody one or more of the following features: (a) Delays, such as a pause before delivery, the use of a preface, or displacement over a number of turns via the use of insertion sequences; (b) Prefaces, such as markers like 'uh' or 'well', token agreements, appreciations and apologies, qualifiers, or hesitation; (c) Accounts, in particular, explanations for why the relevant or proposed action is not being accepted or done; and (d) Declining, which is normally mitigated, qualified or indirect.
>
> (Boyd and Heritage, 2006: 160-161)

The examination of data shows that many of these features are tangible in the patients' responses. However, before I start the analysis it is important to mention that four classes of questions have been identified:

- Yes/no questions: characterised by a final rising intonation. They can either be negative or affirmative.
- Yes/no declarative questions: characterised by a final down intonation. They can either be negative or affirmative.
- Tag questions: formed by a statement followed by a interrogative with a final rising intonation.
- Alternative questions: consisting of a list construction and explicit differentiation of alternative propositions.
- Questions equivalent to the English wh-questions formed with question words.

Yet, previous research, such as Roter et al. 1997, Roter and Hall, 2006, showed that the majority of questions asked by doctors are close-ended questions. On the other hand, Boyd and Heritage (2006) and Heritage (2010) claim that preference is chiefly accomplished in yes/no questions because they invite answers in which the answerer expresses agreement or disagreement. So, in the light of that, my focus will be limited to yes/no questions, in order to study the dimension of preference content of question in enacting control over patients to achieve optimisation and problem attentiveness.

- **Positive questions**

This is a fragment of a consultation, which took place at the specialised consultation unit of endocrinology and diabetes department. The participants are a female doctor and male patient in his early sixties. In his turn in line (51) the doctor produces a declarative utterance then asks a question that he formulates in the affirmative form. It is an interrogative utterance realised with final rising intonation. Although this question is asked to elicit an information from the patient, it is framed to favour an affirmative response. In other words, preference here seeks a 'yes' response to confirm that the patient went to the haematology department.

The answer (line 56) produced by the patient conforms with the preference conveyed in the question and it is also realised in preferred fashion, i.e., without a delay and in a simple straightforward manner. This sequence organisation, question and recipient designs, projects towards a 'no problem' response, which indicates that the patient is being treated by an haematologist or that he is not facing bureaucratic problems to access the haematology department, this is second meaning is mainly indexed through the choice of the word /dxalt/ (entered) instead of the other alternative /mʃi:t/ or /ruɦt/ (went) . The obtained confirmation by an affirmative response will permit the doctor to move on another activity of enquiry.

In the same consultation, the doctor asks another question (line 223) structured also in the affirmative form with final rising intonation. Once again, this question is designed to favour a one word response: a 'yes' response or one of the possible alternative responses to confirm the positive 'no problem' state of affairs, i.e., the patient is regularly measuring his blood pressure. However, the answer to the question does not occur immediately after the question. The patient produces a reply (line 229) that does not align with the doctor's design and thereby initiate a sequence expansion. Notably, the patient's answer shows his understanding of the function and the preference of the doctor's question (i.e. the doctor favours a 'yes' answer).

It displays some of the features that characterise dispreferred answers: first, the insertion of a sequence (the patient repeats the question asked by the doctor instead of answering it) (lines 229-232) before the realisation of the response (line 235). Second, soon after the non-aligned response /əlla/, meaning 'no' in line (235), the patient provides a quite long account in which he explains, using the term 'pasque' coming from the French language 'par ce que' to mean 'because' in English, to explicate to the doctor why he does not like to test level of blood glucoses. Another feature that is visible in the answer is the patient's hesitations and repairs: /nʔajə-/, /wka- wka:n/, /nəlqa:hə::/. In effect, when these features are apparent in dispreferred answers they reinforce the authoritative quality of the question and recipient design accomplished by the doctor because they demonstrate the patient understanding of the dispreferredness of their responses by doctors as well as their accountability.

In this example, during a routine examination of an elderly man accompanied with his son, the patient had a stroke and Parkinson disease; the female doctor discovered something wrong with the hand of the patient. She starts her turn in line (206). She is about to formulate an assessment but she seems reluctant /ra:h:: rah/ (he is he is), then cuts off and self-correct to ask a question first rather than realising an evaluation. Interestingly, in spite of a problem existence, evidenced by her French + Arabic utterance 'il me semble'/ra:h:: rah/ (it seems to me he is he is), the doctor frames her question, addressed to the patient's son, in the affirmative interrogative form, which seeks a positive answer.

This design can be explained that if the doctor used a negative form rather than the positive affirmative form based on what she had noticed, it would have been understood more like as a criticism by the son that, for instance, the patient is not being cared for sufficiently, or that maybe he is resisting the treatment. So, instead, this question with a

positive design is framed to seek a confirmation that in spite of medication intake, the patient is still unable to use his hand appropriately, which can imply that the treatment or the dosage are not adequate, for example, and that something should be done to remediate that. To put it simply, this question embodies preference to deal both with a 'no problem' situation concerning the treatment intake and problem attentiveness regarding the patient's loss of ability to make movements.

Correspondingly, the patient's son response (line 211) aligns with the question's preference, which is also accomplished through a complete sentence ' yes he takes it' and then repeats acknowledgement word 'yes' for emphasis rather than simply using a short positive affirmative response 'yes'. In doing so, the son firmly confirms the doctor's indexed point view as far as the 'no problem' situation with the medication intake and displays his understanding of the problem attentiveness indexed in the doctor's question.

This example shows another case, which occurred at the internal medicine specialised consultation unit. It involved a male doctor and a male patient in his early eighties. The doctor's initial question (line 325) is designed in the affirmative interrogative. It seeks either an affirmative response, which is the one that this type of questions favours, or can also result in dispreferred negative response. However, in line (330) the patient produces an answer which departs from the kind of topic agenda the question sets and that probably the doctor either mishears or misunderstands or simply does not expect as a result the doctor initiates a repair (in line 333) by asking the patient to repeat the answer. This can also be because it is not the answer the doctor has expected or desired, and he wants to confirm that a departure from the topic agenda is taking place so that he is managing it through setting constraints in a repair question that he later formulates in line (342). This question is prefaced by a 'no', which functions as a rejection of the preceding response (line 338) in which once again does not align with the content of the first question.

On the other hand, the reformulated question obviously sets more boundaries to limit the action and topic agendas and, it maintains the same framing, that is the affirmative interrogative design, which also favours a 'yes' response and thereby assert a no problem state of affairs. Markedly, the positive answer follows (line 346) and it not only conforms with the preference set by the question, but also occurs in a like manner in the sense that because there is a repetition of the words 'he sees he sees' in the question, the patient also makes a repetition of the positive answer /wa:h jʃu:f wa:h wa:h/ (yes he sees yes yes) (line 346) as a response to the emphasis made by the doctor in the question.

Of course, in doing so, the patient returns to the main topical path of the sequence and in no time, replies in alignment to the doctor's projection that the patient regularly goes to the ophthalmologist, a no problem state affairs that allows the doctor to close the sequence and move on to next activity. Yet noticeably, the doctor does not engage in the topic of eye pressure and tiredness initiated by the patient in the departure insertion. Thereby, both of them jointly work to achieve the desired aim of the questions leaving aside the eye tiredness topic just mentioned by the patient.

- **Negative questions**

Doctors also use the negative form to frame their yes/no questions where a 'no' response is desired to represent a favourable health outcome. In the above extract, the female internist asks the son of a male elderly patient a question, which she structures in the negative interrogative form. However, because she has been interrupted by the nurse (talk is taking place in line (260) but not mentioned in my script) the doctor asks again her question which she once more formulates in the negative form in line (262). The two questions are grammatically organised to suggest that the patient has no pressure ulcers and thus orient the recipient towards a 'no' response which embodies a positive 'no problem' health outcome.

In other words, and as it is claimed by Heritage (2002), Heritage (2010), and Boyd and Heritage (2006), this design expresses the principle of optimisation which is fundamental in medical questioning because it favours the projection of the patient's 'best case' stance. In this fragment, the answer in line (266) aligns negatively with the 'no' preference of the question and is produced immediately after the question.

Here in this extract (5.16) the doctor intends to adopt a checklist approach for his questioning. Checklist questions usually come in series and they are brief. They embody polarity markers to search for one word answers that generally favour information of unproblematic situations from patients (Boyd and Heritage, 2006). The patient's response (line 167) to the first question (line 163) 'no' is correspondingly framed to achieve the purpose of the question, i.e., to confirm the 'no problem' situation and it is treated by the doctor as being sufficient since it has allowed him to move to the next enquiry. Interestingly, the second question (line 171) is designed just like the first one but the structure of the answer (line 175) it comes up with departs from the preferred structure it is designed for a 'no'.

That is to say, it favours one word answer, preferably a 'no', since the question is in the negative form, in order to convey the suggested optimistic information about the patient. Unlike the preceding answer, the French answer 'c'est normal' (it's normal) (line 175) is treated as being accountable and insufficient in the next turn by the doctor (179) as it does not answer the question. This can be explained by its occurrence as a sentence rather than a 'one word' answer, which means it does not respect the brevity and the negative polarity set by the question. Additionally, the utterance 'it's normal' not only does not answer the question in terms of the action it sets but it is also open to two plausible interpretations: first, the patient has normal blood pressure readings, or, second, it is normal that the blood pressure level gets high from time to time. As a result, the doctor asks another question (line 179) this time he uses an alternative question, which is constructed differently from the first

two yes/no questions, but this type too, sets constrains that accept and favour only one of two candidate answers it suggests.

Alternative questions usually include the propositional content of the two possible answers, i.e., the preferred and the dispreferred contents. But in this question the doctor does not utter the dispreferred part of the question— which is the opposite situation /matʕabarha:ʃ/ (you don't measure it)-- nevertheless it can still be understood as an alternative question as the word /wəla/ (or) suggested it. In fact, through this conduct the doctor supports even more his preference of the former situation that the patient measures regularly his blood pressure. However, instead of confirming the optimistic situation, the patient this time departs again from the action and the topic agendas set by the question and introduces another topic in his answer 'I take pills' (line 182). However, the acknowledgement token that the doctor produces in line (187) does not function as an acceptance but rather it is used to signal that the doctor already knows that the patient is taking pills and attemps to redirect the patient's attention towards the main topic of the unanswered question.

In the same turn, the doctor follows the word /ih/ (yes) with another question turning back to the yes/no design. He makes a repair in which he uses the term /tkontroli:ha/ (to control) with the purpose of making the topic clearer, in case it is the term /tʕabarha/ which is misunderstood by the patient and causing this departure. The subsequent answer the patient realises in line (189) overlaps with the doctor's repair. Therefore, the patient may not have heard the repair question asked by the doctor (line 187) and the latter has not paid attention to the overlapping utterance and failed to recycle the question after the patient's turn completion. It is evident that this answer too departs from the agendas set by the question and does not correspond to the polarity set by question which seeks a minimal response. This is the last attempt the doctor makes to obtain an answer that aligns with the topic and action agendas and confirms with its preference.

What comes after shows that the doctor gives up and engages in another activity. My interest in this example is that in order to maintain control over the recipient design the doctor employs closed questions design (yes/no and alternative questions) as means to restrict the choice of answers. The doctor asks the question several time with the purpose of obtaining the desired action and content without engaging in any of the topics initiated by the patient, nevertheless none of the patient's answers is treated as challenging to the doctor, instead they are merely treated as misunderstanding or misinterpretation of the doctor's questions.

This is another example in which the doctor, a female, seeks an optimistic answer from the patient, a female, through a negative interrogative yes/no question. The question is designed to favour a 'no' response and the patient shows an understanding of the function of this question in the misaligned response. The departure from the preference is exhibited in the delayed fashion (line 342) of the answer which is also prefaced by an hesitation (stretching of the sound /ə::/) and includes an account about when and what caused pain in her joints. Significantly, the dispreferred response does not occur in a minimal response fashion, i.e., /wa:h/ (yes) or a confirmation /wa:h jḍḍurruni/ (yes they hurt me), but in an alternative elaborate design that mitigates the dispreferredness embodied in the answer. Here we can see that dispreferred answers (departures) from optimistic situations can occur but they often entail certain actions to be combined in the answer to reduce the effect of its dispreferredness.

To continue with preferences, this fragment also shows that the doctor, a female internist, uses a negative yes/no design to get a 'no' response from her female patient during a routine visit. The question in line (217) is built to include a question followed by a self-initiated repair, then a statement which occurs after a gap of five tenth of a second which is considerably long during which the patient could have produced an answer but did not.

Apparently, when the patient fails to take the turn at a TRP, i.e., after the question, to fill the gap that the doctor has allowed for to receive an answer, the doctor interprets that delay as a characteristic feature of a dispreferred forthcoming answer.

As a result, the doctor carries on her talk and makes a statement in which she refers to the patient's past experience of womb pain to influence her answer in a way that will restrict it and prevent the realisation of a potential dispreferred answer. In other words, the statement implies that an answer is accepted only if the patient is experiencing the same degree of pain compared to her former experience, i.e., answers like: 'sometimes', 'a little', etc., are not accepted. Hence, it only allows for a negative response. The added statement (line 118) /ki:ma ka:n jʒi:k/ (as it used to be) functions as a means to tailor the patient's answer according to the question's (dorctor's) preference that orients towards a 'no problem' state of affairs. Given that, the doctor can initiate a new enquiry.

Equally important, is the latching question the doctor asks in line (229). What is particular with this question is that it is constructed to consist only of one word 'no' which reproduces the patient's answer but is realised with a rising final intonation to be heard as a negative polar question. This design is authoritative in the sense that it implies that the doctor treats the preceding answer as being insufficient, especially because it occurs in a delayed fashion, five tenth a second delay (line 224), and because it is not structured in the desired 'one word' response fashion to directly confirm a positive optimistic situation of no pain.

To explain, the patient's response realised with a stretching vowel gives the impression that the patient is thinking and not sure whether she has no pain at all. Nevertheless, it is worth noting that the doctor's question not only indexes a favourable health condition, it also reflects the doctor's desire to get a firm affirmation of an optimistic situation from the patient through repeating the same question in such a short form (one word) of design. Ultimately, in line (233) the doctor gets an answer in the proper framing that conforms not only to the preference design of the question but also responds to its brevity and immediacy the doctor seeks.

In the above excerpt, the doctor conveys her preference for a negative response in two separate questions that she asks in the same turn (line 175). In the first question /ka:ʃ ɦaja ʒdi:da::?/ which can be translated as 'is there anything new' where the doctor employs the negative polarity term /ka:ʃ/[25] (any) to seek a 'no' response. The doctor is about to ask another question using the same negative polarity term but cuts off and restarts another question. The same negative response preference is conveyed in the second question, a self-repaired question, realised by a falling final intonation, designed as a negative declarative form to favour negative answer in the sense of confirming the absence of the problematic state of 'attacks at home'.

Labov and Fanshel (1977) and Heritage and Roth (1995), refer to this type of questions as declarative questions. They generally include what they term 'B-event' information, that is, social facts that are known to 'B' the addressee (the patient), but not to the addresser 'A' (the doctor), nevertheless they accomplish questioning and are mostly used

[25] /ka:ʃ/ is a reduction form of /maka:nʃ/. The negative form in Algerian Arabic is formed by use of the particles /ma/, before the verb, and /ʃ/, after the verb. In the word /ka:ʃ/ which means in English: 'is there any' the initial particle is lost but the last particle /ʃ/ is kept. The positive form is /ka:jn/ and it means 'there are'.

to call for confirmation and verification. Interestingly, in this example authority is not only embedded in the grammatical design of the questions that fish for a 'no' responses as a means to confirm an optimistic 'no problem' state. But authority can also be identified in the succession of questions within the same turn, because although it is not clear to which one of the successive questions, the son of the patient will respond, this usage is meant to restrict the interlocutor to one response for both questions. The subsequent response (line 180) shows that it conforms both to the polarity preference conveyed in the two questions, and produced in a preferred format, i.e., without delay, hesitation, etc.

Extract (5.20) is another case which can be analysed in terms of the discussion provided by Stivers' (2007) on patients (parents of sick children in her analysis) mentioning or failing to mention symptoms as signals that are indicative of a problem existence. A part of this consultation has already been discussed in the previous section. The elderly female patient presenting with pain in her feet is asked a series of questions (lines: 99, 106,113, 120) that invite negative responses with the exception of the second question in line (106) which is a declarative question that seeks a confirmation of a B-event information. All the negatively formulated questions are designed to reflect the doctor's orientation towards the patient's not mentioning sufficient information or is not referring to visible symptoms in the sequence where the patient introduces the problem (lines 78-97) that suggest the existence of a serious problem.

This orientation is displayed through the use of words like /ma::/ (not/no), /walu:/ (nothing), /wəla/ (or something/or anything). The two questions in lines (113 and 120) are answered according to the preference of their negative design, whereas the answer in line (103) partly orients against the direction of its question's (line 99) preference, when the

patient states that only one of her toes reddened. In response to this disalignment, the doctor performs questioning through a declarative statement that presupposes that the redness of the toe may be a mere result of wearing a tight shoe, and hence downgrade the seriousness of the problem. This reasoning is grasped as such by the patient who in order to defend her theory of pain disconfirms the B-event 'tight shoe' scenario suggested by the doctor through a firm denial of shoes (closed-in shoes) wearing at all.

The patient also conveys understanding of the negative design of the questions in lines (113 and 120) and her alignment to their negative preference as resulting in an evaluation as a no-problem diagnosis from the doctor. Hence to assert herself the patient uses catastrophisation when she says: /bəʂʂaɦ taʕarfi bɤa jingʈaʕ/ (but you know it was about to get torn (/it was very painful)) stressing the syllables /taʕ/ and /jing/ in the words /taʕarfi/ and /jingʈaʕ/, respectively, to emphasise the severity of the pain and support its doctorability and treatability. Nevertheless, the doctor produces a continuer (line 132) probably to encourage the patient to mention other symptoms before she decides upon closing the sequence and move to another activity (135).

A very interesting case, where more than one question were asked within the same turn, is displayed in the following fragment of a consultation, which occurred in the emergency consultation room at the hospital's internal medicine department, between a female doctor and a female patient.

- **Multiple questions**

In this example, the doctor asks seven consecutive yes/no questions in the same turn using different formats. The first two questions (line 238) are designed in the negative interrogative form that normally seek negative responses. The third question (line 241), /ʁi ja:klək./ (just itches you.), is formulated as a declarative question to prefer a positive answer that accomplishes two functions: first, it serves as a reconfirmation of the AB-event information[26] that the patient's tongue tingles, already stated by the patient in line (234), at the same time it downgrades the importance of tingling or regards it as insufficient and it invites the patient to mention any other existing symptoms, since it has been prefaced by the term /ʁi:/, meaning 'just or only'.

Second, drawing on this confirmation, the doctor can conclude that the patient accepts the 'no problem' state of affaire suggested by the first two questions regardless whether the patient produces the 'no response' or not. Significantly, the answer /wa:h/, meaning 'yes', that the patient produces in line (249), and which overlaps with 'your tongue' as the doctor carries on her questions, systematically, accomplishes the tasks it has been designed for. It aligns with the positive preference of the third declarative question, excludes a problem situation but does not answer the first two questions since the patient has not been given the opportunity to answer these two questions.

[26] AB-event refers to questions carrying social facts that are known to both 'B' the addressee (the patient) and addressor 'A' (the doctor).

The next questions (line 241) are characterised by a marked rapid speech delivery. The forth question is a reproduction of the second question but this time the doctor changes its grammatical structure from negative to positive which exhibits the doctor's orientation towards problem attentiveness and a search for particular symptoms related to dehydration as it appears in the questions that come after. This shift is probably triggered by the inappropriateness of the doctor's use of an optimized design for questioning in line (238), which prefer 'no problem' responses, especially, because the patient was presenting an acute infection. Stivers (2007: 53) notes that 'Questions should be fitted to some matter the patient has raised where an optimized question would be inappropriate'. On the other hand, the two one-word utterances /ʔajni:k?/ (your eyes) and /ədmu:ʔ?/ (the tears), realised with rising final intonation, are designed to be heard as affirmative questions, and to accomplish questioning like the preceding question '[lsa:nək]jənʃef?' (does [your tongue] dehydrate?).

Apparently the doctor is about to say /ʔajni:k jənʃfu:?/, then /ədmu:ʔ jənʃfu:lək?/ and finally realised last self-initiated repair in the question /jənʃfu:lək ədmu:ʔ?/ (Do you get out of tears?). The last four questions are all polarised in a problem attentive direction that describe some symptoms which are indicative of a particular diagnosis the doctor is orienting to. But the patient is disaligning with the doctor's diagnostic stances, indexed in the doctor's questions, by providing a negative answer (line 249). In fact, the patient conveys her understanding of the problem attentiveness the doctor is performing through a displaced account where the patient introduces another symptom 'neck pain' that she produces later in line (255) rather than immediately after her previous negative response (line 249).

5.5 Conclusion

In this chapter, I used three of the four dimensions of questioning in the model proposed by Heritage (2010), setting agenda, embodying presuppositions, and incorporating preferences to analyse questioning activities in data as performed by doctors to pursue their agendas. I focused on the optimisation and the problem attentiveness principles to evidence the influence of the questions' grammatical design on patients' responses. That is, independently from the influence of social factors that may include the participants' characteristics and attitudes, I examined the details of utterances and showed the interactional effect and communicative properties of the prior actions in sequences of talk on the realisation of responses. Although, I did not devote a separate section for the epistemic stance, this dimension will figure in the analysis of other aspects of DPI in the next chapters.

Chapter six: Authority is grammaticalised in treatment recommendation formats

6.1 Introduction

To contribute to an understanding of the types of organisations used in the Algerian context and for what purpose they are used in delivering treatment recommendations, this chapter deals with the ways in which our doctors design their treatment recommendations. Actually, it is grounded a recent comparative study carried out by a group of researchers from US and UK, Stivers et al. (2018), which has distinguished five main treatment recommendation formulations that are found to represent all the types of social actions that physicians implemented in both countries but to varying degrees. The study also shows that these formats, summarised below, index different levels of authority:

(i) pronouncement, which treat the recommendation as a determined decision by the doctor,
(ii) proposal, which treats the recommendation as speculative and involves both the doctor and the patient,
(iii) suggestion, that leaves the decision to the patient and considers the treatment as optional,
(iv) offer, which considers that recommendations are occasioned and initially instigated by the patient,
(v) assertion, in which a claim is made about the benefits of the treatment in a tacit recommendation rather than an overt directive.

Pronouncements have structures such as 'I give you…' or 'I put you on…', Suggestions include examples like 'you could try…' or 'it's not going to harm you to…'. Proposals use formats such as 'why don't we put you on …' or 'we can…'. Also, doctors use offers such as 'if you would like I can give you …', and finally assertions like 'what helps is using…, '… are very good choice in this type of pain' or 'there is a medication and we have it here'.

In what follows, I analyse sequences occurring in the treatment recommendation phase to show how doctors present their treatment recommendations. My investigation of

data in this research shows that all the doctors involved in this study relied mostly on pronouncements, which are regarded as the most authoritative of all the other formats.

6.2 Pronouncements

The extract below is taken from a routine examination visit, which took place at the internal medicine specialised consultation unit. The doctor is a female internist, the patient is a male in his late fifties, he complains of constant headaches and dizziness, and his wife accompanies him.

Prior to this excerpt, the doctor had already examined the patient and she delivered the diagnosis. The doctor begins the treatment recommendation activity by the use of the French discourse marker 'alors' which means 'so' or 'well' in line (430). The doctor not only signals the end of the phases of examination and diagnosis and the beginning of treatment recommendations phase by using 'alors' as a boundary marker to establish coherence between units of talk and to mark a change in the topic, but equally important, as an indicator of a shift in the role of the doctor to a decision-maker. In other words, the doctor who has epistemic and deontic authority will take control over the upcoming activity that constitute the treatment recommendation task. Brizuela et al. (1999: 132) mention that Andersen (1990, 1996) and Andersen et al. (1995) argue that:

> systematic variation in the distribution of DMs such as *well, now, okay,* in both American English and French reflect the relative status of participants, as well as their level of familiarity/ intimacy with their addressee and the topic and setting of their discourse… For example, in the English data, lexical DMs (well, now, so) generally co-occur in the speech of participants of a higher status in the interaction. Thus, in a medical setting, doctors produce a larger number of lexical DMs than patients. In contrast, non-lexical DMs (uhm, eh) are more likely to be used by participants of a lower status.
>
> (Brizuela et al., 1999: 132)

The doctor follows the discourse marker 'alors' with a pronouncement design of the treatment recommendation which is presented as determined and unilateral /ərrudah Amlor dix/ (I change it to Amlor ten) (line 43) attributing herself full agency over making the recommendation decision. This is a non-negotiable decision, which does not involve the patient or his wife as a part of the activity. On the other hand, the patient and his wife display understanding of the authoritative position that the doctor takes and the unilateral character of the pronouncement action by backing off although they could have taken the turn in two occasions at least to mark recipiency (lines: 433, 438).

The doctor continues in line (435) using the same design 'I add/increase the:: for him' and also in line (448) 'I increase the dose for him' which both are revised versions of the first pronouncement with specific details (an increase in the dose). Finally, after three turns by the doctor, the wife vocally signals recipiency of the pronouncement by producing the follower 'emm' in line (450), however, this should not be understood as an orientation to the right to accept or decline the recommendation. In this respect, Stivers et al. (2018: 3) argue that pronouncements 'are delivered as decisions that have been made and are not in search of response, regardless of the uptake that actually follows'. That is to say, accepting pronouncements does not affect their character as being determined and final.

This is another extract in which the doctor uses the structure /wəndi::lək Flomax/ (and I do/give you) in line (321) to deliver the recommendation as pronouncement that does not invite the patient's son or allow him to negotiate the doctor's ultimate decision. The son orients to the doctor's pronouncement withholding a response by remaining silent (lines: 324, 328). In doing so, patients and their attendants are co-implicated in the accomplishment if these social actions as unilateral and contribute to maintaining the asymmetrical distribution of roles.

To exert more control over the son, the doctor deploys the deontic and epistemic resources to determine that the drug should be taken on a daily basis and specifically after diner. Through this conduct, the physician assumes the existence of a knowledge gap between her and the son and thus gives herself the right to inform him about how and when to give his father the drug.

Now in this excerpt, the doctor, a female, uses imperative formats (lines 768, 773): 'limit/reduce the salt, limit/reduce the sweets, walk', to recommend dietary and lifestyle changes. In adopting this formatting, the doctor is displaying her entitlement to give orders or direct requests to the male patient. Curl and Drew (2008) comment on the sensitivity that might be associated with this kind of direct requests, especially, because of the imposition they embody on recipients. Hence, the doctor's choice of orders reflects her freedom of imposition, control, and authority. All these actions are produced as pronouncements, i.e., they are unilateral, final and do not pursue acceptance from the patient who shows understanding towards their function as unilateral and do not seek acceptance by marking pauses at lines (771 and 775).

Furthermore, the patient acknowledges her agency and does not resist it. This is reflected in many respects. Notably, when the doctor realises an assessment in line (777), the patient's use of 'no' to initiate his turn (line 780) is not a marker of opposing the doctor's directives but to demonstrate his understanding of the negative judgements she has made about his dietary and lifestyle behaviours, i.e., the patient is countering the epistemic stance she has realised about his life style but not the recommendation. Another key point is that patients have always to justify their positions. The patient proceeds to swear by god (line 780) that what he will say next 'now I walk' is true and this reflects that he attempts to achieve recognition from her. In addition, he continues with an explanation 'because I sold the motorcycle' to confirm the truth of his statement.

Such a complex design through which the patient constructs his turn reproduces his subordinate position in the interaction. Because a simpler design such as /əla durka ra:ni ndir la marche/ (no now I go for walk) would be viewed as a strong counter to the doctor's assumption. The patient's response is realised in a mitigated way that preserves the doctors right to make assessments, hence he co-participate in maintaining the asymmetric order of rights and entitlements distribution.

In this excerpt, the doctor restricts the consumption of grapes and salt. Interestingly, this time the doctor uses a different grammatical structure to convey her medical and institutional agency to accomplish prohibition. She uses an impersonal design where she uses noun phrases[27] (lines: 929, 949): /lʕnəb mamnu:ʕ/ (the grapes forbidden), /əlxubz məsu:s/(the bread unsalted) and /lmakla nta:ʕ ədda:r bni:na maʃi::jə::: ma:lɦa/ (food/ food of the house palatable not salty) instead of sentences with verbs and pronouns. These noun phrases are built by the doctor in this particular authoritarian fashion to function as strong prohibitions, which promote medical and institutional agency and enact a distant relationship of dominance to treat the patient as subordinate and passive in the process of decision-making.

Seemingly, in line (934) the doctor rethinks her previous action to orient to the patient's willingness and ability to comply with the decision. However, even when she attempts to show understanding she does it in a rather authoritative way. The doctor anticipates that the patient may not adhere to her instructions when she introduces her turn by /jiddi:k xa:ţrək ga:ʕ/(if you fancy it so much/at all) which functions here as a contingency marker and prepare the ground for an upcoming command.

In doing so, she not only demonstrates understanding but also emphasise, based on her status and high entitlement to decision making, the value of considering a contingency plan that consist in limiting the maximum quantity of grapes. The utterance /telt ɦibi:bat rabʕa/ (three or four little grapes) is realised in this design to be heard as an imperative i.e., /ku:l telt ɦibi:ba:t rabʕa/ (eat three or four little grapes). Although the verb has been dropped, its effect is remaining. Another aspect of control is displayed in the choice of the term

[27] Unlike English, these structures are nous phrases because they are used without verbs or auxilaries.

/ɦbi:ba:t/ which is a diminutive of / ɦaba:t/[28]. The doctor's selection of the diminutive term is not used to determine the size of the fruits but to assert the slight allowed amount of grapes.

Now I turn to another design through which the recommendation is built in the passive voice. Prior to this fragment during the examination phase the female doctor, found that the patient, a male in his seventies, did not take his medicines that morning and as a consequence she noticed an increase in his blood pressure. In line (367) the doctor uses the passive voice to deliver her recommendation. This particular grammatical design, i.e., the choice of a passive verb /jənʃrab/ (should be drunk/taken), is used purposefully to create an impersonal style and convey an objective point of view that increases its validity based on its medical source.

Moreover, it puts emphasis on the action rather than the agent/doer of the action. That is, this structure allows the doctor to omit the grammatical subject of the verb, the patient, and thereby treats him as having no rights over the intake affairs (deleting his agency) because of his subordinate status as a patient who lacks the medical knowledge that is, exclusively, available to the doctor. Hence, the passive statement carries institutional and epistemic stances and maintains unequal asymmetric relations between the doctor and the patient. It, also, embodies imposition upon the patient since it asserts the doctor's 'medical voice' (Mishler, 1984).

28 /ɦbi:ba:t/ and/ ɦaba:t/ are the plural forms of /ɦbi:ba / (diminutive of haba) and /ɦaba/, respectively.

Extract (6.6) above is taken from a consultation between a female doctor and a female patient. It took place in the specialised consultation unit of the internal medicine department. Recording started at the middle of the interaction so I have no data about what happened before this sequence. However, one can understand that during the examination of the routine tests the doctor noticed an increase in blood glucose and decided to prescribe the drug 'Amlor 10' that apparently the patient resists claiming that she does not suffer from diabetes.

Once again, in this case I focus on how the doctor implements her authority through the structures of her treatment recommendations. First, in lines (23-24), the doctor formats the treatment recommendations as a pronouncement /nzi:dlək Amlor 10/ (I add/give you Amlor 10). She explicitly assumes her right to take a decision resting on the epistemic and deontic authority that the diagnostic test results give her. What is interesting about this sequence is that it shows how the doctor ignores the questions asked by the patient soon after the first pronouncement is delivered (lines 31, 35). By ignoring the patient's questions, the doctor asserts her orientation towards a unilateral nature of the treatment recommendations activity.

Responding to the patient's question would mean involving her in the decision-making process whereas pronouncements are, particularly, deployed by doctors to deal with the treatment recommendations enterprise as determined by doctors i.e., they are unshared with the patients. Furthermore, instead of answering the patient's question the doctor pursues

with another pronouncement (lines 40-41): /si c'est suffisant d'accord sinon nə- nzi:du:ləkˁ ʕa:ʒa xʷra/ (if it's sufficient alright if not we- we add /give you something else) to assert her exclusive agency over the decision. Now, by withholding a response and marking a very long time of silence (nine seconds and two tenths) in line (44) the patient demonstrates her understanding of the doctor's imposition and projection to a non-negotiable action. The patient questions remained unanswered as the doctor initiates a new topic in line (46).

This is a long extract of a consultation at the specialised consultation unit of the internal medicine department. The doctor is a male professor. The patient is an elderly man in his eighties accompanied by his son. A female resident student is also present. The sequence begins with the doctor addressing his resident student. The professor doctor takes whole agency over the treatment recommendation well before he turns to the patient and his son. He takes an epistemic stance to uncover the treatment procedure to his student and accomplishes a pronouncement of his decision (line 581) that consists in reducing the amount of the drug intake 'on va le déminuer' (we will reduce it) said in French. Then, in lines (588-596)) he implicitly reveals his plan to stop the medication intake gradually.

All this is done as a part of the professor's medical teaching activity. Besides, the utterances include information about the medical reasons behind this decision /wjzi:d jənaqʂu:h/ (besides they will make him lose weight), 'au bout de dix huit mois o::n arrête' (after eighteen months we stop), /rana fi trente-six mois/ (well it's been thirty six months) in lines (581, 588, 595-596, respectively). This gives a clear view on how pronouncements rely totally on the medical deontic and epistemic rights and exclude patients from this project. They are predetermined and final well before they are delivered to the patient.

Before the doctor delivers the treatment recommendations, he precedes with a reference to the tablet in question (line 602). Interestingly, the doctor does not use the name of the medication but rather refers to it by its dosage intake / hada::k ælka::ʃi li rah jəʃrub ħaba wnuṣ / (that tablet of which he takes one and a half). This conduct reflects the doctor's attitude towards the patient and his son. It implicitly conveys that the doctor considers that their health literacy is rather limited to enable them recognise the tablet in question if its name is used. This is frequent; data shows in many cases that doctors use the packaging's colours or drawings and other terms to refer to medications and medical terms. Such uses also embody epistemic superiority of the doctor who rank patients and their family members in a lower status of knowledge. Here are some of the examples that show the doctors' orientation to the terminology gap between physicians and patients.

To return to extract (6.7), the doctor uses a step-by-step instruction strategy to deliver the treatment recommendations decision without involving the patient or his son in the activity. In all his turns where instructions are given, pronouncement designs are used: / jəbqa jəʃrub ħaba / (he continues drinking/taking one), 'on va l'arrêter'(we will stop it), /jəʃrub ħaba/(he takes one), /mudat (ħa) xəməsţa:ʕʃ lju:m wəla/ (a period of fifteen days or something), / ʕawəd jbqa jʃrub ħaba euh nuş ħaba waħd xməsţa:ʕʃ lju:m/ (then he will drink one euh one-half for fifteen days), /nsi:ju nħabsu::h /we try to sto::p it (lines: 619, 630, 638, 656-657, 666, respectively). Moreover, if we compare the doctor's utterances, which are directed to the son with those directed to the resident student, we find out that the doctor provides no information to the son (and the patient) on the circumstances that led to the decision of reducing the intake and stopping it. This also shows the doctor's exclusion of the son from the treatment recommendation details by assuming it unnecessary to involve him in medical affairs.

Although it might seem that the doctor is seeking acceptance from the son when he uses the French phrases 'ça y est' (that's it), marked by a final raising intonation, but, in fact these expressions that occurs in lines (626, 650) are searching for a confirmation of recipiency of the treatment procedure to be followed. In addition, the doctor uses an imperative in line (642) to convey that all his instructional actions function as commands to that the son should pay careful attention to act on correctly.

In the same vein, to convey full agency over the treatment recommendations, the doctor in the above excerpt constructs her utterances in one of the most authoritative ways that consist in using a technical description of the medicine and its intake, i.e., while she prescribes the medicine (line 505), she mentions only its name 'parkinane', its dosage 'two milligrammes' and the daily intake 'one tablet a day' without using verbs in sentences formation but which still embody an imperative meaning, i.e., the verb is dropped but its effect is still there. This is another strategy that the doctor deploys to orient to a unilateral stance, which limits the decision-making matters to the medical community and gives no room for negotiation with the patient.

Soon after, the doctor closes the current activity (line 510) and assert her control over making the pronouncement as well as the opening and closing of activities. Besides, the utterance /ha:da huwa dwa:h/ (this is his treatment) embodies a claim that no other options are offered and the decision is final.

6.3 Assertion

The following extract shows the only assertion identified in data. Just before this fragment in a treatment recommendation phase, the patient has resumed complaints about a pain in his heart and chest for which the doctor recommends cardiac echo and other exams (lines: 524-525). This time, the doctor's recommendation is delivered differently.

In a persuasive way, the doctor lists the patient's illnesses using the pattern 'you have…, you have …' that puts more emphasis on the fact that the patient does have more than one chronic problem. Besides, she prefaces her turn by the phrase (hija fəlɦiaqi:qa/ (it's in truth/fact) to make what comes next sound more reasonable. Notice that the doctor used the form /əddi:ri:lah/ (you must/should do him) which will be heard as a assertion that indexes an obligation rather than /di:ri:lah/ (do him) which is an imperative. She uses a assertion to enact a directive that leaves the decision of doing the recommended exams up to the patient or rather his wife. Yet, although the patient and his wife can accept or reject it, the latter is done in a way, which asserts that it is the doctor who, based on her deontic and epistemic rights and responsibilities, maintains agency over making the recommendation actions.

In addition, although this assertion leaves the decision in the hand of the patient it does not pursue an acceptance. Besides, it occurs immediately after the mention of the patient's chronic diseases, which also follows the adverbial phrase 'in truth' that prepares the ground for some upcoming facts that the doctor will employ as a reminder to put emphasis over the patient's critical condition and to display her deontic and epistemic role and status in knowing what kind of tests and actions that will help them make a better diagnosis and subsequently an efficient treatment.

Still, the doctor leaves them the choice to act upon it or not. This can be supported by the doctor's uptake in line (536) of the wife's acceptance orientation 'I'll do it to him' in line (532). The French word 'normalement' means 'normally or properly' in English and it is used to support and assert the doctor's agency to imply: 'that's how things should be done', and to highlight the patient's discretion, rather than an acknowledgement of the wife's acceptance because the doctor could have used acknowledgement token like 'bien/trés bien' (good, right/very good) etc.

6.4 Suggestion

This is a fragment of a consultation between a female internist doctor and a male patient in his late sixties. The patient has suffered from a stroke and now attends rehabilitation sessions to recover and regain functioning and mobility of his right arm and leg.

Prior to this, during the examination phase, the doctor notices little improvement and has asked questions about the number of sessions the patient receives per week. If we look in the details how the doctor delivers her recommendations, we see that she has prepared the ground for a set of imperatives (lines 167, 171, 195) by making first a suggestion (line 150), which leaves the decision, to a large extent, to the patient. Yet, without relinquishing the doctor' control and agency over making the recommendation since she takes the initiative to make the suggestion.

This suggestion is formatted in a negative interrogative design. It aims at assessing the patient's ability and willingness to work out and at the same time gives a chance of getting a confirmation of an acceptance, i.e., a positive answer. However, suggestions treat recommendations as optional and this justifies the choice of a negative design which is carried out cautiously and orients to the patient's possible inability to exercise at home

without assistance or because it accounts for physical or motivational factors that may influence the patient's decision. In this case, the negative design of the suggestion allows for a potential negative answer. In other words, a negative response will not threaten the doctor's face or be heard as a challenge or a resistance to her suggestion.

Now that the doctor has achieved an acceptance for her suggestion from the patient, she can implement further authority without taking resistance risks. Soon after the patient has confirmed his acceptance, the doctor draws on this acceptance to produce the next action, an imperative action (line 167) /di:r ru:fiək / (do it by yourself). Notice, this imperative is introduced by the discourse marker /aja/ (so/then) which indexes a result meaning, to put further constraint on the patient as a consequence of his acceptance.

In line (71) the doctor continues with another imperative /zi:d fiiʂʂa waxduxra/ (add another session) followed by an 'if cause' / la: tqad / (if you can) to give an instruction that she conditions, probably to the patient's affordability and willingness to pay for an additional session of rehabilitation. Although she leaves the decision to the patient, and this because she takes into account the fact that rehabilitation is not covered by health insurance in Algeria, but her imperative action, that she produces with a slowed down speech and stresses on the words /zi::d/ (add) and /fiiʂʂa/ (session), is arguably stronger than formats like: /ʔla:ʃ matzi:dʃ fiiʂʂa wafiduxra?/ /matqadʃ tzi:d fiiʂʂa wafiduxra?/ (why don't you / can't you take/add an additional session) or /loukan tqad tzi:d fiiʂʂa waxduxra xi:r/ (if you could take/add an addition session it would be better).

To explain, through her imperative design the doctor does not invite for further discussion with the patient. She use her deontic and epistemic right to make the recommendation and leaves the acting on it or not to the patient. Also, in line (195) the doctor continues with an imperative to implement her authority to make commands and give instructions in a way that does not invite for discussion with the patient and thereby controls the flow of the interaction.

6.5 Conclusion

In this chapter, I have examined the structure of recommendation utterances to identify the main formats followed by doctors during this phase. Previous research in western countries revealed that in a spectrum of levels, doctors communicate varied degrees of medical authority, epistemic and deontic, to patients through different grammatical designs in which they encode the treatment recommendations. Certain designs such as pronouncements exclude patients from the decision-making process of the treatment recommendation activity and they are regarded as the most authoritative, whereas other designs can be more inclusive and involve patients in this activity. My investigation in this chapter reveals that Algerian doctors rely extensively on pronouncements, which in most cases does not trigger resistance from patients. That is, patients are more accepting or even orienting to pronouncement and doctors' authority. Contrary to what has been discovered in existing research in the USA and UK Stivers et al. (2018), where pronouncement are usually associated with significant resistance of prescriptions.

Chapter seven: Authority and code-switching

7.1 Introduction

In this chapter, I will examine two kinds of code-switching (CS) occurring in DPIs in Algeria: French-Arabic/Arabic-French CS and CS to technical medical terminology. French is a language that not all Algerian patients necessarily speak or understand, whereas Algerian physicians generally use it and had to learn it since it is the language of medical instruction in Algerian faculties of medicine. Yet and unexpectedly, my investigation of the details of the interactions shows that cases of CS to French are not very common in data.

The current chapter will show that doctors rarely use French as the language-of-interaction with patients during the encounter. French is mostly used to speak about medical matters and to converse with other doctors, medical personnel and resident students as part of some instructional tasks. My focus here, is to study the CS situations, which are found in data from a CA's point of view that considers CS as a conversational event that creates communicative and social meanings to participants and analysts (cf. Auer, 1984a; 1984b; 1998, Li Wei, 1998; Alvarez-Càccamo, 1990; 1998). Therefore, this analysis does not look at CS than from an ethnographic perspective that relies on the external sociolinguistic elements such as participants' characteristics, topic, setting of the interaction, etc.

However, without dismissing the latter approach as uninteresting, the purpose is to pay attention to the details of the moment-by-moment talk and the local processes where language alternation occurs in order to make appropriate interpretation and demonstrate whether and how asymmetry is accomplished by the participants involved in the encounters and whether and how doctors use CS to French and medical terminology to convey authority and maintain interactional control. I will study CS in situations where French is used in sequences between doctors and the present resident student, then in situations where it occurs between patients and doctors.

7.2 Doctor-resident student CS

In this except, the doctor is a male, the patient is a female in her fifties and a third party resident student is present. To start, I should clarify that a video-recorded interaction would have shown better the participation framework of this exchange, which largely, occurs between the doctor and the patient. However, relying on my own observation and note taking, I can affirm that in lines (111-112 & 121) the doctor was speaking to his resident student and not to the patient.

The doctor choses Arabic to ask a question (line 104)[29] to the patient than switches to French to talk to his student. The switch from Arabic to French in this episode provides a set of information. First, it shows that the doctor establishes an interactional order in terms of language choice, the participation framework and the participants' roles. The doctor's language alternation from Arabic to French (lines 104 - 114) indexes information about the doctor's preference to use Arabic as the language-of-interaction with the patient during the history-taking activity and French with the resident student to perform his instructional activity as a teaching doctor.

That is, CS here has a participation-related (preference-related) function (Auer, 1984a; 1998) rather than what would be considered as a strategy to exclude the patient in Myers-Scotten (1993) point of view which cannot be accepted since there is no interactional evidence that shows that there exist an intention to exclude the patient from the interaction.

29 The switch to the French word 'jamais' (never) in this context embodies the doctor's emphasised negative preference of the next answer using an extreme adverb. The doctor takes it that the patient can understand the word 'jamais' since it is frequently and largely used by Algerians in AA. Correspondingly, the patient aligns with the doctor's preference and produces a short form answer by reusing the same word 'jamais'. This shows that there is an agreement by both participants about the unproblematic use of the French word 'jamais'.

This participation/preference-related order is, largely, maintained throughout this extract, as it will be shown in the analysis of the next turns.

The sequential analysis offers a significant evidence of this preference-related function of CS in this interaction. Although the resident student is not verbally participating, in this fragment, the patient shows her shared understanding with the doctor of the participation framework of the interaction, i.e., French with the student and Arabic with the patient. The Patient takes part in talk even when it is not meant to address her, still in the order of language choice established by the doctor.

In line (116), she orients to Arabic in her self-selected turn, with no discernible intervals between her turn and the doctor's turn, to make an assessment of her condition, when she declaratively says: /mxalʇa/(mixed/complicated), to express her understanding of the complexity of her condition, in her own evaluation that she bases on what the doctor has just told his student in French. Although we cannot know if she has understood the technical terminology used by the doctor, but at least we can be sure of her understanding of the existence of more than one condition. So, we cannot assume that the patient has been excluded or made invisible, rather she demonstrates right to participate and produce an assessment of her condition by displaying her epistemic stance that the doctor has not denied since he responded to her contribution.

In response to her assessment, the patient receives a disagreement from the doctor /əlla/ (no) followed by a confirmation of the disagreement /ma:ʃi mxalʇa/ (not mixed/complicated) two negative utterances both in Arabic (line 121) that the doctor produces to firmly reject her evaluation and thus her epistemic stance towards her medical condition that should not be understood as a rejection of the patient's contribution. That is, from his medical epistemic perspective the diagnosis is clear and not complicated. In line

(125) the doctor takes up to produce a counter assessment through the use of the antonym of the word /mxalʇa/ which is /ʂa::fija/ (clear) produced with a stretched vowel /a:::/ for emphasis to assert his evaluation. In this way, he indexes his epistemic authority that results from the existing imbalance of knowledge, between the doctor and the patient, in medicine, which is after all his domain. Interestingly, this expression of medical authority by the doctor is realised in Arabic and not in French.

The doctor performs another preference-related CS in line (121) relevant to this interaction's participation framework, but this time in the same turn. The doctor begins his turn by the French word 'centrale' (central) to resume his previous turn addressed to the resident student in French, then immediately after it, he switches back to Arabic /əlla ma:ʃi: mxalʇa/ (no not complicated) to respond to the patient's assessment, as explained above, and to counter her evaluation. In the same way, in line (143), the doctor produces two utterances one in Arabic /xuʂək təglʕi::h ha:di/ (you should remove this) to make a recommendation to the patient, then switches to French to address the resident student in a declarative utterance initiated by 'sinon' (otherwise) to state the consequences of the non-removal of the organ in question as part of the doctor's instructional activity.

Again, a video recorded interaction would have shown this orientation better, yet, the continuer produced by the student in line (147) 'emm' a back channel signal, has a sequential implication. It shows that the resident student is paying attention to the doctor and invites him to carry on his talk (It overlapps with the doctor's 'e:::t' (a:::nd)). This demonstrates that what comes next is related to what it has been said before and it is evidential for the claim that the prior French utterance is not meant to the patient but to the student. Furthermore, in the next turn, in line (153) the doctor resumes his previous utterance and use the third person singular pronoun 'elle' (she) in 'chez-elle' (in her) to refer to the patient. This also confirms the doctor's orientations to French to speak to the resident student and

that this use of French is not used to exert control over the patient but to carry out a teaching task.

In addition, another function of the doctor's switching to French in lines: (111-112, 121, 143, 153) is to generate meanings in relation to the organisation of the utterances (texts) for the purpose of discourse coherence. In other word, the second function of language alternation occurring in this example is discourse-related CS (Auer, 1985a; 1998). The inevitable use of medical terminology with the resident student triggers the inclusion of French language materials around the medical terms as in: 'c'est une anémie hypochrome microcytaire…' (this is a hypochromic anemia…), 'sinon une hystérotomi::::e totale' (otherwise a total hysterectomy), 'e:::t' (a:::nd), 'indiquée chez elle' (indicated in her). These patterns of CS in this excerpt, are discourse-related and they contributes to the organisation of language alternation and coherence in this sequence by providing interactional meanings to the utterances (teaching activity) in addition to the preference meaning.

Thus far, the sequential analysis shows that French is not contributing to the enactment of authority in this interaction. Epistemic and deontic authority is exerted through Arabic utterances. However, it is worth pointing to the significant diagnostic information contained in the French utterances with medical terminology used by the doctor in his declarative utterances to the student and which have not been translated into Arabic to inform the patient about the diagnosis and other details. So, it is the use of medical terminology and the absence of information and clarification in Arabic which maintain the imbalance of knowledge between the doctor and the patient, especially if the patient does not understand them, and hence contribute to the interactional asymmetry in this encounter in terms of information exchange especially, in the diagnosis phase where the patient is supposed to obtain information for their doctors.

This is another but very interesting example that illustrates the moment-by-moment interactional alternation between Arabic and French by the resident student and the doctor. It shows the systematic occurrence of CS between Arabic and French. Four parties are involved in this routine visit which occured in the specialised unit of internal medicine department: an elderly male patient, his son, a male doctor, and a female resident student.

Prior to this sequence, the doctor asked the son whether his father needed treatment prescription, meanwhile the resident student was reading the patient's medical history and she found out that the patient had been taking a drug for a long period that is medically speaking more than recommended. So, she produces a remark in line (601) where she uses both Arabic and French to address the doctor. What is interesting about the structure of her turn is the reflected relationship between language alternation and the order in which she organizes the constituent units in terms of priority and importance:

The patient => two years => corticosteroids

In fact, the structure of her utterance gives priority to the patient, then two years and finally corticosteroids. This particular order would have been missed if French had been used alone. To put it another way, French is the language of instruction in medical fields and the preferred language among doctors, but if the resident had used only French, the utterance

would have taken one of the following three possible formats with the first one as most common and the third one as the least common, especially in spoken French:

Possible alternative utterances	**Order of priority**
1) 'ça fait deux ans qu'il est sous corticoïdes' (It's been two years since he's under corticosteroids)	Two years => the patient => corticosteroids
2) 'Il est sous corticoïdes depuis deux ans' (He is under corticosteroids since two years)	The patient => corticosteroids => two years
3) 'Il est depuis deux ans sous corticoïdes' (He is since two years under corticosteroids)	The patient => two years => corticosteroids

Seemingly, the first and the second possibilities do not offer a structure with the order of priority meaning desired by the resident student, the patient => two years => corticosteroids, and this explains her choice of Arabic which offers the possibility to start her turn by referring first to the patient (her primary concern) /ra::h/ (he is), than she switches to French to speak about technical (the period/time) and the medical (the drug) matters. Here both discourse-related and participant-related CS are into play to create interactional meanings, i.e., utterance and participant organisations respectively.

What comes next (line 605) is also interesting in the sense that the doctor responds to the resident student by referring to the patient and the corticosteroids in her same order of language choices. In doing so, the doctor establishes discourse coherence with the resident student's utterances. The doctor used French 'on va le déminuer' (we will decrease it) to refer to the drug technically named 'corticosteroids' that the student has produced in her

turn. Next, he switches in the same turn (line 605) to Arabic to refer to the patient when he says /wjzi:d jənaqʂu:h/ (and besides they will make him lose weight) which occurs in coherence with the student's former reference in Arabic to the patient /ra:h/ (he is).

This discourse-related function of CS continues in the next turns. Whenever a reference to corticosteroids or its period of intake is made or embodied in the utterance the doctor and the resident student use French (lines: 612, 615, 619-620) and whenever a reference to the patient is made or embodied in the utterance, Arabic is used.

The two Arabic utterances the doctor produce in line (619) /bʂaħ ħna/ (but we) and /rana fi/ (we are in) refer to the doctors and the patient since they index the meaning of the current situation that involve 'we the doctors of this patient' and this explains the use of 'we' in Arabic and when it come to decision taking that involves only the doctors the doctor uses French 'on' in stead of the Arabic term /ħna/.

But, next, in line (626), the doctor performs participant-related CS when he uses Arabic /hada::k əlka::ʃi li rah jəʃrub ħaba wnuʂ/ (that tablet that he takes one and a half) to refer to the corticosteroids because starting from this line the participation framework of the interaction changes and sets Arabic as the language to use with the son (and the patient). Furthermore, Arabic is used to produce an instruction /jəbqa jəʃrub ħaba/ (he continues taking one) made as a pronouncement and indexes the doctor's authority over the decision-making activity. Again, in this excerpt, French is not used to enact control on the patient and his son but it deprives them from significant information if they do not understand French.

However, we cannot assume that this is done purposefully to exclude them because from an interactional point of view we cannot evidence it. Besides, during the encounter the doctor and the resident demonstrated that they were aware about the son's higher socioeconomic status and mentioned that the son is an engineer in one of the important national companies, which implies that the son speaks and understand French.

This is a long extract of an interaction between a female doctor, a female elderly patient, and female resident student is also present. The beginning of this exchange is mainly between the doctor and the patient that I purposefully analyse in this section to show the sequential development of events, which will help making interpretation of the doctor-resident student CS that occurs in the latter part of this extract.

After reading the patient's medical history, the doctor notices that the patient has missed her last routine visit. In line (156), the doctor makes a remark to account for missing the appointment by beginning her turn in Arabic and ending it using the French terms 'rendez-vous vingt cinq janvier' (appointment twenty fifth of January) then soon after she produces a self-repair to substitute January by June 'vingt cinq juin' again in French. However, the patient marks a considerable pause of a second and two-tenths that leads the doctor to take on and produce a negative declarative utterance with a rising final intonation (line 164) which clearly indexes a search for a confirmation of the appointment non-attendance from the patient.

However, once more, the patient abstains from providing an answer and marks a rather long pause of a second and eight-tenths (line 166). After reviewing the medical record and confirming the name of the patient (lines: 168-170), the doctor produces another declarative negative utterance, also with a final rising intonation, and prefaced by /aja/ (so)

that displays the doctor's upgraded epistemic stance since it is consolidated by the medical record, in order to question the patient's non-attendance and seek a confirmation, but always using the French expression 'vingt cinq Juin', which apparently causes a comprehension problem to the patient who continually abstains from answering (see the 2 seconds and a tenth in line 175).

Finally, the doctor produces a repair of her previous utterances using only Arabic to account for the missed appointment, which should have taken place in summer and then she directly asks a question about the reason for absence (line 177). The latching answer provided by the patient (line 181) is evidential for the latter's problem of incomprehension of the docotr's use of French in the previous turns and that has been solved after the doctor used the Arabic generic term /əʂʂajf/ instead of 'juin' or 'vingt cinq juin'. On the one hand, this suggests that the patient has no knowledge of French. Besides, the patient's answer is countering the doctor's epistemic stance when she exhibits her own epistemic stance based on her experience. She says /ʒi:::t/ (I came) produced with an emphasis realised by a stretched vowel, then she produces an assertion combined with an argument to confirm that she not only went to the appointment but also saw another doctor because the treating doctor (the current doctor) was absent.

This is a case of participants' epistemic battles (Clift, 2016: 198). The patient resists the doctor's stance by providing a piece of supporting evidence. In turn, this is met by another question from the doctor realised in French to seek a confirmation of the exact period (In June) of the visit by performing a discourse-related CS to French since the use of the alternative Arabic generic term /fəʂʂajf/ lacks the precision aimed by the doctor. Here also, it is the question, which constrains an answer from the patient, and it is not the use of French, which contributes to enact or contribute to the enactment of authority. Nevertheless, the patient's confirmation of her attendance of the appointment in the exact date suggested by

the doctor challenges the latter and set further constraints on her to provide evidence about her not being absent the day of the appointment.

Subsequently, a marked[30] use of French and Arabic by the doctor occurs in line (194) where she produces two declarative utterances that both begin by /fi juin/ (in june). Yet, while the former is in the affirmative form to assert her presence, the second is in the negative form to assert that she was not absent. Besides, the second utterance is marked by the use of the Arabic term /ga:ʕ/ (at all) that upgrades her assertion. It is this term /ga:ʕ/ that the doctor uses to respond to the patient's challenging answer because it allows her to position this upgraded assertion before the subject and the verb:

ga:ʕ => j'etais pas => abscente (at all => I was not => abscent).

In doing so, the upgrading is given primacy over the rest elements of the utterance and the assertion is made stronger. The entire French versions would be either:

'En juin j'étais présente en juin je n'étais pas absente du tout' (In June I was present in June I => was not absent => at all) with 'du tout' (at all) occurring in final position.
Or
'En juin j'étais présente en juin je n'étais pas du tout absente' (In June I was present in June I => was not => at all absent) with 'du tout' (at all) occuring after the subject and the verb.

[30] The use of the word marked here is not used to capture Myers-Scotton's perspective of the markedness model and meaning negotiation.

None of these alternatives can provide the same meaning built by the doctor in her utterance in line (194). Also, the use of Arabic preposition /fi/ instead of 'en' in /fi juin/ (in June) is possibly triggered by the use of / ga:ʕ/ in the next utterance for the purpose of utterance organization and discourse coherence.

On the other hand, although without a video recording I cannot confirm whether this turn (194) is addressed to the patient or the student, or whether the doctor is only thinking her mind aloud, but the quite speech delivery can support the elimination of the first assumption that the doctor is addressing the patient, especially that the participation framework of the interaction clearly changes in the next sequences between lines (211) and (216).

Henceforth, my interpretation is that the doctor changed the participation framework earlier starting from her turn in line (194) where more French content is used as a participant-related (preference-related) CS either because she is talking to herself or because she is addressing the student. However, this utterance is met by the patient's production of a continuer /əm?/ with a rising final intonation may be because the patient also does not know if the doctor is addressing her or not. Furthermore, the continuer not only signals the patient's incomprehension of the utterance but also initiates a repair (that occurs after a long pause about six-tenths of a second) from the doctor who in line (202-203) performs a participant-related CS to Arabic to address the patient[31]. The doctor confirms and asserts her stance, that she was present not absent, by producing an utterance that contains a repeat /kuna hna/ and /kuna hna:ja/ (we were here) for the purpose of emphasis as well as including supporting evidence /mʕa lka:n ramda:n/ (as it was Ramadan[32]).

31 Notice the use of /mi:mti/ (my mother) is evidential of the doctor's projection to the patient.
[32] Ramadan is the holy month of fasting during which Muslims abstain from eating and drinking from sunrise to sunset.

Significant switches back and forth between Arabic and French are performed by the doctor to talk to the resident student in the sequences between lines (211-216). The doctor's utterance (line 211) /ʃħal ra:hum da:jri:n rendez-vous (fi juin)?/ (what have they done (as) an appointment in June?) enquires about the date of the appointment mentioned in the medical record to check the information given by the patient concerning her attendance in line (181). Here, although the doctor is talking to the student her utterance is responsive to and checking the information contained in the patient's earlier utterance (181). Therefore, the choice of Arabic is responsive to the components of the patient's turn and it functions as discourse-related CS.

Another explanation of the use of Arabic instead of French is that the action that is taking place here does not involve a medical teaching activity. Nevertheless, in lines (215-216) the doctor takes up a participant-related CS to French to tell the resident student that her replacement failed to write down on the history record that she had examined the patient. Yet, it cannot totally assume that this switch to French aims to exclude the patient from the interaction given that she does not understand French on account of the doctor's next switch (line 215) to Arabic that overtly confirms the patient's stance /ʃa:fətha/ (she saw her).

Whereas, the use of French in the utterances 'elle l'a pas noté' (she didn't note it) and the assertion 'mais elle l'a pas noté' (but she didn't note it) functions as participant-related CS to the resident student to speak about a medical institutional procedure that consist in keeping history records. On the other hand, the use of Arabic in /ʃa:fətha/ is affiliative to the patient stance and displays the doctor's epistemic stance shift. Moreover, in organising her Arabic utterance the doctor recycles the verb that the patient used in the earlier sequence (line 181) /ʃəft/ (saw). It is in this way that the doctor displays her affiliation to the patient (although she addresses the resident student) through a discourse-related CS to Arabic.

7.3 Doctor-patient CS

Extract (7.4) is taken from an interaction between a female doctor and a female patient at the internal medicine department. I should note that the recording started at the point the doctor produced the utterance in line (5). That is, when the participants were discussing the blood test results and what happened before is missed in my data.

In line (5) the doctor (female) informs the patient (female) that her blood sugar level is high, however, this announcement is met by resistance from the patient. In response, the latter strongly displays (line 10) her epistemic stance through an account where she assesses her own condition, and distinguishes between diabetes and glycaemia, a technical medical term that the patient uses here as nonce borrowing since it has not an exact or commonly known and used equivalent in AA. The patient rejects the new diagnosis provided by the doctor by bringing to the fore her experience with the illness when she says /ki:ma mda:ri/ (as usual) in line (10) as an argument to normalise her condition and resist the new diabetes diagnosis.

Hence, under such circumstances, the doctor takes on and cuts off the patient before turn completion (line 16). The doctor is clearly disagreeable with the patient's positioning. The doctor signals this with a click particle /ɪə/ prefaced turn, followed by the Arabic discourse marker /bʂaɦ/ (but) to counter not only the patient's account but also her epistemic positioning and assessment. Then, the doctor continues to display her deontic status and executive authority in the statement /lə:: lʔumu:r li durk ndiru:ha/ (the:: matters that we shall do) that she precedes with an idiomatic expression: /rani: ngu:lek zaʕma/ (I am telling you

anyway) which indexes the doctor's non-consultative orientation and suggests that the doctor retain the right to pronounce the treatment procedure.

In doing so, the doctor presents her deontic status as primary over the patient's epistemic stance. Subsequently, the patients' first acknowledgment token in line (18) /wa:h/ (yes) functions as a follower and invites the doctor to continue while the second (same line) /wa:h/ demonstrates the patient's alignment with the doctor's right and entitlement to take decisions.

So far, there is an agreement between the two participants that Arabic is the language-of-interaction. Yet, in her next turn, the doctor uses a mixed code but still orients to Arabic as the language-of-interaction. The doctor uses the French terms 'deux fois' (twice), and the argumentative connective 'quand-même' (anyway/still/yet) in lines (21-22). The former is triggered by the use of the medical label of the drug and its dosage 'Amlor dix milligrammes' and thereby functions as a discourse-related CS whereas the latter is used to express the doctor's authority over the prescription activity. In other words, in line (21) the doctor starts her turn by the Arabic adversive connective /beṣaɦ/ that introduces an argument to take a further step in asserting her epistemic status (that blood sugar level is high as the test has demonstrated). Then, in order to assert her deontic status, embedded in her utterance /ndi:rlək Amlor 10 milligramme/ (I do/give you Amlor 10 milligrammes) where a decision is made, the doctor, prefaces her utterance by the borrowed French argumentative connective 'quand-même' (anyway/still/yet) to support her doctorial authority. In this regard, Roulet et al. (1985: 136) describe the argumentative connective 'quand-même' as having a pragmatic characteristic of 'referring to an institutional norm'.

But, in all these cases, a discourse-related CS to French is taking place, not to produce systematic advantages for certain actions over others but to contribute to the interactional meaning of the utterances, i.e., French is not used here as a tool per se to control the flow of events and the building of actions it rather contributes to the sequential structure of the doctor's building of utterances. Also, the use of these French and technical terms are initially triggered by the use of the term 'la glycémie' employed by the patient in line (10) which shows her understanding of medical terms or at least those related to her illness. This has encouraged the doctor to use a mixed code and to name the drug in question compared to the previous examples (Extracts: 6.8, 6.9, 6.10, 6.11, 6.12, in chapter 6) where doctors orient to technical terminology gap to speak to their patient and rely on the packing colours and other descriptions to refer to drugs.

A similar situation occurred between the same doctor and another female patient, but with a different language choice this time. Only Arabic is used as the language-of-interaction even in locations where technical terms and borrowings could have been used such as the use of French numbers as shown in the following extract.

In the extract above the patient uses the Arabic term /əʃʃħam/ (line 324) which is a generic term used by doctors with people with no or little health literacy and understanding of the medical terminology. It means 'fat' in English but refers to cholesterol in medical contexts. Actually, Algerian doctors and patients have developed a kind of medical register that consists of a set generic terms from the dialect used as alternatives to the scientific and medical terms to bridge the existing gap between doctors' and laypersons' knowledge (cf. Belaskri, 2017). Unlike, the previous example, the doctor uses the term /əʃʃħam/ in line (332) instead of the medical term cholesterol to maintain discourse coherence.

This choice is particularly responsive to the patient's use of this generic term in her previous turn (line 324). On the other hand, it reflects the doctor's understanding of the patient's identity and ethnographic characteristics. As a result, the doctor orients to Arabic as the language-of interaction without mixing the French and Arabic codes. This is further displayed in the doctor's recurrent use of Arabic numbers rather than French numbers /xamsi:n/ (fifty) in lines (336, 348), /təlʈaʕəʃ/ (thirteen) in line (341), /zu:ʒ/ (two) in lines (344, 348), /ʂi:fər/ (zero) in line (348) in this excerpt and in the whole interaction. Also the use of Arabic in /zu:ʒ gra:ma:t/ (two grammes) instead of 'deux grammes', in spite of the technical nature of the content of the utterances.

Besides, in line (344), the doctor cuts off when she is about to name the substance 'triglyceride' before she makes a self-initiated repair to resume and utter it again. The cut off can be explained by the doctor's orientation to the patient's potential incomprehension of the term. Put simply, the doctor interprets the use of 'triglyceride' as inappropriate in this context with this patient, but due to the lack of an equivalent in AA the doctor reproduces it again to resume her utterance, yet without altering the system, i.e., the technical term does not trigger any use of French in the remaining parts of the utterance and Arabic is maintained as the language of this interaction. Although in this sequence some resistance of the prescribed medication is indirectly displayed by the patient through reporting an account given to her by the pharmacist (lines: 315-328) the doctor strongly pushes back against the reported statement and provides evidences from the test results to support, assume and control over her treatment decisions that she carries out in Arabic.

I return to extract (7.4). In line (27), the resistant patient self-selects to initiate a question that she follows with another one in line (31). Both questions enquire about the period of intake and she presents in each a candidate answer, 'three months' and 'one year', respectively. However, the doctor in her response (line 36) misaligns with the action and the topic agendas set by the patient in her questions. None of the candidate answers have been selected (action disalignement). The doctor's response disaligns with the action since the doctor structures her response in a format that flouts the adjacency pairs rule when she uses the conditional form.

On the other hand, the doctor's answer is opaque in the sense that the topic of sufficiency she has initiated is not clear whether it is relevant to the question asked by the patient or not (topic disalignement). In other words, it is not visible whether the doctor means: the period of intake sufficiency or the drug sufficiency. Also, although the patient asks her questions in Arabic, the doctor uses French to build a complete conditional sentence [if clause + main clause] in 'Si c'est suffisant + d'accord' (if it's sufficient + alright) and another if clause, 'si non' (if not) whose main clause is then realised in Arabic /nə- (0.3) nzi:du:lək ħa:ʒa xʷra/ (we/I- (0.3) we add you (give you) something else). A set of actions have been accomplished in the doctor's turn to cite: disalignment, setting conditions, producing ambiguity, and divergence from the language-of-interaction through a CS to French.

The doctor then accomplishes a pronouncement of a contingency plan for possible future situation, but this time realised in Arabic. Arguably, all these activities work against the patient's orientation and self-selection to ask questions and to set constraints on the doctor not only by asking questions but also by providing candidate answers from which the doctor had to select. Thus, the actions performed by the doctor function to manage the patient's resistance and push back on her footing as a questioner and a co-participant in the

decision-making enterprise (lines: 27-31). The doctor's strategy has been accomplished successfully; notice the long pause in line (40) that marks the closing of the sequence and the beginning of a new one with cholesterol as the new topic launched by the doctor, in line (42).

Yet, it is worth pointing here that French per se does not enact authority. The analysis shows the doctor does not use and recourse to French to distance the patient from medical enterprise. It is, in particular, the grammatical structures employed in these French utterances and their embedded action/topic disalignment that push back on the patient resistance. The use of French is not responsible of this interactional control. It is not used to distance or exclude the patient from the interaction as it would be interpreted following other approaches in sociolinguistics in particular (such as Myers-Scotton's markedness model) that would regard the use of French as a marked choice without investigating the sequential details of utterances and turns.

Noticeably, French is abandoned during the pronouncement activity when the doctor says: /nə- (0.3) nzi:du:lək ʕa:ʒa xʷra/ (we/I- (0.3) we add you (give you) something else) which is realised in Arabic in the same way as the previous pronouncement actions in lines (16 & 22). Using the qualitative methodology of CA to analyse the interaction in close details shows and supports the finding that deontic and medical authorities are explicitly enacted when action verbs are used in Arabic by the doctor, especially because pronouncements are the most authoritative actions doctors perform during the treatment recommendation activities.

Additionally, although the doctor's answer is ambiguous, yet, another interpretation of the use of French by the doctor to raise the topic of sufficiency (which refers to an amount of something that is enough for a particular purpose) can be made. The doctor switches to French to respond to the patient's use of French in her first question (line 27) 'trois mois' (three month) which also refers to an amount of the time necessary for the drug intake, i.e., the CS occurs for the purpose of utterance organisation and to create coherence with the patient's utterance. This orderliness in discourse-related choices is also tangible in the doctor's switch back to Arabic when she says /nə-(0.3) nzi:du:lək ɦa:ʒa xʷra/ to respond to the patient's initial use of Arabic in the utterances /ki: nzid/ (line 27) and /wəlla ndirah ʕa::m/ (line 31).

In other words, the doctor uses Arabic and French in an organised way that accepts Arabic in utterances where verbs express action or state of being. Similar examples are captured in the extract (7.6) below, where Arabic is used in: /ra:h/ (it is) in line 42, /raha/ (it is) in line 74, /rah/ (it is) in line 114, /maka:n wa:lu in line 121) whereas French is used to speak about medical and related matters such as amounts/quantities or a description of an amount 'si c'est suffisant d'accord si non' (line 36) or the illness as in the following example from the extract below: 'mais la maladie (ha:di)' (but the illeness (this)) in line (59), 'la maladie en elle-même' (the illness itself) in line (74), 'mais sinon əlmarḍ en lui-même rah calme' (but otherwise the illness itself is calm) in line (114).

Using CA methodology that investigates language-in-interaction in close details, I will analyse overlaps and the doctor's management of the patient's resistance in the extract above of the same interaction ([Int-med#sc#24]) to show that French is not responsible of enacting authority and control by examining the sequential development of talk-in-interaction.

If we compare the doctor's turn in lines (36-37) in extract (7.4), where French is used and in which the doctor easily manages the constraints constituted in answering the patient's questions, by flouting them to assert her medical authority in pronouncing the treatment, with the doctor's other turns where French is also used in line (59) '[mais la maladie (ha:di-)]' (but this illness) that overlaps with the patient's talk, and then in line (74) /ha:di: [la maladie] en elle-même [raha::::]/ (this is the illness itself it is) where the doctor is about to provide an assessment of the patient's condition and where the doctor's talk overlaps with the patient's talk in two occasions, we find that although, French is used in the three situations, we can notice that the patient takes up the recipient role (lines 36-40) while in the second two situations (i.e., lines 56-59 & 74-80) the doctor drops out and the patient completes her turns. In spite of the recurrent use of French by the doctor, the patient expands the sequence that the doctor is attempting to close and the patient fully presents her agenda (unsolicited diet experience).

7.3.1 The role of CS in resistance sequences

Now, I will focus on resistance because of disaffiliation, in the stances between the doctor and the patient in extract (7.6) and examine if the doctor seeks recourse to French to push back against the patient's stances.

In line (42), the doctor initiates the topic of a high level of cholesterol, based on her reading of the blood test. The patient who apparently is observing a strict diet, implicitly contests the results reported by the doctor. The patient indirectly raises her concern on what might be the reason behind this increase by using argumentative sentences rather than direct questions. First, the patient gives an epistemic assessment that she has recovered from cholesterol increase (line 46). Her utterance /°cholestérol ra::ɦ [(pourtant)]°/ (°the cholesterol has gone [(though)]°) is built in an interesting way. It starts with a declarative

statement that contradicts the one produced by the doctor and ends with the French adverb 'pourtant' (though) that expresses opposition and surprise.

In putting utterance elements in this order, the patient contests the doctor's diagnosis and puts emphasis on recovery theory to assert it. Then in mitigation, she projects to expressing her reservation about the new diagnosis by using 'pourtant' in final position in an orientation towards questioning the diagnosis. The choice upon this French adverb rather than the Arabic alternative /beʂʂaɦ/ maybe lies in the 'surprise' meaning and degree of importance that the Arabic term may not convey or may be it is used as a borrowing since Algerians frequently use it in their AA conversation. The utterance /°cholestérol ra::ɦ [(pourtant)]°/ is also realised with quiet speech delivery which demonstrates that the action is done with delicacy. On the other hand, instead of addressing this as a concern, the patient statement is immediately and very briefly opposed by the doctor (line 49) /əlla/ (no).

In doing so, the doctor disaligns with the patient's agenda and projects to close the sequence leaving the patient implicit raised matter unaddressed. However, the patient takes on again, and resumes her counterargument that she prefaces with 'pourtant' to embody and recycle her astonishment and incomprehension of the reappearance of cholesterol. And this in spite of, all her efforts as she demonstrates it by using the upgrading marker /ga:ʕ/ (at all) in line (53) and mentioning unsolicited information (the kind of food she no longer eats) in line (56). The patient does so to question the diagnosis but she carries out her action in implicit and indirect way to the doctor who, nevertheless, is oriented to closing the sequence and initiating a new topic in line (59) '[mais la maladie ha:di-]' ([but the illness (this-)]) that overlaps with a part of the patient's talk.

Eventually, in line (62) the doctor displays understanding of the patient implicit questioning and aligns with the patient's agenda to provide a candidate explanation that she follows with a question tag to seek acceptance from the patient with the objective to put an end to this sequence. Subsequently, the patient acquiesces in line (65).

Then, in line (74) the doctor switches back to French in an attempt to recycle her turn which has not come to completion due to the overlap withdrawal in the prior turn (lines 56-59). So, here again the CS to French occurs with the purpose of re-launching the turn as a conversational strategy[33] to deal with overlaps, to repeat and carry on what has been stopped. In addition, as I have explained above in this chapter the use of French here by the doctor has a discourse-related function. Yet again, the doctor has to withdrawal from her turn (line 74), in spite of being the first speaker, to leave the floor to the patient who unlike the doctor is not projecting to the sequence closing and continues voicing her concern in overlaps with the doctor (lines 74-78).

Actually, the patient is taking the opportunity to give another account and goes on questioning the diagnosis of cholesterol before the sequence closes. However, in the same way, the patient is always indirect in presenting her concerns by raising matters, which have not been solicited by any inquiry from the doctor such as whether the blood test is recent or not, and when it has been performed. By doing so, the patient is implicitly readdressing the doctor's explanation (line 62), i.e., the feast conclusion, and contesting it (since the turn is prefaced by the counter-argument marker /bəʂʂafi/ (but)). In fact, in line ((79-80, 89) she is associating the newness of the test with the feast which has taken place five weeks ago before she does the blood test. Hence, the patient not only fails to ask directly the question 'what might be the reason behind cholesterol increase?' but also avoids to express explicitly that

[33] In this respect, Schegloff states : The relationship between the identical recycle and the overlap - that is, the relationship between the identical recycles and the prior turn with which an overlap has occurred-is not at all a haphazard one. The recycle begins at precisely the point at which the 'new' turn emerges 'into the clear'; that is, as the overlap ends by the 'old' turn coming *to* its 'natural' or projected completion or by being stopped/withdrawn *before* its projected completion. (1987a:74).

she disagrees with the doctor's assumption. This indirectness in expressing concerns is found to allow the doctor to unaddress them (cf. Drew, 2005).

Significantly, although the patient is covertly expressing her concerns, the doctor demonstrates understanding of the patient's agendas by engaging with the action (responsing to the patient) but without aligning with the patient's stance that challenges the doctor's diagnosis,which is supported by the test results, and the conclusion of the feast (lines 62, 93) i.e., the patient concerns are not ignored by the doctor. In the turns that follow the patient continues with the same strategy of indirectness and overlapping to manifest her resistance and take more opportunities to speak, while the doctor is projecting to close the sequence and to move to the next activity. In this regard, Peräkylä (2002) studies show that the more doctors address patients' concerns the more patients take opportunities to speak and question their doctors' conclusions, which explains why in many situations doctors tend to ignore patients' questions and concerns to prevent them from initiating topics and expanding sequences.

Finally, in line (99), to put an end to the continual resistance and disalignment, the doctor takes an authoritative orientation by questioning the patient's knowledgeability and implicitly criticise the patient's entitlement to provide an unscientific assessment or/and take part in the treatment decision process. This is evidenced in the patient's aligning response that occurs after the simultaneous talk when the patient produces a laughter, which is an indicator of the delicacy of the matter that Jefferson (1984a), claims to be used by a speaker, who are held responsible for the negative interactional consequences (here the doctor's criticism), as a device to assume culpability while changing footing from disalignment to alignment (Clift, 2016).

Subsequently, in line (108) the doctor reaffirms her explication of the cholesterol increase as the only valid one and thereby closes the sequence to re-launch again her withdrawn turns caused by the overlaps (a repair mechanism) and give an elaborate reformulation of a positive account on the patient's illness. The doctor uses a mixed code but maintains the same orderliness in building the utterances (Arabic verbs and Arabic as the language-of-interaction). This is seen in the doctor's substitution of the French word 'la maladie' by the Arabic alternative /əlmarḍ/ (illness) and the use of French then Arabic in the segment repetitions /rah calme rah ha:di/ (it's calm it's calm) that occurs for the purpose of emphasis but using two languages.

There is evidence here that the doctor and the patient have distinct orientations. The doctor is more concerned with assuring the patient about her main illness (a chronic illness to which the doctor is referring to as being calm, but unfortunately we do not know due to the missing data in this interaction,) whereas the patient is rather concerned with the newly diagnosed increase in cholesterol. The analysis of this excerpt demonstrates that the actions accomplished in the utterances (rather than the choice of language) are responsible of managing resistance and maintaining the doctor's control. It also shows that the patient can take opportunities to voice their concerns, respond to and resist the doctors' diagnosis, and make assessment according to their lived experiences (regardless whether this is done directly or indirectly) without being silenced or suppressed by the doctor. However, ultimately, control remains with the doctor

7.4 Conclusion

In this chapter, I studied cases of CS occurring in data of DPIs. My examination of the details of the interactions revealed that Arabic is generally the language of interaction in medical encounters and that only a few cases of CS to French were identified. In the hospitals and the external specialised units, French is mostly used to speak with the resident students during the practice teaching activities that take place during the main doctors' routine consultations. CA methodology is used to focus on the sequential use of CS to understand its local production. The study revealed that there is a shared understanding of the organised function of CS among the participants. Arabic is used in the sequences that involve the doctors and the patients, whereas French is the preferred language by doctors with the resident students to perform their instructional activities. On the other hand, discourse-related CS occurs in an organised way for the purpose of coherence and utterance organisation when French is triggered by the inevitable use of some technical terminology. Concerning doctors' authority and control of events in interactions, the analysis of data revealed that CS to French and technical terminology is not systematically used as a strategy to enact authority and control. Nevertheless, the use of French and medical terminology added to providing no information and clarification in Arabic contribute in maintaining the imbalance of knowledge between the doctors and the patients.

General conclusion

General conclusion

The aim of this thesis was to use the micro-analytic research approach CA to examine closely the primary care consultations and to discover how doctors and patients organised their interactions. This research explored a corpus of data produced through audio-tape recordings of medical interactions in two public hospitals CHU and EPH of Sidi Bel Abbes in Algeria. It examined how doctors and patients conducted their interactional activities and negotiated their relationships. The primary focus was to investigate the linguistic structures to reveal the interactional aspects of DPIs that enhanced doctors' authority and the interactional processes through which doctors displayed their superior position and dominance over the encounter.

To achieve the objectives of this research from an interactional perspective, I organized this thesis to include four empirical chapters, in which I addressed different aspects related to this topic of interactional asymmetry. These analytic chapters encompassed a wide range of concerns moving from general to specific. That is, from the distribution of control in the overall and the sequential organization of the medical phases of consultations, to more the specific aspects that included the organization of questioning through which doctors pursued their own agendas, and the structures deployed by doctors to determine the treatment recommendation decisions.

This study did not focused only on doctors' exercise of authority, but also investigated patients' orientation in the interactional processes to maintain and reproduce doctors' control. The analysis also looked at the phenomenon of CS to French and medical terminology that characterizes the Algerian medical encounters to establish its function in talk-in-interaction in relation to the topic of asymmetry in DPIs. Before I conclude, in a sort of a summary, I will consider the results obtained in my thesis and relate them to the findings

of previous research on medical and social interactions to document the issue of asymmetry in DPIs in Algeria.

In chapter four analysis of the interaction in a general practice consultation showed that the participants aligned themselves in an order that afforded two dominant formats; the IF and the IDF that covered most of the talk in the exchange, compared to the other formats such as DF, which the doctor pushed back on whenever the patient projected to shift to a more or less discussant role. But throughout the interaction the doctor and the patient shared understanding of the institutional nature of the interaction and worked collaboratively to maintain the IF and IDF as the major ones. Labour division of roles (i.e., the doctor functioned as questioner and the patient as the answerer in sequences where IF was instituted as the sequence's main format and when the IDF was adopted the doctor was established as the speaker and the patient as the recipient) was locally managed. With the doctor detaining control over the flow of activities and their matching CFs according to the sequence purposes.

The problem presentation activity can be initiated either by the doctor or the patient depending on the type of the consultation. The analysis of an emergency general practice visit showed that the patient initiated his problem presentation without solicitation while in a routine visit the doctor incited the patient through questioning to yield update information. Peräkylä and Silverman (1991), and Paul ten Have (1995) reported similar results. The problem presentation phase is the very room for patients where they can act as speakers and information provider rather than information seekers in the IDF that sets up the doctors who abstains from verbal intervention as recipients. Nevertheless, in data the eagerness by which the patient launched the presentation gradually decreased. His contributions became brief, and awaited pushes from the doctor. They also anticipated that the latter would take the lead role at any moment.

In IDF, the patient functioned unproblematically as a speaker only in the first phase in which he made his complaint presentation. When the patient volunteered information, that could help shift the interactional roles to a rather egalitarian mode, in the other phases such as the diagnosis and the treatment recommendation, the patient's contributions were either countered or disregarded, by the doctor and even re-set up as non-egalitarian (such as when the doctor responded by a question and thereby turned the CF into an IF again). Furthermore, out of the problem presentation activity, the patient tended to provide unsolicited information during other activities because of the doctor's unproblematic diagnosis that the patient regarded as a challenge to his rationality about his decision to see a doctor, whereas the doctor did not have to justify her actions and decisions.

On the other hand, the doctor took multiple opportunities of speakership in the diagnosis and treatment and recommendation phases where she delivered professional information in the form of explanations, assessment, advices, etc. In addition, the doctor's turns were more elaborate in comparison to the patient's turns when the latter acted as a speaker. The doctor not only produced extended turns (that consisted of more than one TCU) and hold the floor more than the patient did, especially, in the treatment and recommendation activity where she used listings and reiteration of the diagnosis to oppose the patient's persistent complaints about the pain as strategies to hold the floor, but she also took multiple-turn opportunities where the co-participant was expected to take over or produce at least a continuer at turn completion points to show that he gave up on his turn to the doctor and thereby displayed his agreement that the doctor could resume speakership, which did not happen. The patient remained silent and thus contributed to maintain the doctor's control as the latter took unproblematically multiple turns.

The asymmetric division of labour in IDF was evident in the studied interaction compared to ordinary conversations where parties can function in equal terms to produce talk when IDF is instituted. Besides, the IDF format established a status asymmetry in the interaction especially when one party controlled the distribution of roles. In the diagnosis phase, for instance, when the patient presented further details about his experience with the

pain after he had acknowledged the diagnosis, his additional contribution as immediately met by simultaneous speech from the doctor who seemingly was not willing to give up her status as a speaker to the patient and did not allow for a role other than a recipient to be the role that the patient should enact.

Another aspect of asymmetry was visible in the production of multiple turns by the doctor. In doing so, the doctor maintained control in the distribution of roles, especially as she chose not to withdraw from talk and she continued until completion of her utterance while the patient (first speaker) was still talking. An interactional conduct that flouted the principle of turn-taking system and turn allocation in ordinary conversations as proposed by Sacks et al. (1974) who note that only one speaker speaks at time and that turn transition is managed with no, minimum gaps or overlaps.

Yet, it was easier to track asymmetry in the IF sequences, not simply because this format already sets restrictions on one party, since it obliges them to provide answers when questions are produced by the other as put by Sacks and his followers, who all maintained that questioning activity entailed adherence to the moral and social principle that consisted in an next answering activity. But, also because questioning, in this case in particular, occured unilaterally. In my examined interaction, neither the patient initiated questioning activities nor did the doctor provide a room for the patient to ask questions. Whenever IF was adopted, the conversational roles that the co-participants confined themselves to were limited to an questioner doctor and correspondingly an answerer patient and this remained stable and persisted throughout the entire IF sequences.

In this respect, Peräkylä and Silverman (1991) argued that in the majority of cases, patients' questions did not emerge even if doctors provided space for them. Furthermore, they confirmed that the examination of the overall structure of many types of DPIs showed that when doctors offered opportunities for questioning it occurred during either the closing of a topic or the closing of the whole consultation, nevertheless, patients still did not ask

questions. Given the patients' questions scarcity, this supports Frankel's (1990) claim that patient-initiated questions were dispreferred and West's and Frankel (1991) argument that although there were practical reasons for patients to ask questions but patients did not ask questions. In the examined interaction of the current research, the patient could have asked a direct question, when the doctor delivered an opaque unproblematic diagnosis, to enquire about what the problem could be then, instead he oriented to justifying his reason for visiting the doctor and provided more claims about the persistence of the pain.

In this regard and given the difficulty to express his concern explicitly, Drew (2005) made a claim about a similar result that this is an indirect way for patients to question the doctor's optimistic and unproblematic assessment, which diverged from the patients' experience. On the other hand, West and Frankel (1991) asserted that the type of utterances in DPI was designed to fit the primary interview nature of medical dialogues in spite of its secondary conversational nature. Thus, in her view a two-way flow of questions and answers between doctors and patient was hard to sustain all over the dialogue. This explains the patient's difficulty to raise directly questions on what might have be wrong with his foot. In addition, in an earlier publication, West (1983) found in her examination of the length of sequences where the patient exceptionally asked questions that such footings lasted no longer than one or two question-answer adjacency-pairs. In much the same way, Peräkylä and Silverman (1991) explained that offering question time to patients and accepting it by the latter would contribute to a departure from this asymmetric division of labour that was jointly achieved through an interactional accomplishment.

Nevertheless, although the doctor re-positioned the patient as a recipient or answerer whenever he attempted to shift or flout the instituted roles, the maintenance of the asymmetric IF and IDF was done collaboratively. The patient behaved like any service seeker in an institutional context and demonstrated anticipation of the professional, the doctor in this context, to possess command of specialised professional knowledge and authority that were needed for the purpose of a successful consultation, i.e., accurate diagnosis and successful medical treatment (Peräkylä and Silverman, 1991). Parsons (1951)

and Jefferson and Lee (1981) also agreed that the IDF and IF were the preferred formats in medical contexts. They asserted that IF and IDF remained stable throughout the flow of activities in medical consultations to guarantee professional control of the doctor without which the patient would be left in confusion.

But this order of affairs should not be taken for granted as a mere result of doctors' control and patients' passivity in the interaction. The asymmetry in participation roles is accomplished collaboratively by both parties who are both implicated in the construction of social actions through their organization of turns in the interaction.

In chapter five, questions and answers of doctors and patients were analysed to identify where talk-in-interaction intersected with grammar during the information exchange to manage social relationships between doctors and patients. The analysis of data revealed the effect of questions formatting on the subsequent responses provided by patients. The finding yielded evidence for the principle of double context of utterances that CA is based on in the sense that doctors' questions constituted a context as a prior actions, which worked towards designing the desired structure and action that the next response will take. The analysis was based on the model of questions dimensions proposed by Heritage (2010). I examined topical and action agendas setting, presupposition embodiment, preference incorporation in question and recipient designs.

In the first dimension, doctors' questions not only communicated medical/history-taking information (as well as other areas of questioning in the other phases of medical consultations), they also accomplished activities in the sequences where they occured to convey meanings of action and topical agendas such as optimisation, no problems situations, and problem attentiveness to which doctors oriented to and desired that their patients' responses align to as well. This occured through the use of negative and positive grammatical designs of questions and the choice of the type of questions, mainly, polar and closed

questions, that put firm constraints on patients and prevented the later from stepping out or stretching beyond the framework defined by the questioning activities.

Moreover, when disalignment occured, doctors had strategies to redirect patients and pursue their initial goals. These included the use of repairs, question reformulations, stance displays and evaluation of patients' stances that were performed to achieve the desired designs in responses. For instance, the reformulation of questions into yes/no questions, polar questions, alternative questions dominated over other types of questions and constituted a significant tool for doctors to put restrictions on action and topic agendas. Unlike wh-question, these types of questions targeted particular actions and limited content inclusion and new topic initiation. On the other hand, patients' responses and the procedures they employed to deliver their responses embodied understanding of the doctors' question agendas.

Using these features, doctors and patients worked conjointly to achieve the ultimate goal of the medical visit, which is to solve the patient's health problem that was the treatment delivery. Researchers found similar findings in different environments of questioning and answering since questions inevitably set agendas whether they occured in formal or ordinary conversational contexts (Boyd & Heritage, 2006). Robinson (2003) explained that treatment was dependent on diagnosis, which in most cases was established after doctor's elicitation of the necessary information about the problem from the patient. Thus, to progress towards the medical project completion, patients ultimately aligned with doctors during the process of questioning in the latter's directional fashion in the service of diagnosis and treatment delivery that will follow it.

The interactional mechanisms of asymmetry in question design were examined to show how doctors designed their turns in a normative way that limited patients' answers. It also demonstrated that although patients could resist doctors' agendas they ultimately fail to overcome the doctors' pressures constituted in their linguistic question designs.

The examination of the second dimension of question and answer designs consisted in studying the presuppositional content of questions to show how doctors used presuppositions as a strategy to convey authority on patients and to control the interaction in association with the principles of optimisation and problem attentiveness. The examination of the linguistic content of doctors' questions revealed significant results about the embodied meanings in questions. In extract 5.5 for instance, the doctor opened the medical visit by a question to enquire about a change or an improvement in the patient' mouth condition. Then, when the patient included negative outcomes in her answers the doctor launched a series of questions that were all oriented to influence the patient to revise her answers in order to align with doctor's presuppositions about an exaggerated description of the patient current state of 'no improvement at all'. To do so, the doctor relied on combining extreme case markers (Pomerantz, 1986) such as /wa:lu:/ (nothing) and /ga:ʕ/ (at all) with negative interrogatives to convey assumptions of inaccuracy in the patient's assessment and evaluation of the mouth state and thereby upgrading her epistemic right and professional authority to question the patient's reasoning. The strategy that the doctor employed was successful as she managed to confront the patient's resistance and got her ultimately to align with the doctor.

The assumptions implied in the questions were mobilised to project towards the principle of optimisation that favoured 'best case' answers (Heritage and Douglas, 2005; Heritage, 2010) and worked out to oppose patients' catastrophisation of their condition. The implied assumptions served doctors in the sense that they enabled them to progress and to close the sequence that hindered the progression from one activity to another in the medical interview. The excerpts I have presented in this chapter included cases where doctors' assumptions were met with patients' resistance. These cases demonstrated how doctors and patient worked collaboratively in the interaction which brought participants to share mutual understanding, awareness, and perception of the assumptions, emotions, representations, etc., that govern the structure of the utterances and the embodied actions taking place (Taylor and Cameron, 1987).

Actually, resistance signalled not only disalignment with doctors' stances but also showed patients' understanding of the direction in the flow of events that doctors were heading to. They both collaborated in a process of meaning negotiation where medical agenda opposed patient agenda. Although patients too had their strategies to present their agenda and display their illness experience since they could initiate questions and use narrative design to resist doctors' authority, which was in our examples demonstrated in doctor's assumptions structured with counter arguments, negative designs, comparisons between previous and current situations, questioning of patients ability to understand medical matters and significantly promoting doctors' knowledgeablity and medical epistemic authority. Yet, all the examples showed that patients finally gave in to doctors' agenda. The findings of the analysis showed that doctors pursued their goals of obtaining conforming answers when disalignments occurred by producing repairs and performing restrictive practices such as using polar, yes/no, alternative questions that fished for affirmations and which doctors exploited later to get patients gradually revise their answers in order to meet the doctors' requirements implied in initial questions.

The third element of analysis in chapter 5 focused on studying preferences in doctors' questions. I examined the structures of these questions and the answers provided by patients, the grammatical and lexical features underlying their preference organisational designs as well as the subsequent resulting utterances. The aim was to identify the practices adopted by doctors through question design to incorporate meanings that invited particular types of structures in the patients' answers and thereby influenced their answers.

Previous conversation analytic research on questions revealed that preference was a characteristic feature for most, if not all, yes/no questions. Pomerantz (1988) argued that yes/no questions always operated to invite an agreement or a disagreement, affirmation or disaffirmation from recipient depending on the directional nature of the question. That is, if the question was positive, the recipient was set to produce an affirmative answer with yes or another possible equivalent positive answer to align with the question's orientation. Likewise, a negative formatted question functioned as a vehicle for a no response or any

other equivalent negative answer was most desired. This applied equally to the different contexts regardless of whether or not they are institutional. The examination of data supported these findings in the Algerian Arabic speaking healthcare settings.

The grammatical designs of questions were deployed by doctors not only to achieve particular structures in answers but also to convey meanings of epistemic stances, knowledgeability and validity of knowledge, to assert identities and relationships. Yet both doctors and patients showed understanding of the function of question and answer designs and worked jointly to achieve the interactional objective of those questions. Negative questions were significantly used to suggest that patient showed no signs of illness, real problematic symptoms or even administrative issues. In most cases, the answers occurred to align with the questions' agenda. They confirmed the no problem state of affaire tacitly assumed in the question and allowed the doctor to move to a next activity.

On the other hand, when disalignment occurred in the patients' answers, patients endeavoured to realise their answers. This is evident in the recurrent delays, hesitations prefacing answers, repairs, explanations and accounts that were often included within the dispreferred answers. Furthermore, such departures and disconformities were not without consequences. Depending on their nature, doctors had interactional strategies to deal with them to maintain an optimistic state of affair set in their questions and to complete their activities. Remarkably, doctors proceeded with their project, they did not engage in new initiated topics by patients. For this purpose, they repeated and/or reformulate their questions but without changing their direction. In case unoptimistic answers emerged, doctors also tended to question their validity as a follow up action to maintain their agenda. Ultimately, in most cases, patients changed their answers or their quality. Features like declines and mitigations became more visible in their answers. Although doctors did design their questions to get the same answer, i.e., a 'yes' or a 'no', they significantly and consistently used a best case design that geared towards an optimistic response regardless whether the question is positively or negatively designed.

However, in many cases an optimised design of questions may be viewed as unsuitable, inattentive, or even insensitive. This explains why doctors also tended to go against the principle of optimisation and asked questions that did not favour the no problem situation especially if the patient was complaining or showing particular symptoms which constituted the reason of the visit. Hence, it is in the sense of the second principle of medical questioning, 'problem attentiveness', that designs which presupposed the existence of a problem rather than an orientation towards the patient's best case scenario occurred. However, when patients failed to confirm in their answers the problem state of affairs. For instance, when doctors asked positively if the patient had pain or bruised skin or any other types of symptoms, and the patients replied with negative answers that disconfirmed the doctor's attentive assumption, the patient incorporated details ; they raise other symptoms, evoke worries, initiate new topics or reiterate previous ones, etc., either within their dispereferred answers or later in the next sequences (or at the end of the questioning activity) to defend and justify their decision to visit the doctor or to mention a particular problem.

This chapter addressed the interactional behaviour and organisation of turns and utterances. It looked at their content of questions and answers and the purposes they worked for to create asymmetry in control in DPIs. The examination of interactions demonstrated that the institutional authority of doctors was also an interactional product that it was collaboratively constructed by both doctors and patients in their discursive conducts. Questioning as a social action established certain agendas that not only patients were invited to align with but were also hard to depart from.

Many scholars claimed that doctors' authority essentially originated from the patients' status as help seekers who lacked the necessary knowledge and the ability to implement appropriately treatment actions without having to resort to medical help and assistance from doctors. In this sense, the asymmetric nature of DPI rests on what doctors are trained for and what they are supposed to offer given their hold of epistemic and deontic authority and patients' dependence on them (Starr 1982). This gives doctors added advantage of rights to make decisions.

To examine further the aspects of authority and how it is constructed, I analysed, in chapter six, ten extracts from nine consultations. I looked at the interactional practices involved in the treatment recommendation activities. The tasks involved were to describe how doctors designed their utterances to deliver the treatment recommendation, how and whether patients contributed to the treatment enterprise as well as how doctors managed that when it happened. In this chapter, I replicated the model of analysis adopted in previous researches (Stivers et al., 2018; Heritage, 2018; Toerien et al., 2013) that classified treatment recommendation actions according to their grammatical structures.

Obviously, prescribing treatments implies that doctors should adopt a position of higher epistemic and deontic authority relative to patients. Nevertheless, in the mentioned papers the results showed that in the western countries USA and UK there was a correlation between the type of action formulation, i.e., its grammatical structure, and the authority degree it enacted on the patient based on two main dimensions: who was presented as the instigator of the action and who was presented as the decision-maker in the treatment recommendation designs. This revealed variation in how doctors organised the treatment recommendation turns. Stivers et al. (2018) distinguished five categories of recommendations, which form a continuum in expressing authority from the strongest to weakest: (i) pronouncement, (ii) proposal, (iii) suggestion, (iv) offers, and finally (v) assertion.

Although the five formulations were grammatically, affordable in the AA and French, yet the analysis of data in the current research showed that only three were adopted ‘pronouncement’, ‘assertions’ and ‘suggestion’. The former occurred in doctors’ designs of drug prescription, in most cases. It included statements like /ənrrudahlah../ (I change it to..), /ənzidlah../ (I add him...), /ənʇalaʔlah/ (I increase him), /hadahu:wa dwa:k/, the use of prohibitions such as /..mataʔʇihlahʃ/ (don’t give it to him), /əlʔnəb mamnu:ʔ/ (grapes are

forbidden), directives and imperatives /məddilah/ (give him), /naqqaş əlməlfi/ (reduce salt), and doctors' use of passive voice in impersonal style to assert their medical authority.

In all these formulations, the doctor was presented as the instigator of the recommendation as well as the decision maker, i.e., they expressed both the epistemic and the deontic authority, unlike the patient who was occluded from this role. Whereas the latter ones were used by doctors in situations that did not involve drug prescription. That is, suggestion and assertion, which occurred only once each in data, were adopted to express that additional activities are encouraged such as taking more rehabilitation and mobility training (suggestion), and recommending more follow-up test as precautionary measures (assertion). Yet, they were delivered in a way to remain optional and left to act on or not by the patient, although they are initiated by the doctor and expressed the epistemic and deontic authorities.

On the other hand, unlike in USA and UK where patients were more likely to resist recommended treatments when delivered through pronouncement. The orientation toward the use of pronouncement in data resulted in very little resistance to the treatment (Extract 6.6). this can be interpreted by the patients projection and preference of this format of treatment delivery. The other significant finding concerns patients' responsiveness to treatment recommendation. Muted responses and withdrawal from the treatment recommendation enterprise were largely adopted by patients in spite of doctors' recurrent attempts to pursue responses. Patients' unspoken voice demonstrated their deference to doctors' epistemic and deontic authorities, in addition to their unwillingness to challenge this authority or lose it by distancing themselves from the recommendation activity.

The expression of medical authority has seen a tangible development in the western world. Doctors are more and more relinquishing certain elements of medical authority to share it with patients and this resulted in variation in its degrees as well as the designs in which it is expressed. However, in the Algerian context, pronouncements, which combined

both epistemic and deontic authority in designs and that deny patients involvement in the treatment recommendation state of affairs, predominated and were extensively deployed by doctors especially to deliver drug prescription. Moreover, they are rarely resisted by patient. On the other hand, the use of suggestions to give advices and propose optional activities maintained doctors' hold on epistemic authority although it left to patients the right to implement or not the suggested future action.

What makes the findings of this research distinctive is the absence of variation in the forms of expression of authority in the Algerian healthcare setting, i.e., the remarkable absence of doctors' use of the other formats: suggestions, proposal, offer, and assertions, that entailed more control over the activity. Nevertheless, it is worth pointing that doctors worked jointly with patients, who by avoiding to take on responsibility with regard to the future actions in alleviating or curing their illnesses and their non-participation, contributed to reproduce and maintain the asymmetric distribution of social actions in DPI that consolidated the doctors' authoritative position in the expression of treatment recommendation.

Although I have not studied them in the analysis, but expressions like: /nta taʕraf/ (you know), /dabar ra:sək/ (do what you think), /ki:ma təbʁi/ (as you like), /nta hu:wa ţbi:b/ (you are the doctor) were recurrent in data whenever doctors projected to a patient-centred bahaviour, which demonstrated that patients prefered and advocated the doctors' expertise and exclusive right to take decisions and make evaluations. In all these situations, patients acted in accordance with the doctors legitemate medical authority. In addition to the repeated patients' failures to fill the gaps left purposefully by doctors to allow them to take up and disclose their mind that were also marked by back channeling to motivate them to talk. Both doctors and patients confined themselves to the traditional authority in practice, there were no apparent orientation toward a trade-off between doctors with access to medical knowledge and patients as holders of preferences and perceptions of their own bodies.

In chapter seven, I focused on the interactional meaning of CS in a number of interactions between doctors and patients but sometimes the interactions involved a third party, a resident student. I examined the details contained in data and looked at the situations of language alternation from AA to French and to medical terminology when doctors were talking to the resident student and when they were using French to speak to the patients. The aim was to explore and distinguish the functions of CS in both situations. CA was used to unveil the indexical values of the varieties involved where CS occurred to figure out if and where it carried meanings of authority and control in the interactions. That is, the main objective was to look at the local processes of language alternation to make appropriate interpretations of the participants' communicative intentions of the use of CS in relation to authority and asymmetry.

The examination of the 21 interactions that constituted data and the exploration of the sequences where French and medical terminology occurred demonstrated that throughout all data Arabic was used by both doctors and patients as the language-of-interaction. Nevertheless, it exhibited that there existed a pattern in the distribution of the doctors' language preferences to speak with patients and with the resident students. That is, the moment-by-moment analysis of utterances showed that doctors established a particular order of language choice carried out through participant-related CS (in the terminology of Auer, 1984a; 1998). Interestingly, this order in language choice, was oriented to by all the participants, who collaborated to maintain it throughout the interactions.

Doctors preferred to use French to interact with their students and Arabic to speak with the patients. Yet, the term preference should not be accepted in this context to carry any psychological value; the term reflects the regular interactional practices of the doctors as perceived in data. Correspondingly, it set French as the language of medical teaching to use with the resident students where actions like teaching, giving information, introducing patients' conditions, naming diseases, discussing institutional matters such as keeping patients' records, etc.

On the other hand, Arabic was used when the frame of the interaction changed. That is, when doctors talked to the patients, Arabic became the language of the interaction. It was revealed that Arabic was used to ask questions, make imperatives, give instruction, produce pronouncements, etc. Besides, doctors avoided using French as much as possible with patients and siblings even if they knew that the latters could use and understand French. Arabic generic terms were often used except in some situations where discourse-related CS to technical terminology and French occurred, because no exact equivalents were available to the doctors to use them in AA and when the use of generic terms could not fulfil the exact semantic and interactional meanings of the utterances desired by the doctors. Nevertheless, the use of French and medical terminology were characterised by features like hesitation, cut-off, self-initiated repairs that were demonstrative of the doctors' dispreferredness of language alternation in those contexts. This led me to conclude that the other language particles were mainly called upon to serve precision in utterances rather than to display doctors' social status. This was also evidenced by the use of Arabic as the main language of interaction to surround French and technical terms.

However, two instances of language divergence were identified in data in which two doctors switched to French when they were talking to the patients. The first one involved a stance conflict between the doctor and the patient whereas the second entailed considerable resistance of the diagnosis by the patient and misalignment in epistemic stances. Hence, it was possible to argue that doctors used French to push back against patient resistance and disaffiliation to the doctors' stances as strategy to maintain their authority when it was challenged patients, but data was not large enough to draw a conclusion about the recurrence of these practices. In addition, the analysis showed that the switches to French were triggered as discourse-related CS by patients who in the preceding turns used technical terms or French expressions. Also, the switches were very brief and doctors quickly abandoned French within the same turns and carried on their talk in Arabic. Authority in those utterances was tangibly expressed in Arabic.

Interestingly, based on the word-order in utterances, and though French was maintained as the language of interaction between doctors and resident student, it was found out that the participants exploited their ability to speak French and Arabic to arrange the elements of their utterances in a particular order that indexed a meaning of priority. That order could only be achieved, through mixing Arabic with French (Extracts 7.2 and 7.3). Correspondingly, it followed that doctors also realised switches to Arabic that were often responsive to some Arabic components in the utterances of the preceding turns produced either by the resident students or by the patients. Here, again further research in the use of discourse-related CS in relation to meaning of prioritisation through the order of word arrangement is needed to include larger corpus of data that will allow us to come up with a strongest possibility to generalise the findings to larger samples of population.

In effect, the analysis of CS showed that there was no evident relationship between social and linguistic structures in data. In other words, there was no interactional indicators of language alternation from Arabic to French and medical terminology that reflected the enactment of or created social inequalities between the doctors and patients, especially after that it was revealed that doctor have ample opportunities and tools to advance their institutional and medical authority over the flow of events and decision-making through linguistic and interactional practices, thoroughly conducted in Arabic.

In sum, the study detailed in its analysis of interactions the elements of communication formats and displayed how doctors and patients negotiated their roles in the consultation. It revealed significant information about the types of communication formats deployed in interactions and which enhanced the doctor's control over the patient's positioning. Medical authority was evidently reflected in the doctors' and patients' interactional alignments as leaders and followers, respectively. It was found out that the doctors maintained control over the flow of events and activities by holding the role tasks and topic initiators that patients were not overtly eager take by virtue of being hesitant, most of the time silent, and particularly oriented toward receptiveness to doctors' actions.

Furthermore, the analysis of questions and treatment recommendations demonstrated that medical authority was vested in the grammatical structures of questioning design to achieve alignment in action and topic agendas and to control the turn taking process. The types of answers were restricted through the use of yes/no questions which doctors also used to actively set and pursue preference agendas. Whereas wh-questions functioned to embody presuppositions which supported the doctors epistemic stances and controlled the content of talk. On the other hand, by adopting pronouncements as the main format used to deliver the treatment recommendations, the patients' contribution and involvement in decision-making activities were significantly impacted. Yet, little resistance to counter doctors was observed and when patients took actions to display their resistance (which is often displayed indirectly), doctors deployed their medical authority to push back against it or ignored it altogether to maintain their control.

The analysis clarified for us the organisational and interactional functions of CS. Hence, studying the dynamics of CS in DPIs allowed me to eliminate a shared idea that was reported by my informant patients, in my previous ethnographic research (Belaskri 2012), on the notion of French and technical terminology as a location of authority in Algerian medical encounters, in which the majority of patients stated that doctors used extensively French and technical words, which prevented them from taking part in the conversation and allowed doctors to dominate the conversation and take complete control over the interactional activities. Therefore, the analysis of order and the turn-taking system of interactions made it visible that such assumptions were mere perceptions of patients about doctors that needed in-depth investigation and clarification. However, there were very few instances where French was possibly used to oppose the patient agenda but this needs to be proven through the analysis of a larger amount of data for future exploration.

Without a micro-analytic exploration of the sequential organisation of utterances, sequences and the overall organisation of the interactions that CA's methodology offers to track down the minute details of the structuring features of utterances, these findings about

the interactional asymmetry in the distribution of control in actions between doctors and patients would not have become apparent and evidenced interactionally.

Hence, my contributions in this thesis lie particularly in that my research is the first which has explored in fine details the interactional behaviour of doctors and patients in Algerian hospitals. It contributes in filling a gap in research in three major academic fields in Algeria that are, Conversation anaysis, social sciences and medical sciences as it contstitutes an important step in carrying out emperical research to precisely capture social and interactional properties of talk through the analysis of audio-tapes of medical encounters in the Algerian healthcare settings. Using CA, I closely looked at how doctors and patients constructed their actions and organised their talk and showed what really happens during medical encouters rather than relying on quantifying and analysing data shaped by perceptions and representations. The findings revealed in this research explicated not only how asymmetry is interactionly built in the Algerian medical consultations which is the primary concern of this thesis but also contributed in identifying the interactional and organisational features that made up the consultations as well as their constituent medical activities.

However, the most important contribution of this study is what the results revealed about the dynamics of the distribution of control and authority in the medical interactions. There appeared that there is a shared orientation by both participants to the doctors' unilateral authority which is jointly constructed and maintained through the production and reproduction of actions using grammatical and interactional tools, rather than emerging soly from the doctors' institutional power and their higher social status. My work added original insights about DPI in a non-western country to the existing literature.

By attaching actions to their interactional context and focussing on what constitute every action in an utterance or a turn, this research will pave the way for other studies of this type in different settings of social interactions. It will help researchers to get out of the dominance of responding to questionnaires and interviews as the most practiced research

methodology in language studies and social sciences. However, ordinary people, in general, and institutionals, in particular, need to be aware of the importance of both discourse analysis and CA studies in the contribution to the study of real language-in-use as a highly complex social process, in addition to their possible contibutions to problem solving which should be taken into consideration in applied linguistics and social studies.

To guarantee representativeness of findings, CA relies considerably on the analysis of large amounts of data. Even though I have recorded more than 100 consultations, I was unable to include them all in the analysis due to time constraints because as I have explained in chapter 3, I had to perform by myself all the required tasks, compared to western universities where PhD Students work with assistants who help with the data collection and transcription which enables them to analyse big corpora of data. This can be regarded as a major limitation of my work because dealing with large data would have enabled me to capture more details about the properties of talk and draw other fatisfactory conclusions about the sytematic use of language in DPIs.

On the other hand, I have collected data only in two hospitals in the same town in a country with the largest surface area in the African continent. Algeria possesses a considerable number of hospitals (more than 280) and health centers (more than 1450) only in the public sectors, in addition to other types of healthcare facilities and private clinics distributed all over the country but with more concentration in the North and the big towns. Therefore, it is difficult to determine whether my results are representative and can be generalised to the whole population, especially if we take into consideration the existing diffrences in dialect variation, socioeconomic levels of the population and the disparities in the quality of services that vary between healthcare institutions (rural, urban, public, private, etc.)

The analysis of data showed that there were no tendency to replacing the one-sided authority with cooperation in the management of treatment. These observations were associated with doctors' understanding that patients were favourable to this type of prescription (authoritative pronouncement), however, data was not large enough and did not cover different contexts in the primary and secondary care to see whether, where and when doctors may be more cautious with the use of pronouncements and call into play other forms, especially, in contexts such as psychiatry and oncology where certain drug prescriptions and treatment procedures constitute cultural stereotypes and potential side-effects. These situations need preferably to involve patients in the treatment recommendation because they can run risks of strong patients' resistance and non-adherence to the treatment if only pronouncements are adopted.

If this thesis has to suggest some recommendation, it is that doctors need to be trained to raise their awareness about patients cultural indirectness in revealing some issues in their presentation of their experience with the illness and health problems, and in disclosing their expectations from the doctors. So instead of ignoring these implicit attemps, which usually take the form of unsolicited descriptions and narratives, to express their needs, doctors need to encourage patients to communicate explicitly their aganda, preferably during and before closing the history-taking phase to avoid that patients initiate topics in sequences in the other phases which are not planned to gather information, such as those where doctors orient to deliver the diagnosis or the teatment recommendations. This will help reduce resistance, misunderstanding and troubles in the interactions that may occur due to the initiation of some topics and activities in the inapprorite phase. On the other hand, patients should take more active roles, especially when opportunities are made available by the doctors to express their agandas in an explicit way and when necessary so that their issues get addressed directly.

Another recommendation concerns the use of French and technical terms with which doctors need to be careful, especially if a third party from the medical staff is present in the consultation. Doctors need to remember that patients visit them not only because they seek medical help that consist in treatment and prescriptions but also te receive information and

learn about their health condition. Doctors should avoid the use of unclear language and provide patients with plain translations and the necessary information about the diagnosis and the treatment recommendation.

Bibliography

- Alvarez-Cáccamo, C. (1990). *The institutionalization of Galizan: Linguistic practices, power, and ideology in public discourse*. PhD. Thesis. University of California at Berkeley.
- Alvarez-Càccamo, C. (1998). From 'switching code' to 'code-switching': Towards a reconceptualization of communicative codes. In P. Auer (ed.), *Code-switching in Conversation: Language, Interaction and Identity* (pp.29–48). London and New York: Routledge.
- Andersen, E. S. (1990). *Speaking with style. The sociolinguistic skills of children*. London: Routledge.
- Andersen, E. S. (1996). A Cross-cultural study of children's register knowledge. In D. I. Slobin, J. Gerhardt, A. Kyratzis & J. Guo (Eds.), *Social interaction, social context and language: Essays in honor of Susan Ervin- Tripp* (pp. 125-142.) Mahwah: Lawrence Erlbaum.
- Andersen, E. S., Brizuela, M., Dupuy, B., & Gonnerman, L. (1995). The acquisition of discourse markers as sociolinguistic variables: A cross-linguistic comparison. In E. Clark (Ed), P*roceedings of the twenty-seventh annual child language research forum* (pp. 61-70). Stanford: Center for the Study of Language and Information.
- Atkinson, J. M. & Drew, P. (1979). *Order in court: The organisation of verbal interaction in judicial settings*. London: Macmillan.

- Atkinson, J. M. (1992). Displaying neutrality: formal aspects of informal court proceedings. In P. Drew & J. Heritage (Eds.), *Talk at work: Interaction in institutional settings* (pp. 199–211). Cambridge, Cambridge University Press.
- Auer, P. (1984a*). Bilingual conversation*. Amsterdam: Benjamins.
- Auer, P. (1984b). On the meaning of conversational code-switching. In P.Auer & A. D. Luzio (Eds), *Interpretive Sociolinguistics* (pp.87–112). Tübingen, Germany: Narr.
- Auer, P. (Ed.) (1998). *Code-switching in conversation: Language, interaction and identity*. London: Routledge.
- Auer, P., (1995). The pragmatics of code-switching: A sequential approach. In L. Milroy. & P. Muysken (Eds.), *One speaker two languages: Cross-disciplinary perspectives on code-switching*. New York: Cambridge University Press.
- Bales, R. F. (1950). *Interaction process analysis*. Cambridge: Addison-Wcslcy Press.
- Balint, M. (2008). *The doctor, his patient and the illness*. London: Pittman Medical.
- Bartley, E. J., & Rhudy, J. L. (2008). The influence of pain Catastrophizing on experimentally induced emotion and emotional modulation of Nociception. *The Journal of Pain*, 9(5), 388-396.
- Bates, B., Bickley, L. S., & Hoekelman, R. A. (1995). *A guide to physical examination and history taking* (6th ed.). Philadelphia, PA: J. B. Lippincott Company.
- Beach, W. A. (1993a). Transitional regularities for ‘casual’ “Okay” usages. *Journal of Pragmatics*, 19(4), 325-352.

- Belaskri, K. (2017). The linguistic gap in doctor-patient communication in Algeria. *Lublin Studies in Modern Languages and Literature*, 41(2), 1-11.
- Bennett, A. (1982). Strategies and counterstrategies in the use of yes-no questions in discourse. In J.J. Gumperz (Ed.), *Language and social identity* (pp.95–107). Cambridge: Cambridge University Press.
- Benrabah, M. (2007). Language maintenance and spread: French in Algeria. *International Journal of Francophone Studies*, 10, 193-215.
- Benrabah, M. (2014). Competition between four "world" languages in Algeria. *Journal of World Languages*, 1, 38-59.
- Boréus, K., & Bergström, G. (Eds.) (2017). *Analyzing text and discourse: Eight approaches for the social sciences*. Sage.
- Boufenara, K. & Labi, B. (2009). Les militaires français et la dynamique de la structure sanitaire en Algérie durant la période colonial. *Sciences & Technologie*, 30, 9-18.
- Bouhadiba, F. (2010). An overview of the linguistic situation in Algeria. *Cahiers de Linguistique et Didactique*, 3, 39-51.
- Bourhis, R.Y., Ruth, S., & Macqueen, G. (1989). Communication in the hospital setting: A survey of medical and everyday language use amongst patients, nurses and doctors. *Social Sciences and Medicine*, 28(4), 339-346.
- Boutain, D. M. (1999). Critical nursing scholarship: exploring critical social theory with African American studies. *Advances in Nursing Science*, 21(4), 37-47.
- Boxer, D. (2002). *Applying sociolinguistics: Domains and face-to-face interaction*. Amsterdam: John Benjamins.

- 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: Cambridge University Press.
- Briggs, C., & Bautnan, R. (1992). Genre, intertextuality and social power. *Journal of Linguistic Anthropology*, 2(2), 131–172.
- Brink, H. I. (1993). Validity and reliability in qualitative research. *Curationis*, 16(2). 35-38.
- Bryman, A. (1988). *Quantity and quality in social research*. London: Psychology Press.
- Button, G. (1987). Answers as interactional products: two sequential practices used in interviews. *Social Psychology Quarterly*, 50(2), 160–171.
- Byrne, P. S., & Long, B. E. L. (1976). *Doctors talking to patients: a study of the verbal behaviours of doctors in the consultation*. London: Her Majesty's Stationery Office.
- Cameron, D. (2001). *W*orking with spoken discourse. Sage.
- Cicourel, A. V. (1982). Language and belief in a medical setting. In H. Burns (Ed.), *Georgetown university roundtable on linguistics* (pp. 48-78). Washington, D.C.: Georgetown University Press.
- Clayman, S., & Heritage, J. (2002a). *The news interview: Journalists and public figures on the air*. Cambridge, England: Cambridge University Press.
- Clift, R. (2016). *Conversation analysis*. Cambridge: Cambridge University Press.

- Cohen-Cole, S. A. (1991). *The medical interview: The three function approach. St. Louis*. MO: Mosby Year Book.
- Conrad, P., & Schneider, J.W. (1992). *D*eviance and medicalization: from badness to sickness. Philadelphia, PA: Temple University Press.
- Coupland, J., Robinson, J., & Coupland, N. (1994). Frame negotiation in doctor–elderly patient consultations. *Discourse and Society*, 5(1), 89–124.
- Crawhall, N. T. (1991). *A critique of code-switching with special reference to Harare*. M.Phil. University of Zimbabwe.
- Curl, T. S., & Drew, P. (2008). Contingency and action: A comparison of two forms of requesting. *Research on Language and Social Interaction*, 41(2), 129–153.
- Dendane, Z. (2006). *Sociolinguistic variation and attitudes towards language behaviour: The case of Tlemcen Arabic*. Doctorate Thesis. Oran: Oran University
- Denzin, N., & Lincoln, Y. (Eds.) (1994). *H*andbook of qualitative research. Thousand Oaks (Calif): Sage.
- Dijk, T. A. (1985). Introduction: The role of discourse analysis in society. In *Handbook of discourse analysis: Discourse analysis in society*. London: Academie Press.
- Dijk, T. A. (1997b). *Discourse as social interaction*. Thousand *Oaks, CA: Sage.*
- Dijk, T. A. (2010). *Discourse and context: A socio-cognitive approach*. Cambrdige: Cambridge University Press.

- Drew, P. (2004). Conversation analysis. In K, L. Fitch & R. E. Sanders (Eds.), *Handbook of language and social interaction* (pp.71–102). Mahwah, New Jersey: Lawrence Erlbaum.
- Drew, P. (2012). Turn design. In J. Sidnell & T. Stivers (Eds.), *The handbook of conversation analysis* (pp. 131–149). Oxford, U.K: Wiley-Blackwell.
- Drew, P. (2014). Conversation Analysis in Sociolinguistics. In J. Holmes & K. Hazen (Eds.), *Research methods in sociolinguistics: A Practical guide* (pp. 231-245). Malden, MA: John Wiley & Sons, Inc., Wiley Blackwell.
- Drew, P., & Heritage, J. (1992a). Analyzing talk at work: an introduction. In P. Drew & J. Heritage (Eds.), *Talk at work: Interaction in institutional settings* (pp. 3–65) Cambridge: Cambridge University Press.
- Drew, P., & Sorjonen, M.L. (1997). Institutional dialogue. In T. A. Dijk (Ed.), *Discourse as social interaction* (pp. 92–118). London, Sage.
- Drew, P., Chatwin J., & Collins, S. (2001). Conversation analysis: a method for research into interactions between patients and health-care professionals. *Health Expectations*, 4(1), 58–70.
- Enfield, N. J. (2011). Sources of asymmetry in human interaction: enchrony, status, knowledge and agency. In T. Stivers, L. Moncada, J. Steensig (Eds.), *The Morality of Knowledge in Conversation* (pp. 285–312). New York: Cambridge University Press.
- Fabian, L. A., McGuire, L., Goodin, B. R., & Edwards, R. R. (2011). Ethnicity, catastrophizing, and qualities of the pain experience. *Pain and Medicine*, 12, 314–321.
- Fairclough, N. L. (1989). *Language and power*. London: Longman.

- Fairclough, N. L. (2003). *Analysing discourse: Textual analysis for social research*. Routledge.
- Fairclough, N. L., & Wodak, R. (1997). Critical discourse analysis. In T. A. Dijk (Ed.), *Discourse as Social Interaction* (pp. 258–284). London: Sage.
- Fisher, S. (1983). Doctor/Patient talk: How treatment decisions are negotiated in doctor/patient communication. In S. Fisher & A. D. Todd (Eds.), *The Social Organization of Doctor-Patient Communication*, (pp.135-157). Washington, D.C.: Center for Applied Linguistics.
- Fisher, S., & Todd, A. D. (eds.) (1983). *The social organization of doctor–patient communication*. Washington, D.C.: Center for Applied Linguistics.
- Ford, C. E., Fox, B.A., & Thompson, S. A. (Eds.) (2002). *The language of turn and sequence*. New York: Oxford University Press.
- Foucault, M. (1975). *The birth of the clinic: An archeology of medical perception*. New York: Vintage Books.
- Frankel, R. (1983). The laying on of hands: aspects of the organization of gaze, touch, and talk in a medical encounter. In S. Fisher & A. D. Todd (Eds.), *The social organization of doctor-patient communication* (pp. 19–54). Washington, D.C.: Center for Applied Linguistics.
- Frankel, R. M. (1984). From sentence to sequence: Understanding the medical encounter through micro-interactional analysis. *Discourse Processes*, 7(2), 135–170.

- Frankel, R. M. (1990). Talking in interviews: A dispreference for patient-initiated questions in physician-patient encounters. In G. Psathas, (Ed.), *Interaction competence* (pp. 231-262) Washington: University Press of America.
- Frankel, R. M. (1995). Some answers about questions in clinical interviews. In G. H. Morris & R. J. Chenail (Eds.), *The talk of the clinic: Explorations in the analysis of medical and therapeutic discourse* (pp. 49–70). Hillsdale, New Jersey: Lawrence Erlbaum.
- Freidson, E. (1970b). *Professional Dominance*. Chicago: Aldine.
- Garfinkel, H. (1967a). *Studies in ethnomethodology*. Englewood Cliffs, NJ: Prentice-Hall.
- Gee, J. (1990). *Social linguistics and literacies: Ideology in discourses*. London: Falmer Press.
- Gee, J. P. (2005). *An introduction to discourse analysis. Theory and method*. London, UK: Routledge.
- Gee, J. P. (2015). Discourse, small-d, Big D. In K. In T. C. Ilie & T. Sandel (Eds.), *International encyclopedia of language and social interaction* (3, pp.418-422). Hoboken, NJ: Wiley Blackwell & ICA.
- Gill, V. T. (1998b). The interactional construction of lay and professional roles: patients' candidate explanations for illness and doctors' responses. *Paper presented at the Netherlands Institute for Primary Health Care conference on Communication in Health Care*,
- Givón, T. (1979a). *On Understanding Grammar*. New York: Academic Press.

- Goffman, E. (1967). *Interaction ritual: Essays in face to face behavior.* Garden City, New York: Doubleday.
- Goffman, E. (1971). *Relations in public: Microstudies of the public order.* New York: Harper & Row.
- Goffman, E. (1979). *Gender advertisements*. Cambridge, MA: Harvard University Press.
- Goffman, E. (1981a). *Forms of talk*. Oxford: Basil Blackwell.
- Goffman, E. (1981b). Footing. In E. Goffman, *Forms of talk*. Oxford: Basil Blackwell. pp. 124–159.
- Goffman, E. (1983). The interaction order. *American Sociological Review*, 48, 1–17.
- Greatbatch, D. (1988). A turn-taking system for British news interviews. *Language in Society*, 17(3), 401-430.
- Grice, H. P. (1981). Presupposition and conversational implicature. In P. Cole (Ed.), *Radical Pragmatics* (pp.183–198). Academic Press: New York.
- Gumperz, J. J., & Berenz, N. B. (1993). Transcribing conversational exchanges. In J. A. Edwards & D. Martin (Eds.), *Talking data: Transcription and coding in discourse research*, (pp.91-121). Lampert. Hillsdale, NJ: Lawrence Erlbaum.
- Ha, J. F., & Longnecker, N. (2010). Doctor-patient communication: A review. *The Ochsner Journal*, 10(1), 38–43.
- Hagstrom, C. (2004). The language of doctors and patients. In E. Finegan & J. R. Rickford (Eds.), *Language in the USA* (pp.445-462). Cambridge: Cambridge University Press.

- Halkowski, T. (2006). Realizing the illness: Patients' narratives of symptom discovery. In J. Heritage & D. Maynard (eds.), *Communication in medical care: Interaction between primary care physicians and patients* (pp. 86–114). Cambridge, England: Cambridge University Press.
- Harness Goodwin, M. (2002). Building power asymmetries in girls' interaction. *Discourse & Society*, 13(6), 715–730.
- Have, P. (1991). Talk and institution: a reconsideration of the 'asymmetry' of doctor-patient interaction. In: D. Boden & D.H. Zimmerman (Eds.), *Talk and social structure: studies in ethnomethodology and conversation analysis* (pp.138- 163). Cambridge: Polity Press.
- Have, P. (1995). Formatting the consultation: communication formats and constituted identities. In E. Huls & J. Klatter-Folmer (Eds.), *Artikelen van de Tweede Sociolinguïstische Conferentie*, (pp. 245-68). Delft: Eburon.
- Have, P. (2006). On the interactive constitution of medical encounters. *Revue Française de Linguistique Appliquée*, 11(2), 85-98.
- Have, P. (2007). *Doing conversation analysis: a practical guide* (2nd ed.). London: Sage.
- Heath, C. (1981). The opening sequence in doctor-patient interaction. In P. Atkinson & C. Heath (Eds), *Medical work: Realities and routines* (pp.71–90). Farnborough: Gower.
- Heath, C. (1982). The display of recipiency: an instance of sequential relationship in speech and body movement. *Semiotica*, 42(2-4), 147–161.
- Heath, C. (1986). *B*ody movement and speech in medical interaction. Cambridge: Cambridge University Press.

- Heath, C. (1992). The delivery and reception of diagnosis in the general-practice consultation. In P. Drew & J. Heritage (Eds.), *Talk at work: Interaction in institutional settings* (pp. 235–267). Cambridge: Cambridge. University Press.
- Hellin, T. (2002). The Physician-patient relationship: recent developments and changes. *Haemophilia*, 8, 450-454.
- Helman, C. G. (1994). *Culture, health and illness: An introduction for health professionals* (3rd ed.). Oxford: Butterworth-Heinemann.
- Heritage, J. (1985). Recent developments in conversation analysis. *Sociolinguistics*, 15, 1-18.
- Heritage, J. (1984a). A change-of-state token and aspects of its sequential placement. In J.M. Atkinson & J. Heritage (Eds.), *Structures of social interaction: Studies in conversation analysis* (pp. 299–345). Cambridge: Cambridge University Press.
- Heritage, J. (1984b). *Garfinkel and ethnomethodology*. Cambridge: Polity Press.
- Heritage, J. (1997). Conversation analysis and institutional talk: analysing data. In D. Silverman (Ed.) *Qualitative research: Theory, method and practice* (pp. 161–182). London: Sage Publications.
- Heritage, J. (2002). The limits of questioning: Negative interrogatives and hostile question content. *Journal of Pragmatics*, 34(10-11), 1427-1446.
- Heritage, J. (2004). Conversation analysis and institutional talk: analysing data. In D. Silverman (Ed.) *Qualitative research: Theory, method and practice* (pp. 222–245). London: Sage Publications.

- Heritage, J. (2005). Conversation analysis and institutional talk. In R. Sanders & K. Fitch (Eds.), *Handbook of language and social interaction* (pp. 103-146). Mawah, New Jersey: Erlbaum.
- Heritage, J. (2010). Conversation analysis: Practices and methods. In D. Silverman (Ed.), *Qualitative Sociology* (3rd ed., pp. 208-230). London: Sage.
- Heritage, J. (2013). Language and social institutions: The conversation analytic view. *Journal of Foreign Languages (Shanghai),* 36(4), 2-27.
- Heritage, J. (2017). Online commentary in primary care and emergency room settings. *Acute Medicine & Surgery*, 4, 12-18.
- Heritage, J. (2018). The expression of authority in us primary care: Offering diagnoses and recommending treatment. *Paper presented at the Georgetown University Round Table: Approaches to Discourse*.
- Heritage, J., & Clayman, S. E. (2010). *Talk in action: Interactions, identities and institutions*. Oxford: Wiley-Blackwell.
- Heritage, J., & Maynard, D. W. (Eds.) (2006). *Communication in medical care: Interaction between primary care physicians and patients*. Cambridge: Cambridge University Press.
- Heritage, J., & Robinson, J. D. (2006). The structure of patients' presenting concerns: physicians' opening questions. *Health Communication*, 19(2), 89–102.
- Heritage, J., & Roth, A. (1995). Grammar and institution: questions and questioning in the broadcast news interview. *Research on Language and Social Interaction*, 28(1), 1–60.

- Heritage, J., & Stivers, T. (1999). Online commentary in acute medical visits: A method of shaping patient expectations. *Social Science & Medicine*, 49(11), 1501–1517.
- Hoey, E. M., & Kendrick, K. H. (2017). Conversation Analysis. In A. M. B. Groot & P. Hagoort (Eds.), *Research methods in psycholinguistics and the neurobiology of language: A practical guide* (pp. 151-173). John Wiley & Sons.
- Hutchby, I., & Wooffitt, R. (1998). *Conversation analysis: Principles, practices and applications*. Cambridge: Polity Press.
- Jefferson, G. (1974). Error correction as an interactional resource. *Language in Society*, 3(2), 181–199.
- Jefferson, G. (1984). Notes on a systematic deployment of the acknowledgement tokens "Yeah" and "Mm hm". *Papers in Linguistics,* 17(1-4), 197-216.
- Jefferson, G. (1984a). On the organization of laughter in talk about troubles. In J.M. Atkinson & J. Heritage (Eds.), *Structures of social action: Studies in conversation analysis* (pp. 346-369). Cambridge University Press.
- Jefferson, G., & J. R. E. Lee. (1981). The rejection of advice: managing the problematic convergence of a 'troubles-telling' and a 'service encounter'. *Journal of Pragmatics*, 5(5), 399–422.
- Junker, B. H. (2004). The field work situation: Social roles for observation. In C. Seale (ed.), *Social research methods: A reader* (pp. 221-225). London & New York: Routledge.
- Kebbas, M., & Kara-Abbes, A.Y. (2012). La Variation linguistique en Algérie : Facteur de facilitation et/ou de complexification de la communication. *Revue Socles*, 1, 35-57.

- Labov, W., & Fanshel, D. (1977). *Therapeutic discourse: Psychotherapy as conversation*. New York: Academic Press.
- Leech, G. N. (1983). *Principles of pragmatics*. London: Longman.
- Levinson, S. C. (1983). *Pragmatics*. Cambridge: Cambridge University Press.
- Linell, P. (1998). *Approaching dialogue: Talk, interaction and contexts in dialogical perspectives*. Amsterdam: John Benjamins.
- Linell, P., & Luckmann, T. (1991). Asymmetries in dialogue: Some conceptual preliminaries. In I. Markova & K. Foppa (Eds.), *Asymmetries in dialogue* (pp. 1–20). New York: Harvester Wheatsheaf.
- Maquela, B., Andersen, E., & Stallings, L. (1999). Discourse markers as indicators of Register. *Hispania,* 82(1), 128–141.
- Mason, J. (1996). *Qualitative researching*. London: Sage.
- Maynard, D. W. (1980). Placement of topic changes in conversation. *Semiotica*, 30(3-4), 263–290.
- Maynard, D. W. (1984). *Inside plea bargaining: The language of negotiation.* New York: Plenum Press.
- Maynard, D. W. (1991). Interaction and asymmetry in clinical discourse. *American Journal of Sociology*, 97(2) 448–95.
- Maynard, D. W. (2003). *Bad news, good news: Conversational order in everyday talk and clinical settings*. Chicago: University of Chicago Press.

- Maynard, D. W., & Heritage, J. (2005). Conversation analysis, doctor-patient interaction, and medical communication. *Medical Education*, 39(4), 428–435.
- McCloskey, R. (2008). A guide to discourse analysis. *Nurse Researcher*, 16(1), 24-44.
- McHoul, A. (1978). The organization of turns at formal talk in the classroom. *Language in Society*, 7, 183-213.
- Mehan, H. (1979). *Learning lessons*. Cambridge: Harvard University Press.
- Mills, S. (1997). *Discourse*. London and New York: Routledge.
- Mishler, E. (1984). *The discourse of medicine: Dialects of medical interviews*. Norwood, New Jersey: Ablex.
- Morgan, M. (2003). The Doctor-Patient relationship. In G. Scambler (Ed.), *Sociology as applied to Medicine* (5th ed., pp. 55-70). Saunders (W.B.) Co Ltd (Elsevier Health Sciences).
- Myers-Scotton, C. (1983). The negotiation of identities in conversation: a theory of markedness and code choice. *Journal of the Sociology of Language*, 44, 115–136.
- Myers-Scotton, C. (1993). *Social motivations for codes-witching: Evidence from Africa*. Oxford: Clarendon Press.
- Nordby, H. (2008). Medical explanations and lay conceptions of disease and illness in doctor-patient interaction. *Theor Med Bioeth,* 29 (6), 357-370.
- Ong, L. M. L., De Haes, J. C. J. M., Hoos, A. M., & Lammes, F. B. (1995). Doctor–patient communication: A review of the literature. *Social Science and Medicine*, 40 (7), 903–918.

- Parsons, T. (1951). *The social system*. New York: Free Press.
- Peräkylä, A. (1995). A*IDS counselling: Institutional interaction and clinical practice.* Cambridge, Cambridge University Press.
- Peräkylä, A. (1997a). Conversation analysis: a new model of research in doctor-patient communication. *Journal of the Royal Society of Medicine*, 90(4), 205–208.
- Peräkylä, A. (1998). Authority and accountability: The delivery of diagnosis in primary health care. *Social Psychology Quarterly*, 61(4), 301–320.
- Peräkylä, A. (2002). Agency and authority: Extended responses to diagnostic statements in primary care encounters. *Research on Language and Social Interaction*, 35(2), 219–247.
- Peräkylä, A., & Silverman, D. (1991). Reinterpreting speech-exchange systems: communication formats in AIDS counselling. *Sociology*, 25(4), 627–651.
- Pilnick, A., & Dingwall, R. (2011). On the remarkable persistence of asymmetry in doctor/patient interaction: a critical review. *Soc Sci Med*. 72(8), 1374-1382.
- Pitkin, H. F. (1972). *Wittgenstein and justice: On the significance of Ludwig Wittgenstein for social and political thought.* University of California Press.
- Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology*, 52(2), 137–145.
- Pomerantz, A. (1984). Agreeing and disagreeing with assessments: Some features of preferred/dispreferred turn shapes. In J. M. Atkinson & J. Heritage (Eds.), *Structures of social action: Studies in conversation analysis* (pp. 57–101). Cambridge: Cambridge University Press.

- Pomerantz, A. (1986). Extreme case formulations: A way of legitimizing claims. *Human Studies*, 9(2-3), 219–230.
- Pomerantz, A. (1988). Offering a candidate answer: An information seeking strategy. *Communication Monographs*, 55, 360-373.
- Punch, K. (1998). *Introduction to social research: Quantitative and qualitative approaches*. London: Sage.
- Raymond, G. (2003). Grammar and social organization: yes/no interrogatives and the structure of responding. *American Sociological Review*, 68(6), 939–967.
- Raymond, G., & Zimmerman, D. H. (2016). Closing matters: alignment and misalignment in sequence and call closings in institutional interaction. *Discourse Studies*, 18(6), 716–736.
- Robinson, J. & Stivers, T. (2001). Achieving activity transitions in primary-care consultations: from history taking to physicial examination. *Human Communication Research*, 27(2), 253–98.
- Robinson, J. D. (2001). Closing medical encounters: Two physician practices and their implications for the expression of patients' unstated concerns. *Social Science & Medicine*, 53(5), 639–656.
- Robinson, J. D. (2003). An interactional structure of medical activities during acute visits and its implications for patients' participation. *Health Communication*, 15(1), 27–57.
- 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, U.K.: Cambridge University Press.

- Robinson, J. D. (2013). Epistemics, action formation, and other-initiation of repair: the case of partial questioning repeats. In M. Hayashi, G. Raymond & J. Sidnell (Eds.) *Conversational repair and human understanding* (pp. 261–292). Cambridge, U.K.: Cambridge University Press.
- Robson, C., Drew, P., Walker, T., & Reuber, M. (2012). Catastrophising and normalising in patient's accounts of their seizure experiences. *Seizure*, 21(10), 795-801.
- Roter, D. L., Hall, J. A., & Katz, N. R. (1987). Relations between physicians' behaviors and analogue patients' satisfaction, recall, and impressions. *Med. Care*, 25, 437-451.
- Roter, D., & Hall, J. A. (2006). *Doctors talking with patients/patients talking with doctors: Improving communication in medical visits*. Greenwood Publishing Group.
- Roulet, E., Auchlin, A., Moeschler, J., & Rubattel, C. (1985). *L'articulation du discours en français contemporain*. Bern, Frankfurt am Main, New York: Peter Lang.
- Ruusuvuori J. (2000) *Control in the medical consultation: Practices of giving and receiving the reason for the visit in primary health care*. PhD Thesis. University of Tampere, Finland. Acta Electronica Universitatis Tamperensis 16.
- Sacks, H. (1972). An initial investigation of the usability of conversational data for doing sociology. In D. Sudnow (Ed.), *Studies in social interaction* (pp.31–74). New York, Free Press.
- Sacks, H. (1984a). On doing "being ordinary". In J. M. Atkinson & J. Heritage (Eds.), *Structures of social action: Studies in conversation analysis* (pp. 413–429). Cambridge, U.K., Cambridge University Press.

- Sacks, H. (1984b). Notes on methodology. In J. Heritage & J. M. Atkinson (Eds.), *Structures of Social Action: Studies in Conversation Analysis* (pp. 2-27). Cambridge: Cambridge University Press.
- Sacks, H. (1987). On the preferences for agreement and contiguity in sequences in conversation. In G. Button & J.R.E. Lee (Eds), *Talk and social organisation* (pp. 54-69). Clevedon: Multilingual Matters.
- Sacks, H., Schegloff, E. A., & Jefferson, G. (1974). *A simplest systematics for the organization of turn-taking for conversation*. *Language*, 50, 696–735.
- Sacks, H., Schegloff, E. A., & Jefferson, G. (1978). A simplest systematics for the organization of turn taking for conversation. In J. Schenkein (Ed.), *Studies in the organization of conversational interaction* (pp. 7–55) New York: Academic Press.
- Schegloff, E. A. (1972). Notes on a conversational practice: formulating place. In D. Sudnow (Ed.), *Studies in social interaction* (pp. 75–119). New York: Free Press
- Schegloff, E. A. (1987). Recycled turn beginnings: a precise repair mechanism in conversation's turn-taking organization. In G. Button & J. R. E. Lee (Eds.), *Talk and Social Organisation* (pp. 70–85). Clevedon, England: Multilingual Matters.
- Schegloff, E. A. (1988). Goffman and the analysis of conversation. In A. J. Wootton & P. Drew (Eds.), *Erving Goffman: Exploring the interaction order* (pp. 89–135). Cambridge: Polity Press.
- Schegloff, E. A. (1996a). Confirming allusions: Toward an empirical account of action. *American Journal of Sociology*, 102(1), 161–216.

- Schegloff, E. A. (1996b). Issues of relevance for discourse analysis: contingency in action, interaction and co-participant context. In E. H. Hovy & D. R. Scott (Eds.), *Computational and Conversational Discourse: Burning Issues - An Interdisciplinary Account* (pp. 3–38). Heidelberg: Springer.
- Schegloff, E. A. (1996c). Turn organization: one intersection of grammar and interaction. In (E. Ochs, E. A. Schegloff, & S. Thompson (Eds.), *Interaction and Grammar* (pp. 52–133). Cambridge: Cambridge University Press.
- Schegloff, E. A. (2007). *Sequence organization in interaction: A primer in conversation analysis*. Cambridge: Cambridge University Press.
- Schegloff, E. A. & Sacks, H. (1973) Opening up closing. *Semiotica*, 8(4), 289–327.
- Schegloff, E. A. (1987a). Recycled turn beginnings. In G. Button & J. R. E. Lee (Eds.), *Talk and social organization* (pp. 70-85). Clevedon: Multilingual Matters.
- Schegloff, E. A. (1993). Reflections on quantification in the study of conversation. *Research on Language and Social Interaction*, 26, 99–128.
- Schiffrin, D. (1987). *Discourse markers*. Cambridge, UK: Cambridge University Press.
- Schiffrin, D. (1994). *A*pproaches to discourse. Cambridge, MA & Oxford: Blackwell.
- Sidnell, J. (2012). Basic conversation analytic methods. In J. Sidnell & T. Stivers (Eds.), *The handbook of conversation analysis* (pp. 77–99). Oxford, U.K.: Wiley-Blackwell,
- Silverman, D. (1987). *Communication and medical practice: Social relations in the clinic*. London: Sage.

- Silverman, D. (1997a). *Discourses of counselling: HIV counselling as social interaction.* London: Sage.

- Simmons, M. (1998). A sociolinguistic analysis of doctor-patient communication. *The Japan Conference on English for Specific Purposes Proceedings*. Aizuwakamatsu City, Fukushima, Japan. (ERIC Documents Reproduction Service. (424-785).

- Smeets, R.J., Vlaeyen, J.W., Kester, A.D., & Knottnerus, J.A. (2006). Reduction of pain catastrophizing mediates the outcome of both physical and cognitive-behavioral treatment in chronic low back pain. *The Clinical Journal of Pain*, 7, 261–71.

- Smith, D. E. (1981). On sociological description: A method from Marx. *Human Studies*, 4(4), 313–337.

- Smith, D. E. (1999). *Writing the social: Critique, theory, and investigations*. Toronto: University of Toronto Press.

- Smith, D.E. (2005). *Institutional ethnography: A Sociology for people*. AltaMira: Lanham.

- Stalnaker, R. C. (1978). Assertions. In P. Cole (Ed.), *Syntax and Semantics 9: Pragmatics* (pp. 315-332). New York: Academic Press.

- Starr, P. (1982). *The Social Transformation of American Medicine*. New York: Basic Books.

- Stewart, M., & Roter, D. (Eds.) (1989). *Communicating with medical patients*. London: Sage.

- Stivers, T. (2005c). Parent resistance to physicians' treatment recommendations: One resource for initiating a negotiation of the treatment decision. *Health Communication*, 18, 41–74.
- Stivers, T. (2007). *Prescribing under pressure: Parent-Physician conversations and antibiotics*. Oxford: Oxford University Press.
- Stivers, T., & Asifa Majid. (2007). Questioning children: Interactional evidence of implicit bias in medical interviews. *Social Psychology Quarterly*, 70: 424–41.
- Stivers, T., Heritage, J., Barnes, R. K., McCabe, R., Thompson, L., & Toerien, M. (2018). Treatment recommendations as actions. *Health Communication*, 33(11), 1335-1344.
- Sullivan, M. J., Thorn, B., Haythornthwaite, J. A., Keefe, F., Martin, M., Bradley, L. A., & Lefebvre, J. C. (2001). Theoretical perspectives on the relation between catastrophizing and pain. *The Clinical Journal of Pain*, 17, 52–64.
- Swartz, M. H. (1998). *Textbook of physical diagnosis: History and examination*. Philadelphia: Saunders.
- Swinglehurst, D. (2014) Displays of authority in the clinical consultation: A linguistic ethnographic study of the electronic patient record. *Social Science and Medicine*, 118, 17–26.
- Szasz, T. S., & Hollender, M. H. (1956). The basic models of the doctor-patient relationship. *Archives of Internal Medicine*, 97, 585-592.
- Tannen, D. (2005). *Conversational style: Analyzing talk among friends*. New York: Oxford University Press.

- Tannen, D., & Wallat. C. (1986). Medical Professionals and Parents: A Linguistic Analysis of Communication across Contexts. *Language in Society*, 15, 295-312.
- Taylor, T. J. & Cameron, D. (1987). *Analysing conversation: Rules and units in the structure of talk*. Oxford: Pergamon Press.
- Toerien, M., Shaw, R., & Reuber, M. (2013). Initiating decision-making in neurology consultations: 'recommending' versus 'option-listing' and the implications for medical authority. *Sociology of Health & Illness*, 35(6), 873–890.
- Trudgill, P. (1974). *Sociolinguistic: An Introduction to Language and Society*. England: Penguin Books.
- Valero-Garcés, C. (2002). Interaction and conversational constrictions in the relationships between suppliers of services and immigrant users. *Pragmatics*, 12(4), 469–495.
- Voutilainen, L., Peräkylä, A., & Ruusuvuori, J. (2010). Professional non-neutrality: criticising the third party in psychotherapy. *Sociology of Health & Illness*, 32(5), 798–816.
- Waitzkin, H. (1984). Doctor-patient communication: Clinical implications of social scientific research. *JAMA*, 252(17), 2441-2446.
- Waitzkin, H. (1985). Information giving in medical care. *Journal of Health and Social Behavior*, 26(2), 81–101.
- Wei, L. (1998). The 'why' and 'how' questions in the analysis of conversational code-switching. In: P. Auer (Ed.), *Code-Switching in Conversation: Language, Interaction and Identity* (pp. 156–179). London: Routledge.

- Weinberg, D. (2006). Language, dialogue and ethnographic objectivity. In P. Drew, G. Raymond, & D. Weinberg (Eds.), *Talk and interaction in social research methods* (pp. 97–112). London: Sage publications.
- West, C. (1983). Ask me no questions: An analysis of queries and replies in physician-patient dialogues, In A. D. Todd & S. Fisher (eds.), *The Social Organization of Doctor-Patient Communication* (pp.75–106).Washington: D.C., Center for Applied Linguistics.
- West, C. (1984). *Routine complications: Trouble with talk between doctors and patients*. Bloomington: Indiana University Press.
- West, C. (1984). *R*outine complications: Trouble with talk between doctors and patients. Bloomington: Indiana University Press.
- West, C., & Frankel, R. (1991). Miscommunication in medicine. In N. Coupland, H. Ciles, & J. Wiemann (Eds.), *Miscommunication and problematic talk (*pp. 166–194). Newbury Park, CA: Sage Publications.
- Whalen, J., Zimmerman, D. H., & Whalen, M. R. (1988). When words fail: A single case analysis. *Social Problems*, 35(4), 335-362.
- Willig, C. (2008). *Introducing qualitative research in psychology*. Open University Press.
- Wodak, R. (1996). *Disorders of discourse*. London: Longman.
- Wodak, R., & Dijk, T. A. (eds.) (2000). *Racism at the top: Parliamentary discourses on ethnic issues in six European countries*. Klagenfurt: Drava Verlag.
- Woloshin, S., Bickell, N.A., Schwartz, L.M., Gany, F., & Welch, H.G., (1995). Language barriers in medicine in the United States. *Journal of the American Medical Association*, 273(9), 724-728.

- Wood, N. I. (2019). Departing from doctor-speak: a Perspective on code-switching in the medical setting. *J Gen Intern Med*. 34(3), 464-466.
- Wooffitt, R. (2005). *Conversation analysis and discourse analysis: A comparative and critical introduction*. London: Sage.
- Young, R. F. (2008). *Language and interaction: An advanced resource book*. London: Routledge.
- Yule, G. (1996). *Pragmatics*. Oxford: Oxford University Press.
- Zimmerman, D. H. (1992b). The interactional organization of calls for emergency. In P. Drew & J. Heritage (Eds.), *Talk at work: Interaction in institutional settings* (pp. 418-469). Cambridge: Cambridge University Press.

الملخص
تعتمد هذه الدراسة على النهج المتسلسل لتحليل المحادثة لفحص التفاعلات بين الأطباء والمرضى في وحدات الاستشارات الطبية الأولية والعامة في الجزائر. يعتمد البحث على تحليل البيانات التي تم إنشاؤها من تسجيلات صوتية انتجت في الأقسام الداخلية والخارجية بكل من المستشفى الجامعي والمؤسسة الاستشفائية العامة بسيدي بلعباس. ينصب التركيز الأساسي لهذا البحث على وصف الأشكال التفاعلية للمحادثة لفهم أفضل للحوار بين الأطباء والمرضى وكيفية بناء السلطة التي يتم تضمينها في تصميم اللغة في التفاعلات الاجتماعية. تقدم نتائج الدراسة أدلة على أن عدم التماثل في سلطة والقيادة للحوار بين الأطباء وتجارب المرضى يكمن في التوزيع غير المتماثل بين الأدوار وفي تصميم وبناء الكلام والأفعال من قبل الطبيب والمريض. ويبين أن الأطباء يمتلكون وسائل خطابية ولغوية مختلفة للسيطرة على تدفق الأحداث لدعم أجنداتهم في اللقاءات الطبية. كما تطرق البحث إلى دراسة التناوب اللغوي للأطباء من العربية إلى الفرنسية وإلى المصطلحات الطبية والتقنية لتسليط الضوء على وظائفها في سياقها حيث بين أنه لا يمكن اعتبرها كموقع ووسائل لبناء السلطة والقيادة في اللقاءات الطبية بل تبنى بالعربية .

الكلمات المفتاحية: حوار طبيب-مريض، الفحص الطبي، تحليل الحوار، عدم التماثل، السلطة، القيادة، الفعل الإجتماعي .

Résumé
Cette étude adopte l'approche séquentielle de l'analyse conversationnelle pour examiner les interactions entre médecins et patients dans les unités de consultation de médecine générale et spécialisée en Algérie. La recherche est basée sur des données transcrites et construites à partir d'enregistrements audio produits dans les services internes et externes du Centre Hospitalier Universitaire (CHU) et de l'établissement publique hospitalier (EPH) de Sidi Bel Abbes (SBA). L'objectif principal de cette recherche est de décrire certaines formes des énoncés interactionnels pour mieux comprendre l'asymétrie, la construction de l'autorité et le contrôle des activités qui sont indexés dans la conception des énoncés dans les interactions sociales. Les résultats de l'étude montrent que l'asymétrie entre l'autorité des médecins et les expériences des patients résidant dans la distribution asymétrique des rôles et la conception grammaticale des énoncés et des actions construits par le médecin ainsi que le patient. Elle montre aussi que les médecins possèdent divers moyens discursifs et linguistiques pour contrôler le déroulement des événements afin de soutenir leurs agendas dans les rencontres médicales. La recherche étudie également l'alternation codique des médecins de l'arabe vers le français et la terminologie médicale et technique pour mettre en évidence ses fonctions. L'étude a démontré que l'alternation codique ne constitue pas en soi un site d'expression d'autorité dans les interactions médicales; cependant, les actions autoritaires sont réalisées majoritairement en arabe.

Mots clés: Interaction médecin-patient, consultation médicale, analyse conversationnelle, asymétrie, autorité, control, action sociale.

Abstract
This study adopts the sequentially focused approach of conversation analysis to examine interactions between doctors and patients in the Algerian public primary and specialised medical consultation units. The research is based on transcribed data built up from audio recordings produced at internal and external departments of the University Hospital Centre (CHU) and the public hospital (EPH) of Sidi Bel Abbes (SBA). The primary focus of this research is to describe the interactional forms of utterances for a better understanding of asymmetry and authority construction that are embedded in the design of language in social interactions. The results of the study provide evidences that asymmetry between doctors' authority and patients' experiences lies at the asymmetrical distribution of role and grammatical design of utterances and actions that are built by the doctors and the patients. It shows that doctors possess various discursive and linguistic tools to exert control over the flow of events to support their agendas in medical encounters. The research also investigates doctors' code-switches from Arabic to French and technical medical terminology to determine. The findings show that code switching per se does not constitute a location to construct authority in medical interactions but doctors realise mostly their authoritative action in Arabic.

Key words: Doctor-patient interaction, medical consultation, conversation analysis, asymmetry, authority, control, social actions.