

Bridging the gap between patient agency and doctor authority: how power interacts with structure in the consultation

Gianpaolo Manalastas

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Primary Supervisor: Dr Lorraine Noble
Subsidiary Supervisors: Professor Ann Griffin and Dr Rowena Viney

**UCL Medical School
University College London**

I, Gianpaolo Manalastas, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Gianpaolo Manalastas

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Abstract

Background

Clear communication in the medical consultation is key to promoting patient autonomy. Doctors may empower patients to express ideas, raise concerns and collaborate in decision-making through the use of language showing the consultation structure, called *verbal signalling*. However, there is little research showing how taught verbal signalling behaviours are used in practice or how they promote patient agency. This project identifies how verbal signalling behaviours may empower patients.

Methods

This mixed-methods study analysed secondary data featuring 154 simulated consultations forming part of a postgraduate examination for doctors aspiring to become physicians. Consultation structure was identified through novel application of the Calgary-Cambridge Guide to the Medical Interview onto verbatim transcripts. Speech Act Theory, Conversation Analysis and Politeness Theory were innovatively combined to identify, code and analyse verbal behaviours signalling consultation structure, such as 'signposts'. Identification and classification occurred on three levels: whether behaviours shared power by informing, inviting or instructing the patient; what information behaviours shared about consultation structure or content, and how power was manifested through language used in the behaviours.

Results

Varying structure was seen across the consultations, which was broadly not shared with patients. As predicted, verbal signalling behaviours were used to inform, invite and instruct, leading to an original taxonomy based on how verbal signalling behaviours involved patients. Behaviours focused on micro-level processes, like introducing questions, rather than broader agenda setting. Some deflected away from the patient agenda. The wide range of roles found led to the creation of a second original taxonomy based on behaviour functions.

Conclusion

Doctors used an extensive repertoire of verbal signalling behaviours to shape, maintain and enforce consultation structure. Contrary to their teaching, some behaviours limited rather than promoted the patient agenda. This research reveals how verbal behaviours taught to facilitate patient agency may be repurposed to retain doctor authority instead.

Impact Statement

This thesis investigates how strategies taught to doctors to place patients at the centre of the healthcare process actually work towards this goal. Patient-centredness is an approach focusing on the patient as an individual whose preferences, needs and values must be central to decisions relating to healthcare. Clinical communication models embed patient-centredness into their teaching, promoting an organised structure to consultations that is shared with the patient as the foundation for empowering patients to make informed decisions. There is a gap in the literature, however, concerning how doctors share information about the consultation process with patients, and how sharing this knowledge promotes patient-centredness. It is not known when or how often doctors share this information, or what type information they provide. Despite featuring in numerous educational models, there has been no systematic examination of how the structure is organised and shared with patients in practice, nor a method devised to do so.

This thesis addresses this knowledge gap, and has impact in three ways: theoretical, methodological and empirical.

Theoretically, the thesis innovatively combines frameworks from linguistics and sociolinguistics to analyse how strategies taught to doctors are used in practice. Using principles from Speech Act Theory, Conversation Analysis and Politeness Theory, this project reveals how verbal behaviours taught to promote patient-centredness work towards this aim.

Methodologically, this thesis contributes a new framework for identifying the structure of a consultation visually, allowing easy comparison between what is proposed in educational models and what is being done in practice. Additionally, this thesis breaks ground through the creation of a unique taxonomy for systematically identifying and categorising doctors' verbal signalling behaviours, based on how they involve patients in the construction of the consultation and the information they provide. This thesis also reveals how power is manifested through the language used in these verbal behaviours. At the molecular level, this thesis shows how the very building blocks comprising these verbal signalling behaviours can contribute to the sharing or withholding of power in the consultation.

Empirically, this thesis contributes to the evidence base through the discovery that doctors can assign multiple roles to a single verbal behaviour. Ostensibly, doctors can use verbal signalling behaviours to let patients know what will be happening; they may also simultaneously use these same verbal signalling behaviours to steer the conversation away from concerns raised by patients. This previously undocumented observation shows the repurposing of strategies taught to facilitate the patient agenda as tools for retaining doctor authority, directly contradicting patient-centredness.

These findings have implications for policy-makers promoting patient-centredness in healthcare, educators teaching it, healthcare professionals practising it and patients receiving it. This research has been presented at numerous national and international conferences featuring senior members of the medical royal colleges, experts in healthcare communication, conversation analysts and linguists, experts in assessment and architects of communication skills models.

This thesis impacts our understanding of how the medical consultation can be used to promote or inhibit patient empowerment, and the distance that exists between teaching and practice.

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Glossary

The following terms were coined during the thesis and will be introduced in later chapters.

Verbal signalling behaviour

A phrase, statement or question from the doctor that shows the patient what has happened, is happening, or will happen during the current consultation.

Verbal signalling behaviour type

The category of a verbal signalling behaviour based on how it provides information about what will happen in the structure of the consultation. Broadly, whether the behaviour: *informs* the patient about what will happen; *invites* the patient to choose what will happen, or *instructs* the patient how to proceed.

Verbal signalling behaviour function

The categorisation of a verbal signalling behaviour based on the information it provides: if it concerns the *structure* of the consultation, the *content* of the discussion, or if it is in response to a patient *concern*.

Hyperfunction

The categorisation of a verbal signalling behaviour based on how the doctor uses it in the context of the surrounding talk. Not all verbal signalling behaviours have a hyperfunction, and the hyperfunction of a verbal signalling behaviour always differs from its overt function.

Stacking

The use of verbal signalling behaviours in quick succession. Typically part of one turn from the doctor, or can be punctuated by minimal responses from the patient, such as 'yes', 'OK', 'alright', 'mmhmm', etc.

Introduction

This is a thesis about how the language doctors use to share information can influence the power of the patient. It focuses on how doctors can share knowledge about what will happen in the consultation as a way of sharing power with patients, which in turn can provide patients with opportunities to collaboratively take charge of the consultation with the doctor. Working in this way supports patient autonomy, which acknowledges the right of individuals to make informed healthcare choices and is an ethical and legal principle of healthcare (Smith and Carver, 2018). Patient-centred communication is the means by which this is promoted in medical education (Epstein and Street, 2011; Levinson, 2011; Stewart et al., 2014). While clinical communication skills are taught to all medical students in the UK, poor communication is one of the most common complaints made by patients against doctors working in the British National Health Service, which can lead to diminished patient involvement in making healthcare decisions (NHS Digital, 2019; Care Quality Commission, 2020). Internationally, clinical communication skills models promote an organised consultation structure that is explained to the patient as a way of facilitating the patient agenda (Makoul, 2001; von Fragstein et al., 2008; Noble et al. 2018).

Despite forming part of core clinical communication skills training for undergraduate students, how doctors apply taught models of structure to their consultations in clinical practice is not widely understood. While medical students are taught to explain the consultation structure to patients to provide opportunities for patient empowerment (Silverman et al., 2013), how these verbal behaviours achieve this aim has not been researched. There have been no studies conducted on the language used to formulate these verbal behaviours. This thesis therefore investigates how the language doctors use to share information about the consultation may play a role in influencing the power the patient has to contribute to the development of the consultation.

Adopting a mixed-methods approach, this research project was conducted on three levels. Firstly, at the macro level, identifying the structure of the consultation. In this thesis the word '*structure*' refers to stages of the consultation itself, encompassing the tasks being undertaken

within. Secondly, at the meso level, identifying and classifying all the verbal behaviours doctors use to signal this information about the consultation to the patient, to establish where and how doctors signal structure. Thirdly, at the micro level, studying doctors' use of words in these verbal signalling behaviours that may have a role in showing where the power in the consultation lies.

The dataset consists of simulated consultations recorded from part of a postgraduate medical examination. Analysis of these data will reveal the structure present, the verbal signalling behaviours used and the language that creates these verbal signalling behaviours in the context of the tasks the doctor must conduct. The dataset provides a unique opportunity to investigate these questions, as doctors were recorded across two consultations of the same length with differing tasks to complete in each, therefore allowing for comparisons to be made between different types of consultations. The consultations feature doctors applying for Membership of the Royal Colleges of Physicians, and so are experienced professionals being observed showing their approach to conducting consultations representing a first-time encounter with a patient or relative.

The thesis consists of ten chapters. In the review of the literature, Chapter 1 explores the definition and manifestation of power in the consultation and how problematising the power asymmetry between doctors and patients during consultations led to an educational movement towards empowering patients through a patient-centred approach to clinical communication skills. The chapter also discusses how educational models that espouse patient-centredness teach it through the consultation structure. This chapter ultimately establishes how power in the consultation feeds into the structure and how sharing knowledge of this structure empowers patients. It concludes by putting forward the three main research questions that drive the thesis forward.

Chapter 2 details the combination of inductive and deductive methodologies used to analyse the data, including the application of existing clinical communication educational models to identify structure, and the creation of an interactional analysis system to identify and classify verbal

behaviours signalling structure. This chapter also provides an overview of the data and the plan for analysis, providing reliability data where necessary.

Chapter 3 presents the first set of results, describing the structure of consultations when the task of the doctor is to ‘take a history’ from the patient.

Chapter 4 reports on the analysis that led to the identification and classification of the verbal signalling behaviours doctors used during the ‘History-taking’ consultations.

Chapter 5 shows the findings from the analysis of the linguistic features doctors use to formulate these verbal signalling behaviours in the ‘History-taking’ consultations.

Chapter 6 presents the first set of results on the ‘Communication Skills and Ethics’ station, describing the structure of the consultations. This chapter also compares the findings regarding the structure of consultations between ‘Communication Skills and Ethics’ and ‘History-taking’.

Chapter 7 presents the analysis of verbal signalling behaviours found in ‘Communication Skills and Ethics’. This chapter also compares the verbal signalling behaviour findings between ‘History-taking’ and ‘Communication Skills and Ethics’.

Chapter 8 concludes the Results chapters with the findings from the analysis of the words used to create verbal signalling behaviours in ‘Communication Skills and Ethics’. These findings were also compared with the findings from the ‘History-taking’ station.

Chapter 9 discusses the findings from Chapters 3-8, interpreting how the structure, verbal signalling behaviours and language used show where the power lies in the consultation. The comparison between the two stations will be discussed on all three levels.

Chapter 10 then summarises the main findings from the thesis and concludes the thesis by suggesting how these findings can impact the broader concept of patient-centredness and clinical communication teaching.

Chapter 1: Literature review

This chapter introduces the foundation upon which the research was formulated and conducted, showing how power is manifested in the consultation and the gap in the literature relating power to clinical communication. The literature review is split into six sections. Section one looks at research that proposes that the medical consultation is a conversation with a power asymmetry that favours the doctor and gives them the power to create, develop and drive forward the consultation structure. Section two explores the concept of patient empowerment, how it recognises and aims to mitigate imbalances of power with benefits for patients and doctors, and the attempts that have been made to make it an integral part of the consultation. Section three describes the role the structure of the consultation can play in affecting the power the patient has; particular focus is placed on how the structure is taught in medical education, with some attention given to how the consultation is evaluated in professional assessments. Section four reviews the ways in which doctors are taught to share the consultation structure with the patient, comparing it with how structure-sharing has been observed in clinical practice. Section five discusses the question of authenticity in simulated consultations. Section six proposes theories and frameworks that can be used to study how these structure-sharing strategies are infused with power, and how they can be used to facilitate the patient agenda. Section seven discusses research that has shown how elements of language can be seen as manifestations of power and how these are used to shape the conversations in which they feature. Finally, we will end the chapter by proposing the research questions that have emerged from the literature and that drive this thesis forward.

1.1 Power in the medical consultation

The medical consultation is believed to be a power-laden dialogue, differentiating it from everyday conversation (Mishler, 1984; Linnell et al., 1988; Frankel, 1990). Some have searched for the source of this power in elements outside the dialogue: the role of the doctor in wider

society as an expert in healthcare, which is fundamental to all members of society (Parsons, 1951); the role of the patient as a seeker of help (Stivers, 2002); the interaction between the two resembling a gatekeeper interview, where one party must prove their worth in order to gain access (Erickson and Schultz, 1982). Other studies have synthesised these perspectives and pinpointed this power as a consequence of the interaction between the patient and doctor: that the doctor is a representative of a healthcare system that the patient must meet in order to receive information about their own healthcare (Heritage, 1997; Perakyla, 1997). This perspective places the doctor as the expert with specialist professional knowledge, and the patient as the lay person seeking information, advice or treatment (Heritage, 1997: 236). Armed with exclusive access to information about the patient's health gives the doctor the authority over the patient, with opportunities to give or withhold this information. Meanwhile the patient is an informed participant in the conversation, who may impart subjective information about their health experience in order to trigger the release of information from the doctor (Perakyla, 1997). It could be argued that this perspective also suggests that the patient also has a form of power in the consultation: the subjective, experiential information they provide triggers information flow regarding diagnosis and treatment from the doctor, but the none of the studies mentioned thus far placed this power on the same level.

The consensus from the research is that the power that exists in the consultation is asymmetrical: doctors have more power than patients to decide how the conversation is constructed and progresses (Drew, 1991; Heath, 1992; Pilnick and Dingwall, 2011; Heritage and Maynard, 2006). Earlier research showed that the power imbalance can be seen in a number of ways: the amount of talk coming from each participant, with doctors emerging as the dominant speaker (Shuy, 1976; Labov and Fenshel, 1977; Fisher, 1983); in the control of topics for discussion, where doctors typically introduce the content (Mishler 1984; Davis 1988), and how much of these topics are discussed, again with doctors making the transition between different topics (Beckman and Frankel 1984). In their review of the literature, Pilnick and Dingwall (2011) discussed the persistence of this asymmetry over time, suggesting that it is a "functional asymmetry...

embedded within a wider functionality of the institution of medicine in society" (2011: 1381). They stated that the power asymmetry has continued over time despite research attempting to discover its source and the factors that contribute to its persistence. This research spans back several decades in the United States to Korsch, Gozzi and Francis (1968), whose study of paediatrician-family member consultations was among the first to compare recorded doctor-patient interactions with user perceptions collected from follow-up interviews. This landmark study investigated how patient satisfaction as an outcome could be affected by the communicative performance of the healthcare professional during the consultation. A few years later, Korsch and Negrete (1972) showed that patients who were dissatisfied with the communication of their doctors did not adhere to treatment plans.

In the United Kingdom Byrne and Long pioneered the observation of doctor-patient consultations in order to "to discover if there were any features of the consultation which were common to all consultations and whether there were any features of the consultation which could be described as doctor-centred idiosyncrasies" (1976: 2). This groundbreaking study featured over 2,500 audio recordings of general practitioner consultations, reviewed by the very doctors who had been recorded. Byrne and Long proposed that many doctor behaviours stemmed 'from the doctor's need to "control" (to limit the patient to a defined area)' (1976: 139). They postulated that these behaviours limited the consultation length, or restricted the conversation to topics the doctor wished to discuss, such as the biomedical illness over emotional problems. This overt exercise of power showed that doctors not only played a role in creating the power asymmetry, but many perceived it as a necessity.

Early research that codified the medical consultation reflected the power balance uncritically. By not being aware of this bias, unquestioned assumptions can inadvertently perpetuate the power balance: in their observations of the different phases of the consultation, Byrne and Long (1976) name each phase after the activity of the doctor, rather than the joint activity between patient and doctor. In another example of how the power imbalance is maintained, educational

recommendations that encouraged doctors to focus the conversation on participation from the patient still gave the doctor the power to choose the topics the patient discussed (Smith and Hoppe, 1991).

Power may be manifested in the consultation in two ways. Firstly, through the implementation of an agenda (Berger and Luckmann, 1966; Burbules, 1986; Honneth, 1991; Ainsworth-Vaughn, 1994). In the case of the consultation, the agenda of the doctor could be to diagnose the patient's medical condition, while the patient agenda could be to receive a prescription in order to treat the condition. Thus each turn of speech that works towards the respective goals can be seen as an exercise of power. Taking this approach does not suggest conflict of agendas: both participants in a conversation may have the same aims, although if these are not explicitly expressed at any stage of the conversation, assumptions or conflicts might occur (Byrne and Long, 1976). Conversely, measuring power by the enactment of an agenda may also have drawbacks, as agendas are not fixed items and can change based on how a conversation develops (Ainsworth-Vaughn, 1994: 278). By integrating patient and doctor agendas at the start of the consultation, the opportunity to share power is introduced right from the outset.

The second way that power may be manifested in the consultation is through controlling the topics of conversation that arise, as proposed by Mishler (1984). How doctors move from one topic to another can show where the power lies, as 'control may be claimed over the emerging discourse or over future action (e.g., plans for treatment)' (Ainsworth-Vaughn, 1994: 279). This suggests that power lies in the ability to decide when a subject has been sufficiently discussed and a new topic can be introduced. However, the question of when new topics occur is itself contentious: Brown and Yule (1983) discuss the difficulty of deciding if topics within a conversation form part of an overarching theme, in which case the topic is not new. Conversely, the gradual move from one topic to another like a series of stepping stones can also be considered to be a topic transition in itself. A series of connections are therefore made between the topics, known as 'stepwise progression' (Jefferson, 1985) that encourages the flow of a

conversation. These studies suggest that when a participant in a conversation lacks power, the ability to introduce a topic and have it discussed at that point is reduced.

In this section we have discussed how research has shown that the medical consultation is a conversation featuring a power imbalance that favours the doctor, and the ways in which this power imbalance is manifested. In the next section we will look at the literature showing how placing the patient at the centre of the consultation was one of the steps proposed to combat this power imbalance in healthcare practice.

1.2 Empowering patients

An approach to redressing the power asymmetry in the medical consultation was put forward by Balint (1957), who proposed a contrast between an approach to medicine that focused on the diagnosis and treatment of the illness, to the patient themselves. Whereas the previous approach to healthcare narrowed its view solely onto the physical illness of the patient and neglected the patient's emotional welfare, Balint advocated a more holistic approach that would also increase 'therapeutic efficiency' (1957: 686). This focused on understanding the complaints presented by the patient, based on the thinking that placed the patient at the centre of the consultation, rather than the illness they had that needed addressing. Additionally, other research proposed an 'approach by which the patient is treated as a customer whose requests are usually legitimate and always a key part of clinical negotiations' (Lazare et al. 1972: 872). Central to this approach is that while the underlying legitimacy of the patient's desires may be called into question, their inclusion into the overall agenda of the consultation was always mandatory. This came to be called 'patient-centred medicine', which reflected 'disenchantment among some physicians with an approach to disease that neglects the patient' (Engel, 1977: 134). Moving from the traditional perspective of the doctor as the sole expert in the room, patient-centredness acknowledges that the patient is an expert in their own right (Tuckett et al., 1985). Tuckett et al. suggested that patients have their own expertise: particularly regarding their subjective experiences of health

and illness, in understanding their priorities and in making judgements about which course of action is right for their individual needs and circumstances. A patient-centred approach, which focuses on the patient as a partner in the consultation, was promoted as an opportunity to address the power imbalance in the medical consultation (McWhinney, 1989).

In their seminal work that set out to transform the clinical method, Stewart et al. (1995) proposed that patient-centredness empowers patients. Stewart et al. state that 'to be patient-centred, the practitioner must be able to empower the patient and share the power in the relationship, and this means renouncing control that traditionally has been in the hands of the professional' (2014: 4). This aim was built upon by the US Institute of Medicine, who defined patient-centred care as attentive to the needs, values and preferences of patients (Institute of Medicine, 2001). Patient-centred communication empowers the patient to take an active part in the consultation and express individual needs, preferences, values and concerns (Epstein and Street, 2011; Levinson, 2011; Castro et al., 2016).

By treating patients as autonomous individuals and the medical consultation as a meeting between experts, doctors empower patients to make decisions about their own healthcare (Tuckett et al., 1985; Elwyn et al., 2012). This is known as shared decision making, which is 'an approach where clinicians and patients make decisions together using the best available evidence' (Elwyn et al. 2010). Elwyn et al. propose that at its core, shared decision making 'rests on accepting that individual self-determination is a desirable goal and that clinicians need to support patients to achieve this goal, wherever feasible' (2012: 1361). They acknowledge that shared decision making transfers power solely from the hands of the doctor to rest between both doctor and patient. The key characteristic of shared decision making is that it is a process that occurs throughout the consultation, allowing patients time to 'deliberate and express their preferences and views' (Elwyn et al., 2012: 1361). Thus sharing information about what will happen in the consultation includes when decisions will be made, when deliberation can occur, and allows for patients to raise preferences and values, facilitating patient empowerment.

Interventions to move power from doctors to patients have also been seen in the UK legal system (Montgomery v. Lanarkshire Health Board 2015). This Supreme Court ruling set a legal precedent in the UK, that patients have the right to all the information they need to make an informed decision about treatment options, rather than the doctor having the right to withhold information and effectively make the decision for them. Consequently, doctors are accountable for ensuring they include the patient at every stage of the process, 'even those doctors who have less skill or inclination for communication, or are more hurried, are obliged to pause and engage in the discussion which the law requires' (2015: 29). This ruling enshrined the right of the patient to information and autonomy, reinforcing the need for doctors to obtain informed consent. Coulter et al. summarised the implications for informed consent succinctly: 'Patients with 'full mental capacity must be properly advised about their treatment options and the risks associated with each option so that they can make informed decisions when giving or withholding consent to treatment' (2017: 36). However, this relatively recent change highlights the evolving nature of the doctor-patient relationship and expectations of both parties over time.

As well as working towards shared decision making, providing patients with opportunities to drive the consultation forward in partnership with the doctor can also lead to better health outcomes. Studies have shown that patients who are more engaged in consultations and who make more active contributions may show better health outcomes (Stewart et al., 2000; Street et al. 2003; Hibbard et al., 2017; Sacks et al., 2017; Street, 2013). Other studies have shown that interventions to empower patients prior to the consultation may also contribute to positive health outcomes, such as through prompt sheets given to patients ahead of the consultation (Butow et al., 1994; Brown et al., 1999). For example, it was found that 'a question prompt sheet, if addressed in the consultation, shortens consultations, enhances recall and reduces patient anxiety' (Brown et al., 2001). Studies using a variety of interventions to empower patients have improvements in patient satisfaction (Hall et al. 1988; Lewin et al., 2001; Dwamena et al., 2012).

However, Pilnick and Dingwall (2011) countered that doctors' improved communication skills could lead to negative health outcomes. They reported that Kinmonth et al. (1998) found in their randomised controlled trial that patients who received care from practitioners who had been additionally trained in patient-centred care showed improved communication and treatment satisfaction, but higher blood pressure and lower knowledge scores. Pilnick and Dingwall do slightly overlook or misinterpret some of Kinmonth et al.'s results: patients who were in the intervention group already had greater body mass index and thus blood pressure differences were consistent with weight differences, and knowledge differences were limited to patients who had received a particular treatment, while overall knowledge about diet and the consequences of poor control of diabetes was consistent overall. Furthermore, Kinmonth et al. concluded that 'professionals committed to achieving the benefits of patient centred consulting should take care not to lose the focus on disease while paying attention to the unique experience of illness of each patient' (1998:1207), which does not in itself suggest a negative health outcome as a result of improved doctor communication, but rather that focus on disease and communication with patients can co-exist. Pilnick and Dingwall also countered that doctors' improved communication skills possibly had no effect on the patient health outcomes: Jaen et al. (2010) found modest improvements in patient ratings of empowerment in their intervention-based study looking at the transition of general practices to a more patient-centred approach. However, Pilnick and Dingwall overlook that Jaen reported low return rates of questionnaires from patients, and that Jaen also reported potential within the transition, but that 'it takes time and additional work to turn a new process into an effective *function*' (2010: 565). This does not suggest a lack of effect between improved communication skills and patient health outcomes, but rather that the intervention is a first step in an ongoing transformation. Pilnick and Dingwall also suggested lack of effect between improved doctor communication skills and patient health outcomes through Lee and Lin (2010), who reported varying interactions between health outcomes and patients with differing preferences of patient autonomy. Again, Pilnick and Dingwall overlook a fundamental point raised by Lee and Lin:

'In summary, our data support the situationally-determined view of patient-centeredness: enabling patients to share power and responsibility by involving them in choices to the degree that they desire. Instead of adhering to a rigid style of communication, a physician must adapt his/her participatory style to the autonomy preferences of the patient, thereby providing patient-centered care' (2010: 1817)

This statement further highlights patient-centred care as a tailored approach to each individual patient, rather than one-size-fits-all uniformity. Adopting a situationally-determined view of patient-centredness therefore requires adaptation of patient-centredness to each patient, rather than having a rigid approach to patient-centredness. That Pilnick and Dingwall overlooked key points from the studies of Kinmonth et al. (1998), Jaen et al. (2010), and Lee and Lin (2010) does suggest selectivity of evidence against patient-centredness and patient empowerment, when all three studies suggested caveats that did not hinder a patient-centred approach, but refined it instead. These closer readings of the sources Pilnick and Dingwall cited suggest that there are more positive effects on health outcomes of a patient-centred approach than negative effects. This takes into account that patient-centredness is a complex concept that must be responsive to the needs of each individual patient.

In order to successfully combine a patient-centred approach with shared decision making processes, patients must have access to information about the consultation. Having discussed that the medical consultation is not a typical everyday conversation in Section 1.2, it is an assumption to presume that patients will have any level of knowledge of the underlying rules governing the consultation – either an assumption on knowledge the patient has, or the frequency with which the patient attends the medical consultation. Parson alluded to this lack of knowledge: 'Laymen do know something in the field, and have some objective bases of judgment. But the evidence is overwhelming that this knowledge is highly limited and that most laymen *think* they know more, and have better bases of judgment than is actually the case' (1951: 442). It has also been proposed that patients may have expectations about the consultation that 'may be based on wishes, fears or even stories from friends' (Lazare et al. 1972: 873). Conversely, Heritage and Maynard suggested that the consultation is so institutionalised that 'patients are repeatedly trained by exposure to it from childhood' (2006: 363). These three opposing perspectives – that

patients may think they know more about the consultation than they actually do; that patients may have expectations about the consultation that may or may not be based on their own experiences, and that patients are exposed to the standard routine of the consultation throughout their lives – can be interpreted as a generalisation of all patients. By viewing all patients as individuals with differing levels of experience, knowledge and exposure to the medical consultation, the need to normalise the sharing of a plan of the consultation structure and processes becomes apparent.

Developing this idea further, it is reasonable to assert that the knowledge of the consultation structure will form part of the doctor's 'territory of information' (Kamio, 1997), also known as their 'epistemic domain' (Stivers and Rossano, 2010). The epistemic domain of an individual is the knowledge that they have, that Pomerantz (1980) classified under two types: knowledge gained as a right through first-hand experience, and knowledge gained through inference or being told by others. For example, the epistemic domain of a doctor may include medical knowledge about illnesses and their treatment, while the epistemic domain of a patient may involve their subjective experience of that illness.

Thus the knowledge of the consultation structure could form part of doctors' epistemic domain. It is also reasonable to assert that this information will not form part of the epistemic domain of the patient, who will not have received the same training as the doctor, and thus access to this domain can be granted by the doctor. Counteracting Heritage and Maynard's postulation that patients have been exposed to the institution of the consultation from childhood, it could be argued that patients have been exposed to fewer instances of the consultation structure than doctors, as they do not experience it regularly in a professional capacity. In this way, doctors have more power to construct the consultation – and thus greater authority in how the consultation develops – as they have greater access to knowledge of the consultation structure than patients do. Thus sharing information about the consultation structure shares power by

increasing the patient's access to an epistemic domain to which they would not normally have access, or of which they would have limited experience relative to the doctor.

Partnership and collaboration between patients and doctors forms part of national guidelines in the United Kingdom (General Medical Council, 2013). As part of Good Medical Practice, doctors are duty-bound to 'work in partnership with patients' (General Medical Council, 2013). Rather than seeking to give patients the opportunity to make a decision regarding healthcare just at the end of the consultation, opportunities and information must be provided throughout the consultation that give patients control of decisions that directly affect them (National Institute for Health and Care Excellence, 2016).

In this section we have discussed the ways in which the power asymmetry between doctors and patients in the consultation has been acknowledged and addressed by researchers, educators, health regulators and the UK legal system. The literature has shown that teaching patient-centredness is a key tenet of healthcare education and underpins international standards of healthcare practice. Having knowledge of the consultation structure is part of the professional training of doctors, falling into their epistemic domain. This knowledge gives them greater authority and power in deciding what comes next, and sharing this knowledge imparts authority and power to the patient. In this next section, we will discuss how the clinical communication models used in medical education embedded a patient-centred approach into their proposed consultation structures.

1.3 Structure in the consultation

In the UK, the first major study observing consultations and describing the structure that occurred was conducted by Byrne and Long (1976). They observed six phases of the consultation, and as mentioned in Section 1.1, these phases were named after the activities conducted by the doctor: 'I, relating to the patient; II, discovering the reason for attendance; III, conducting a verbal or physical examination or both; IV, consideration of the patient's condition; V, detailing treatment

or further investigation; and VI, terminating' (Byrne and Long, 1976). The presence of these distinct stages of the consultations, defined by the doctor activity taking place within, created an opportunity for educators to teach a template of consultation structure. Byrne and Long state that while these phases may follow the order in which they have numbered, this is just one of several 'normal' sequences, where 'normality in this sense means that the consultation follows a sequence which appears to be logical, in that one set of events follows naturally upon another' (1976: 133). They suggest that reverting back and forth between phases is an indicator that the doctor is not satisfied with the position they have achieved (1976: 23). Thus a fluid approach to the sequencing of phases was observed by Byrne and Long, where weaving back and forth between phases, and even omitting some (typically stage IV: consideration of the patient's condition) 'can be seen as optional' (1976: 133).

These six phases would go on to lay the foundation for clinical communication skills models used for teaching around the world. Despite not explicitly stating that their consultation model was split into phases, Pendleton et al. (1984) split the consultation into seven tasks. The first five of these tasks mapped onto those proposed by Byrne and Long (1976):

'(1) define the reason for the patient's attendance; (2) to consider other problems; (3) with the patient, to choose an appropriate action for each problem; (4) to achieve a shared understanding of the problems with the patient; (5) to involve the patient in the management and encourage him to accept appropriate responsibility' (Pendleton et al., 1984)

With some minor deviations, these five tasks followed the chronological order of the phases observed by Byrne and Long.

Other consultation models adopted the phase structure proposed by Byrne and Long. The Three-Function Approach instructs that 'the skilled physician needs to maintain a rough organizational plan for the interview, which will cover all the relevant structural and functional elements' (Cole and Bird, 2000: 63). The plan that they proposed consists of eight stages, that focus predominantly on obtaining a medical history from the patient. Influences of the Byrne and Long phases can be seen in a few of the phases, including: 'Opening; Chief Complaint and Survey of Problems; Mental Status'.

Another consultation model that adopted the structure proposed by Byrne and Long was Smith's Patient-Centred Interviewing, based on the observations and recommendations proposed by Smith and Hoppe (1991). They put forward a consultation model of eleven steps, split into three groups: the beginning, the middle and the end. The beginning phase, consisting of the first five steps focus on patient-centred interviewing skills: '1. Set the stage for the interview. 2. Elicit chief concern and set agenda. 3. Begin the interview with non-focusing skills that help the patient express her/himself. 4. Use focusing skills to elicit three things: symptom story, personal context and emotional context. 5. Transition to middle of interview'. The middle five steps focus on the tasks that the doctor must complete that place the patient in a more passive role: '6. Obtain a chronological description of history of present problem/other active problem. 7. Past medical history. 8. Social history. 9. Family History. 10. Review of symptoms'. The final stage then returns to the task of the doctor: '11. End of interview'. The distinction between patient needs and doctor agenda highlights the potential tension that these two concepts may not necessarily be the same or overlap. Byrne and Long also observed a similar misalignment between doctor and patient goals, showing an underlying tension between two potentially competing agendas during the medical consultation. There are two ways of interpreting this: that the patient needs must be met first, and then the doctor can make their agenda known – which would place priority on the patient agenda. The alternative perspective is that the final stage, returning to the doctor, represents the final word on the consultation – which places the doctor as the traditional arbiter and ultimate authority (Fortin et al., 2013).

A clinical communication skills model that suggested a structure that closely followed the phases suggested by Byrne and Long was The Calgary-Cambridge Approach to Communication Skills Teaching (Kurtz and Silverman, 1996). This early model included the phases: 'Initiating the session; Gathering information, Explanation and Planning, and Closing the session'. The authors of this clinical communication skills model released an enhanced version of the model, called 'The Calgary-Cambridge Guide to the Medical Interview (Silverman et al. 1998). This update added an additional phase between Gathering information and Explanation and Planning:

Physical examination. Having organised the consultation into sequential phases, a fundamental task put forward is to provide structure. They suggest that 'it is a task that occurs throughout the interview rather than sequentially. It is essential for the five sequential tasks to be achieved effectively' (2013: 109). Included in their guidelines on structure are instructions to summarise at the end of specific questions, to structure the interview in a logical sequence and to attend to timing and keeping the interview on task (2013: 23).

The Four Habits Approach to Effective Clinical Communication (Frankel and Stein, 1999) adopted a streamlined version of the Byrne and Long phases. Three of the four habits mapped onto the phases: '1. Invest in the Beginning; 2. Elicit the Patient's Perspective; 4. Invest in the End'. The third habit, while not related to structure is nonetheless crucial to patient-centredness: '3. Demonstrate Empathy'.

Structure in the consultation was also displayed in research checklists that continue to be used to observe consultations. The SEGUE framework for teaching and assessing communication skills (Makoul, 2001) is a research checklist for observing medical communication tasks that closely followed the phases suggested by Byrne and Long. This checklist contained the following areas for observation: '1. Set the stage; 2. Elicit information; 3. Give information; 4. Understand the patient's perspective; 5. End the encounter'. A common feature of the frameworks put forward by Makoul (2001), Pendleton et al. (1984) and Frankel and Stein (1999) is the orientation towards tasks of the doctor, creating a juxtaposition between the patient-centred approach to medicine that they espouse, and the focus on the priorities of the doctor during the consultation.

Alongside teaching models and research frameworks, tools were also created to observe and evaluate how doctors organised the consultation as part of educational interventions to improve clinical communication skills. The MAAS-Global Manual (van Thiel et al., 2000) was an instrument designed to observe and rate the clinical communication skills of doctors during consultations. The first aspect the instrument measures are the communication skills in each phase of the consultation, of which the manual presents seven: 'Introduction; Follow-up

consultation; Request for help; Physical examination; Diagnosis; Management; Evaluation of consultation'. Additionally, the instrument provides an opportunity for the assessor to rate the way in which the doctor gives the consultation structure, through 'logical sequence of phases and balanced division of time' (2000: 20).

Educators, researchers and practitioners came together to establish a set of principles that underpinned doctor-patient communication. As mentioned in Section 1.2, Makoul 2001 and von Fragstein et al. 2008 embedded patient-centred approaches to medicine in the core curricula taught in the United States and the United Kingdom respectively. The former brought together the designers and teachers of five different consultation models (Keller and Carroll, 1994; Novack et al., 1992; Kurtz et al., 1998; Stewart et al., 1995 and Makoul, 1998) to establish the following 'sequentially ordered sets of tasks... Open the discussion, Gather information, Understand the patient's perspective, Share information, Reach agreement on problems and plans, Provide closure' (Makoul 2001: 391). Key to this consensus was establishing that the phases outlined by Byrne and Long (1976) were cemented as tasks going forward. The established core components in national consensus recommendations for the clinical communication curriculum in undergraduate medical education the UK (von Fragstein et al., 2008; Noble et al. 2018) focused on the tasks proposed in the Calgary-Cambridge Guide to the Medical Interview (Silverman et al., 2013).

The structure of the consultation has also been the subject of research conducted outside healthcare communication and medicine, in sociology. While proposing that the consultation was itself a specific genre of conversation, ten Have (1989) built on the phases identified by Byrne and Long (1976), also calling them the 'Ideal Sequence'. Like Byrne and Long before him, he notes that 'the sequence is called 'ideal' because one observes many deviations from it that seem to be quite acceptable to the participants. It often happens, for instance, that during a later phase people return to an earlier one, especially when problems arise later on' (2001). These six phases are: 'Opening; Complaint; Examination or test; Diagnosis; Treatment or advice; Closing'.

In this section we have seen that a number of consultation models that promote a patient-centred approach to medicine embed this into their proposed consultation structure. This section has shown that the literature on the structure of the consultation has drawn upon sources from both empirical research and educational guidance. Both these settings are crucial to consider when investigating the structure that doctors are taught to create, and how this aligns with the behaviour seen in practice. In the next section, we will discuss the ways in which the educational models promote sharing power by making the structure of the consultation clear to the patient.

1.4 Making organisation overt: sharing structure and content with the patient

In this section we will look at the ways in which sharing the structure of the consultation is taught in educational models, and how it has been observed in clinical practice. Key to providing structure is making organisation overt, which helps 'patients understand the structure of the interview and become more involved in the consultation' (Silverman et al, 2013: 112). One way of accomplishing the goal of making the structure of the consultation clear is through the use of verbal behaviours that signal what is coming next. Signposting is one of the verbal behaviours taught in healthcare communication education to make organisation clear to the patient. Silverman et al. define signposting as a statement that 'introduces and draws attention to what we are about to say' (2013: 115). They state that signposting what is to come and summarising what has been discussed are twin skills of the consultation, and suggest using a signpost to introduce a summary. They go on to say that the signpost 'announces what we are going to do and invites the patient to think with us, to add in forgotten areas or to correct our interpretation' (2013: 15). This definition can be interpreted as a reference back to patient empowerment, by providing opportunities within the structure of the consultation for the patient to give information only they have access to (Tuckett et al. 1985).

The act of signposting goes by a number of different names, depending on the model teaching it. In the Three-Function Approach (Cole and Bird, 2000), a form of signposting is taught under

checking – which is pausing in the consultation narrative and ‘periodically restating what it seems the patient has said’ (2000: 28). In effect, this signpost points backwards at what has just been said. They state that checking is beneficial to both doctor and patient, as it allows the doctor to review and clarify information, while providing an opportunity for the patient to work in partnership with the doctor. A number of synonyms for signposts are taught throughout the eleven steps of Smith’s Patient-Centred Interviewing (Fortin et al., 2013). These include *setting the agenda*, which states the doctor should *forecast* what they would like to have happen in the interview, before negotiating specifics with the patient if there are too many items. During the second set of steps covering the transition to the middle of the interview, this includes *indicating* a shift in the content and style of questioning, in agreement with the patient. In the final step of the model, leading to the end of the interview, signposting reappears as *framing* the diagnosis, treatment or prognosis, followed by *inviting* patient contributions, and once again *indicating* the consultation is coming to an end. In the Four Habits Approach to Effective Clinical Communication (Frankel and Stein, 1999), it is included as *letting the patient know what to expect* under planning the visit with the patient. In the Kalamazoo Consensus Statement, it was included under the Gathering Information phase as *structure, clarify and summarise information* (Makoul, 2001: 391)

Signposting goes by a number of different names even in the communication skills model in which it is taught. Silverman et al. refer to it in the following ways: during the phase of providing structure it is *signposting* and *transitional statements* when progressing from one section to another (2013: 23). As a means of building rapport with the patient it is *sharing thinking* to encourage patient involvement and *explaining rationale* for questions that might seem to be non-sequiturs (2013: 24). During the Explanation and Planning phase it is *organising explanation* by dividing it discrete sections with a logical sequence and using *explicit categorisation* or *signposts* when listing items (2013: 24). When delivering bad news, they promote using a *warning shot* to alert the patient to the fact that potentially upsetting information may be coming (2013: 230).

Assessment tools include the use of signposting under different guises. Makoul (2001) refers to it as *outlining the agenda* at the outset of the consultation (2001: 32), while the MAAS-Global Manual includes *announcing* and *categorizing* as skills to rate that fall under general communication skills that signal the doctor is about to give information (van Thiel et al., 2000: 19).

The variety of synonyms used to refer to signposting shows that clinical communication models recommend these verbal strategies for a number of different aims. These can be broader goals, such as negotiating a shared agenda (Makoul 2001: 32; Fortin et al. 2013), as well as more localised tasks, such as signalling transitions between consultation stages or topics (van Thiel et al., 2000: 19; Silverman et al., 2013: 23).

These strategies vary in how they encourage the patient involvement. Some inform the patient simply by giving an idea of what to expect (Frankel and Stein, 1999), while others explicitly encourage patient involvement by inviting contributions in the form of thoughts, ideas, suggestions and preferences (Fortin et al., 2013).

Some clinical communication skills models promote the use of these behaviours to exercise control over the consultation. This can clearly be traced back to the idea of competing agendas mentioned in Section 1.1 (Ainsworth-Vaughn, 2001). Providing *clarification and direction* is a behaviour taught by Cole and Bird (2000), as 'even during the nondirective phase of the interview, the physician may find the need to interrupt the patient's flow of information to clarify jargon or ambiguities, or to direct the process' (2000: 27). Even assessment tools encourage assessors to look favourably on restricting behaviours: 'with a very talkative patient it may be necessary and effective to interrupt the patient' (van Thiel et al., 2000: 20). This suggests another role for these verbal signalling behaviours, to *instruct* the patient to follow the doctor's plan for the consultation. There are therefore three broad categories of verbal signalling behaviours that have been named thus far in the literature: behaviours that *inform* the patient about what will happen in the consultation; behaviours that *invite* patient contributions, and behaviours that *instruct* the patient

about how to proceed. While numerous behaviours are taught in different clinical communication models, they have never been brought together before under these three broad categories.

Strategies that share information with the patient about the consultation apply across all medical settings and specialities. Silverman et al. state that they 'use the same principles of learning and teach the same core skills in all three settings [undergraduate, residency and continuing medical education]... in a wide range of healthcare settings it is the same set of core communication skills that pertains' (2013: 2-3). Observational research focusing on effective communication in the medical consultation has considered a variety of clinical settings and simulated consultations in assessment. Mauksch et al. suggest that an 'up-front, collaborative agenda is more thorough and efficient than the more common approach of addressing each issue as it surfaces" (2008: 1390-1391), in a clear reference to agenda-setting. In a reference to the power asymmetry and competing agendas, Meeuwesen et al. acknowledge that the structure of the consultation reflects how the patient and the physician negotiate "potentially conflicting agendas and agenda-setting" (2007: 184). Orienting patients to the next stage or topic has also been observed (Robins et al., 2011), although the conclusion to this study states that:

'...findings support previous research demonstrating the primacy of information exchange over more process-oriented or relational communication in medical interviews. Study physicians devoted proportionally more time making medical content transparent to patients (i.e., explaining medical jargon, expressing opinions about test results, and providing information about treatment regimens) than making the interview process transparent (i.e., previewing or explaining actions or communications)' (2011: 77)

Doctors have also been seen to use these verbal strategies to encourage partnership with the patient, through inviting patients to contribute to the introduction of topics, or simply informing patients about what to expect (Ainsworth-Vaughn, 1992). Sometimes these strategies are used to bridge the transition between topics, particularly when introducing a sensitive subject such as sexual history (Floyd et al., 1999). This study demonstrated a method of eliciting information from the patient that acknowledged the power imbalance of the doctor's right to certain topics of information – such as the right to ask about a patient's sexual history. While the specific context

of the consultation might permit the asking of these questions, it could not be assumed that patients would know these questions were coming, or that the context made these questions necessary. Patients who were given warning of the sensitive question that was about to be asked reported higher comfort levels than if they were asked sexual history questions outright. Other signalling occurs whilst changes are happening, for example, taking the form of an online commentary that shows what the doctor is doing during a physical examination, particularly when moving from one part of the patient's body to another (Drew et al. 2001). Doctors have also been observed using verbal signalling behaviours to move away from the patient agenda, such as using small talk to steer the conversation away from psychosocial issues raised by the patient (Maynard and Hudak, 2008). This is a more subtle approach to exercising power than the directive behaviours suggested in the clinical communication models (Cole and Bird, 2000). A more overt exercise of power can be seen in doctors' responses to patient concerns. In the Verona Coding Definitions of Emotional Sequences, a method for systematically categorising doctors' verbal responses to patients' concerns, instances where doctors use explicit language to delay addressing the emotional concern raised by a patient is known as the *postpone* (del Piccolo et al., 2017).

These strategies can therefore be used to control the speed and direction of the flow of the conversation (van Thiel et al., 2000; de la Croix and Skelton, 2013). In their study of communication between surgeons and their patients, Levinson and Chaumeton (1999) considered these strategies as components of their *process* category (1999: 130). This contained phrases that served to facilitate the flow of conversation: these could be explicit directions, or utterances that indicated either party was listening to what was being said at the time. This suggests that doctors can use these strategies not just to give the consultation an organised structure, but also to play an important role in fostering, or indeed inhibiting, patient agency in the consultation.

The verbal behaviours we have outlined all serve one purpose: to draw the attention of the patient to what is happening in the consultation. The research has focused on signalling forwards what is coming, but one behaviour – *checking* – signals what has been discussed already and is a behaviour that signals backwards in the consultation, thus suggesting an area of research that has not been explored previously. In effect, these verbal behaviours signal what is happening in the consultation: they are therefore called verbal signalling behaviours henceforth.

Table 1.1 summarises the verbal signalling behaviours that have been mentioned in this section, identified in the literature from educational models, observational research in doctor-patient communication, and in assessment and coding tools.

Table 1.1: Previously defined verbal signalling behaviours and definitions

Source	Name/description of behaviour	Definition
<i>Educational models</i>		
The Calgary-Cambridge Guide to the Medical Interview (Silverman, Kurtz and Draper, 2013)	Signpost	“Introduces and draws attention to what we are about to say” (2013: 115) “The process of explaining to the patient where the interview might go next and why” (2013: 172)
	Transitional statement	None given
	Explaining rationale	None given
	Organising explanation	None given
	Explicit categorisation	“A type of signposting” (2013: 172)
Smith’s Patient Centred Interviewing (Fortin, Dwamena, Frankel, Lepisto and Smith 2013)	Setting the agenda	None given
	Forecast	None given
	Indicate	None given
	Framing	None given
	Inviting contributions	None given
The Medical Interview: The Three Function Approach (Cole and Bird, 2000)	Checking	None given
	Direction	None given

The Four Habits Approach to Effective Clinical Communication (Frankel and Stein, 1999)	Letting patient know what to expect	None given
The SEGUE framework for teaching and assessing communication skills (Makoul, 2001)	Clarify	None given

Table 1.1 (continued): Previously defined verbal signalling behaviours and definitions

Source	Name/description of behaviour	Definition
<i>Observed research</i>		
Topic transitions (Ainsworth-Vaughn, 1992)	Inform patient about what to expect	None given
Sexual history (Floyd, Forrest, Beine and McCord, 1999)	Lifestyle bridging question	None given
Physical examinations (Drew, Chatwin and Collins 2001)	Online commentary	“Providing a contemporaneous evaluation of certain findings during physical examination (2001: 62)
“Small talk” (Maynard and Hudak, 2008)	Steering away from patient issues	None given
<i>Assessment tool</i>		
MAAS-Global Manual (van Thiel, Ram and van Dalen, 2000)	Announcing Categorising	None given None given
<i>Coding tool</i>		
The Verona Coding Definitions of Emotional Sequences (VR-CoDES) (del Piccolo, Finset, Mellblom, Figueiredo-Braga, Korsvold, Zhou, Zimmermann and Humphris, 2017)	Postpone Shut down	“when the health provider suggests explicitly that further exploration of the cue or concern is delayed” (2017: 28) “actively shuts down or moves away from the cue/concern expressed by the patient, without making specific reference to it” (2017: 25)
	Ignore	“the cue or concern [of the patient] appears to be completely ignored” (2017: 25)

Empathy	“The provider legitimises or shares the patient’s emotion, with or without reference to provider’s own feelings” (2017: 31)
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Beyond the examples cited, there is a scarcity of research on how doctors use verbal behaviours to signal consultation structure, what roles these behaviours play, or how these align with strategies proposed by international educational guidance. These behaviours have not been studied systematically, and research has not been conducted focusing on how behaviours featuring in educational models are used by doctors. While these behaviours exist in healthcare communication, and have been taught through numerous models, the crux of what they look like, how they are used and how they share power is not known. This highlights a pressing need for research to explore how doctors use language to facilitate the patient agenda.

Furthermore, there is no established consensus for the definition of a verbal signalling behaviour, nor is there an established method for identifying these behaviours. Table 1.2 shows the methods that have been identified from the literature regarding the study of verbal signalling behaviours.

Table 1.2: Methods used to study verbal signalling behaviours

Focus of study and authors	Name/description of behaviour	Method used
Topic transitions (Ainsworth-Vaughn, 1992)	Inform patient about what to expect	Used verbatim transcripts of tape-recorded consultations; developed own coding scheme for identifying topic transitions
Sexual history (Floyd, Forrest, Beine and McCord, 1999)	Lifestyle bridging question	Individuals asked to rate videotaped interview techniques; method for creating categories not mentioned
Physical examinations (Drew, Chatwin and Collins 2001)	Online commentary	Conversation Analysis
“Small talk” (Maynard and Hudak, 2008)	Steering away from patient issues	Conversation Analysis on audio-recorded and video-recorded consultations

To summarise, in this section we have seen that behaviours that share information about the structure and content of the consultation are taught in numerous clinical communication models that espouse a patient-centred approach to medicine. They have also been observed in clinical practice. Given their nature as verbal behaviours, and their role in signalling what is happening in the consultation, we have christened these as verbal signalling behaviours. Despite their presence in taught models and observed practice, not much is known about what these verbal signalling behaviours look like, or how they empower patients as part of a patient-centred communication skills model. As in Section 1.3 on structure, this current section has shown the need to draw upon literature from both empirical research and educational guidance in order to fully see the picture of how doctors communicative skills are taught and how it aligns with their observed practice. In the following section, we will discuss one particular type of consultation that is used to teach and assess communication skills: consultations featuring simulated patients.

1.5 Simulated consultations in teaching and assessment: the question of authenticity

The skills described in Table 1.1 are applicable to virtually all consultations in a variety of clinical settings: for example, the Calgary-Cambridge Guide to the Medical Interview can be used in consultations in a number of medical specialties and ‘the underlying principles and core communication skills remain the same – the barriers between specialities are more in subject matter than in communication skills’ (Silverman et al., 2013: 3). It is also applicable to consultations featuring trained actors in the role of the patient, known as simulated consultations, which are used widely and internationally in the training and assessment of doctors. Simulation occurs in medical schools during teaching and in Objective Structure Clinical Examination (OSCEs), and in postgraduate examinations such as those used by the Royal Colleges of Physicians of the United Kingdom, the Royal College of General Practitioners and the Royal College of Surgeons.

The rationale behind the use of simulation is to teach behaviours that are directly applicable to clinical practice and assess the behaviours that doctors use in their day-to-day clinical practice. These behaviours include both practical skills (such as conducting a physical examination) and communication skills (such as sharing information). In order to provide a setting for doctors to demonstrate these behaviours, ‘high-fidelity simulated events will use and model features of actual clinical practice to ensure authenticity’ (Murtagh, 2015: 47). These features may include referral letters given to doctors ahead of the encounter that mimic the real-life process of medical referrals, and trained actors playing roles based on real-life scenarios containing real patient concerns, wishes and perspectives.

It is recognised that consultations featuring simulated patients will present authenticity to a lesser degree than consultations featuring ‘real’ patients one obvious example being that the life of a patient is not literally at stake in a simulated consultation (Stokoe, 2011). Indeed, Stokoe found heightened and exaggerated examples of behaviours from candidates when comparing simulated and real assessment settings, in order to showcase their best behaviour for the assessors (2013). In their study comparing ‘actual’ and simulated surgical consultations, White and Casey pointed out key differences in the way simulated patients presented problems to the doctor, such as actors’ use of the present perfect continuous tense e.g. *‘I’ve been having’*, while real patients used the simple past before moving to the present tense (2016). Murtagh also put forward that the power dynamic between doctor and patients would be reversed in a simulated consultation: whereas doctors would have a ‘mental map’ of the ‘real’ consultation, simulated patients would have the script showing the ‘mental map’ of the simulated consultation (2015). Murtagh also points out that consultations featuring real patients may present barriers to authenticity, as ‘even real patients may take a more dominant stance when talking to a medical student than when talking to a qualified clinician’ (2015: 52). White and Casey also conclude that simulation has a place in medical training, and that ‘by incorporating more elements of the patient journey into the preparation for actors, they will be in a better position to present their problems as referred patients do’ (2016: 271). Ultimately, Stokoe does not dismiss the use of simulation in

training or assessment, suggesting ‘it is important to establish whether or not assumptions about the authenticity of role-play are warranted’ (2013:183). With this in mind, the authenticity of a simulated consultation therefore leads to broader questions regarding how generalisable the behaviour of a doctor is in a consultation featuring a real-life patient, especially if ‘particular actions were made interactionally visible’ in order to be assessed (Stokoe, 2013: 183).

This section has briefly discussed the use of simulation in communication skills teaching, and the advantages and disadvantages it can bring. It considers how doctors’ behaviours regarding the creation and sharing of consultation structure may raise questions about the authenticity and generalisability of these actions. In the next section we will discuss frameworks for investigating how these verbal signalling behaviours manifest power and promote the patient agenda.

1.6 Frameworks for investigating the power behind verbal signalling behaviours

In this section we will discuss frameworks from linguistics and sociology that can be used to analyse how verbal signalling behaviours can be used to share power in the consultation. Previous studies have shown that observational research on doctor-patient communication has predominantly been conducted through two approaches: the quantitative ‘code and count’ approach and the qualitative microanalysis (Heritage and Maynard, 2006; Pilnick and Dingwall, 2011). The ‘code and count’ approach involves the systematic coding of interaction, to generate numerical findings that can be subjected to reliability measurements that improve the comparability of findings across studies. On the other hand, microanalysis involves an in-depth qualitative approach that takes into account the context of the consultation, the doctor and the patient in order to interpret links between behaviours and outcomes. Heritage and Maynard state that:

‘in principle, the strengths and weaknesses of these two approaches are complementary, and combining them should result in a greatly enhanced view of the medical encounter... In practice, this has not come about... and it is instructive to consider why this is the case’ (2006: 360).

They go on to suggest that the numbers produced by the quantitative coding of process analysis should be complemented by the in-depth qualitative approach of discourse analysis. For example, a quantitative count of doctor's open and closed questions can be complemented by the qualitative linguistic analysis of the form these questions take, such as their use of question words such as '*what*', '*when*', '*where*' and '*how*' or the use of statements as questions e.g. '*and it hurts in your arm*'. However, they conclude that it is precisely these strengths that prevent these two methodological approaches from combining: quantitative coding, which relies on the reliability and replicability of a coding scheme does not combine well with predominantly interpretive analysis of a qualitative approach. Where coding schemes lose the context of an utterance when it is distilled to a coded instance, microanalysis is too embedded into the context to be able to make generalisable conclusions. Heritage and Maynard highlight the need for a framework that is 'that is responsive to very granular, individual moments in the physician-patient encounter, but that simultaneously supports coding at a higher level of abstraction sufficient to reach beyond individual cases to generate findings at a statistical evidentiary standard' (2006: 362).

One way of combining the quantitative approach of a coding scheme with the microanalytic approach of a qualitative perspective is through the lens of Speech Act Theory (Austin, 1962; Searle, 1969). Speech Act Theory is a linguistic approach that allows the comparison of the grammatical form of an utterance, e.g. if it is a statement, question, command etc., with the dictionary meaning of the words used, or what is known as the semantic meaning. For example, by saying the words '*I promise*', the speaker is making a promise. An additional level of analysis permitted by Speech Act Theory is the comparison of the semantic meaning of the words against what the speaker actually means when using those words, known as the pragmatic meaning. For example, if a doctor says '*can I ask you a few questions?*', it is understood that the doctor is not enquiring about their capability to ask questions, but is seeking permission from the hearer to do so. A prescriptivist approach to language would correct this to '*May I ask you a few questions?*', to 'correctly' align the semantic and pragmatic meanings. Speech Act Theory allows for the

comparison of the dictionary meaning, known as the semantic or conventional meaning, of the words used in an utterance against what the speaker means, known as the pragmatic meaning, when using those words. When the semantic and pragmatic meanings of an utterance align, this is known as a 'direct speech act'. If the semantic meaning of an utterance does not align with the pragmatic meaning i.e. if the speaker is doing something else with the words they are using, this is known as an 'indirect speech act'. As a parallel, therefore, these verbal signalling behaviours can directly show power through the semantic meaning of the words used, or indirectly, if doctors mean something else with the verbal signalling behaviour they are using.

Speech Act Theory therefore provides the basis of a framework for considering a speaker's utterance in terms of the form the behaviour takes, and its social function. Speech Act Theory has never previously been used to investigate verbal signalling behaviours, although the concept of literal meanings and pragmatic meanings – the direct speech act and the indirect speech act respectively – are discussed in Stiles' *Verbal Response Modes* (1992). This coding scheme classified every utterance in a consultation, placing them into mutually exclusive categories. In his coding scheme Stiles identified that certain behaviours could present a literal meaning that might not be reflected in their intended function, calling them 'mixed modes' (1992: 11). Similarly, the *Taxonomy of Requests by Patients*, a coding scheme that identifies patients' requests for information and action during medical consultations, puts forward that there exists a grey area where a literal request for information may also be a veiled request for action (Kravitz et al., 1999).

A criticism of Speech Act Theory is that it focuses on the speaker as the centre of the utterance, typically looking at utterances in isolation or as the first part of an interaction between speaker and hearer (Streeck, 1980). It does not consider that a speaker's turn may itself be a response to a turn from the hearer. While Speech Act Theory may show the function of a verbal signalling behaviour through the semantic meaning of the words forming the behaviour, or through the pragmatic meaning shown by what the doctor says after the behaviour, it does not show the role

of the behaviour in the context of what precedes it. We return to the example of 'Can I ask you a few questions', which we showed semantically questioned the ability of the doctor to ask questions but pragmatically sought permission from the patient to do so. This utterance acquires an additional pragmatic meaning when the preceding turn from the patient is 'Do you think that's what it is?'. Ostensibly, the doctor's question is a direct response to the question the patient has raised, but does not provide information that is directly related to it. The response could therefore be said to be a lack of acknowledgement.

Heritage and Maynard propose Conversation Analysis (Sacks et al. 1974; Schegloff, 2012) as a methodological approach that can bring together the qualitative and quantitative approaches. They propose it as 'an analysis of interaction, grounded and validated in the direct analysis of the conduct of participants, and application to the medical encounter that is illuminating at both qualitative and quantitative levels' (2006: 362).

Conversation Analysis considers how social actions are achieved during talk within an interaction. One central principle of Conversation Analysis is that it considers the sequence of turns between speakers in a conversation. In other words, it considers the turn of each speaker in the context of what the speakers before and after are saying. Speakers are therefore hearers of the preceding turn while simultaneously being speakers for hearers of their turn, and so on. Thus 'can I ask you a few questions?' could additionally be considered a response to a patient's concern, if the patient had said 'I'm really worried' immediately before it. By using this principle from Conversation Analysis to examine the verbal signalling behaviours into the sequence of what has come before and what comes after, the context in which the behaviour occurs will be revealed. If, for example, the verbal signalling behaviour comes as a direct response to a question raised by the patient, the functions that are used to respond to these instances will also become apparent.

The use of Conversation Analysis to examine interactions in the medical consultation has come to prominence over the last twenty years. Conversation analysis has been used to investigate

the power asymmetry between patient and doctor (Ariss, 2009), showing that patients defer to doctors throughout the consultation, by retreating to knowledge that is within their own domain such as personal experience of an illness through the use of '*I feel/it feels*', rather than presenting these as medical facts, which belong to the knowledge domain of the doctor. Conversation Analysis has also been used to investigate how patients and doctors negotiate shared decision making (Dalby-Landmark et al., 2015), as well as to investigate how doctors present or recommend treatment options (Toerien et al., 2013). Despite this, Conversation Analysis has never been used to investigate the roles of verbal signalling behaviours and their contribution to empowering patients in the consultation.

In this section we have seen that Speech Act Theory considers the literal and social functions of an utterance, while Conversation Analysis considers an utterance in the context in which it occurs. These frameworks can therefore be used to investigate how doctors use verbal signalling behaviours. Conversation Analysis in particular has been used widely in healthcare communication, while principles of Speech Act Theory, such as the ability of a behaviour to have multiple roles, have been adapted by coding tools such as Stiles Verbal Response Modes and the Taxonomy of Requests by Patients. Combining these two frameworks therefore could be used to explore how verbal signalling behaviours are used in the consultation, the roles they play in sharing information about the consultation process and whether they do this through the literal meaning of their words or as additional functions revealed by the preceding talk. In the next section we will discuss how the language that make up verbal signalling behaviours could be investigated to reveal how these behaviours convey power.

1.7 The manifestation of power through language

In the previous section we saw that Speech Act Theory and Conversation Analysis could be used to identify how verbal signalling behaviours are used in the consultation, by comparing the semantic meaning of the utterance with the pragmatic meaning, and then contextualising this

within the preceding doctor-patient talk. In this section we will discuss how specific elements of spoken language that convey power have been investigated. These findings will provide further opportunities for the analysis of the language that feature in verbal signalling behaviours, which shows where the power lies at the very building blocks of the doctors' utterances.

The concept of power in linguistics is closely intertwined with the concept of linguistic politeness. One of the earliest and most influential attempts to define linguistic politeness emerged from Lakoff, who proposed three rules: 'Don't impose; Give options; Be friendly' (1973). Through this lens, Lakoff proposed that speech that was less polite and used by people higher in the social hierarchy (in the context of her study, employers and men) was more direct. Brown and Levinson's Politeness Theory (1978) split the concept of linguistic politeness into two further types: positive politeness, which takes into account the need to be valued, liked and admired, and negative politeness, which considers the need for freedom of thought and action, and not to be impeded or imposed upon. Positive politeness could take the form of utterances that bring the speaker and hearer together such as compliments, jokes, or using terms that show collaboration and partnership. On the other hand, negative politeness could take the form of an apology for an intrusion on the hearer's time and space, or using words that minimise the speaker's imposition on the hearer. Much like the application of Speech Act Theory, this approach to analysing verbal communication does not make inference about the motivations of the speaker or hearer other than what can be backed up by the semantic meaning of the words used, and the context in which it is used i.e. the pragmatic meaning.

The key definition of linguistic politeness unifying Lakoff's rules with Politeness Theory is that it is a 'means of expressing consideration for others' (Holmes, 1995:4; Thomas, 1995: 150). It uses the evidence of the language in the utterance to infer whether the utterance is linguistically polite or not, and if so, whether it is positively or negatively polite.

Politeness Theory proposed a number of broad strategies for showing consideration for the hearer, and self-awareness of the speaker. These could be used to convey positive politeness

such as including both speaker and hearer in the activity, providing reasons that would lead to cooperation, and by intensifying the hearer's interest in an action (by conveying the magnitude of the action or framing it within the hearer's best interests). Strategies suggested for conveying negative politeness include making minimal assumptions of the hearer, using indirect questions to frame a request and hedging requests (e.g. *if you don't mind*, or being vague about the request), minimising impositions (through the use of adjectives, or indicating the time frame of an activity), giving deference (by using verbs like *could* or *would*, known as modal auxiliary verbs, to soften a request).

One criticism of Politeness Theory is the notion that single sentences are the base unit of analysis with the speaker at the centre (Craig et al. 1986; Eelen, 2001; Watts, 2003). This proposes that conversations are made of discrete pairs of turns that are resolved before moving to the next interaction. The reality of conversation is that every participant turn can simultaneously be a response to the preceding turn, or the trigger to the turn that follows. This can be addressed by adapting principles from Speech Act Theory so that the speaker is also a hearer, and from Conversation Analysis, so that single sentences form part of an interaction that more accurately represents the reality of a dialogue, rather than an isolated utterance.

Following Lakoff's research, a number of other studies considered the link between power and the strategies proposed by Politeness Theory. In their study of pronouns used by doctors in general practice, Skelton et al. (2002) found that doctors were more likely to use "we" than patients, where the "we" used could plausibly be interpreted as referring to the doctor and the patient. They proposed that following the use of this inclusive "we" are verbs associated with doing or action, while doctors' use of "I" is more associated with verbs of thinking. This led to the formulation for the following pattern of interaction in primary care: 'the patient brings the problem, the doctor brings rational expertise to bear on it, and offers partnership in action' (2002: 487). They do conclude, however, that the use of "we" can be more ambiguous about whether or not it includes the patient, and in the case of "we doctors" or "we as a practice", can actually exclude

the patient. Similarly, Byrne and Long (1976) also found that doctors used the 'royal' we, which included the doctor but not the patient. Skelton et al. also remark that doctors use of "we'll" followed by initiation of discussion regarding action 'suggests that doctors retain the right to nominate what topics are to be discussed, and when a topic is to be changed' (2002: 488). Their evidence also showed that doctors used more "I" than "we" overall in their speech, which focuses on the doctor as the main agent to the exclusion of the patient.

In their study looking at the how the use of pronouns reflected position in social hierarchy, Kacewicz et al. (2014) found that higher status individuals used "we" than lower status individuals, corroborating previous research (Sexton and Helmreich, 2000; Skelton et al. 2002). They proposed that the higher proportion of "we" reflected that higher-status individuals were more focused on collective collaboration. They also found that lower status individuals used "I" more frequently than higher status individuals reflecting that they were more self-focused, further corroborating the findings from Skelton et al. (2002).

Doctors have been observed using hedged responses, that include vague language about diagnoses, prognoses or treatment in response to patient requests for information (Christakis and Iwashyna, 1998; Davidson, 2007; Ahluwalia et al. 2001). In their conclusions, these studies highlighted that the use of hedges underscored the reticence some doctors may have when approaching sensitive topics such as end of life care. There are two opposing ways of interpreting these findings in relation to power: minimising the imposition of negative information on the patient, thus employing negative politeness to protect the status and power of the patient, or denying the patient right to information that is known by the doctor. It is arguable that the latter interpretation is a more fundamental exercise of power, as it breaches the right of the patient to have information about themselves. Adolphs et al. (2007) propose that the use of vague language, hedges and tentativeness about time frames can reduce the social distance between speaker and hearer 'by attenuating the force of an unpleasant speech act such as a request for potentially distressing information... which helps to boost the solidarity of the relationship' (2007:

74). In their systematic review of how doctors talk about illness progression and end of life care, Parry et al. (2014) group a number of studies that fall squarely into the negative politeness strategies: '*Indirectness, allusive talk and euphemisms*' with vague language, hedging and providing reasons, '*Hypothetical questions and talk; Framing the difficult issue as universal or general rather than individual to this patient*' with mitigation and deference (2014: 335). Thus these strategies could potentially play a role when doctors use verbal signalling behaviours to indicate what is coming next, if they seek to draw attention to bad news or minimise the effect a line of questioning could have on the conversation.

The studies in this section have shown that the linguistic power can be analysed through application of strategies proposed by Politeness Theory. Many studies have done this by operationalising Politeness Theory, while a number of other studies have devised categories that line up with these strategies. These strategies, and the language that these strategies propose therefore seem a reasonable element for analysis to further reveal the manifestation of power in the verbal signalling behaviours.

1.8 Summary

In this chapter we have examined the literature showing how the medical consultation is a power-laden encounter. We have seen that the power to construct and drive the consultation forward traditionally lies in the hands of the doctor, and that the power imbalance can manifest in a number of ways, such as patients' lack of involvement in creating the agenda or deciding what topics to discuss. Lacking the power to integrate the patient agenda into the consultation may result in a lack of shared decision making and reduced patient autonomy, which are crucial moral and legal principles of healthcare. Contemporary standards of good medical practice require doctors to work in partnership with patients, and patient-centredness is an underlying philosophy of care which has been adopted both in the UK and internationally.

Through professional training, knowledge of the consultation structure forms part of the epistemic domain of the doctor thus giving them greater authority and power than the patient. Sharing this knowledge with patients therefore gives access to knowledge that is not part of their epistemic domain, and gives patient equal access to this knowledge and power. We have seen that educators in healthcare communication have made attempts to address this power imbalance by promoting a patient-centred approach to medicine. This attempt to share power with patients has been the focus of international researchers, educationalists, policy-makers and health regulators. In the UK, the legal system has intervened in favour of shifting power into the hands of patients, to enshrine the right of the patient to information in order to make informed decisions.

We have seen that educational models have incorporated patient-centredness into their proposed consultation structure. Common to the majority of clinical communication skills models is the priority given to organised structure, which provides the setting for patient-centredness to occur. Strategies for sharing information about the organisation of the consultation are also taught in these clinical communication skills models, as a way preparing patients for what is coming next and providing opportunities for the patient agenda to be enacted. A new classification of verbal signalling behaviours has been created by bringing together disparate elements that have appeared in the literature: doctors may *inform* the patient about what is happening in the consultation, *invite* the patient to choose what happens next, or *instruct* them on how to proceed. We have also considered how the use of simulated patients in consultations that aim to teach and assess doctors' communicative behaviours may raise questions about the generalisability of those behaviours.

These strategies have also been observed in clinical practice; however, not much is known about how they actually share power between doctor and patient. To address this lack of knowledge, the final two sections discussed how frameworks from linguistics and sociology could be used to analyse how verbal signalling behaviours can empower patients. We therefore proposed using a combination of the principles of Speech Act Theory, Conversation Analysis and Politeness

Theory to investigate the relationship between patient agency and doctor authority, and how power is manifested through the language used to convey the structure of the consultation.

1.9 Research questions

This thesis investigates how the act of sharing knowledge about the process of the consultation through doctors' use of verbal signalling behaviours may lead to the sharing of power to create the consultation structure. More specifically, this thesis will answer the following questions:

- **What structure do doctors give their consultations?**
- **How do doctors signal information about the structure to their patients?**
- **How does the language in verbal signalling behaviours empower the patient?**

Chapter 2: Method

This chapter outlines the methods used to conduct the research, split into six sections. Section one outlines the study measures, covering the study design, an overview of the data and the ethics. Section two presents the framework chosen for identifying consultation structure and how it was operationalised. Sections three and four show the frameworks chosen and their operationalisation for identifying verbal signalling behaviours and the lexicogrammatical analysis respectively. Section five demonstrates the rigour of the study by giving an overview of the interrater reliability figures for the various coding processes. Section six outlines the data analysis plan.

2.1 Measures

2.1.1 Design

This was an observational study examining how doctors use language that shares information about the consultation to affect the power the patient has to be involved in the construction of the consultation. The study identified the structure doctors give to the consultation through the creation of phases, how doctors use verbal signalling behaviours to communicate this information about this structure to the patient, and how the language contained in these verbal signalling behaviour influences the power of the patient.

The project uses recorded simulated consultations from a UK postgraduate medical examination. This was originally collected in 2012 for a project that investigated the differences in communication skills used by UK and internationally trained doctors. That project (Verma et al. 2012) analysed a small subset of the recorded consultations. This project analyses the full data set of recorded consultations. Consultations from two stations of the postgraduate medical examination are featured in the data: 'History-taking' and 'Communication Skills and Ethics'. Analysis was conducted from verbatim transcripts.

2.1.2 Participants

Seventy-eight doctors featured in the study: 51% (N=40) were female, with a mean age of 31.7 years (SD 5.3). The participants were sitting the Membership of the Royal Colleges of Physicians of the United Kingdom Practical Assessment of Clinical Examination Skills (MRCP(UK) PACES). Just under half (46%, N=36) had a primary medical qualification from the United Kingdom. The remaining candidates received their primary medical qualifications from the following countries: Pakistan (N=15), Malta (N=8), India (N=5), Myanmar (N=3), the Republic of Ireland (N=2), and one each from Barbados, Egypt, Indonesia, Libya, Malaysia, Nigeria, Russia, Tanzania and Zambia. The consultations represented the first attempt at the examination for the majority of candidates (73%, N=57). A number of candidates had sat the examination once previously (9%, N=7) while the remaining candidates (18%, N=14) had sat the exam between three and eight times. Of the 78 candidates, 27 passed the examination (35%). No other metadata regarding participants were accessed. No information regarding experience of actors playing patients were recorded. Participants took the examination at one examination centre over a two-week period in 2012. Consultations were recorded for research purposes, with consent obtained from candidates, simulated patients and the examiners. Of the 103 candidates examined during this sitting, 76% participated (89 gave consent to be recorded for research: 78 were successfully recorded in the 'History-taking' station and 76 in 'Communication Skills and Ethics'). A total of 154 consultations featured in the final data analysed in the project, and total duration of the video recordings was 2,156 minutes. The total word count of the corpus of data was 367,913 words.

2.1.3 Setting

The examination (MRCP(UK) PACES) is a two-hour practical examination of clinical skills and knowledge, forming part of the MRCP(UK) Diploma granting membership of the Royal Colleges of Physicians of the United Kingdom (MRCPUK, 2019). The Diploma qualifies doctors to enter specialist training as physicians. Participants were videorecorded for research in the 'History-

taking' and 'Communication Skills and Ethics' stations. Both stations comprised a 14 minute simulated medical consultation, with 'History-taking' featuring a simulated patient and 'Communication Skills and Ethics' featuring an encounter with either a simulated patient or a simulated relative of a patient. In both stations, the situation represents the first encounter between the doctor and either the patient or relative in a hospital setting. Neither consultations featured a physical examination of the patient.

The two stations form part of a five-station carousel. In 'History-taking' candidates sitting the examination are required to elicit a systematic and thorough medical history from the patient, identify the concerns of the patient and agree a management plan with them. In 'Communication Skills and Ethics', candidates are required to lead a structured consultation with the patient that explains clinical information in an accurate and clear manner (MRCPUK, 2019). Candidates may expect to deal with situations involving breaking bad news, addressing a clinical error or complaint, working towards shared decision making or educating a patient. For both stations, several scenarios were used over the course of the two-week sitting of the examination, with nine different scenarios used in each station. The same actor played the role of patient or patient relative in each of the scenarios: thus in this thesis, the same scenario means the same patient.

Candidates sitting the examination were marked by two senior medical consultants observing the encounter in the room. The marking criteria comprised five domains for 'History-taking': "clinical communication", "clinical judgement", "differential diagnosis", "managing patient concerns" and "maintaining patient welfare". Of these five domains, four were used in the marking criteria for 'Communication Skills and Ethics', where "differential diagnosis" did not feature. Regardless of the scenarios in each station, the same marking scheme was used.

2.1.4 Data preparation

A member of the project team (RV) prepared the videorecorded consultations for transcription, converting the video files to audio only. The recordings were then professionally transcribed, and

any identifying details, such as participant names, were removed. These steps ensured that the two researchers coding the data from the transcripts (GM and LN) were blinded to participant characteristics, removing any potential for rating bias.

The verbatim transcription also captured were elements of speech such as false starts and repetitions; ungrammatical phrasing, such as misalignment between the subject of a verb and its form, and noises that formed part of the examination setting such as time warnings given by the examiners, and alarms, warning bells and the knocking and opening of doors that indicated the ending of a consultation. Transcripts were randomised to avoid consultations from the same scenarios appearing in close proximity, and the random allocation of numbers to consultations did not reflect when the consultation took place.

This preparation ensured transcripts were free of any information that could identify candidates or their background characteristics, such as gender or country of primary medical qualification. This kept the two raters blind to variables that could influence or bias the coding process.

2.1.5 Ethics

The research was approved by UCL Research Ethics Committee, project 12537/001. The original data collection was conducted with ethics approval from the Institute of Education, University of London (15/10/12) and permission from the then Medical Director of MRCP(UK) (Professor Dame Jane Dacre, 14/9/12) and the then Chair of MRCP(UK) Clinical Examining Board (Dr Andrew Elder, 17/9/12). The current project was conducted with the permission of Dr Andrew Elder and the Head of Research at MRCP(UK), Liliana Chis. This thesis forms part of a wider project being conducted by UCL Medical School Research Department of Medical Education. The wider project investigates communication competence through the exploration of predictors of success in a postgraduate clinical examination, by studying doctor-patient consultation skills of UK and internationally-trained medical graduates.

Given the data were collected from test-takers carrying out a professional examination, information such as symptoms, diagnoses and treatments have been redacted in the reporting of findings but were included in all recordings and the verbatim transcriptions. In some MRCP(UK) examination centres, examination stations are recorded for routine internal quality assurance purposes. The data were collected from one of these examination centres. However, these recordings were never used in the process of marking the candidates. In all MRCP(UK) examination centres, candidates' consultations in the stations were marked live by two examiners independently using the marking sheet. As stated in Section 2.1.2, candidates gave explicit informed consent that the recordings were to be used for research purposes only. The recordings were not used in any way to assess the performance of the candidates and were made available solely to the research team.

In line with the General Data Protection Regulation (GDPR), all research members undertook training to ensure data were handled and stored securely. The data were restricted access, and were kept on UCL password-protected drives to which only the research team had access. Only aggregated metadata was available to the doctoral candidate to allow description of the dataset, and to prevent triangulation of candidate performance and their characteristics. To ensure participant anonymity in research reporting, metadata are only presented in summary form to describe the dataset, as shown in Section 2.1.2. When verbatim extracts are presented to illustrate findings, they are attributed to the random number allocated to each transcript during the data preparation process outlined in Section 2.1.4.

2.1.6 Funding

This thesis was fully funded by a UCL Medical School PhD studentship. The work was supported by MRCP(UK) who provided part funding for transcription costs and supported data collection. MRCP(UK) had no involvement in study design, analysis or interpretation of data.

2.2 Identifying consultation structure

2.2.1 Choice of methodology for identifying consultation structure

In order to see the interaction between power and the structure of the consultation, the first aim of the project was to identify the structure created in each consultation of the ‘History-taking’ and ‘Communication Skills and Ethics’ stations.

To identify the structure of the observed consultations, a template for consultation structure was selected. As seen in Chapter 1, numerous clinical communication models exist that promote an organised consultation structure. One of these, the Calgary-Cambridge Guide to the Medical Interview was first published in 1998 and has been widely disseminated since. The Guide espouses a patient-centred approach to medicine, that promotes an organised structure as the basis for empowering patients. Smith’s Patient-Centred Interviewing (Fortin et al. 2013) promotes patient-centred skills but these are explicitly named only in the middle stages of their model, while the Calgary-Cambridge Guide to the Medical Interview promotes patient-centredness throughout the model. Additionally, the Patient-Centred Method (Stewart et al. 1995) also promotes a patient-centred approach to medicine but is more commonly used in North America. Equally, while other models feature similar structural elements (Cole and Bird, 2000; Stewart et al. 1995; Fortin et al., 2013), they are more commonly used in other anglophone countries while the Calgary-Cambridge Guide to the Medical Interview is particularly relevant as it is widely used in the UK (von Fragstein et al. 2008). Given the prevalence of its teaching in the UK, its focus on patient-centredness throughout the model and the benefit of a structure that is shown in diagram form in both simplified (Silverman et al., 2013: 18) and expanded form (Silverman et al., 2013: 19), the Calgary-Cambridge Guide to the Medical Interview was deemed the most suitable template to use to identify structure.

This project uses the most recent, third edition (Silverman et al. 2013) as the basis for identifying the consultation structure. It is an international, widely taught, research-based educational model that used observations of consultations and evidence of what constitutes effective

communication. The design, with adaptation, is applicable to all medical consultations. The model places high value on the importance of clear structure, a point reiterated throughout its teaching. It provides a detailed list of 73 tasks the doctor conducts that can be grouped into the overarching ‘phases’ of the consultation, that are listed chronologically. This model was therefore deemed a suitable blueprint for mapping out the structure of the consultations. The Calgary-Cambridge Guide also promotes the use of signposts, and while not providing a definition, states that it is “The process of explaining to the patient where the interview might go next and why” (2013: 172). Thus this educational model provides both the blueprints for the consultation structure, and a starting point for the communicative behaviours that can be used to create, shape and drive the consultation forward.

As mentioned in Chapter 1, the naming of these structural elements focuses on the activity of the doctor, rather than joint activity between doctor and patient. This is true for structural elements appearing in other educational models that promote a patient-centred approach. This thesis therefore approaches the analysis of structure aware that in describing these, we are adhering to concepts that nominally place the activity of the doctor, and by extension the doctor themselves, at the centre of the consultation structure.

In this section we have discussed the rationale for selecting the Calgary-Cambridge Guide to the Medical Interview as the model for identifying structure. In the next section we will discuss how the Guide was applied to the data in order to identify the structure of each consultation.

2.2.2 Identification and visualisation of the consultation structure

The Calgary-Cambridge Guide to the Medical Interview splits the consultation into a set of tasks, based on the core activity that the doctor must complete. These tasks can be seen running vertically between the two arrows in Figure 2.1.

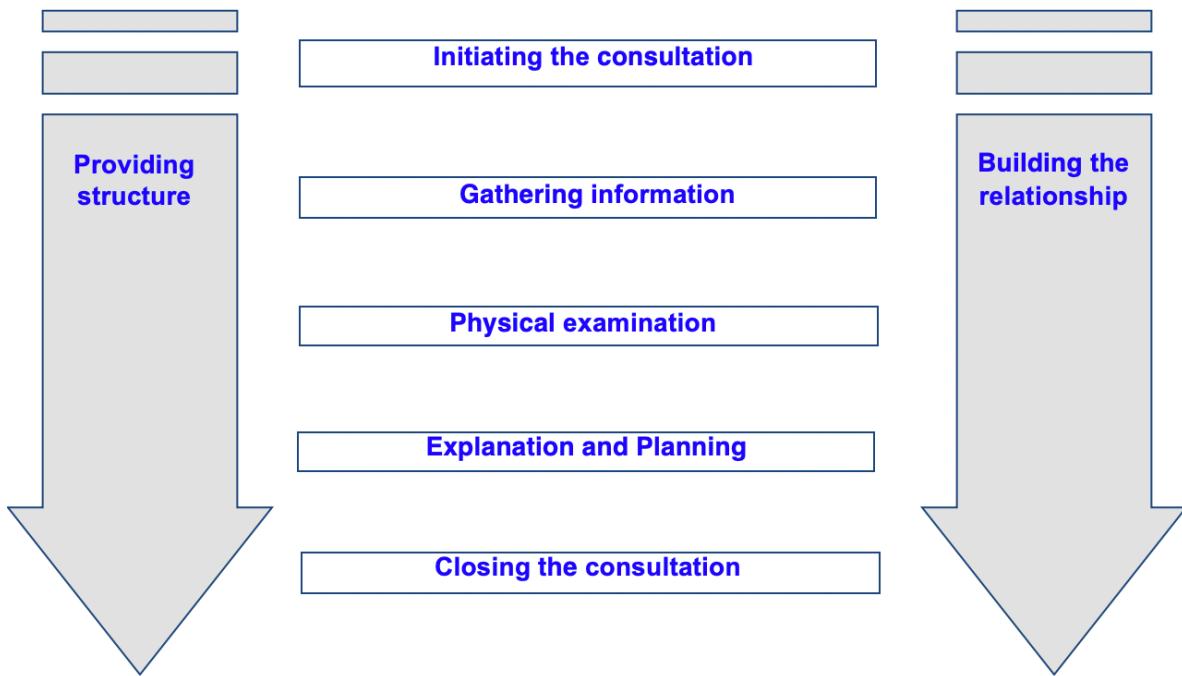


Figure 2.1: The Calgary-Cambridge Guide to the Medical Interview (Silverman et al. 2013)

These blueprints were applied to the consultation with a few amendments. The first was renaming stages of the consultation from 'task' to 'phase'. The use of the word 'task' focused on the core activity of the doctor, rather than the joint activity of the patient and doctor. While perhaps a subtle difference, this change in terminology allowed the same names for the stages to be used but moved from a doctor-focused perspective on what was happening in the consultation to one that also included the patient. This separated the combined doctor-patient talk in the consultations into the zones in which the tasks can be observed being enacted. The assessment did not feature a physical examination, and thus the second amendment made was to remove this task. The Calgary-Cambridge Guide recommends summarising as a key skill throughout the medical consultation, as a means of facilitating patient responses and ensuring clarity and accuracy of information. However, emphasis on summarising is placed during Gathering Information, and in particular, at the end of it to ensure there are no misunderstandings during the gathering of information to elicit the medical history before going into the Explanation and Planning phase. The third amendment was therefore to include a Summary phase between Gathering Information and Explanation and Planning, but with the expectation that shorter summaries might occur

throughout the other phases. The fourth amendment made to the guide was to split the Explanation and Planning phase into two separate phases. The Calgary-Cambridge Guide teaches these phases as two discrete halves with unique tasks, and so while the decision was made to split this phase into two, it was understood that they were more closely connected to each other than the other phases of the consultation. The fifth amendment was to remove the 'Building the relationship' arrow to the right of the model, as it does not feature in the research. The 'Providing structure' arrow was kept in the model as it represents the verbal signalling behaviours that doctors are taught to use to make the organisation of phases in the centre of the model overt to the patient. While this did not form part of the identification of the structure of the consultation, it was kept in the model as it represented the second and third stages of analysis. The framework that was used to identify consultation structure, including the amendments mentioned, can be seen in Figure 2.2.

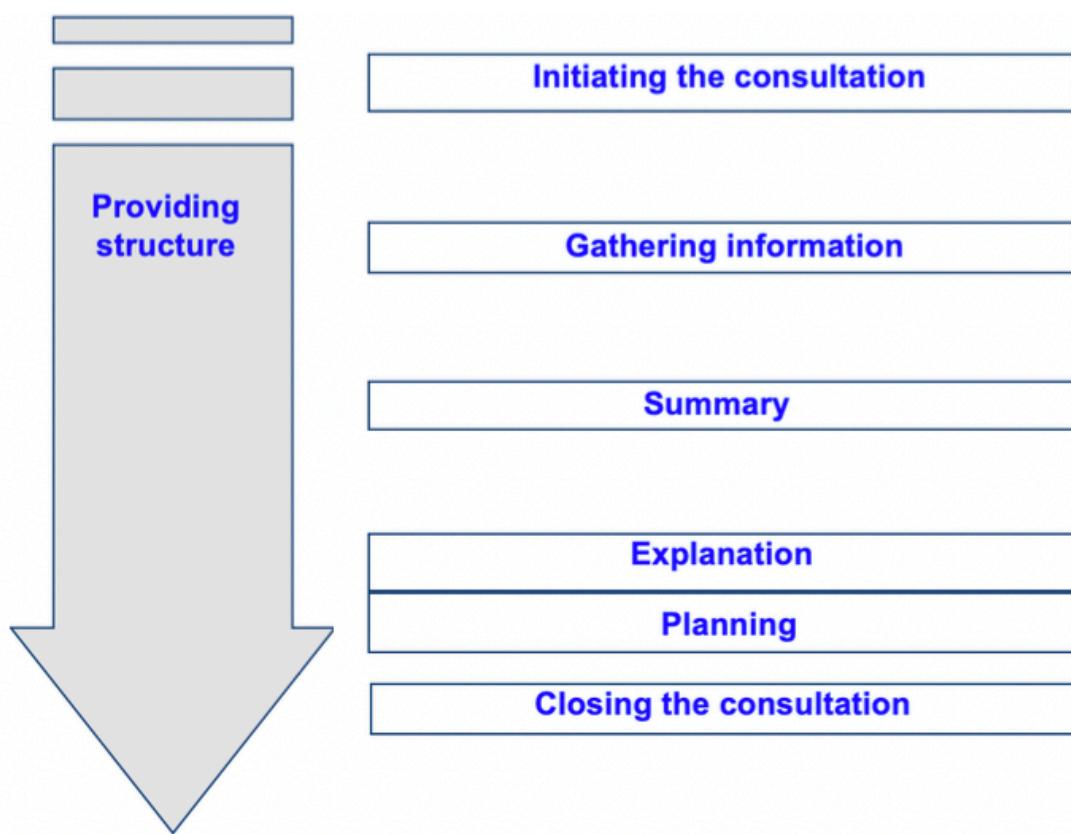


Figure 2.2: Final framework used to identify structure of the consultations

The total doctor and patient talk of each of the 78 consultations in the 'History-taking' consultations was then allocated into these six phases by two independent raters (GM and LN), using the full list of 73 skills outlined in the Calgary-Cambridge Guide to the Medical Interview, which are each allocated to a defined phase. We will see how this amended model was then applied to the verbatim transcripts, by taking an extract, allocating the talk to the phases, converting the allocated talk to percentages of the total talk and then converting these percentages to visual diagrams of the consultation.

An extract from a transcript can be seen in Example 1. The patient turn is indicated by PAT, and the doctor by DOC.

Example 1: Candidate 24, scenario 8

PAT *Well, yeah. At least, you know, four-five weeks. Anywhere in that time. Uh, the tiredness... yeah. Like five-six weeks.*

DOC *And do the tiredness comes first or the, uh, loss of appetite comes first?*

PAT *Well, the tiredness, I think, yah, you know... Yeah, about five-six weeks ago, I had, uh, been to the dentist. And, uh, a couple of weeks after that, just started feeling as if I'm really tired, and the appetite's just gone out.*

DOC *Okay. So there's tiredness, and then loss in appetite, and you've lost some weight as well, [inaudible].*

Based on the content of the patient and doctor talk, the turns were then allocated to the corresponding phase of the Calgary-Cambridge Guide. Example 2 below shows how the talk in Example 1 was allocated. **Red corresponds to the Initiating phase** which contained greetings and established the purpose of the consultation, or the reason for the patient's attendance, **Green is the Gathering Information phase**, which contains questions from the doctor eliciting information from the patient about the problem raised in the Initiating phase. **Blue corresponds to the Summary**, containing a recap from the doctor regarding the information the patient has provided.

This example shows phases occurring in quick succession, but in the majority of consultations phases lasted longer.

Example 2: Candidate 24, scenario 8

PAT Well, yeah. At least, you know, four-five weeks. Anywhere in that time. Uh, the tiredness... yeah. Like five-six weeks.

DOC And do the tiredness comes first or the, uh, loss of appetite comes first?

PAT Well, the tiredness, I think, yah, you know... Yeah, about five-six weeks ago, I had, uh, been to the dentist. And, uh, a couple of weeks after that, just started feeling as if I'm really tired, and the appetite's just gone out.

DOC Okay. So there's tiredness, and then loss in appetite, and you've lost some weight as well, [inaudible].

Any disagreements in allocations of the phases were discussed, with final agreement reached through discussion. The level of detail proposed by the 73 verbal skills in the Calgary-Cambridge Guide led to few disagreements, and GM then repeated the process on the 76 consultations in the 'Communication Skills and Ethics' station, with checking and agreement from LN on the final identification of phases.

Once all the doctor and patient talk in the consultation in the verbatim transcripts were coded into phases, the word files were then converted into visual depictions of the consultation. There were no previous examples found from the literature of the model of the consultation placed onto verbatim transcripts, nor available software that could readily display the text of the consultation in the structure shown in Figure 2.2. A new means of displaying the information was therefore devised. Using Microsoft Word, a template was devised to create the visualisations for each consultation in the data set. An A4 page was created containing 50 lines of text, with 60 characters on each line. Each of the 50 lines represented 2% of the overall consultation, with 30 characters representing 1% of the talk. The word count in each phase of the consultation was then converted into percentages that could then be placed onto the template created. Table 2.1 contains the percentages of text allocated to each phase in the 'History-taking' consultation for

Candidate 1, as well as the text allocated to the utterances of the examiner. The order column in the table is particular to each consultation, depending on when each phase appeared.

Table 2.1: Word count of Candidate 1 ‘History-taking’ consultation

Order in consultation	Phase	Word count	Percentage of total
1	Initiating the consultation	120	5.1%
2	Gathering Information	1871	79.0%
3	Examiner 2-minute warning	3	0.1%
4	Summary	29	1.2%
5	Explanation	189	8%
6	Planning	114	4.8%
7	Closing the consultation	38	1.6%
8	Examiner time up signal	5	0.2%
Total		2369	100%

The percentages in the final column were then placed onto the A4 template, in the order of occurrence. Figure 2.3 shows the visualisation of the consultation created from the percentages generated in Table 2.1.

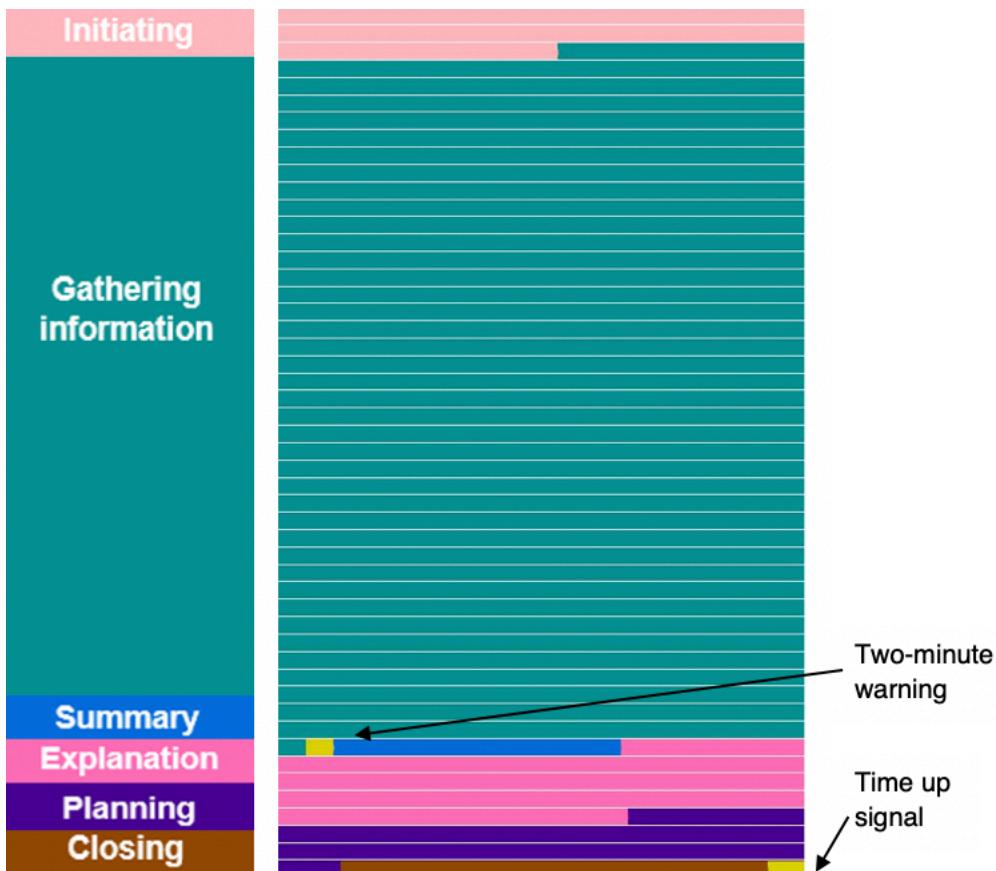


Figure 2.3: Visualisation of candidate 1 consultation with patient during 'History-taking' station.

The key on the left of the diagram shows the phases of the consultation in the corresponding colours, while the two yellow blocks are shown to be the two-minute warning and time up signal from the examiner. The diagram is designed to be read left-to-right and down, line by line. All 154 consultations were converted into these diagrams in order to easily identify and compare the phase structure.

2.3 Identifying verbal signalling behaviours

Having outlined the method for identifying consultation structure in the previous section, in this section we will discuss the methodology used to identify verbal signalling behaviours. This section is split into four subsections. The first subsection describes how an inductive approach using previously described verbal signalling behaviours in the literature and in educational models was combined with a deductive approach to identify types of verbal signalling behaviours. The second subsection describes how Speech Act Theory could be used to identify the roles, or

functions, these verbal signalling behaviours could play. The third subsection explains how Conversation Analysis was used to identify additional functions these verbal signalling behaviours could have. The fourth subsection shows how these three methodological approaches were operationalised.

2.3.1 Choice of methodology for identifying types of verbal signalling behaviours

As we saw in Table 1.1 in Chapter 1, the verbal signalling behaviours are presented as ways in which the patient can be kept *informed* about the structure and what is coming next, *invited* to choose what comes next, or *instructed* on how to proceed. These three ways of involving the patient are hereafter referred to as their type. Additionally, some verbal signalling behaviours in Table 1.1 were described through the purpose they served, such as indicating a sensitive question was coming up – this is hereafter referred to as its function.

This study takes a constructivist approach to research, holding that ‘reality is socially constructed’ (Mertens, 2019: 16) and with the goal of ‘understanding the complex world of lived experience from the point of view of those who live it’ (Schwandt, 1994: 18). A constructivist approach to the research also rejects the notion that there is a wholly objective reality that can be known, and instead aims to understand the multiple social constructions of meaning and knowledge (Mertens 2019: 18). By taking this constructivist approach to multiple social constructions of meaning, the frameworks of Speech Act Theory and Conversation Analysis are seen to be prime lenses for analysing verbal signalling behaviours, given they consider multiple meanings of an utterance: the literal, or semantic meaning, and the contextual, or pragmatic meaning.

As seen in Chapter 1, Table 1.1 showed that verbal signalling behaviours had been described in the literature or were taught in educational models. However, Table 1.1 also showed that there was no established definition for what these verbal signalling behaviours were. Furthermore, Table 1.2 in Chapter 1 showed that there was no established systematic method for identifying or classifying these verbal signalling behaviours.

The examples of verbal signalling behaviours in the literature provided the basis for a deductive approach to the research, using existing verbal signalling behaviours taught in educational models, such as signposts, and those identified from previous research, such as lifestyle bridging questions. These existing behaviours provided a starting point for collecting behaviours in the data. However, given the lack of an established definition for verbal signalling behaviours as a whole, and even for some described and taught behaviours, the signpost was used as the baseline against which verbal signalling behaviours were measured. An inductive approach was therefore combined with the deductive approach: one that was open to the existence of other verbal signalling behaviours that did not quite align with the operational definition of a signpost. By using this combined inductive-deductive approach, we can then work towards creating universal definitions for each category of verbal signalling behaviour. It provides an opportunity to generate or refine theory that clarifies the roles these behaviours play in sharing power in the medical consultation.

Using an inductive approach also allows for the continued development and refining of codes, concepts and categories through constant comparison. A coding scheme is therefore not fixed and can evolve and be refined as new concepts are discovered. In this way, there is no fixed attachment to a previously defined category, as the coding of data reveals further nuances that distinguish between the existing categories leading to definitions that closely follow the data presented – in this way, the data mould the categories, rather than forcing the data to fit the categories. This approach will therefore enable us to predict categories and types we may expect to find, allowing a taxonomy to be created that connects doctor authority to patient agency along the spectrum of *inform*, *invite* and *instruct* verbal signalling behaviours.

In this section we have discussed how an inductive approach will be used to analyse the data, and combined with a deductive approach based on existing knowledge. The deductive approach will use the knowledge of the previously described verbal signalling behaviours in Table 1.1, while the inductive approach will be open to the discovery of new behaviours, leading to the creation

of categories. In the next section we will discuss how Speech Act Theory can be operationalised to show the functions of these verbal signalling behaviours.

2.3.2 Choice of methodology for identifying functions of verbal signalling behaviours

To analyse the data and identify how verbal signalling behaviours are used, this project applies principles from Speech Act Theory (Austin, 1962; Searle, 1969). As a reminder of the rationale presented in Section 1.6, Speech Act Theory allows for the comparison of the dictionary or semantic meaning of the words used in an utterance against the speaker or pragmatic meaning of the words used in each particular context. When both semantic and pragmatic meanings are the same, the resulting behaviour is a ‘direct speech act’. If the semantic meaning of an utterance does not align with the pragmatic meaning i.e. if the speaker is doing something else with the words they are using, the resulting behaviour is an ‘indirect speech act’. These verbal signalling behaviours can therefore directly show power through the semantic meaning of the words used, or indirectly, if doctors use the verbal signalling behaviour with functions that are not reflected in the literal meaning of the words used.

Applying this type of analysis to the verbal signalling behaviours found in the data will allow us to identify the functions given to these behaviours. When the words used in the verbal signalling behaviour match what follows, the function is deducible from the semantic meaning of the words used in the verbal signalling behaviour. If there is misalignment between the words used in the verbal signalling behaviour and what follows, the function is deduced from what follows i.e. the pragmatic meaning. Thus we will be able to see if the power in a verbal signalling behaviour is conveyed literally through the semantic meaning or more indirectly through the pragmatic meaning.

The approach of relying on the semantic and pragmatic meanings invoked by Speech Act Theory therefore allows us to identify the functions of verbal signalling behaviours objectively. Having identified this main function of behaviours, in the next section we will discuss how Conversation

Analysis can be used to identify how doctors use the verbal signalling behaviours in the context of the consultation.

2.3.3 Choice of methodology for identifying additional functions of verbal signalling behaviours

In order to identify the ways in which doctors may use the different literal functions identified from Speech Act Theory, this project goes a step further by applying principles from Conversation Analysis (Sacks et al. 1974) to the data.

As mentioned in Section 1.6, the principle that sequences of social actions occur through an organisation of turn-taking between participants can be used to put into context how doctors use verbal signalling behaviours in response to patient talk which precedes it. As a reminder, Conversation Analysis proposes that conversations are organised into ‘sequences’ in which participants relate what they say to what has been said before. This results in pairs of utterances or turns which are connected, or ‘relevant’ to each other. For example, if a speaker makes an offer to help the hearer with a task, relevant responses from the hearer could include accepting or rejecting the help that has been offered. However, the offer to help may itself have been a response to a preceding turn by the other participant in the conversation, expressing concern over the difficulty of a task they have been set. This lens allows the verbal signalling behaviours to be considered not just by what follows, but also by what is being said just before it. If, for example, at the end of a series of questions and answers about symptoms, the doctor then uses a verbal signalling behaviour to explicitly signal they are about to give a summary of information they have gathered, this signals what is to follow, but also signals that a phase of the conversation has been completed. If the patient’s utterance preceding the doctor’s verbal signalling behaviour is a statement that they have no further symptoms to disclose, the doctor’s move towards a summary may function as a natural progression to the next stage of the consultation. Conversely, if the talk before the verbal signalling behaviour contains a question from the patient about

potential diagnoses and the doctor signals that they are about to summarise, the use of the behaviour may also be considered a response to the patient request for information that ignores or postpones addressing it. Considering the talk that occurs before the verbal signalling behaviour could therefore reveal additional functions of these behaviours.

The methods outlined previously allows us to identify the function verbal signalling behaviours have based on the meaning of the words used, and also shows the ways in which doctors use them by contextualising the behaviour in the surrounding talk. These analyses show how power is manifested through the function the verbal signalling behaviours have, and the ways in which they are used. In the next section we will see how the mixture of a deductive approach with inductive elements, and the combined lenses of Speech Act Theory and Conversation Analysis were applied to the data.

2.3.4 Identification, collection and coding of verbal signalling behaviours

In the absence of any previously described methodology in the empirical literature to systematically identify all the verbal signalling behaviours used by doctors, an original method was created for identifying and collecting these verbal signalling behaviours. These incorporated types of taught behaviours such as signposting with their functions, such as agenda setting.

The first step of identifying verbal signalling behaviours was to identify, collect and code the different types that could occur. The lack of an established definition for a signpost necessitated a definition that could then be used as a starting point for the collection of verbal signalling behaviours. Based on its use in the clinical communication literature, a signpost was defined as *a verbal statement explicitly signalling what was going to happen in the consultation, in terms of structure or content.*

Verbal utterances were then collected that provided information about the consultation by *informing* the patient about what was happening, *invited* the patient to choose what was coming next, or *instructed* the patient how to proceed forward in the consultation. Establishing criteria for

the identification of the types of behaviours that occurred was an iterative process, and criteria evolved and were refined through multiple discussions between raters. The final coding criteria for these three categories can be seen in Table 2.2.

Table 2.2: Coding criteria for identifying types of verbal signalling behaviours

Type of behaviour	Coding criteria
Inform	<ul style="list-style-type: none">Provides information about what was happening in the consultationA verbal response from the patient following the doctor's utterance is not necessary
Invite	<ul style="list-style-type: none">Provides an opportunity for the patient to choose what will happen in the consultation, either immediately or at a later pointA verbal response from the patient is typically expected following this behaviour, but is not essential for coding this behaviour
Instruct	<ul style="list-style-type: none">Tells the patient what they should or should not do regarding the structure or content of the consultationMany types of instructions exist in the consultation, and only instructions that refer to structure should be collected

The second stage of coding verbal signalling behaviours focused on identifying their function. This was a two-stage process, adapting and combining principles of Speech Act Theory and Conversation Analysis. The first step of the process was to use Speech Act Theory to identify the meaning of the behaviour. In most cases this was a straightforward interpretation of the words contained within the utterance, known as the semantic meaning. This is shown in Example 3, in the box below. The behaviour analysed is in bold and signals that questions were about to be asked.

Example 3: Candidate 71, scenario 5

DOC *Okay, and do you have any other... You noticed any other symptoms lately? I'm just going to ask you a few questions*

In cases where the semantics of the verbal behaviour did not immediately reveal the function, the second level of Speech Act Theory was applied by looking at the doctor's intended meaning

through what followed immediately after the behaviour – this was the pragmatic meaning. Thus in Example 4 in the box below, ‘*And can I just go, uh, by, symptom by symptom?*’ does not in itself immediately indicate what will happen. However, by looking at what comes after shows it was followed by questions: this then was also a signal that questions were about to be asked.

Example 4: Candidate 3, scenario 5

DOC *And can I just go, uh, by... symptom by symptom? So when you say you're breathless, do you have any chest pain at all?*

The second part of identifying the function of the behaviour applied the sequence organisation principles of Conversation Analysis as outlined in Section 2.3.3. After identifying the function of the verbal signalling behaviour, the content of the doctor-patient talk preceding it was considered to identify what was being discussed. This two step-process will now be outlined over the next two examples. The first step of identifying the function using Speech Act Theory can be seen in Example 5, where the doctor’s utterance ‘*Would it be alright, I'm going to run through your body systems to make sure we don't miss any symptoms*’ was categorised as signalling a plan based on its semantics.

Example 5: Candidate 8, scenario 4

DOC *Would it be alright, I'm going to run through your body systems to make sure we don't miss any symptoms. So you said you've not had any chest pain.*

The second step of the process, looking at the verbal signalling behaviour in the context of the preceding talk as outlined by sequence organisation in Conversation Analysis, can be seen in Example 6 below. The extract is the same as the previous example, with the expansion including the doctor-patient talk preceding the verbal signalling behaviour. This enables the doctor’s verbal signalling behaviour to be viewed as a response to what the patient has just said, as well as being the first part of a question and answer pair of turns. When considered in the context of the

patient turn preceding it, which contained expressions of feeling ‘worried’ and ‘annoyed’, this verbal signalling behaviour was seen to be a response that contained no reference to the patient’s expressed emotion. Thus it was also revealed that the verbal signalling behaviour had the additional function of moving the conversation away from the patient concerns. Given that this was a new phenomenon that had not been named in the literature, additional functions revealed in this second stage were called the “hyperfunktion”.

Example 6: Candidate 8, scenario 4

PAT The [symptoms redacted] I don't know what the the definition of [medical condition redacted] is but I don't feel [medical condition]. I feel worried now, but I feel annoyed at the [symptoms]. It's constantly there.

DOC Would it be alright, I'm going to run through your body systems to make sure we don't miss any symptoms. So you said you've not had any chest pain.

2.4 Identifying features of language related to power in verbal signalling behaviours

2.4.1 Choice of methodology for identifying power in language used in verbal signalling behaviours

This section outlines how the language comprising the verbal signalling behaviours will be analysed using strategies proposed by Politeness Theory (Brown and Levinson, 1978). As seen in Section 1.7, aspects of linguistic politeness are closely intertwined with linguistic power. The concept of negative politeness is particularly relevant in the study of doctor-patient consultations, as it is concerned with the freedom of thought and action, and not to be imposed upon or impeded. An utterance that restricts the freedom of the hearer to think or speak a certain way is therefore a manifestation of the exertion of power by the speaker.

While Brown and Levinson propose numerous strategies for enacting positive and negative politeness, some have received criticism: strategies for positive politeness are more broad and general, while negative politeness strategies employ more specific elements of language (Holmes, 2006: 689). For example, the positive strategy ‘Avoid disagreement’ can be realised in

numerous ways, such as by agreeing, diverting away from a disagreement or not bringing up a topic that could cause disagreement at all. On the other hand a negative strategy minimising imposition such as 'Apologise' can be realised in fewer explicit ways i.e. through the use of the words '*sorry*', '*I apologise*', and '*I'm sorry*'. This project will therefore focus on the strategies that are more specific and that can be observed occurring in the verbal signalling behaviours themselves rather than the surrounding talk. The strategies of Politeness Theory that will be considered have also appeared in the literature as outlined in Section 1.7 in Chapter 1, using the same deductive approach that informed the list of potential verbal signalling behaviours that could be expected to appear in the dataset. These include negative politeness strategies: showing deference or respect (through the use of apologies, modal auxiliary verbs and phrases like *please* and *if you don't mind*, known as politeness tags) in the verbal signalling behaviours, hedging information (through the use of vague language in terms of the content of the imposition and how the hearer is to be involved) and minimisation of imposition (through the use of adjectives or adverbs). Politeness strategies that will be focused on include: conveying that the speaker and hearer are co-operators (through the use of the pronoun 'we' that clearly means the patient and doctor), using specific language about what is coming and including temporal aspects showing when it will come, and providing reasons for the information that is being given in the verbal signalling behaviours. In the next section we will see how these strategies were operationalised in the verbal signalling behaviours.

2.4.2 Identification of power in language used in verbal signalling behaviours

Analysis of the grammatical and lexical components of the verbal signalling behaviours were conducted on the following six levels, which correspond to the strategies proposed by Politeness Theory:

- Person-centredness

Does the verbal signalling behaviour focus on the doctor ('*I*') as the main subject, the patient ('*you*') or partnership between the two: ('*we*')?

- Respect

Does the behaviour contain words like *could*, *would* (modal auxiliary verbs), or use phrases such as *please*, *do you mind* or *sorry* (politeness tags) that soften a request or signalled change?

- Drawing attention to or from a signalled change

Does the behaviour contain the word *just* or adjectives like *few*, *little* or adverbs like *quickly* to lessen the effect of the change coming up on the flow of the consultation? Does the behaviour contain adjectives like *difficult* or *bad*, or adverbs like *very* or *really* to highlight the change ahead?

- Specificity or vagueness

Is the behaviour specific about the content of the signalled change coming, and the role the patient will play?

- Provides reason for the task signalled by the signalling behaviour

Does the behaviour contain a rationale for what will be happening, or does the signal include obligation?

- Temporal aspects

Does the signal include language showing when it will happen in the consultation?

This lexicogrammatical analysis was conducted on all the verbal signalling behaviours found in the consultation, reporting on the presence of the six linguistic features in the *inform*, *invite* and *instruct* types of behaviours. The identification of these linguistic features will be shown in the following examples. The verbal signalling behaviour is in bold and will be for all the examples, with the linguistic feature underlined in each instance. In Example, 7, the pronoun *I* is underlined twice: it focuses on the role of the doctor to the exclusion of the patient.

Example 7: Candidate 20, scenario 3

DOC *So we should really need to look into this for you. I've got a few more questions before I can probably help you out with that, if that's all right?*

In Example 8, the politeness tag *if that's all right* [sic] is underlined to show an opening is signalled for the patient, to exercise the power to change the order of proceedings shown by the behaviour.

Example 8: Candidate 20, scenario 3

DOC *So we should really need to look into this for you. I've got a few more questions before I can probably help you out with that, if that's all right?*

In Example 9, the words *few* is underlined to show that the verbal signalling behaviour contains an element of language that aims to draw attention away from the change that is about to come and minimise the effect it will have on the flow of the conversation.

Example 9: Candidate 20, scenario 3

DOC *So we should really need to look into this for you. I've got a few more questions before I can probably help you out with that, if that's all right?*

In Example 10, the words *more questions* and *that* are highlighted to show that the verbal signalling behaviour contains both specific (*that*) and vague (*more questions*) elements. The use of the pronoun *that* is specific as the noun it refers to is understood by both doctor and patient, given the preceding talk. This is known as deixis. The words *more questions* are shown to be vague as they do not specify how many questions will follow.

Example 10: Candidate 20, scenario 3

DOC *So we should really need to look into this for you. I've got a few more questions before I can probably help you out with that, if that's all right?*

In Example 11, the majority of the behaviour is underlined as it shows that an element of obligation is present in the verbal signalling behaviour: that the questions need to be asked before the doctor can address the patient's request.

Example 11: Candidate 20, scenario 3

DOC So we should really need to look into this for you. I've got a few more questions before I can probably help you out with that, if that's all right?

The word *before* is underlined in Example 12 to show that the verbal signalling behaviour contains a temporal element that shows the order of events that will occur: that questions will be asked before the doctor will address the patient's request.

Example 12: Candidate 20, scenario 3

DOC So we should really need to look into this for you. I've got a few more questions before I can probably help you out with that, if that's all right?

2.5 Interrater reliability

Identifying, collecting and coding verbal signalling behaviours was an evolving, iterative process conducted by two independent raters (GM and LN). Evolving criteria and emerging behaviour types and functions were discussed, established and agreed at regular meetings. The first pass of coding was conducted on verbal signalling behaviours collected from the 'History-taking' station, which revealed 451 behaviours. This pass was conducted in 19 batches to code behaviour types and functions. This was followed by identification and coding of behaviours in the 'Communication Skills and Ethics' station, which was conducted in five batches and revealed 1770 behaviours and their types. The identification of new behaviour types resulted in a second pass through 'History-taking' to capture any behaviours omitted the first time. This pass consisted of five batches, revealing an additional 523 behaviours that brought the total for that station to 974. The second pass through the 'Communications and Skills' station consisted of four batches simultaneously identifying behaviour functions and hyperfunctions.

Interrater reliability data on agreement of coding behaviours by type, function and hyperfunction for verbal signalling behaviours in the 'History-taking' station can be found in Table 2.3.

Table 2.3: Interrater reliability data for verbal signalling behaviours in 'History-taking' consultations (N=78)

Batch number	Number of behaviours coded	Number of behaviours agreed	Percentage behaviours agreed
<i>Pass 1: Behaviour type</i>			
1	438	371	84.7%
Total	438	371	84.7%
<i>Pass 1: Behaviour function</i>			
2	25	25	100.0%
3	25	24	96.0%
4	27	26	96.3%
5	25	23	92.0%
6	28	25	89.3%
7	27	25	92.6%
8	25	22	88.0%
9	25	22	88.0%
10	25	22	88.0%
11	27	22	81.5%
12	25	23	92.0%
13	25	22	88.0%
14	25	23	92.0%
15	25	23	92.0%
16	24	21	87.5%
17	24	23	95.8%
18	24	23	95.8%
19	20	19	95.0%
Total	451	413	91.6%
<i>Pass 2: Behaviour type</i>			
1	103	97	94.2%
2	178	172	96.6%
3	242	226	93.4%
Total	523	495	94.6%
<i>Pass 2: Behaviour function</i>			
4	974	881	90.5%
Total	974	881	90.5%
<i>Pass 2: Behaviour hyperfunction</i>			
5	974	861	88.4%
Total	974	861	88.4%

The overall interrater reliability across all batches for the ‘History-taking’ station was 90%.

Interrater reliability data on agreement of coding behaviours by type, function and hyperfunction of the verbal signalling behaviours in the ‘Communication Skills and Ethics’ station can be found in Table 2.4.

Table 2.4: Interrater reliability data for verbal signalling behaviours in ‘Communications Skills and Ethics’ consultations (N=76)

Batch number	Number of behaviours coded	Number of behaviours agreed	Percentage behaviours agreed
<i>Pass 1: Behaviour type</i>			
1	279	260	93.2%
2	314	296	94.3%
3	276	254	92.0%
4	336	303	90.2%
5	267	249	93.3%
Total	1472	1362	92.5%
<i>Pass 2: Behaviour function</i>			
1	403	363	90.1%
2	467	431	92.3%
3	415	392	94.5%
4	485	465	95.9%
Total	1770	1651	93.2%
<i>Pass 2: Behaviour hyperfunction</i>			
1	403	353	87.6%
2	467	382	81.8%
3	415	375	90.4%
4	485	451	93.0%
Total	1770	1561	88.2%

The overall interrater reliability across all batches for the ‘Communication Skills and Ethics’ station was 91.3%, with an overall interrater reliability for both stations of 90.6%.

Identifying linguistic features in the verbal signalling behaviours that corresponded to strategies proposed by Politeness Theory was conducted by GM on all 2744 behaviours found in the ‘History-taking’ and ‘Communication Skills and Ethics’ stations. A random sample of 20% of the verbal signalling behaviours (548/2744) in each station were double coded by LN (194/974 in

'History-taking' and 354/1770 in 'Communication Skills and Ethics') in four batches (10% of each station in two batches). The interrater reliability data on linguistic features found in the 'History-taking' station can be found in Table 2.5.

Table 2.5: Interrater reliability data for linguistic features relating to Politeness Theory in verbal signalling behaviours in 'History-taking' consultations (N=78)

Batch number	Number of behaviours coded	Number of behaviours agreed	Percentage behaviours agreed
<i>Person-centredness</i>			
1	97	90	92.8%
2	97	96	99.0%
Total	194	186	95.9%
<i>Respect</i>			
1	97	97	100.0%
2	97	96	99.0%
Total	194	193	99.5%
<i>Drawing attention to or from signalled change</i>			
1	97	81	83.5%
2	97	94	96.9%
Total	194	175	90.2%
<i>Specificity or vagueness</i>			
1	97	79	81.4%
2	97	96	99.0%
Total	194	175	90.2%
<i>Providing reason</i>			
1	97	92	94.8%
2	97	96	99.0%
Total	194	188	96.9%
<i>Temporal aspect</i>			
1	97	89	91.8%
2	97	96	99.0%
Total	194	185	95.4%

Overall interrater reliability for identifying linguistic features representing Politeness Theory strategies in verbal signalling behaviours found in the 'History-taking' consultations was 94.7%.

Interrater reliability data on linguistic features found in the 'Communication Skills and Ethics' station can be found in Table 2.6.

Table 2.6: Interrater reliability data for linguistic features relating to Politeness Theory in verbal signalling behaviours in ‘Communication Skills and Ethics’ consultations (N=76)

Batch number	Number of behaviours coded	Number of behaviours agreed	Percentage behaviours agreed
<i>Person-centredness</i>			
1	177	172	97.2%
2	177	173	97.7%
Total	354	345	97.5%
<i>Respect</i>			
1	177	172	97.2%
2	177	177	100.0%
Total	354	349	98.6%
<i>Drawing attention to or from signalled change</i>			
1	177	150	84.7%
2	177	174	98.3%
Total	354	324	91.5%
<i>Specificity or vagueness</i>			
1	177	165	93.2%
2	177	168	94.9%
Total	354	333	94.1%
<i>Providing reason</i>			
1	177	172	97.2%
2	177	177	100.0%
Total	354	349	98.6%
<i>Temporal aspect</i>			
1	177	171	96.6%
2	177	173	97.7%
Total	354	344	97.2%

The overall interrater reliability for identifying linguistic features representing Politeness Theory strategies in the verbal signalling behaviours found in the ‘Communication Skills and Ethics’ consultations was 96.3%, with an overall interrater reliability of 95.5% across both stations.

The approach of coding the data in batches allowed for the discussion and resolution of any coding discrepancies between the two raters through regular weekly consensus meetings. Reliability figures shown in Tables 2.3-2.6 show that while disputes were rare, these occurred at all levels of coding: verbal signalling behaviour types, functions, hyperfunctions and the linguistic

strategies contained in the verbal signalling behaviours. When disputes arose they typically focused on coding items that could be assigned to two categories. These disputed items were discussed by both raters in person, resulting in agreement over the final code to assign to the item and either the refinement of existing rules, or the creation of a new code. For example, one early dispute occurred during the coding of items that could be said to have either 'introducing vague questions' or 'introducing specific questions' as their function. After discussion it was decided to collapse these categories into a single 'introducing questions' code, as both coders agreed a definition that unified all the instances of the previous two categories.

2.6 Data analysis plan

As a reminder, the research questions are presented below to show the answers the analysis will provide.

- What structure do doctors give their consultations?
- How do they signal this information to their patients?
- How does the language in these verbal signalling behaviours empower the patient?

2.6.1 Analysis of structure

Firstly, analysis of the structure of the consultations was conducted by comparing the identified structure of each of the 154 consultations with the following criteria:

- The presence of the phases of the Calgary-Cambridge Guide to the Medical Interview, including Summary but not Physical Examination
- Progression through the phases in a logical sequence as proposed by the Calgary-Cambridge Guide to the Medical Interview
- The presence of discrete phases, as taught by the Calgary-Cambridge Guide to the Medical Interview

Visualisations of the consultations were then grouped and compared by scenario, to find common features of structure. As consultations in ‘History-taking’ and ‘Communication Skills and Ethics’ were all 14 minutes long, this allowed for comparison between the two stations. Key to the comparison is the difference in the naming of the stations – ‘History-taking’ and ‘Communication Skills and Ethics’ – and the associated tasks that drive the performance of the candidate. Although both stations presented a first encounter between the doctor and the patient or relative, the marking criteria and hence the expectations of the doctor’s tasks in the consultations were different. Broad comparison between the two stations is therefore possible, to identify common features of structure and verbal signalling behaviours.

2.6.2 Analysis of verbal signalling behaviours

The coding and categorising process was then conducted on verbal signalling behaviours, on the following levels:

- Type
- Function
- Hyperfunction

Analysis was then conducted to discover the combinations of:

- Types by function
- Function by hyperfunction
- Hyperfunction by type

Findings were then compared between ‘History-taking’ and ‘Communication Skills and Ethics’.

2.6.3 Analysis of features of language in verbal signalling behaviours

This analysis will be used to explore where power may lie in the verbal signalling behaviours by examining the frequencies with which the six features occurred. This identification of frequencies and presentation of examples from the dataset will be used to highlight the most common ways

in which each of the six strategies taken from Politeness Theory are enacted in verbal signalling behaviours.

2.7 Summary

In this chapter we have seen an overview of the methodological frameworks guiding the research project and how these were operationalised to analyse the dataset. We have outlined the methods taken to identify the structure of the consultations through the use of the Calgary-Cambridge Guide to the Medical Interview, and the steps taken to convert the data into visual depictions of the structure. We have seen the rationale for using the concept of a signpost as the starting point for a deductive approach in combination with an inductive approach to the data. We have seen how a constructivist approach lends justification for using principles from Speech Act Theory and Conversation Analysis to identify, code and categorise the verbal signalling behaviours based on their types and functions. We have seen the strategies from Politeness Theory that will be applied to the features of language within the verbal signalling behaviours, that will relate how power can be shared with the patient. The dataset used in the research project has been described, and interrater reliability data demonstrating the rigour of the analysis has been presented. Finally, we have seen how the structure, verbal signalling behaviours and language forming the verbal signalling behaviours will be analysed to show where the power to create and develop the consultation structure lies.

In the following six chapters, we will see the results of applying the methods outlined in this chapter. Chapters 3-5 report on the results from analysis of the consultations in the 'History-taking' station, while Chapters 6-8 report on the result from analysis of the consultations in the 'Communication Skills and Ethics' station.

Chapter 3: Results of ‘History-taking’ station structure analysis

In Chapter 2 we described how the Calgary-Cambridge Guide to the Medical Interview was used to identify the structure of the consultations. In this chapter we will look at the results of the structure analysis of the ‘History-Taking’ station. This first stage of analysis focused on examining to what extent the consultations corresponded to the Calgary-Cambridge Guide: whether the structure was ‘clear’ or not; followed the chronological phases suggested by the Guide; and how much talk was allocated to each of those phases. Putting all these findings together will answer the first research question:

- **What structure do doctors give their consultations during an examination called ‘History-taking’?**

3.1 Presenting the data visually

As described in Section 2.2.2 the verbatim transcripts were converted into diagrams that represented the doctor-patient talk occurring in the consultation. The blueprints of the Calgary-Cambridge model were placed onto these visualisations, as seen in Figure 3.1.

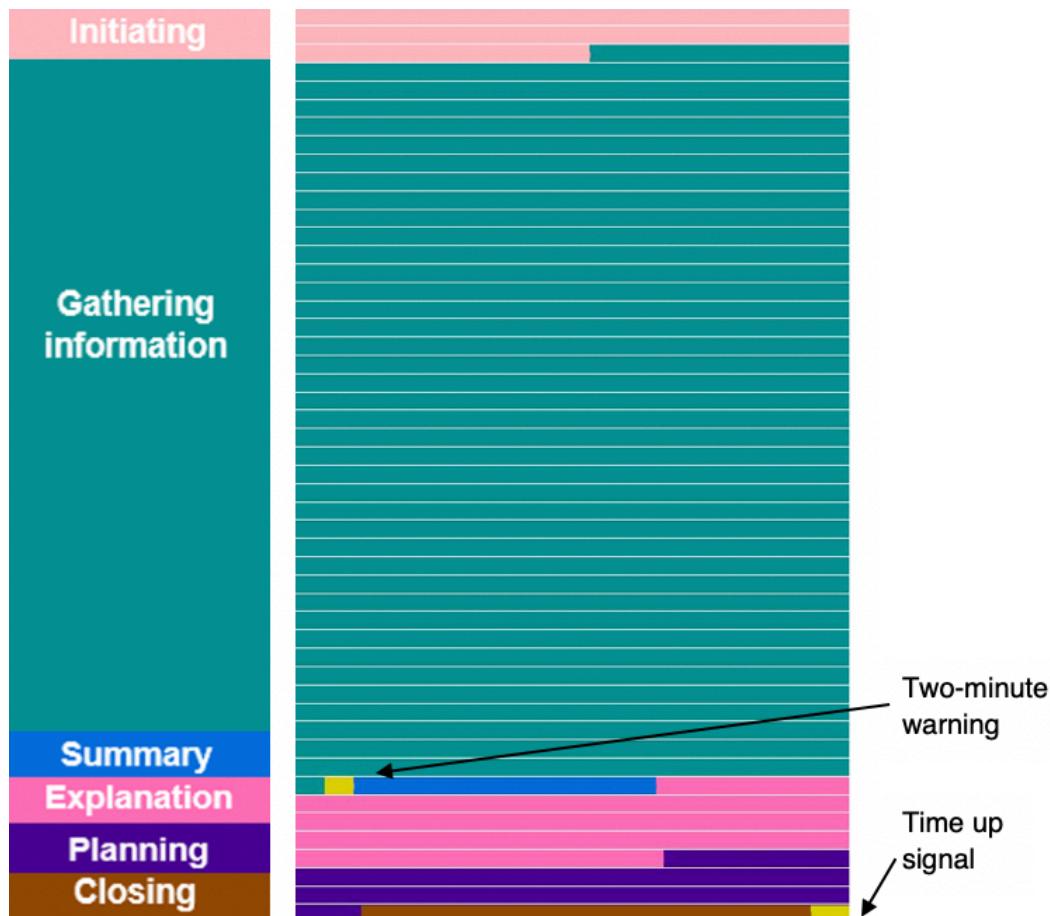


Figure 3.1 History-taking station visualisation, candidate 1

The image on the left gives a key of the phases of the consultation by colour, corresponding to the transcript on the right. The arrows point to utterances from the examiner, the first when there are two minutes remaining for the examination station, and the second when time has run out. The image is designed to be read across and then down: each of the 50 lines represents 2% of the 14-minute consultation. Each consultation was converted into this visualisation.

3.2 The consultation structure created by doctors in a station called ‘History-taking’

The analysis of consultation structure was conducted on the following three levels:

1. Clarity of structure

Do the consultations meet the following criteria:

- Are all the phases proposed by the Calgary-Cambridge Guide present?
- Do the phases occur in the same chronological order as proposed by the Guide?

- Are the phases discrete?

2. Phase characteristics

- How much talk was allocated to each phase proposed by the Calgary-Cambridge Guide?
- What were the dominant phases?

3. Comparison of structure across consultation scenarios

- Did structure differ between the different scenarios set?
- Did structure differ between consultations in the same scenario?

This chapter will present the results of these analyses in turn. Each section will give a brief overview to recap the questions it will answer and conclude with how these findings will contribute to the main research question: what was the structure of the consultation created by doctors in this setting?

3.2.1 Clarity of structure

This analysis answers the following questions:

- Are all the phases proposed by the Calgary-Cambridge Guide present?
- Do the phases occur in the same chronological order as proposed by the Guide?
- Are the phases discrete?

3.2.1.1 Presence of phases as proposed by the Calgary-Cambridge Guide

In this first stage we looked to see if doctors included all the chronological phases of the Calgary-Cambridge Guide: Initiating the session, Gathering Information, Summary, Explanation, Planning, and Closing the session. Less than a third (23/78, '29%') of the consultations contained all six phases, as seen in Table 3.1.

Table 3.1: Number of phases present in each consultation of the ‘History-taking’ station (N=78)

Phase counts	No. of consultations
Contained 6 phases	23
Contained 5 phases	37
Contained 4 phases	17
Contained 3 phases	1
TOTAL	78

Over two-thirds (55/78, ‘71%’) of doctors did not include all the phases of the guide. The majority of consultations (37/78, ‘47%’) omitted one phase. The number of consultations containing each phase can be seen in Table 3.2.

Table 3.2: Number of ‘History-taking’ consultations (N=78) containing each phase

Phase	No. of consultations containing each phase
Initiating	77
Gathering Information	78
Summary	54
Explanation	77
Planning	77
Closing	31

From Table 3.2 we can see that the majority of consultations (47/78, ‘60%’) omitted the Closing phase. The other phase that a number of doctors omitted was the Summary: just under a third of doctors (24/78, ‘30%’) did not include the Summary in their consultation.

The only phase that appeared in all the consultations was the Gathering Information phase. All the other phases – Explanation, Planning and the Initiating phase were omitted by at least one doctor.

An unexpected finding was the number of doctors who completed the consultation. Of the 78 doctors, 9 doctors completed the consultation in the allocated time; the remaining 71 continued the conversation until the examiners signalled the end of the consultation.

Table 3.3 shows the phases doctors were in at the end of the 14 minutes. Of the 19 doctors in the Closing phase, 9 completed the consultation before the end of the 14 minutes. The majority of the other doctors were in the Planning phase when the allocated 14 minutes expired.

Table 3.3: Phase at the end of 14-minute allocation in ‘History-taking’ station (N=78)

Phase of consultation at 14 minutes	No. of doctors	No. of doctors completed
Gathering Information	3	0
Explanation	14	0
Planning	42	0
Closing	19	9

3.2.1.2 Order of phases

The expected chronological order of phases was as follows:

- Initiating
- Gathering Information
- Summary
- Explanation
- Planning
- Closing

Only the first appearance of a phase was considered when deciding if the consultation followed the chronological order proposed by the Guide. Consultations could follow a chronological order in terms of the first appearance of phases, but these phases could also reappear again later.

Figure 3.2 shows a consultation that has a Gathering Information phase interrupted by a Summary, and an intertwined Explanation and Planning phase. The phases still occur in the same chronological order despite not containing discrete phases.

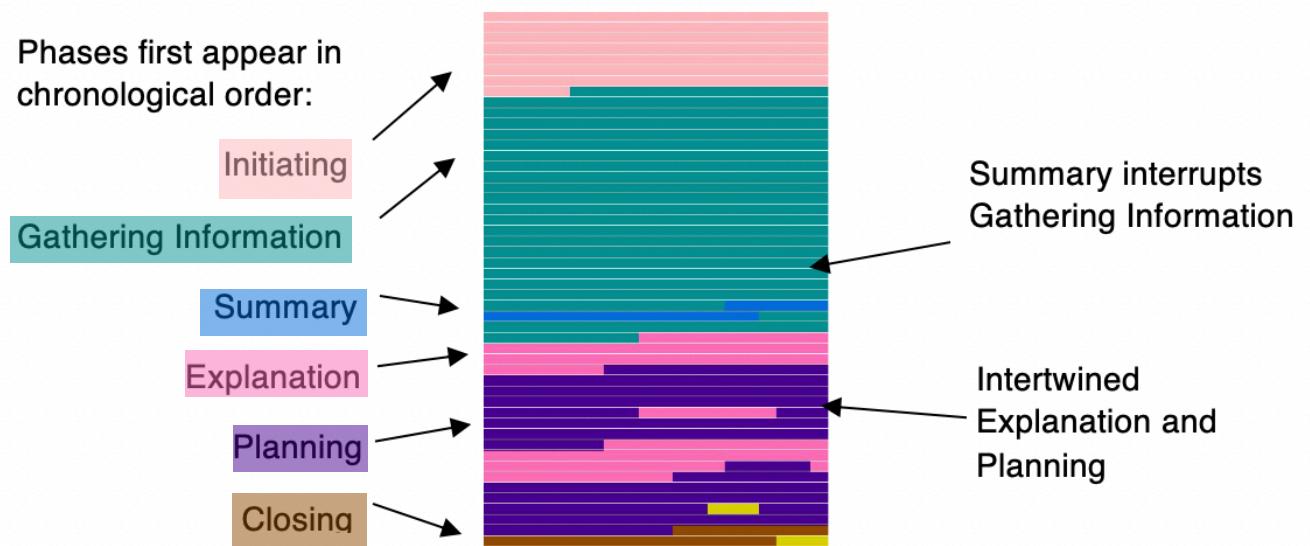


Figure 3.2 History-taking visualisation, candidate 41

Consultations may also still follow the chronological order despite not containing all the phases suggested by the Calgary-Cambridge Guide, as shown by Figure 3.3.

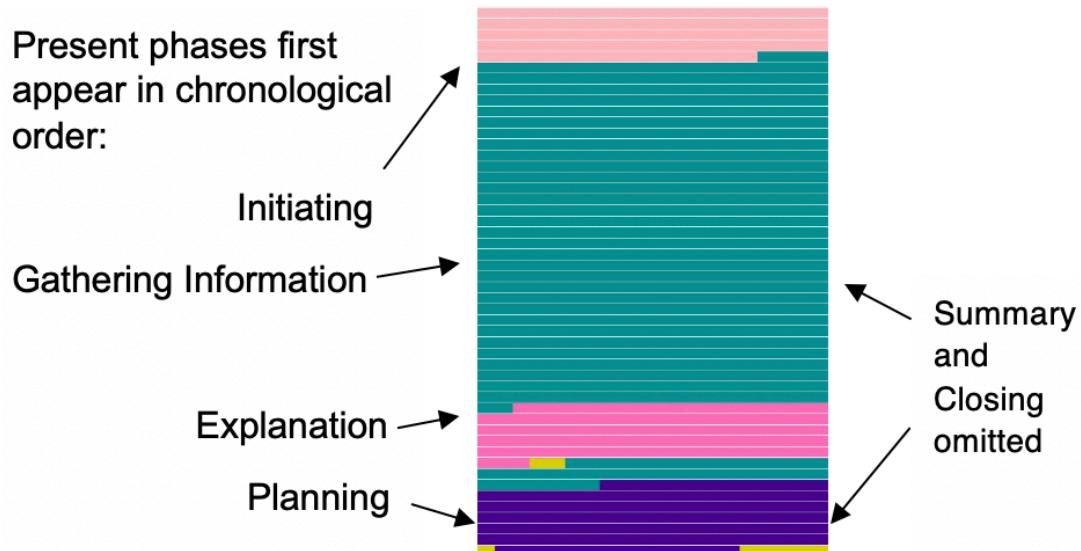


Figure 3.3 History-taking visualisation, candidate 76

Table 3.4 shows the number of consultations where phases progressed in the chronological order suggested by the Calgary-Cambridge Guide. Just over half (40/78, '51%') the consultations followed the proposed chronological order.

Table 3.4: Consultations featuring phases in chronological order in ‘History-taking’ station (N=78)

Phases chronologically ordered	Number of consultations
Yes	40
No	38

Table 3.5 shows the breakdown of the 40 consultations featuring phases in chronological order, taking into account if these phases were intertwined (as in Figure 3.3), if phases were missing (as in Figure 3.4), or a mixture of the two.

Table 3.5: Variations of ‘History-taking’ consultations featuring phases in chronological order (N=40)

Type of variation	Number of consultations
No variation	1
Missing phase(s)	5
Intertwined phases	7
Missing phase(s) and Intertwined	27

There were 32 consultations that had missing phases but expected chronological sequence in the ones that were present. Of the 32, phases most likely to be omitted were Summary (6/32, ‘19%’), Closing (14/32, ‘44%’) or both (10/32, ‘31%’). Of the remaining two consultations, one was missing Explanation and Closing and the other was missing Summary, Planning and Closing.

Table 3.6 gives a breakdown of the 38 consultations that did not follow the expected sequence as per the Calgary-Cambridge Guide, and the phase(s) per consultation that occurred earlier than expected.

Table 3.6: Phases that occurred earlier than expected in the ‘History-taking’ consultations (N=38)

Phase(s) occurring earlier than expected	Number of consultations
Summary	6
Explanation	2
Planning	26
Explanation and Planning	3
Planning and Closing	1

There were 15 variations seen when the phases deviated from the expected sequence proposed by the Calgary-Cambridge. While this may seem higher than expected, it includes consultations that omitted phases, and then did not show the expected sequence among the phases that were present. Table 3.6 shows that of the 38 consultations that did not show the expected sequence, the Planning phase occurred earlier than expected in the majority (30/38, ‘79%’). The Summary phase occurred before Gathering Information in 6/38 consultations (‘16%’). This showed a Summary of the patient presenting their problem in the Initiating phase. One doctor moved into Planning and Closing before the Explanation phase.

3.2.1.3 Discreteness of phases

This section will look at the third criterion for clearly structured consultations: were the phases discrete? As a reminder, when a phase is described as discrete in this study, it means that the doctor began and completed the phase without moving into any other phases, resulting in an uninterrupted passage. Non-discrete phases in this study referred to interruptions from other phases. From the consultation proposed by the Calgary-Cambridge Guide, it might be expected that doctors would progress through the phases without any interruptions from other phases. Occasionally, however, the Explanation and/or Planning phases would be initiated by a patient asking questions about potential diagnoses or treatments, and the doctor would address this briefly before returning to Gathering Information. Figure 3.4 shows a consultation with a minor

interlude to Planning in dark purple, before the doctor then returns to the Gathering Information phase in teal.

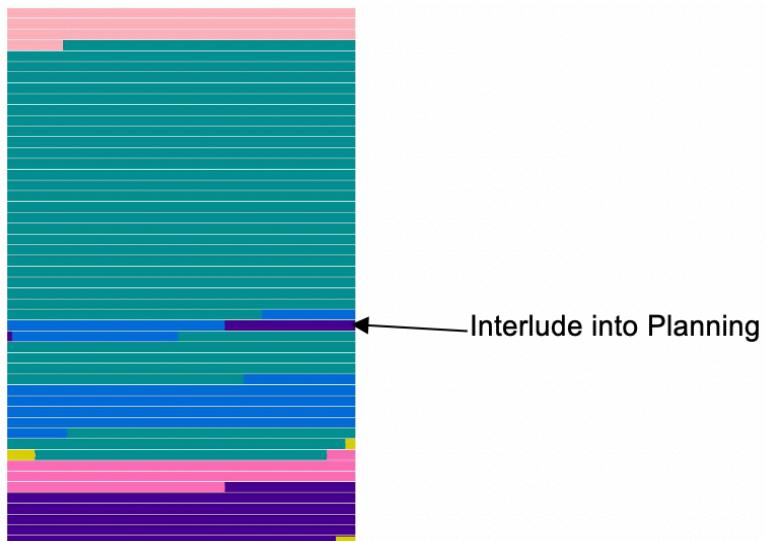


Figure 3.4 History-taking visualisation, candidate 12

In contrast, Figure 3.5 shows a consultation where progress has been made into the Explanation and Planning phases, highlighted in pink and purple, before the doctor returns to the Gathering Information phase, highlighted in teal. The return to Gathering Information is brief and indicates an interlude into that phase during Explanation and Planning. The additional yellow stage in the middle of the consultation is a noise from the examiner captured during the transcription process.

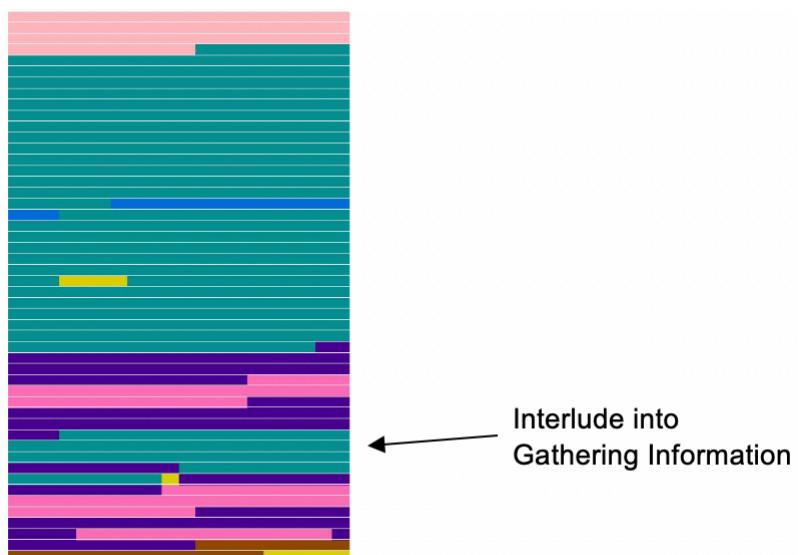


Figure 3.5 History-taking visualisation, candidate 37

The next example highlights the difference between a brief interlude into Explanation and Planning during Gathering Information, and an interlude into Gathering Information during Explanation and Planning. This difference can be seen when comparing the consultations in Figures 3.6 and 3.7 side-by-side. Figure 3.6 shows a brief interlude into Explanation in dark pink, before the doctor then returns to the Gathering Information in teal. On the other hand, Figure 3.7 shows several interludes into Gathering Information (in teal) during the Explanation (dark pink) and Planning (purple) phases.

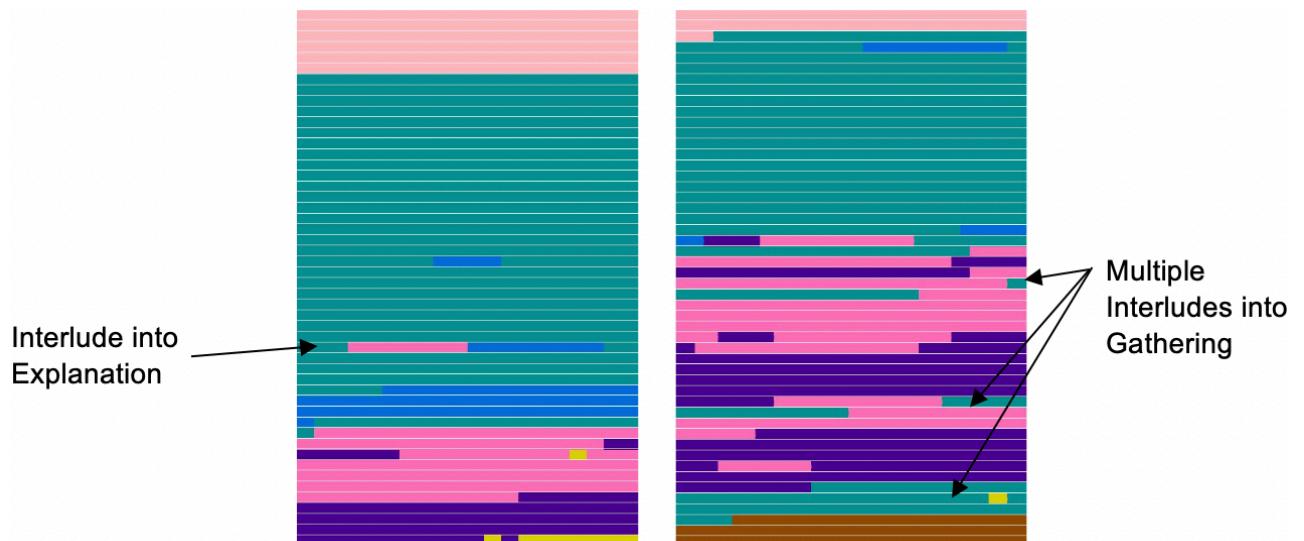


Table 3.7 shows the number of phases in the consultation that were interrupted by other phases.

Table 3.7: Number of interrupted phases in the ‘History-taking’ consultations (N=78)

Phase	No. consultations containing phase	No. consultations where phase was interrupted
Initiating	77	1
Gathering Information	78	57
Summary	54	29
Explanation	77	57
Planning	77	58
Closing	31	16

The Initiating phase was the least likely to be interrupted by another phase. This made it unique: virtually all doctors proceeded from the Initiating phase to the next phase. The one instance of interruption was a short interlude from the Summary phase. The Initiating phase was also never used to interrupt any other phase.

The Gathering Information phase was highly likely (57/78, '73%) to be interrupted by other phases, predominantly the Summary, Explanation and Planning phases.

It was slightly more difficult to decide whether the Summary phase was interrupted or not. The rationale for treating the Summary as an individual phase rather than a behaviour has been discussed previously (see Section 2.1.2). One reason for considering it a behaviour was that it could be used more than once in a consultation. It was decided that if a consultation had more than one instance of Summary it would be counted as interrupted. However, an interrupted Summary would not immediately suggest deviation from the Calgary-Cambridge Guide, as the use of interim summaries (called internal summaries in the Guide) is encouraged in clinical communication training (Silverman et al., 2013; Lloyd et al., 2019). From the table we can see that over half the consultations featuring a Summary moved through this phase multiple times.

The Explanation phase was the second most likely to be interrupted – 74% instances of the Explanation phase were interrupted by other phases, typically Planning. The decision to split the Explanation and Planning phase has been previously discussed: the Calgary-Cambridge guide teaches the phase as distinct halves, Explanation followed by Planning, and makes no mention of the halves being intertwined.

The Planning phase was the most likely to be interrupted: 75% of the consultations that featured a Planning phase did not move through the phase in one go. As mentioned previously, most of the Explanation and Planning phases were intertwined. In some instances, the interrupting phase was the Gathering Information phase, indicating the doctor had made a return to asking questions – this will be discussed more in the following section.

3.2.1.4 Clarity of consultation structure

In this section we will see how many consultations clearly followed the structure proposed by the Calgary-Cambridge Guide, based on the following criteria:

- Presence of all phases as proposed by Calgary-Cambridge Guide
- Phases follow chronological sequence proposed by Calgary-Cambridge Guide
- Discrete phases

If the consultation met these criteria, it was deemed to have a 'clear' structure: Figure 3.1 (shown again below) is the only example of a consultation that was 'clear' based on all three criteria.

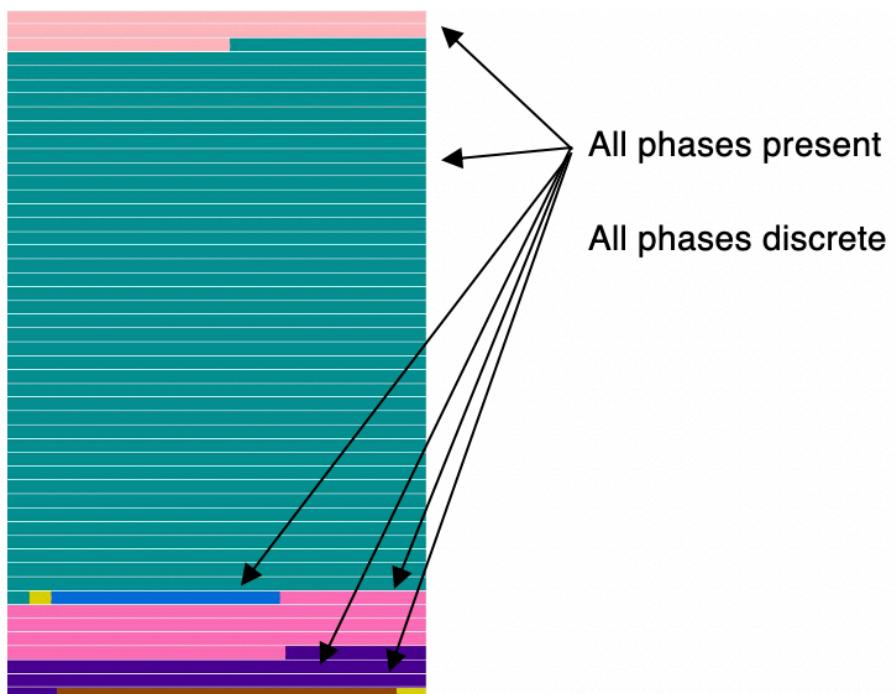
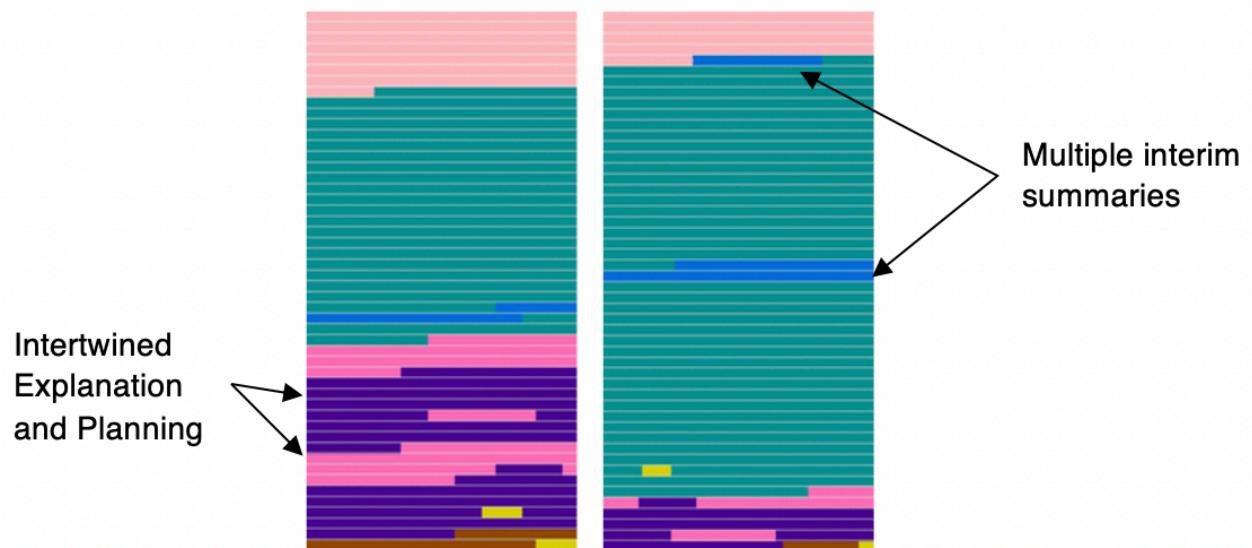


Figure 3.1 History-taking visualisation, candidate 1

No further consultations were deemed 'clear' when the second and third criteria were relaxed to include interim summaries throughout the consultation.

When the third criterion was relaxed a step further to include intertwined Explanation and Planning, two further consultations were deemed ‘clear’. Figure 3.8 and 3.9 show these two additional consultations.



Figures 3.8 (left) and 3.9 (right) History-taking visualisation, candidates 41 and 7 respectively

3.3 Phase characteristics

3.3.1 Amount of talk allocated to each phase of the doctor-patient consultation

In this section we will consider:

- How much talk was allocated to each phase proposed by the Calgary-Cambridge Guide?
- What were the dominant phases?

Chart 3.1 shows the amount of talk in each phase visually.

Chart 3.1 Percentage talk in each phase by consultation in 'History-taking' station (N=78)

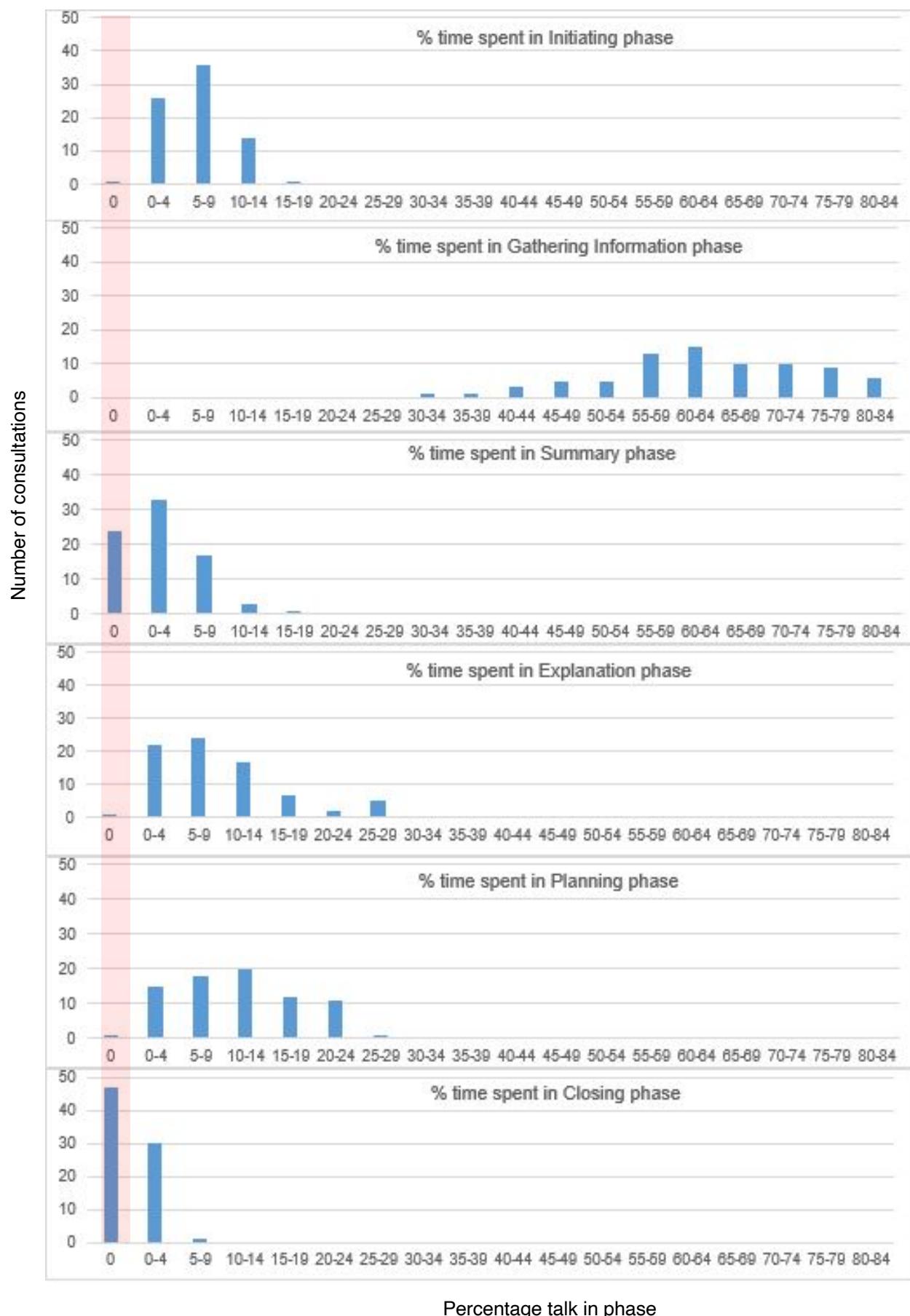


Chart 3.1 shows that across the data, the least amount of talk was allocated to the Closing phase. The zero bars have been highlighted across the data, to show that over half the doctors (47/78, '60%') did not include the Closing phase at all. Of the doctors that did include the Closing phase, no more than 10% of the consultation talk was spent in the phase.

The Summary was also omitted by nearly a third of doctors (24/78, '31%'), and doctors who did include Summary spent no more than 20% of the consultation talk in it. Initiating saw a similar proportion, although only one doctor did not include the phase.

Doctors allocated roughly equal amounts of talk to Explanation and Planning: each phase was omitted by only one doctor, and those who did allocate talk to it allocated less than 30%.

Gathering Information showed the greatest range of talk allocated, and this can be seen further in Table 3.8, which shows descriptive data for the amount of talk in each consultation both by percentage and converted into amount of words. The Explanation and Planning phases have been presented in the table in two ways: as separate phases, and as a combined, single Explanation and Planning phase.

Table 3.8: Amount of talk allocated to each phase by amount of words in 'History-taking' station (N=78)

Phase	Mean word count (standard deviation)	Minimum word count	Maximum word count	Mean word percentage (standard deviation)	Minimum word percentage	Maximum word percentage
Initiating	175 (81)	0	376	7% (3)	0%	16%
Gathering Information	1560 (330)	805	2262	66% (12)	36%	86%
Summary	89 (90)	0	373	4% (4)	0%	19%
Explanation	236 (156)	0	682	10% (7)	0%	30%
Planning	288 (168)	0	662	12% (7)	0%	28%
Combined Explanation and Planning	524 (282)	49	1255	22% (12)	2%	55%
Closing	14 (26)	0	103	1% (1)	0%	5%

Table 3.8 shows that across the data, a wide range of talk was allocated to all the phases, with Gathering Information showing the greatest variance (as doctors were spending anywhere between 36% and 86% of the consultation in it). This shows that while the Calgary-Cambridge Guide was a suitable blueprint to place onto the consultation to identify the structure, doctors implemented structure in widely differing proportions: Gathering Information showed a range of 50% across the consultations, and when combined, Explanation and Planning showed a range of 52%.

3.4 Comparison of consultation structure across scenarios

In this final section we will look at how structure differed across the scenarios set for doctors.

The scenarios have been numbered 1-9 without details of the problems set within the scenario. The visualisations for every consultation in each scenario will be displayed in each section, placed in order of adherence to the clarity of structure criteria. As a reminder, these criteria were:

- Are all the phases proposed by the Calgary-Cambridge Guide present?
- Do the phases occur in the same chronological order as proposed by the Guide?
- Are the phases discrete?

The order of criteria also reflected their importance when deciding clarity between visually similar structures. For example, a consultation that had all the phases but intertwined Explanation and Planning was more ‘clear’ than a consultation that had discrete phases but only five out of the six present.

Read left to right and then down, the visualisation in the top left of each set is the consultation that met the most criteria, with the consultation in the bottom right meeting the fewest. Scenarios 1-4 contained the most consultations. For each scenario we will look at the consultations at the opposite ends of the spectrum of clarity in closer detail, to see how the structure varied from one end to the other.

3.4.1 Scenario 1 (N=14)

Figure 3.10 is the visualisation of the consultation that met most of the criteria. While it is missing the Closing phase, all other phases are present and occur in chronological order. While there was an interim summary, the main Summary occurred at the end of the Gathering Information phase and then moved into the Explanation phase, with the examiner two-minute warning in between. All the phases that occurred were uninterrupted.

Figure 3.11 shows the consultation that met the fewest criteria. It is missing the Summary and Closing phases. The Planning phase occurred before Explanation, which did not follow the proposed chronology of the Calgary-Cambridge Guide, and the Explanation and Planning phases were not discrete. The yellow sections seen in the Gathering Information phase are interruptions from the examiner and additional noises related to the examination process (bells, beeps etc.) that were captured during the transcription process.

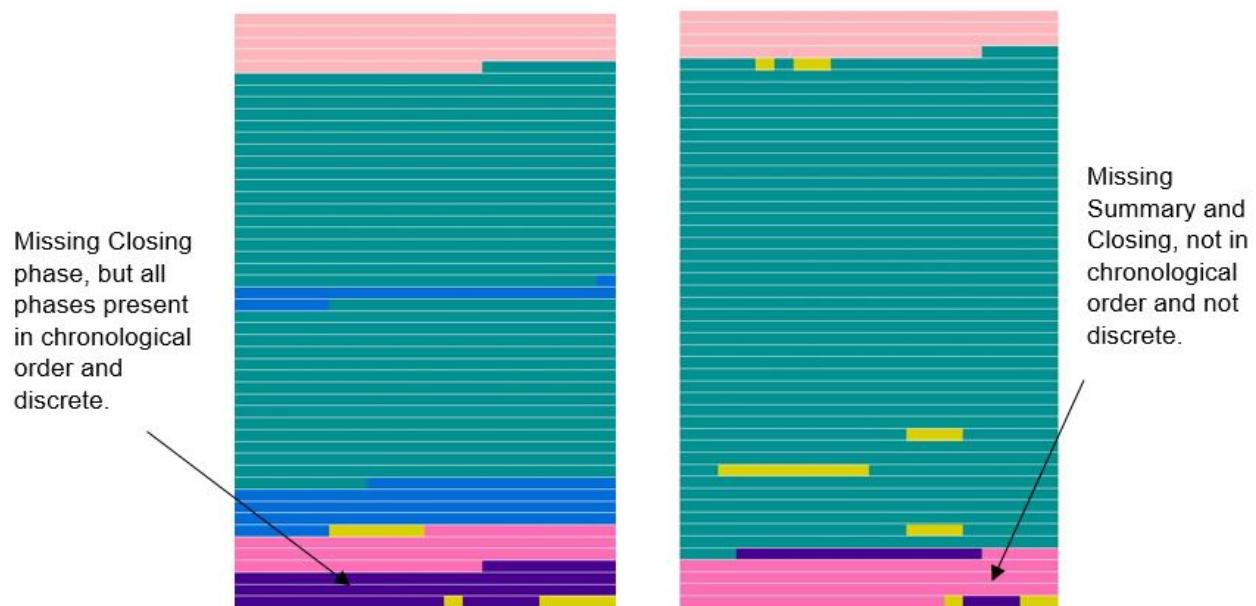


Figure 3.10 (left) and Figure 3.11 (right) History-taking visualisation, candidates 64 and 5 respectively

Figure 3.10 shows the 14 consultations that were set the first scenario of the 'History-taking' consultations. This scenario contained the only consultation not to include the Initiating phase, which was candidate 25, at the right end of the middle row. All the consultations in this scenario

allocated the most talk to the Gathering Information phase, ranging from just under half the consultation in candidate 17, right of the centre of the top row, to over three-quarters in consultation 62, second from the right in the bottom row.

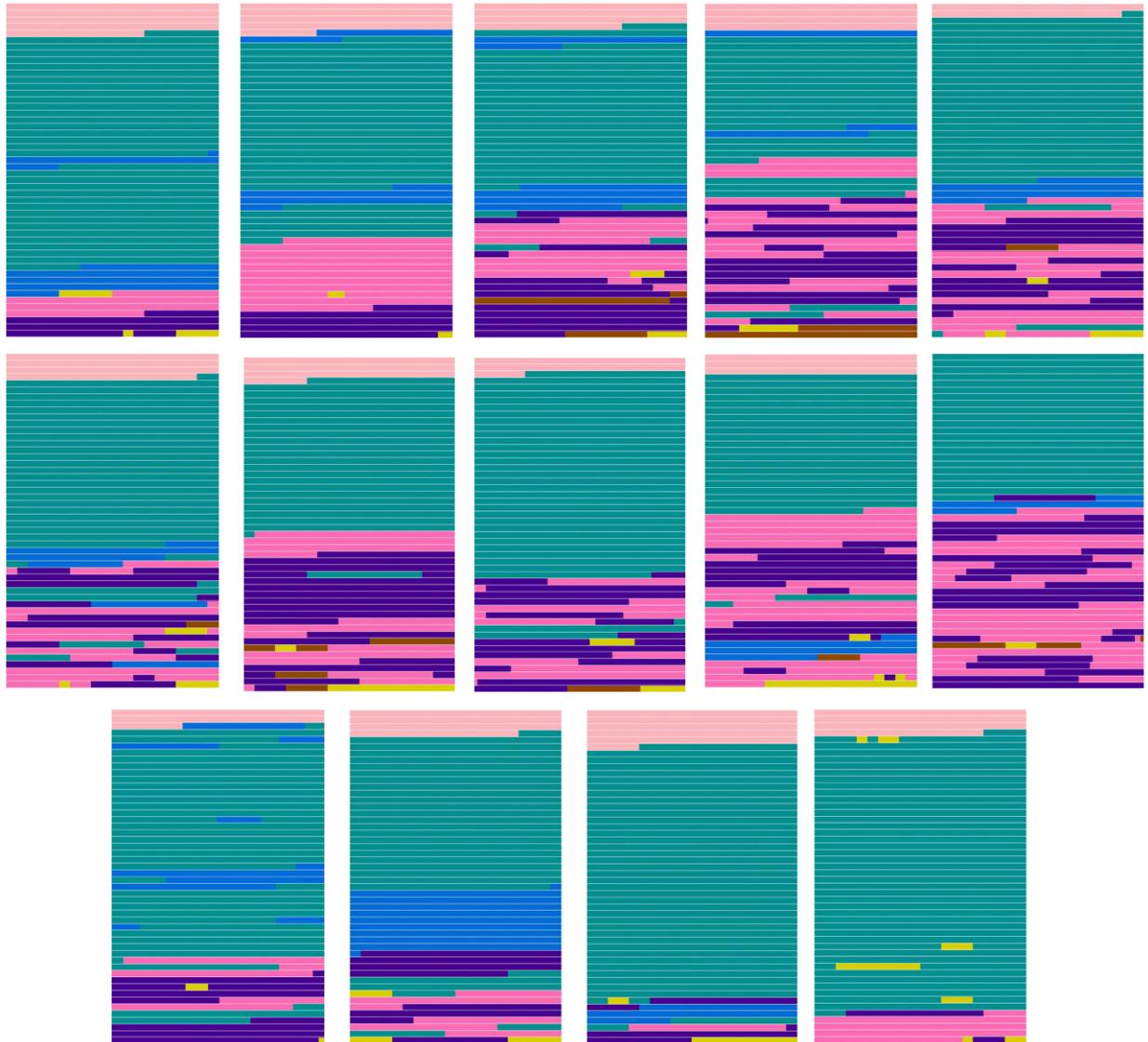


Figure 3.12 History-taking visualisations in scenario 1.

Top row candidates from left to right: 64, 2, 6, 17, 44.

Middle row candidates left to right: 60, 74, 23, 45, 25

Bottom row candidates left to right: 5, 59, 62, 40

3.4.2 Scenario 2 (N=10)

In this scenario we can see that the doctors allocated roughly the same amount of talk to each phase. In Figure 3.13 the doctor did not have a Summary phase, while the doctor in Figure 3.14

omitted the Summary and Closing phases. Both doctors allocated roughly the same amount of talk to the Initiating, Gathering Information, Explanation and Planning phases. However, candidate 38 met the most criteria as the phases present occurred in chronological order and were discrete, while candidate 35 moved into Planning before Explanation and intertwined the two, and even briefly returned to Gathering Information.

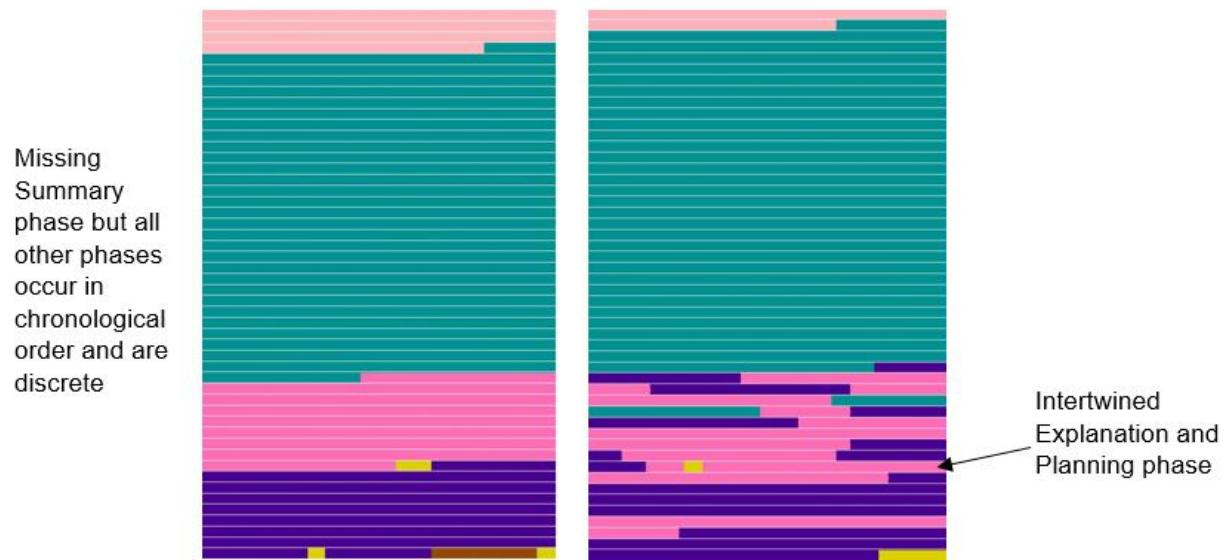


Figure 3.13 (left) and Figure 3.14 (right) History-taking visualisation, candidates 38 and 35 respectively

Figure 3.15 shows the ten consultations in this scenario. The variety in structure here ranged from most phases present but not chronologically presented or discrete in the top row, to at least two phases missing and non-discrete phases in the bottom row.

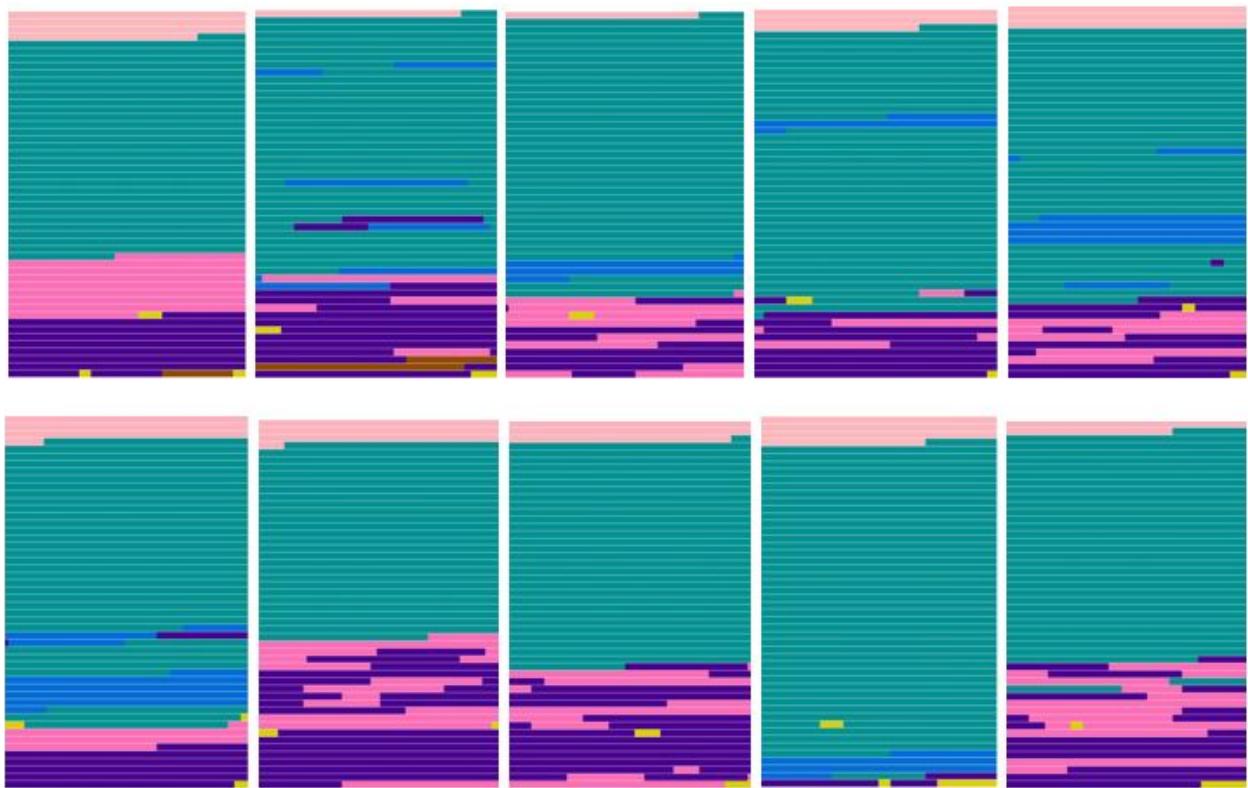


Figure 3.15 History-taking visualisations in scenario 2.

Top row candidates from left to right: 38, 4, 19, 10, 9. Bottom row: 12, 36, 28, 61, 35.

3.4.3 Scenario 3 (N=10)

In this scenario, the two doctors allocated similar proportions of talk to the Initiating and Gathering Information phases. The doctor in Figure 3.17 included all the phases of the Calgary-Cambridge Guide, while the doctor in Figure 3.18 omitted the Summary and Closing phases, and returned to Gathering Information after they had completed the Explanation phase.

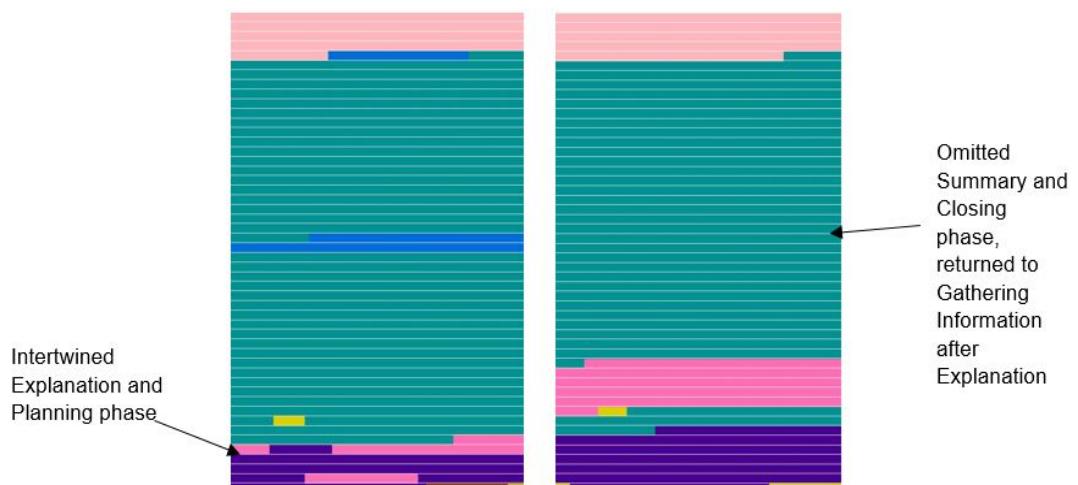


Figure 3.16 (left) and Figure 3.17 (right) History-taking visualisation, candidates 7 and 76 respectively

Figure 3.18 shows the full spectrum of ten consultations in this scenario. Noticeable similarities in this scenario include the proportion of talk allocated to the Initiating and Gathering Information phases across the board. However, it is apparent that the structures differed greatly in terms of all three criteria: number of phases present; their chronological order and how discrete they were.

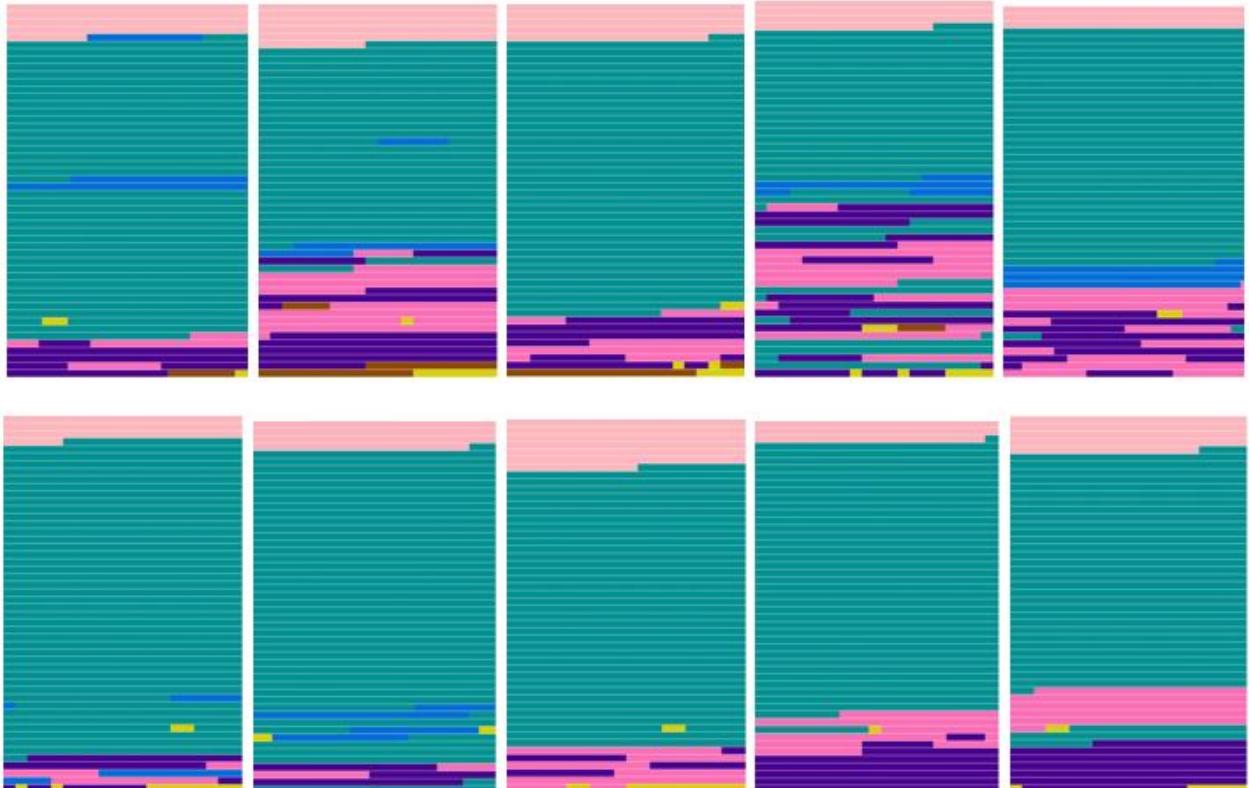


Figure 3.18 History-taking visualisations in scenario 3.

Top row candidates from left to right: 7, 77, 56, 67, 21. Bottom row: 63, 16, 43, 20, 76.

3.4.4 Scenario 4 (N=10)

The doctor in Figure 3.19 met the most criteria: all phases are present, and while Planning occurs before Explanation, all the phases are discrete. On the other end of the spectrum, the doctor in Figure 3.20 omitted the Summary and Closing phases, did not go through the phases in the chronological order proposed by the Calgary-Cambridge Guide and intertwined Gathering Information, Explanation and Planning.

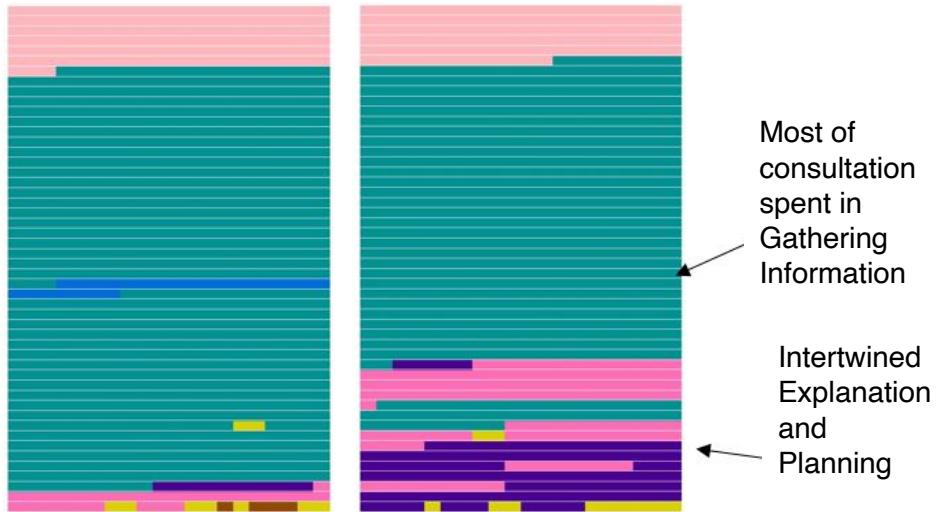


Figure 3.19 (left) and Figure 3.20 (right) History-taking visualisation, candidate 65 and 30 respectively

Figure 3.21 shows all ten consultations in this scenario. While the proportion of talk allocated to the Initiating phase is similar across the spectrum, wide variety can be seen in the amount of talk allocated to the rest of the phases. As with the previous scenarios, differences can be seen across the board regarding how discrete the present phases were in each consultation.



Figure 3.21 History-taking visualisations in scenario 4.

Top row candidates from left to right: 75, 53, 65, 51, 8. Bottom row: 11, 48, 30, 55, 47.

3.4.5 Scenario 5 (N=9)

Figure 3.22 shows all the consultations in this scenario, with the consultation that met the most criteria in the top left, and the consultation that met the fewest in the bottom right. Again, there is striking similarity in the amount of talk allocated to the Initiating phase across the nine consultations. Only one consultation included the Closing phase in this scenario, and only one consultation displayed discrete phases. While most of the doctors allocated most of their talk to Gathering Information, the proportion of talk allocated to Explanation and Planning varied right across the spectrum.

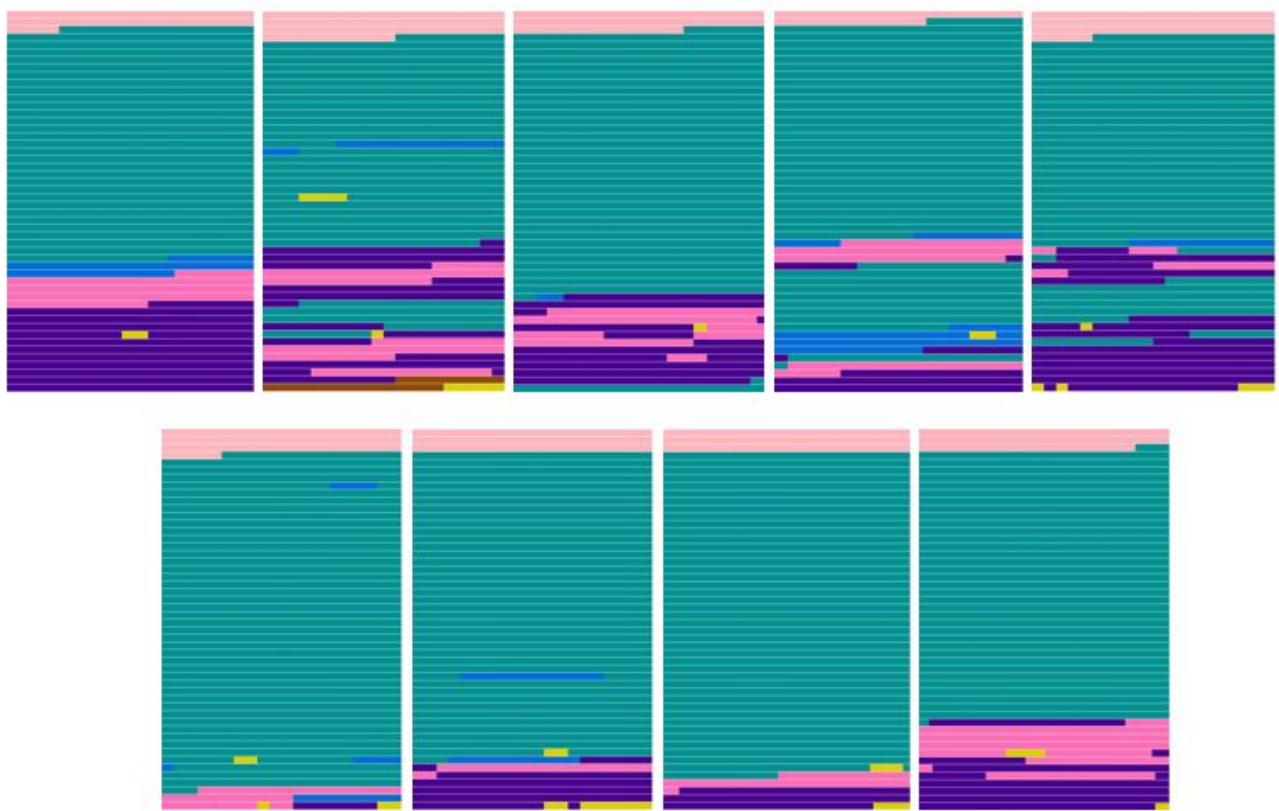


Figure 3.22 History-taking visualisations in scenario 5.

Top row candidates from left to right: 22, 37, 18, 54, 14. Bottom row: 50, 71, 3, 26.

3.4.6 Scenario 6 (N=8)

Figure 3.23 shows the eight consultations in this scenario. Unlike the previous scenarios, the amount of talk allocated to the Initiating phase varied across the spectrum in this scenario.

Candidate 41 met the most criteria, and interestingly, allocated the smallest proportion of talk to Gathering Information. Variations can be seen in terms of the presence of phases: only three doctors included all the phases, while the rest omitted either Summary, Closing or both. Most of the doctors proceeded through the phases in the chronological order proposed by the Calgary-Cambridge, although all the doctors in this scenario intertwined their phases.



Figure 3.23 History-taking visualisations in scenario 6.

Top row candidates from left to right: 41, 57, 49, 42. Bottom row: 46, 32, 58, 33.

3.4.7 Scenario 7 (N=6)

This scenario contained the only candidate to not only meet all three criteria, but also completed the consultation in the time allocated. Candidate 1 in the top left of Figure 3.24 shows all the phases present, in the chronological order suggested by the Calgary-Cambridge Guide, with no

interruptions. We can see that despite this congruence to the criteria, the rest of the consultations showed great variation. While four of the consultations included all the phases, not all proceeded through the phases in chronological order, and most other phases were intertwined. Having said that, the two consultations that omitted the Closing phase (consultations 29 and 78) showed similarity in the amount of talk allocated to all the phases apart from Planning.



Figure 3.24 History-taking visualisations in scenario 7.

Top row candidates from left to right: 1, 52, 73, Bottom row candidates left to right: 29, 72, 78.

3.4.8 Scenario 8 (N=6)

In this scenario the candidate who met the most criteria still displayed a consultation with intertwined Gathering Information, Explanation and Planning, with phases out of order. Candidate

24 in the top left corner of Figure 3.25 also completed the consultation in the allocated time. A third of the consultations included all the phases, and one additional doctor (number 34) also completed the consultation in the allocated time. All the doctors in this scenario intertwined their Gathering Information, Explanation and Planning phases. Visually, it may seem that the doctor in the bottom right has the closest to a 'clear' consultation; however, they missed both the Summary and Closing phase.



Figure 3.25 History-taking visualisations in scenario 8.

Top row candidates from left to right: 24, 68, 34. Bottom row candidates left to right: 66, 70, 13.

3.4.9 Scenario 9 (N=5)

This final scenario contained the fewest doctors. Interestingly, these doctors also displayed similar structure. Going across the spectrum in Figure 3.26, the proportion of talk allocated to the Initiating phase increases. All the doctors progressed through the Gathering Information uninterrupted by other phases, and allocated broadly similar proportions of talk to this phase. All these doctors proceeded through the phase structure in the chronological order suggested by the Calgary-Cambridge Guide, and apart from candidate 39, these phases are discrete. Even candidate 39 only briefly enters the Closing phase, and returns to it before the end of the consultation – although they do not complete the consultation in the allocated time.

This scenario also has the consultation with the fewest number of phases: candidate 69 does proceed through the phases in the proposed chronological order and with no interruptions, but this does not include the Summary, Planning or Closing phases.

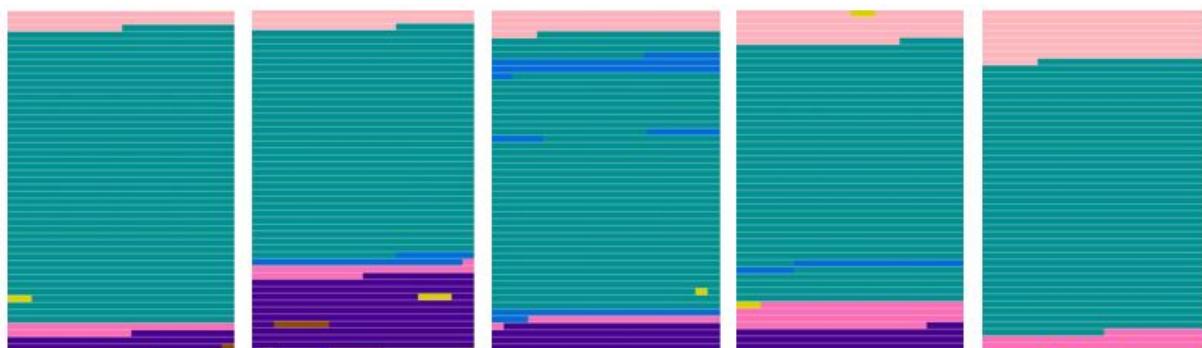


Figure 3.26 History-taking visualisations in scenario 9.

Candidates from left to right: 31, 39, 27, 15, 69.

These comparisons show that apart from the last scenario, doctors showed considerable variation in structure when faced with the same situations. The structure varied in the amount of talk allocated to phases, the order these phases occur and whether or not doctors move back and forth between the phases.

3.5 Summary

In this chapter we have seen the results of the analysis of the structure of the consultations in 'History taking'. We have seen that the Calgary-Cambridge Guide to the Medical Interview was an appropriate model to apply to the data, given the presence of phases in the consultation that are suggested in the Guide. However, consultation structure showed wide differences in the taught model and the reality. Not all doctors included all the phases of the consultation, and doctors spent varying amounts of time in each phase. The phases of the consultation could be identified, but the most doctors mixed phases together – particularly the Explanation and Planning phases. Few doctors completed the consultation. Finally, there was wide variation in consultation structure seen among the scenarios set for doctors, despite the same problems occurring in the scenario, within the same 14-minute time frame.

In the next chapter we will consider how doctors share this information about the structure of the consultation with the patient.

Chapter 4: Results of verbal signalling behaviour analysis in ‘History-taking’ consultations

In this chapter we will look at the results of the analysis of the verbal signalling behaviours that showed what was happening in the ‘History-taking’ consultations. In the previous chapter we saw the broad structure of the ‘History-taking’ consultations, and therefore in this chapter we will analyse the verbal signalling behaviours through which doctors shared this structure with the patient. These results will provide answers to the second research question:

- How do doctors signal information about the structure to their patients during a station called ‘History-taking’?**

The analysis of verbal signalling behaviours was conducted on the following three levels, using Speech Act Theory to identify the function of behaviours and Conversation Analysis to identify additional functions verbal signalling behaviours could have:

1. Types of verbal signalling behaviours

What were the different types of signalling behaviours, based on whether they informed, invited or instructed the patient?

2. Functions of verbal signalling behaviours

What were the explicit roles these signalling behaviours played?

3. Additional functions doctors could give these behaviours

Did behaviours play other roles, when considered in the context of the doctor-patient talk preceding it?

This chapter will present the results of these three analyses in turn.

4.1 Types of signalling behaviours

As described in the Methods, 974 verbal signalling behaviours were identified in the 78 consultations from the ‘History-taking’ station, which were categorised into the inform, invite and

instruct categories. These three overarching categories were expanded, leading to the creation of a taxonomy of verbal signalling behaviours, elaborated below. Each section will give a definition of the behaviour and examples of the behaviours found in the data. The examples presented are archetypal examples of each category and were selected from across the data, as shown by the candidate numbers accompanying each example.

4.1.1 Behaviours that inform the patient about what is coming next

This category was split into five further categories.

4.1.1.1 Signposts

The majority of *inform* behaviours collected were signposts, which could signal changes to the structure or content of the consultation.

Examples are given in the box below, with the signalling behaviour in bold. In Example 1, the signpost explicitly signals that a summary is about to follow and alerts the patient to an upcoming change in the structure of the consultation: that the doctor was about to move into the Summary phase.

In Example 2 the signpost suggests that the doctor will be moving on to discussing a plan with the patient, suggesting a change in the content.

Example 1: candidate 65, scenario 4

*DOC Okay. So, [patient name], I'm **going to** you know **summarise your problems.***

Example 2: candidate 34, scenario 8

*DOC Okay. Maybe I'll [inaudible]. I think **what we should talk about now is what... what we are going to do from now on.***

4.1.1.2 Posts without signs

The first new verbal signalling behaviour identified in the inform category indicated a change in the consultation coming up, but not what the content of that change would be. This was named a ‘post without sign’. As with signposts, the change they referred to could be either a phase transition or a change in topic of discussion.

In Example 3 in the box below the behaviour indicates a change is coming up but not using specific language: *bit* could refer to either a phase or topic change. The content of the change is not known until the doctor moves onto that topic of discussion. This example suggests two things: that there is a change coming up, but before proceeding to that there is going to be another intervening task or activity. In effect, this post without sign signals two events coming up.

In Example 4 the post without sign comes at the end of the doctor’s turn of talking. The language is again vague – there are questions coming up, but the content of these questions is not indicated.

Example 3: candidate 7, scenario 3

DOC *Okay, um, so just before I go onto the next bit so over the past six months you've been feeling increasingly more [symptoms]*

Example 4: candidate 11, scenario 4

DOC *Would you... would I be able to ask you some questions?*

4.1.1.3 Signs without posts

The second new signalling behaviour identified in the inform category indicated the content coming up, but not what was going to happen with this content. This type of verbal signalling behaviour did not give the patient information about how they were to be involved in the discussion, nor what they were expected to do. This was named a ‘sign without post’.

Example 5 in the box below shows a sign without post focusing on signalling a topic change. The doctor introduces the topic of alcohol, following it immediately with a question.

In Example 6 the sign without post is only one word long: *Walking*. It is undoubtedly a signalling behaviour as it signals a change in the consultation, but until the doctor asks the question the patient is uninformed as to what their role in the discussion will be.

Example 5: candidate 7, scenario 3

*DOC And **what about, um, alcohol**, do you drink any alcohol?*

Example 6: candidate 40, scenario 1

*DOC That's fine. **Walking** do you find from walking that you need to rest?*

4.1.1.4 Bi-directional signpost

This behaviour occurred after a topic was introduced. It is a verbal statement delivered after a topic has been discussed, or if a phase has been completed, that simultaneously indicates another change coming up. It is also sometimes used if a topic has been omitted, and simultaneously indicates that this topic is about to be discussed. This was named a 'bi-directional signpost'.

Example 7 is taken from a much larger extract of the doctor's turn. The behaviour in bold shows that the doctor is emphasising a topic they have omitted, while the language suggests that they are about to ask about this omitted topic. This is then confirmed in the utterance that follows, where the doctor asks the question.

In Example 8, the behaviour forms the entirety of the doctor's turn. The language again highlights an omission on the part of the doctor, which they are more explicit about returning to. It could be argued that these are not as explicit as the signposts, as the *one question* mentioned here is not specified until the doctor asks it afterwards.

Example 7: candidate 6, scenario 1

DOC *Something I didn't ask you, do you take, do you take the pill for contraception?*

Example 8: candidate 78, scenario 7

DOC *Just one question, sorry, I have to go back, I just remembered.*

4.1.1.5 Post signposts

Unlike the previous behaviours, this signalling behaviour only referred to content or structure that had already occurred or been introduced. It was delivered after a topic had been discussed, typically providing a rationale for why the topic was raised, or an apology for raising a sensitive topic. This was named a 'post signpost'. In some instances, it was also used after discussion of a topic had already been concluded.

In Example 9 the behaviour is the entire doctor's turn of talk. This post signpost focuses on an apology from the doctor for raising a sensitive subject (the colour of the patient's stools).

Example 10 again highlights a behaviour that forms the entirety of the doctor's turn of talk. The doctor uses this post signpost to draw attention the volume of information that they have just given to the patient.

Example 9: candidate 26, scenario 5

PAT *Um, I don't know, I think it's kind of a normal colour.*

DOC *Sorry to be asking you that*

Example 10: Candidate 74, scenario 1

PAT *Um, oh, just, sort of, trying to absorb this, I suppose.*

DOC *I've given you a lot of information.*

4.1.2 Behaviours that invite the patient to choose what comes next in the consultation

This category was further divided into five categories, elaborated in the following section.

4.1.2.1 Open choice

This *invite* verbal signalling behaviour invited patient contribution through an 'open choice', giving the patient the opportunity to create the agenda of the consultation with the doctor.

Example 11 is the only instance of this behaviour found in the History-taking station. The doctor prefaces the use of this behaviour by reflecting back what the patient has said, while the behaviour itself enables the patient to put forward additional desired outcomes to the agenda of the consultation.

Example 11: candidate 9, scenario 2

*DOC Yes, certainly. So it's sort of obviously one thing you want to get out of today is to get some pain relief, **is there anything else you were sort of expecting out of today that you're wanting to get out of this consultation?***

4.1.2.2 Limited choice

This behaviour presented patients with the opportunity to contribute to the existing structure through choices of content, rather than giving the patient the opportunity to contribute to the creation of the overarching structure itself.

In Example 12, the doctor presents the patient with an option to ask any questions before the consultation moves to the next phase. In Example 13 the doctor presents the patient with a choice from two options.

Example 12: candidate 5, scenario 1

*DOC Okay, that's fine. **Is there anything that you'd like to... to ask me before I tell you what I think it might be?***

Example 13: candidate 48, scenario 4

*DOC **Would you like me to explain a bit, or explain it more?***

4.1.2.3 Check-in

The third invite behaviour to discuss in the invite category is a parallel to the post signposts identified in the inform category in that it typically referred back to what had just been discussed, but invited patient contribution to that content. This could refer to a specific topic that had just been discussed as in Example 14, or to the broader consultation as in Example 15.

Example 14: candidate 67, scenario 3

DOC So, to, to... did I miss anything, from what I've summarised so far?

Example 15: candidate 78, scenario 7

DOC And... is there any question you'd like to ask me, or anything you want me to go through with you today?

4.1.2.4 Test

This behaviour presented patients with the opportunity to contribute correct understanding of the purpose of the consultation through a 'test'. This behaviour was also used to invite patient understanding of content that had been discussed.

The difference between the test behaviours in Example 16 and 17 is the timing of their use: Example 16 appears at the start of the consultation, as part of the agenda setting in the Initiating phase. Example 17 is used towards the end of the consultation, after the discussion of the treatment plan.

Example 16: candidate 37, scenario 5

DOC Do you know why we are here today? I think you've been to your GP and you were complaining of [symptoms]

Example 17: candidate 60, scenario 1

DOC So you understand the plan now?

4.1.2.5 Rhetorical question

This appeared to present the patient with an opportunity to contribute to the consultation, but was instead used to signal a change in the consultation structure. One rhetorical question was found in the History-taking station, which can be found in Example 18.

Example 18: candidate 4, scenario 2

DOC We need to get to the bottom of things, why have you developed this pain? It's quite sudden, isn't it?

4.1.3 Behaviours that instruct the patient on how to progress

These behaviours were split into two further categories, described below.

4.1.3.1 Directing input

The first *instruct* signalling behaviour directed patient input into the consultation, through commands indicating what the patient should or should not do with regards to progressing forward. In Example 19, the doctor instructs the patient to halt the flow of the consultation if there is any incorrect information summarised by the doctor. In Example 20, the patient is instructed to return to a topic of discussion that has been mentioned previously, signalling a change in content.

Example 19: candidate 15, scenario 9

DOC Stop me if I'm wrong there?

Example 20: candidate 31, scenario 9

DOC Okay. All right. Just go back to when these all started today, do you remember feeling at all sick when this happened?

4.1.3.2 Directing emotion

Other instruct behaviours focused on patient emotion which could affect the flow of the consultation. In Examples 21 and 22, the doctors use commands to direct patient away from

negative emotion – and in the latter example backs up this command with a signal that they will provide information that will allay the potential confusion.

Example 21: candidate 52, scenario 7

DOC Yes. Right now, please not to be worried.

Example 22: candidate 72, scenario 7

DOC Okay, please, don't be confused by the term, I will write it down for you and explain it to you.

4.1.4 Frequency of verbal signalling behaviours by type

Table 4.1 shows the total number and proportions of behaviours identified in the ‘History-taking’ consultations.

Table 4.1: Signalling behaviours identified from ‘History-taking’ consultations (N=78)

Type of behaviour	Number of behaviours	% behaviours
Inform		
Signpost	319	33%
Post without sign	208	21%
Sign without post	146	15%
Bi-directional signpost	141	15%
Post signpost	81	8%
<i>Subtotal</i>	<i>895</i>	<i>92%</i>
Invite		
Limited choice	35	4%
Check-in	12	1%
Test	3	0%
Open choice	1	0%
Rhetorical question	1	0%
<i>Subtotal</i>	<i>52</i>	<i>5%</i>
Instruct		
Directing input	14	1%
Directing emotion	13	1%
<i>Subtotal</i>	<i>27</i>	<i>3%</i>
Total	974	100%

Of the three main categories, inform behaviours were the most numerous (895/974, 92%). From the table we can see that the most common verbal signalling behaviours were signposts (319/974, 33%).

4.1.5 Summary of verbal signalling behaviour types

In this section we have seen the creation of a taxonomy of signalling behaviours (Figure 4.1) based on whether they informed, invited or instructed the patient.

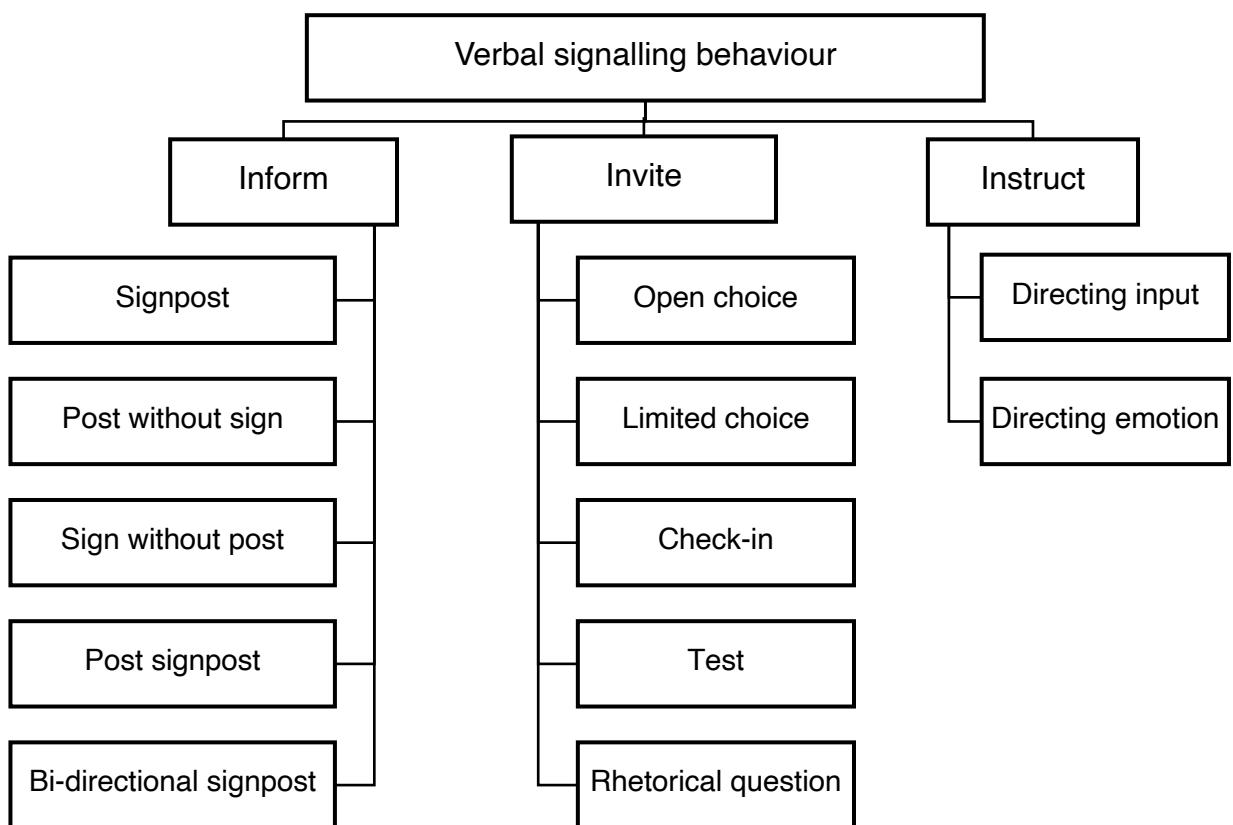


Figure 4.1 Taxonomy of verbal signalling behaviour types in 'History-taking' consultations (N=78)

In the following section, we will see the roles these behaviours could have.

4.2 Functions

The next analysis considered the role of the verbal signalling behaviour within the consultation:

- what was its function?

Through this analysis it was found that most signalling behaviours had functions related to structure or content. Some behaviours could relate to both structure and content and were determined by which of the two followed after. However, it was discovered that they were also used to respond to concerns raised by the patient. Thus four main categories of functions were found: those related to structure; those related to content; those related to structure or content; and those related to concerns. These four main categories were further divided into separate functions, which will be elaborated below. Each section will give a definition of the function and typical examples.

4.2.1 Behaviour functions related to structure

As outlined in the Methods, the entry point for identifying the functions of these behaviours was to identify how they showed what was coming regarding consultation structure. There were seven categories identified that showed what was happening regarding the structure, elaborated below.

4.2.1.1 Agenda setting

Doctors' verbal behaviours signalling agenda setting are typically delivered at the start of the consultation, predominantly in the Initiating phase or immediately after it. This behaviour function provides an overview of what will follow, typically by giving a plan or rationale for the consultation.

The behaviour in bold in Example 23 is a signpost with the overview function. The doctor provides the patient with information about what will happen in the consultation, breaking it down into stages and providing a rationale. This is a full overview of the consultation, and the doctor also follows it up with a quick check with the patient to see if the patient is in agreement with this plan.

The behaviour in Example 24 is a post without sign, as it signals the structure ('*a chat*') but not what the content will be about. Unlike the previous example, this overview is not as informative nor as full as the signpost in Example 23.

Example 23: candidate 53, scenario 4

DOC Okay. Uh, I'll be asking a few questions, you know, to find out exactly what's going on, and then we'll address your concerns and we'll devise how, how we will proceed from there on. Is that alright?

Example 24: candidate 18, scenario 5

DOC Would it be okay if I just had a chat with you?

4.2.1.2 Plan

The plan function is similar to the overview, but it occurs in the other phases of the consultation.

It gives a plan of what will come next or at a later stage in the consultation.

In Example 25, the highlighted behaviour is a signpost providing the patient with a plan of what to expect over next stage of the consultation, specifically detailing the content of the plan. By contrast, the plan function highlighted in the post without sign in Example 26 does not give as much information as the previous example. It is still a plan as it shows what will happen next, as well as providing a rationale.

Example 25: candidate 48, scenario 4

DOC No, I mean, that, that's what we're going to discuss, um, I'll explain to you what does this [diagnosis]

Example 26: candidate 52, scenario 7

DOC Sure. Okay. So can I just run through a few questions quickly... Just to make sure that I didn't miss anything

4.2.1.3 Inviting the patient to construct the consultation

This function typically occurred as an invite behaviour and provided the patient with an opportunity to contribute to the structure of the consultation. This opportunity could present itself as an open opportunity to create structure or content, or more usually as a choice from options presented by the doctor.

Example 27 is a limited choice giving the patient the opportunity to contribute to the structure by inviting another party into the consultation. A directing input behaviour is seen in Example 28, where the doctor signals the patient's opportunity to contribute to the consultation, having previously interrupted them.

Example 27: candidate 2, scenario 1

DOC *Okay, fine. Um, and just to confirm you didn't want anyone else... you didn't want anyone else to do consultation or [overtalking].*

Example 28: candidate 65, scenario 4

DOC *Sorry, you may talk, yeah.*

4.2.1.4 Transition between consultation phases

The transition between consultation phases function indicates a change is coming in terms of phases ending and a new one beginning. The language contributing to a phase transition can either be vague or specific.

Example 29 gives a bi-directional signpost that is specific about the change happening: that the doctor has gathered enough information, hence signalling that one phase has ended and another one will begin. The post without sign highlighted in Example 30 provides less specific information about the change coming up. The behaviour indicates a phase transition is coming up, but not what the purpose of the new phase will be.

Example 29: candidate 31, scenario 9

DOC *Okay. Well, I think I've got enough history now.*

Example 30: candidate 7, scenario 3

DOC *Okay, um, so just before I go onto the next bit...*

4.2.1.5 Transition to summary

The transition to summary function is a sub-category of the phase transition function. However, it was pulled out from that category as it explicitly references that the summary phase is coming, and was a consistent feature observed in the consultations.

Examples 31 and 32 are the archetypal introductions to summary. The behaviour will usually feature the word ‘*summarise*’ or a synonym (‘*recap*’ in this case), and sometimes a rationale for why the summary is coming, to ascertain that the doctor has the correct information in this case.

Example 31: candidate 46, scenario 6

DOC Okay. So, I'd just like to recap to make sure that I got this right.

Example 32: candidate 9, scenario 2

DOC Okay. So, I'm just going to summarise a bit of what we've talked about so far...

4.2.1.6 Transition to physical examination

These signposts showed a movement to the (hypothetical) physical examination. These were few in number in the dataset given the simulated consultation does not require a physical examination.

In both Examples 33 and 34, there may be some argument that the physical examination the doctors suggest will take place after the consultation. However, the use of the word ‘*now*’ in both cases grounds the physical examination as a part of the current consultation.

Example 33: candidate 39, scenario 9

DOC I think we should stop that. Let's check your blood pressure now but it's been since then I think we shall stop it and follow your blood pressure, follow up your blood pressure very, very closely.

Example 34: candidate 77, scenario 3

DOC We will definitely maybe in one week see you examine you now and then make sure that you get all the blood tests done.

4.2.1.7 External activity

This function typically indicates that the doctor is doing something outside the dialogue of the consultation, such as referring to notes or writing something down. These are events that will still happen within the course of the current consultation.

In Example 35, the signpost indicates note-taking, and the signpost in 36 shares that the doctor will refer to resources outside the conversation.

Example 35: candidate 68, scenario 8

DOC *Nice to see you. During the consultation I will write some notes, do you mind?*

Example 36: candidate 6, scenario 1

DOC *Um, well, I will look at the report of your x-ray just now. I wasn't aware that you'd already had the x-ray, but that's a good thing to have, it gives us a... it gives us a good start.*

4.2.2 Behaviour functions related to content

There were eleven functions found that related to the content of the consultation, which will be shown in the following sections.

4.2.2.1 Change of topic

The change of topic function is typically conveyed through a verbal statement that explicitly refers to the content of the discussion to follow. It does not always provide information about how the patient is to be involved in the discussion.

In Example 37, this archetypal sign without post topic transition explicitly refers to the topic of discussion the doctor wants to return to but does not provide the patient with explicit information about what aspect of smoking will be discussed. Similar to the previous example, the sign without post in Example 38 explicitly refers to the topic to be discussed ('diarrhoea').

Example 37: candidate 4, scenario 2

DOC Okay, and **going back to the smoking**, have you stopped smoking?

Example 38: candidate 14, scenario 5

DOC Okay, right, so **can I just go back to the diarrhoea then**, is that all right, so, how long has that been going on for?

4.2.2.2 Introducing questions

This function typically occurs in the Gathering Information phase and is used by the doctor to start a question or a line of questioning. Doctors may be specific about the content of the questions introduced, through the use of signposts, or they may be vague about the content, through the use of posts without signs, or how the patient is to be involved in the discussion, through the use of signs without posts.

Example 39 is a typical post without sign introducing questions in a vague way: it shows an unspecified number of questions are coming up but not what they will focus on. Example 40 is a sign without post that gives the patient the specific topic to be discussed, but not what the patient's involvement will be.

Example 39: candidate 11, scenario 4

DOC Okay. And, have you... **just some other questions**: have you had a cough at all?

Example 40: candidate 18, scenario 5

DOC Uh, **can I just go through your other medications**?

4.2.2.3 Introducing sensitive questions

This function is similar to the introduction of questions. It differs in that it usually occurs with an adjective suggesting the upcoming topic may cause discomfort or seem surprising, and sometimes a phrase suggesting that the topic is raised, as a matter of routine, of all patients.

Example 41 is an archetypal introduction to a sensitive subject, using a post without sign. It uses an adjective to flag that the question may not be what the patient expects, but then follows this up with a phrase that states the doctor asks the question of all their patients. The post without sign in Example 42 is a little more specific, in that it suggests the question that will follow might be more sensitive ('*personal*').

Example 41: candidate 8, scenario 4

DOC *And this may sound like a funny question, but I do ask everyone. Do you take any recreational drugs at all?*

Example 42: candidate 43, scenario 3

DOC *Okay, so, uh, can I ask you about personal question? Uh, do you smoke?*

4.2.2.4 Explaining/clarifying

This function signals that a clarification or explanation is forthcoming regarding jargon, diagnosis or treatment options. It applies to isolated instances of explanation, which can occur within any of the phases (including Explanation). However, the introduction to the Explanation phase as a whole is signalled by the phase transition function.

In Example 43, the consultation is in the Explanation phase when the patient asks about the relevance the results of a medical test they have been given. The doctor uses the signpost to show that they are about to provide an explanation of the potential diagnosis. The bi-directional signpost in Example 44 is used by the doctor to indicate that they have realised they have used a jargon term that may not be understood by the patient. The behaviour is phrased in a way that suggests the explanation is forthcoming.

Example 43: candidate 6, scenario 1

DOC *But [redacted diagnosis] would be high up on my... my list of things to look for. **To tell you a bit about the condition, it's a...***

Example 44: candidate 20, scenario 3

DOC *It's what we call a [redacted medical term] and... sorry, **I should have explained that better really, um, it's when [explanation of condition]***

4.2.2.5 Warning shot

This function signals that the doctor is about to deliver bad news. It uses language that may prepare the patient for unwelcome or potentially upsetting discussion.

In Examples 45 and 46, the posts without signs are both warning shots that use adjectives that indicate negative emotion ('afraid'), signalling that the points that doctors are about to make may cause the patient distress.

Example 45: candidate 28, scenario 2

DOC *Now, you mentioned one of your concerns was it might be related to the [disease], and **I'm afraid to say that might be the case, okay?***

Example 46: candidate 48, scenario 4

DOC ***I'm afraid** the symptoms you're having, which are mainly, um, which I have picked up and which I am concerned about, is [list of symptoms]*

4.2.2.6 Acknowledging sensitive topic

This function occurs after a question about a sensitive topic has been raised or discussed. It typically includes some form of apology and possibly a rationale for asking the question.

Example 47 is a post signpost that contains most of the typical features of an apology for a sensitive question: it starts with an apology and a rationale for asking the sensitive question. In Example 48 the post signpost is an apology that comes after the patient has responded to the doctor's question regarding potential drug use, the signalled sensitive topic.

Example 47: candidate 71, scenario 5

DOC *Okay, so you have not noticed any bleeding?*

PAT *No, no.*

DOC ***Sorry I asked, but I wanted to check just to make sure.***

Example 48: candidate 60, scenario 1

DOC *Okay, by any chance any recreational drugs?*

PAT *No, no.*

DOC ***That's good. Sorry you have to answer this question.***

4.2.2.7 Acknowledging bad news

This function always occurs attached to a post signpost, and highlights that the doctor has delivered information that the patient may need to process. This function has an in-built element of empathy, given the need to acknowledge the possibility of unfavourable news or information.

Examples 49 and 50 are post signposts that acknowledge the bad news delivered: the doctors indicate that the information they have delivered may be upsetting or shocking to the patient, which gives the patient time to assimilate.

Example 49: candidate 6, scenario 1

DOC *And... and other investigations which perhaps we'll touch on the next time we meet, um, as and when required. Um, I've said about a lot to you in a short period of time and I'm trying to explain something which is really quite complicated...*

Example 50: candidate 35, scenario 2

PAT *Oh right, [overtalking].*

DOC ***Just so that we can get all this done. I know it's quite shocking [overtalking].***

4.2.2.8 Thanking patient for information

As with the previous function, thanking the patient for the delivery of information is found attached to post signposts, typically reinforced with a positive adjective or adverb.

Examples 51 and 52 show doctors using post signposts that thank the patient for information, typically at the end of the Gathering Information phase.

Example 51: candidate 72, scenario 7

DOC *And you want to know about the reason, and one of your concerns is, could it be [diagnosis redacted].*

PAT Yeah.

DOC Okay. **Thank you very much for giving me such an elaborate history.**

Example 52: candidate 75, scenario 4

PAT *There, well sixty yes. Fifty odd years.*

DOC *Alright sir. Okay. Thank you very much for talking to me. You gave me all this valuable information.*

4.2.2.9 Professional disclosure

This function signals that the doctor is about to make a comment that relates back to their role as a professional. This may typically preface a frank admission from the doctor that a diagnosis is uncertain or not forthcoming because they do not have the tools or expertise to make one.

Example 53 is a bi-directional signpost with this function, referring back to the fact that the doctor has indicated that a diagnosis is not forthcoming while also providing a rationale for the disclosure. The behaviour in Example 54 is a post without sign that indicates the doctor is putting forward ideas that are possibilities rather than absolutes.

Example 53: candidate 44, scenario 1

DOC *Well, to be honest with you, what you have described to me fits very well into this picture.*

Example 54: candidate 20, scenario 3

DOC *Okay, okay, right, so, if I'm honest, I don't know exactly what's going on, but I've got an idea what we could be looking at.*

4.2.2.10 Checking with patient

This function is typically attached to invite behaviours, providing the patient with an opportunity to ask for clarification of information delivered. Patients may also find the opportunity to express an opinion, or be asked to correct any information the doctor has given.

Example 55 is a limited choice behaviour, inviting the patient to express an opinion about the suggested plan. The behaviour is an Example 56 is a directing input, instructing the patient to make corrections to what the doctor is saying.

Example 55: candidate 28, scenario 2

DOC So, we would recommend that you stay in hospital, yeah. Do you feel all right about that?

Example 56: candidate 69, scenario 9

DOC Um, correct me if I'm wrong. You're taking something for your diabetes, right?

4.2.2.11 Final check

This function has some similarity to the checking with patient in that it elicits information from the patient: more specifically, this enables the patient to ask remaining questions or provide additional information typically towards the end of a consultation phase or the consultation itself.

In Examples 57 and 58, the behaviours are limited choices that invite patient input before the doctor moves on; in the case of Example 57, it is from Gathering Information to Explanation, and in Example 58, it is in the Closing phase, just before the end of the consultation.

Example 57: candidate 5, scenario 1

DOC Okay, that's fine. Is there anything that you'd like to... to ask me before I tell you what I think it might be?

Example 58: candidate 34, scenario 8

DOC Is there anything else that you're worried about, or you think that we need to talk about that we haven't spoken about today?

4.2.3 Behaviour functions related to structure or content

In addition, a number of function categories were able to refer to either the structure or the content, depending on what they referred to. This section will go through the five functions that fell into this category.

4.2.3.1 Listing

This function typically (but not always) occurs in stages: the first part states that a list is coming, and the subsequent list itself, which may be presented in numbered form. In some cases only part of the stages will be found (e.g. only the first part, or a phrase suggesting the final part of a list).

In Example 59 the doctor responds to the patient question with a signpost suggesting a three-part list will be coming up: it is the first part of a list relating to content. Example 60 is a signpost with the listing function, that the doctor applies to the structure of the consultation – implying the diagnosis or Explanation phase will come first.

Example 59: candidate 22, scenario 5

DOC *Okay, fine, right, um, well, um, there are three different reasons why you might have [symptoms redacted].*

Example 60: candidate 76, scenario 3

DOC *So, first we need to start with er the diagnosis*

4.2.3.2 Reminding

This function typically attaches to behaviours that refer to what has happened previously, such as the post signpost or bi-directional signpost. It serves to repeat or reinforce what the doctor has said previously.

While both the doctors in Examples 61 and 62 use bi-directional signposts to reinforce their points, the doctor in Example 61 refers to a structural point about carrying out a physical

examination, while the doctor in Example 62 reinforces that the conversation with the patient has covered the '*main things*'.

Example 61: candidate 39, scenario 9

DOC *Okay. And um however **as I said** I'd like to examine you, and I'd like to carry out other investigations before we just put it down to that.*

Example 62: candidate 55, scenario 4

DOC *Um, so, this is, this is a few, kind of, conditions that can cause [redacted]. Um **the main things I said already**, like, we will try to do a blood test first and do...*

4.2.3.3 Emphasis

This function draws attention to what the doctor is about to say or has just said, typically through the use of an adjective, adverb or phrase that highlights the importance or urgency of it.

In Example 63 the post without sign draw attention to what the doctor is saying in reference to the structure of the consultation – '*find out what is going on*'.

Example 64 is a post signpost that emphasises the content, referring back to the medication that the doctor had just mentioned.

Example 63: candidate 19, scenario 2

DOC *So **I think the urgent thing** would be to find out what's going on and to treat that appropriately.*

Example 64: candidate 28, scenario 2

DOC *Of course, of course, so... [inaudible], and then [redacted medication] **will be a priority actually**, um, and there is treatment that we can give, okay?*

4.2.3.4 Rationale for moving forward

This function typically points in two directions: it makes reference to what the patient or doctor has said previously, and uses that as a rationale for the signalled change coming up.

In Example 65, the bi-directional signpost signals that the doctor is aware they have already asked a question, using that as a launch pad to ask it again – this function refers to content. In Example 66 the doctor uses the bi-directional signpost to refer to the structure: signalling a reversal to a previous stage. They also provide a rationale for this, indicating the return is due to an omission.

Example 65: candidate 41, scenario 6

*DOC Okay. Do you, do, **sorry I ask you again.** Do you notice that, how is your urine?*

Example 66: candidate 33, scenario 6

*DOC Sure, sorry, **just to go back, I did forget to mention,** have you had any sickness?*

4.2.3.5 Warning what won't happen

This function typically occurs in the Explanation and Planning phase, and serves to let the patient know what will not be happening in the consultation. This could refer to a diagnosis, treatment plans, or clarity about answers to patient questions.

Example 67 shows that the doctor is using the signpost to indicate they cannot provide certain information during the consultation, while in Example 68 the signpost is used to signal that a diagnosis cannot be provided without further conditions being fulfilled i.e. *any investigation*.

Example 67: candidate 9, scenario 2

*DOC All depends on the results. **I can't promise you how long you'll be here and how long these will take as it depends on the results.***

Example 68: candidate 41, scenario 6

*DOC As first line. We pass first first everything, sort out first. Then we can tell to you. Okay. **I cannot tell you without any investigation.***

4.2.4 Behaviour functions related to concerns

It was discovered that verbal signalling behaviours could be used to explicitly address concerns raised by the patient. This category was split into two further functions, which will be discussed below.

4.2.4.1 Reassuring

These verbal signalling behaviours may include a small plan or aim that will alleviate the patient's concerns.

The doctor in Example 69 uses a directing emotion behaviour, while the doctor in Example 70 uses a post signpost. Both use the verbal signalling behaviours towards the start of their turn, as an immediate response to the patient question focusing on a concern in the preceding turn.

Example 69: candidate 54, scenario 5

PAT *No, that's what I'm saying, I never had any explanation for it. I'm still none the wiser, about why I was feeling so unwell.*

DOC *Okay. Don't worry, we'll take it step by step.*

Example 70: candidate 21, scenario 3

DOC *Okay, well that's really reassuring. I think it's, it could be something that's sort of the more peripheral things, and I think it sounds like it is also related to what we call [redacted medical condition]*

4.2.4.2 Postponing discussion of a concern

These serve to delay addressing a concern raised by the patient to later in the consultation.

Examples 71 and 72 are signposts included in the doctors' response to a concern raised by the patients. The response signals a return to the patient concern, but to place the doctor questioning ahead of that.

Example 71: candidate 23, scenario 1

PAT *Um, just, sort of, these [symptoms] have been coming up and then, is that leading to the other stuff too?*

DOC *It could be, we just have to go through everything first.*

Example 72: candidate 62, scenario 1

PAT *What could that be?*

DOC *Okay. Um, before I go into that, let me ask you a few questions, okay?*

4.2.5 Frequency of verbal signalling behaviours by function

Table 4.2 shows the number of behaviours found with each function in the 78 'History-taking' consultations.

Table 4.2: Function categories of behaviours identified from 'History-taking' consultations (N=78)

Function	No. of behaviours	% behaviours
<i>Related to structure</i>		
Plan	67	7%
Transition to summary	38	4%
Agenda setting	29	3%
Transition between consultation phases	12	1%
External activity	12	1%
Inviting patient to construct consultation	8	1%
Transition to physical examination	2	0%
<i>Subtotal</i>	167	17%
<i>Related to content</i>		
Introducing questions	299	31%
Change of topic	62	6%
Introducing sensitive questions	30	3%
Checking with patient	28	3%
Final check	28	3%
Explaining/clarifying	27	3%
Acknowledging sensitive topic	13	1%
Acknowledging bad news	11	1%
Professional disclosure	11	1%
Warning shot	4	0%
Thanking patient for information	3	0%
<i>Subtotal</i>	516	53%
<i>Related to structure or content</i>		
Listing (content)	68	7%
Reminding (structure)	54	6%
Reminding (content)	36	4%
Warning what won't happen (content)	32	3%
Listing (structure)	23	2%
Rationale for moving forward (content)	12	1%
Emphasis (structure)	10	1%
Emphasis (content)	7	1%
Rationale for moving forward (structure)	2	0%
Warning what won't happen (structure)	2	0%
<i>Subtotal</i>	246	25%
<i>Related to patient concerns</i>		
Reassuring	27	3%
Postponing discussion of concerns	17	2%
<i>Subtotal</i>	44	5%
Total	974	100%

The majority of behaviours found in the data contained functions outright related to content: 516/974 (53%). This jumped to 671/974 (69%), when the five functions that could be related to structure or content were included, when they related to content. Almost a third of the total behaviours were used to introduce questions (299/974, 31%). Sharing the plan was the third most frequent function found (67/974, 7%).

4.2.6 Summary of verbal signalling behaviour functions

In this section we have seen the creation of a taxonomy of functions that each verbal signalling behaviour could have (Figure 4.2). In the following section we will see the interaction between the various behaviour types and combinations.

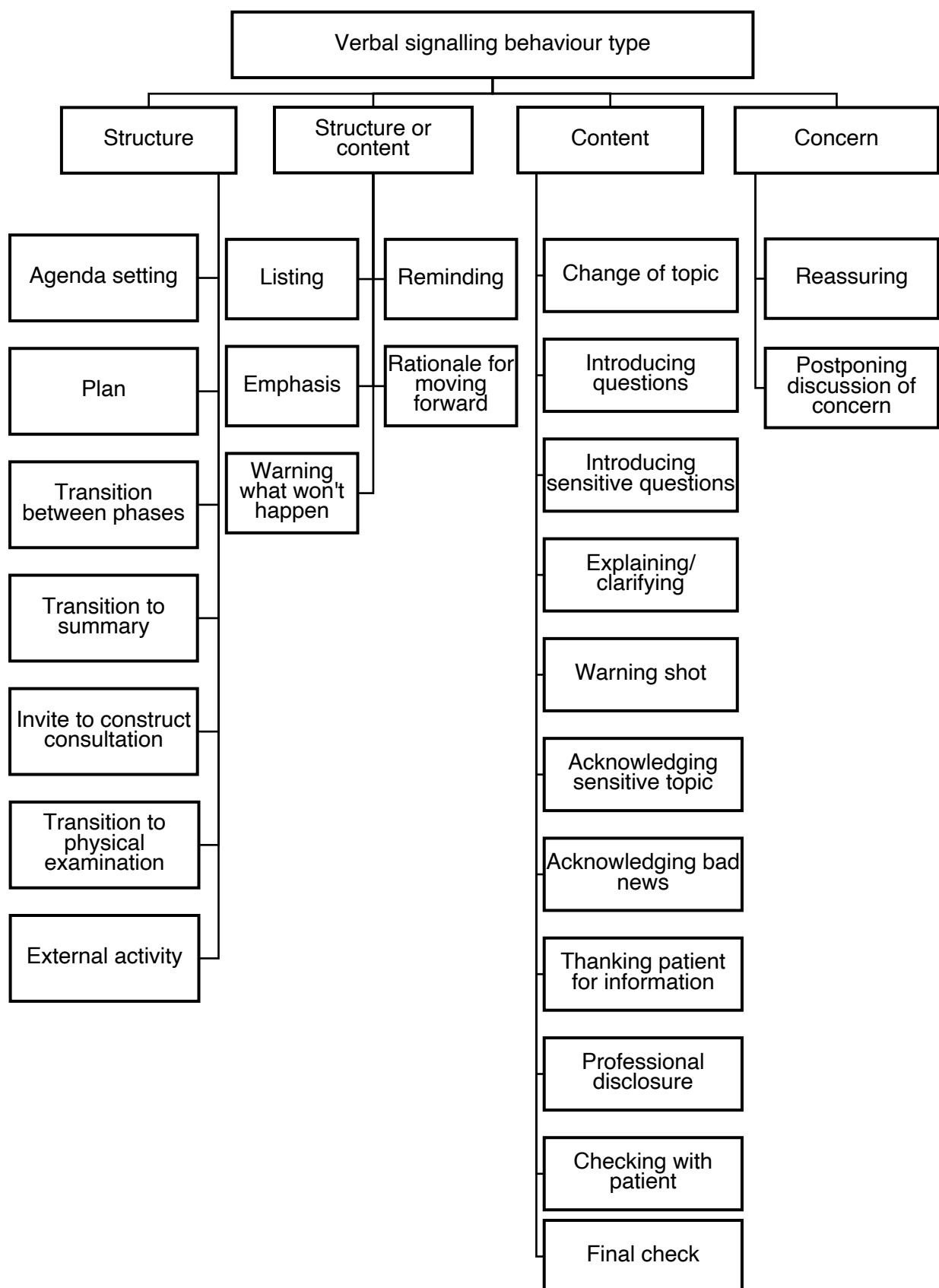


Figure 4.2 Taxonomy of verbal signalling behaviour functions in 'History-taking' consultations (N=78)

4.3 Types of verbal signalling behaviour by function

In the previous two sections we saw the creation of a taxonomy of signalling behaviours and a list of the functions these behaviours could have in this set of consultations. In this section, we will compare the different signalling behaviours by function, looking at the most common roles each behaviour played. Chart 4.1 shows the number of behaviours used for each function. We will then explore what each type of behaviour was used for and the differences among the types by function.

Chart 4.1: Function categories by behaviour type in 'History-taking' consultations (N=78)

Function	Behaviour type																		
		Inform	Signpost	Post without sign	Sign without post	Bi-directional signpost	Post signpost	Subtotal	Invite	Open choice	Limited choice	Check-in	Test	Rhetorical question	Subtotal	Instruct	Direct input	Direct emotion	Subtotal
Structure																			
Agenda setting		18	9				27					2	2			0	29		
Plan		49	13		3	65						1	1	1	1	1	67		
Transition between phases		2	6		1	3	12					0			0	0	12		
Transition to summary		36	1				37					0	1	1	1	1	38		
Invite to construct consultation							0	1	6			7	1	1	1	1	8		
Transition to physical examination							2					0			0	0	2		
External activity			11	1			12					0			0	0	12		
<i>Subtotal</i>		118	30	0	4	3	155		1	6	0	2	1	10	3	0	3	168	
Content																			
Change of topic		26	15	16	1	1	59					0	3	3	3	3	62		
Introducing questions		17	84	118	79		298					0	1	1	1	1	299		
Introducing sensitive questions		3	25	2			30					0			0	0	30		
Explaining/clarifying		13	2	6	4	2	27					0			0	0	27		
Warning shot							4					0			0	0	4		
Acknowledging sensitive topic							13	13				0			0	0	13		
Acknowledging bad news							11	11				0			0	0	11		
Thanking patient for information							3	3				0			0	0	3		
Professional disclosure			4	5		1	1	11				0			0	0	11		
Checking with patient			1		3		4		9	10	1	20	4	4	4	4	28		
Final check					1	2	3		20	2		22	3	3	3	3	28		
<i>Subtotal</i>		64	136	145	87	31	463		0	29	12	1	0	42	11	0	11	516	
Structure or Content: Structure																			
Listing		7	16				23					0			0	0	23		
Reminding			3		40	11	54					0			0	0	54		
Emphasis			9			1	10					0			0	0	10		
Rationale for moving forward			1		1		2					0			0	0	2		
Warning what won't happen			2				2					0			0	0	2		
<i>Subtotal</i>		9	29	0	41	12	91		0	0	0	0	0	0	0	0	0	91	
Structure or Content: Content																			
Listing		62	5			1	68					0			0	0	68		
Reminding		8	2		3	23	36					0			0	0	36		
Emphasis			5			2	7					0			0	0	7		
Rationale for moving forward					1	4	7	12				0			0	0	12		
Warning what won't happen			30		1	1	32					0			0	0	32		
<i>Subtotal</i>		100	12	1	8	34	155		0	0	0	0	0	0	0	0	0	155	
Concerns																			
Reassuring		12			1	1	14					0		13	13	13	27		
Postponing discussion		16	1				17					0			0	0	17		
<i>Subtotal</i>		28	1	0	1	1	31		0	0	0	0	0	0	0	0	13	13	44
Total		319	208	146	141	81	895		1	35	12	3	1	52	14	13	27	974	

4.3.1 Inform behaviours

4.3.1.1 Signposts

Not only were signposts the most frequently used behaviour, they also showed the most versatility when it came to functions. Signposts were used across all the function categories (signalling structure; signalling content; signalling either structure or content, and responding to concerns). They were most frequently used to signal a list (62/319, 19%) followed by signalling a plan (49/319, 15%) and signalling the transition to summary (36/319, 11%) each.

Given that the definition of a signpost is to make explicit reference to what follows next, it is perhaps not surprising that there were no instances of signposts used for the functions that contradicted this definition (categories referring back to topics that had just been discussed).

4.3.1.2 Posts without signs

As the second most frequent type of behaviour, it was also the second most versatile with regards to function. As posts without signs refer to what follows next, they were also not found in retrospective behaviours. They were found across all major function categories, although with more preference for content-related categories. Posts without signs were most frequently used to introduce questions (84/208, 40%). Posts without signs were also used to introduce sensitive subjects (25/208, 12%), while all other functions were signalled through this behaviour with less frequency.

4.3.1.3 Signs without posts

Signs without posts were the third most frequently occurring behaviour (146/974, 15%), but occurred only amongst the content-related function categories. Similar to signposts, they only make specific reference to what is coming next and so they were only found in these types of roles. However, the combination of a sign without post with the introducing question function was the most frequently found behaviour type and function combination in the data (118/974, 12%).

4.3.1.4 Bi-directional signposts

Bi-directional signposts occurred across all the major function categories, and clustered in the content-signalling roles. The highest proportion was found in the introducing questions function (79/141, 56%). Despite being used in a number of other content-related categories, the second function category it was most frequently found in was reminding about structure (40/141, 23%).

4.3.1.5 Post signposts

Of the inform behaviours, post signposts occurred in the lowest frequency across the dataset. However, they occurred across all the major function categories, but tended to cluster around signalling content. They were most commonly found in the role of reminding about content that had been discussed previously (23/81, '23%').

4.3.2 Invite behaviours

4.3.2.1 Open choice

The only open choice behaviour found in the 'History-taking' consultations carried the 'invite patient to construct consultation' function.

4.3.2.2 Limited choice

The limited choice behaviours were the most numerous of the invite behaviours, and most frequently had the 'final check' function attached (20/35, '57%').

4.3.2.3 Check-in

The check-in was the second most numerous of the invite behaviour types, and was only found in the content category. It had the 'checking with patient' and 'final check' functions (10/12, '83%' and 2/12, '17%' respectively).

4.3.2.4 Test

The three test behaviours were found in structure and content-related function categories: 2/3 in agenda setting and 1/3 in checking with the patient.

4.3.2.5 Rhetorical question

The lone rhetorical question had the plan function attached to it.

4.3.3 Instruct behaviours

4.3.3.1 Directing input

The directing input behaviours typically had the content-related functions attached: checking with patient (4/14, '29%'), followed by final check and change of topic (both 3/14 '21%). Single instances of this behaviour also had the following structure-related functions attached: plan, transition to summary, and invite patient to construct consultation.

4.3.3.2 Directing emotion

Interestingly, all 13 directing emotion behaviours were found in one category: reassuring. This was also the most frequent behaviour that reassuring was attached to, although the signpost was a close second.

4.3.4 Summary of verbal signalling behaviour types and functions

To briefly recap, thus far we have seen the creation of a taxonomy of signalling behaviours expanding on three main types featuring in the educational models: informing the patient about what is happening, inviting the patient to choose what will happen or instructing the patient about what to do. These three main categories of signalling what is happening next have been further divided into 12 types based on the level of information they provide. Through the lens of Speech

Act Theory, we have also seen the creation of a second layer of taxonomy, describing the roles these signalling behaviours in relation to showing what is happening related to structure, content or concerns.

In the next section we will look at the verbal signalling behaviours through the combined lenses of Speech Act Theory and Conversation Analysis, looking at the roles these behaviours placed when considered in the context of the preceding doctor-patient talk.

4.4 Additional roles for verbal signalling behaviours: Hyperfunctions

In Section 4.2 we discussed the overt functions of each behaviour. This was carried out on the semantic meaning of the behaviours: what the words of the behaviour said it was going to do. As discussed in the Methods, behaviours were also analysed in the context of what was said before and after. This analysis revealed a number of behaviours played additional roles, that varied given the context and were coined the ‘hyperfunction’. In this section we will discuss the hyperfunctions found in the data. While behaviours could only have one main function, they were able to carry more than one and indeed multiple hyperfunctions in one instance.

There were four main categories, that broadly mirrored the main function categories:

1. Hyperfunctions related to structure

As well as playing their main roles, doctors also used these behaviours for purposes related to structure

2. Hyperfunctions related to content

These behaviours carried their main function and additional roles related to content

3. Hyperfunctions related to concerns

Sometimes behaviours explicitly relating to structure or content were also used in response to concerns

4. Other hyperfunctions

A small number of behaviours had a hyperfunction that were found that could not be placed in the three main categories above

These four categories will be elaborated below, with definitions and examples given of each. Examples given for this section are expanded to include the talk preceding the behaviour, to show the reader how these additional hyperfunctions were found.

4.4.1 Hyperfunctions related to structure

Hyperfunctions related to structure fell into four categories.

4.4.1.1 Transition between consultation phases

Behaviours with these hyperfunctions were used at the start or end of a phase, but did not make explicit reference to this transition. The main function it attached to also did not explicitly signal to the patient that the doctor was moving from one phase to another.

In Example 73, the signpost has the 'plan' function, explicitly signalling how the consultation will proceed. In the doctor's previous turn, they have been summarising the patient's symptoms, which the patient corroborates: this is all part of the Summary phase. The language of the doctor's signpost does not explicitly state that the summary has ended; thus the move into the Gathering Information phase is not an explicit function of the signpost.

In Example 74, the signpost has the 'listing' function. The patient turn preceding it is the end of the patient recounting their symptoms in the Gathering Information phase. The language of the signpost explicitly signals a list coming, but not that the doctor has moved into the Planning phase of the consultation in order to discuss treatments.

Example 73: candidate 2, scenario 1

DOC Okay. So it's, it started with this [symptom] and then concurrently you have [symptom] and [symptom].
PAT Yes that's correct.
DOC **Do you mind if we explore each of those in turn?**

Example 74: candidate 9, scenario 2

PAT I mean, this is... this is not holding it, this is just... [Overtalking]. Uh huh.
DOC Okay, well, **I think there's quite a few things** we can do for you today. So, you have medical [unclear] at the moment, and I think it would be wise to keep you in the hospital for the time being to investigate these things and get you the right [medication].

4.4.1.2 Change prompted by examiner time signal

This hyperfunction was found on behaviours that occurred after the examiner had given the 'two minutes remaining' warning, and revealed a change in the direction of the consultation.

The signpost in Example 75 has the 'plan' function. However, in the doctor's turn preceding the examiner time warning, they are in the middle of a signpost introducing questions. The change of direction is instigated in response to the examiner time signal. Furthermore, this behaviour also has the 'transition between consultation phases' hyperfunction attached to it, as the doctor moves from the Gathering Information phase to the Planning phase.

In Example 76, the doctor is at the point of asking a question when the examiner delivers the time warning. The doctor then uses a post without sign with the 'introducing questions' function to ask a question whose content differs from the question they were about to ask before the warning.

Example 75: candidate 34, scenario 8

DOC Okay. And... So I'll just ask you a few quick questions about lots of other...

EX You have two minutes left.

DOC Okay. Maybe I'll [inaudible]. **I think what we should talk about now is what... what we are going to do from now on.**

Example 76: candidate 24, scenario 8

DOC I see. And the... but at... sorry to kind of ask you, in the past, um, would there be times when you've worked...

EX Two more minutes.

DOC Okay, and, fine, **can I ask**, do you smoke at all?

4.4.1.3 Plan

This hyperfunction suggested a plan alongside the main function of the behaviour.

The signpost in Example 77 has the postpone main function as it explicitly delays addressing the concern the doctor has just acknowledged. More broadly, the language of the signpost also suggests a plan for what will follow next. The plan contains two elements: the list is signalled separately by the words '*first*' and '*then*', indicating one activity will happen now, before discussing the concern, and another activity, which is the discussion of the concern itself. Both these elements contribute to the explicit postpone function, and the plan hyperfunction.

Example 77: candidate 68, scenario 8

PAT I mean, [partner name], my husband, you know he's convinced that's what's wrong.

DOC Unfortunately, you sound like you are very very anxious about that. **But first we're going to do the history and then I will tell you what... what can we do that for you...**

4.4.1.4 Inviting fixed patient contribution

This hyperfunction provided the patient with the opportunity to make a narrow and specific contribution.

In Examples 78 and 79 both signalling behaviours are limited choice, with the main function of 'final check'. While explicitly inviting the patient to contribute content to the consultation, both

behaviours limit the contribution the patient can make. The language indicates the doctor has another task to do ('before I tell you"/"before I just tell you'), while the use of 'any other thing' excludes topics that have already been raised. In both these examples, the behaviours are comprised of two elements that indicate the quick succession of activities, separated by the word 'before'.

Example 78: candidate 5, scenario 1

DOC Right, okay. No previous histories of any infections or sexually transmitted infections or anything like that?
PAT No.
DOC Okay, that's fine. **Is there anything that you'd like to... to ask me before I tell you what I think it might be?**

Example 79: candidate 53, scenario 4

PAT No. No well, I mean, [medications], but nothing beyond that, you know, for [symptoms]... Years ago, I'm talking about, nothing in the past two or three years.
DOC Alright. **Is there any other thing that you'd like to emphasise so that we can, uh, discuss before I just tell you about the plan?**

4.4.2 Hyperfunctions related to content

In this section we will discuss the hyperfunctions related to content, of which there were four.

4.4.2.1 Medical uncertainty

This hyperfunction highlighted the lack of certainty the doctor had in a diagnosis, tests or treatments.

In Example 80, the doctor is using a signpost with the 'warning what won't happen' function, while the doctor in Example 81 is using a post without sign with the 'explaining/clarifying' function. Both doctors add the 'medical uncertainty' hyperfunction until certain conditions are fulfilled i.e. obtaining verified information upon further investigation.

Example 80: candidate 29, scenario 7

DOC *Hmm, okay. Yeah, so that's what we need to do.*

PAT *Okay.*

DOC *I'm afraid I can't reassure you yet until we get this scan, because the concerns are justified.*

Example 81: candidate 8, scenario 4

PAT *Well, when you say [symptom] can be associated with [diagnosis], how does that work?*

DOC *Umm...hmmm. Umm, something I do need to consider but I don't want to worry you about until we've got the results back would be the possibility of um an [diagnosis].*

4.4.2.2 Introducing sensitive question

Behaviours with this hyperfunction would typically introduce a question, without signalling that the question would focus on a sensitive topic.

The hyperfunction in Example 82 is attached to post without sign carrying the main 'change of topic function'. In this example, the doctor explicitly tells the patient that the question being introduced is *general* rather than *personal*.

In Example 83, the doctor uses a post without sign with the 'introducing questions' function to broach a potentially sensitive topic concerning the patient's lifestyle.

Example 82: candidate 45, scenario 1

PAT *No that's all...*

DOC *Regular, no problem with that. Alright. I just want to ask you a general, few general questions. Do you get any problems when you pass water?*

Example 83: candidate 31, scenario 9

PAT *I can put together a meal, and I try and eat sensibly; perhaps not as sensibly as I should, but I try and eat sensibly.*

DOC ***Some other questions, do you smoke?***

4.4.2.3 False list

This hyperfunction implies a list is coming but the doctor did not subsequently go beyond providing one option or item.

In Example 84, the patient has made a request for medication; the doctor uses a signpost with the listing function to indicate many possibilities but only lists one (and does not elaborate further in the consultation).

The doctor in Example 85 uses signpost with the listing function to signal that multiple explanations could be forthcoming. However, the rest of their turn indicates that the doctor will only focus on one of these options, given the information they have.

Example 84: candidate 10, scenario 2

PAT *Or if there is anything; I mean, is there anything that I can get?*

DOC *Yes, there's lots of options, we have [medication] we can get for you.*

Example 85: candidate 9, scenario 2

DOC *Um, there's few different things that's can be causing this [symptom], but with your history having [disease] before, and I think already this idea has come to your mind as well: we do need to think about whether there is any problem due to the [disease]*

4.4.2.4 Warning shot

Behaviours with this hyperfunction were used to preface the delivery of bad news, without making this explicit to the patient.

Example 86 was previously seen with the medical uncertainty hyperfunction, but also the warning shot hyperfunction. Unlike the explicit warning shot function, the explaining/clarifying behaviour actually includes specific language that diverts the patient attention away from the potential bad news.

Example 86: candidate 8, scenario 4

PAT *Well, when you say [symptom] can be associated with [diagnosis], how does that work?*

DOC *Umm...hmmm. Umm, something I do need to consider but I don't want to worry you about until we've got the results back would be the possibility of um an [diagnosis].*

4.4.3 Hyperfunctions related to concerns

There were ten different hyperfunction categories found relating to concerns. Where possible, the patient turn containing the concern is included in the example. In examples where the patient concern is not included, reasons for the omission included long patient turns, or the risk of revealing excessive content of the examination scenarios.

4.4.3.1 Ignoring concern

This hyperfunction attached to behaviours that moved the discussion away from a patient concern, without explicitly referring to it.

The post without sign in Example 87 carries the change of topic function, which is used to move away from the patient concern raised in the turn before. Similarly, the sign without post introducing questions in Example 88 is used to ignore the patient's explicit concern in the turn immediately preceding it.

Example 87: candidate 46, scenario 6

PAT *Uh... just annoying. You know, it's just... because... you know it's always going to be when you move your arms, and...*
DOC *Yes, okay.*
PAT *Yeah, it's just...*
DOC ***If I'd just like to review something else with you. Do you take any regular medication?***

Example 88: candidate 57, scenario 6

PAT *It just got [symptoms]. And then I became very [symptoms], and then my, I couldn't [symptoms] in there. And I was a bit concerned about that. Um, and then, uh...*
DOC ***What about sore throat? Any sore throat?***

4.4.3.2 Postponing concern

Unlike the previous category, this hyperfunction would attach to behaviours that explicitly acknowledged the patient's wish to discuss a topic, but moved the discussion away from the concern.

Example 89 contains a signpost with the plan function, which indicates that the doctor will discuss the concern raised about a specific condition, but not at that precise moment. Including the patient turn in this instance reveals information about the examination.

The signpost in Example 90 has the listing structure function, which also suggests ('need') an obligation to follow the process of the consultation before addressing the concern.

Example 89: candidate 4, scenario 2

*DOC Okay? And, and then you know, you wanna admit a person to get things done to get to the bottom of things, to try and deal with it quickly. Um, **maybe we'll talk about this a bit more**, yes?*

Example 90: candidate 76, scenario 3

PAT So, erm, this what you were talking about [medical condition], is that um, is that treatable?
*DOC So, **first we need to start with sh er the diagnosis**, just the [redacted treatment] that can involve, er, doing a few tests*

4.4.3.3 Reassuring

Much like the main 'reassuring' function, this hyperfunction provided reassurance but in a less explicit manner.

In Examples 91 and 92, the signposts both have plan as their main function. They are used in direct response to patient concerns, so are also used to provide reassurance alongside the plans suggested. In Example 91, the behaviour is composed of two elements separated out by the word 'then'.

Example 91: candidate 12, scenario 5

DOC *Absolutely, I can... I can see where really that comes from **but we'll try to get to the bottom of it...***

PAT *Mm hmm.*

DOC *And then we'll... we'll see what we can do next, okay.*

Example 92: candidate 53, scenario 4

DOC *Yeah. I understand, [patient name], and **I will try my very best to find out what's the exact cause.** Okay, could you please tell me, uh, uh, how often you feel tired? Is it all the time...?*

4.4.3.4 Reframing concern

This hyperfunction changed the focus of the discussion when a patient concern was raised.

The doctor in Example 93 uses a signpost with the plan function to redirect the conversation, while the doctor in Example 94 uses a post without sign to introduce questions that switch the frame of concern.

Example 93: candidate 59, scenario 1

PAT *Um, as I say, knees, joints, uh, my shins have got these [symptoms]. Um...*

DOC *I'm going to ask about this, uh, **first of all your joints, we'll talk about your joints first...***

Example 94: candidate 71, scenario 5

PAT *Um, I was going to go for a for [medical treatment], but I just felt [symptom] beforehand, and got [symptoms].*

DOC *Oh, and **may I ask you** why you were going to have it?*

4.4.3.5 Parking concern

A combination of the 'postponing concern' and 'reframing concern' hyperfunction categories, behaviours with this hyperfunction moved the discussion away from a patient concern, typically by promising information later on that would address the concern.

The signpost in Example 95 has the reassuring function, and is used to halt the progress of the concern. The post without sign in Example 96 introduces questions. The sentence immediately

before it addresses the concern the patient has by providing an affirmative response regarding medical information, which then shades the overt function of the post without sign with an element of parking the concern.

Example 95: candidate 10, scenario 2

PAT *I found out my [symptoms]. I am... I had [symptoms] this morning as well. Just there's something not quite right.*

DOC *Okay, well, hopefully we can get to the bottom of that. So, have your [symptoms]?*

Example 96: candidate 36, scenario 2

DOC *We definitely can sort that out, yes. Now, can I ask have you any allergies to anything that you know about?*

4.4.3.6 Responding to biomedical aspect

Behaviours with this hyperfunction responded to the biomedical element of the patient concern without addressing the emotional aspect – typically worry – raised.

In Example 97 the doctor uses a signpost with the plan function to respond to the biomedical element of the patient's concern. The patient concern, which has been truncated here, played out over several turns regarding the seriousness of the condition. The doctor responds to the biomedical element of the concern, but not the worry with which it was raised.

The doctor in Example 98 uses a post without sign with the introducing sensitive question function, which focuses on the patient's reasons for the worry, not the worry itself.

Example 97: candidate 48, scenario 4

PAT *Is this not a good thing?*

DOC *No, I mean, that, that's what we're going to discuss, um, I'll explain to you what does this [symptom] mean and what the [symptom] mean*

Example 98: candidate 67, scenario 3

PAT *I don't know, I just, I mean, you always worry about the worst, you know, could there be any kind of, you know [medical condition], or something could... it does cross my mind, you know, so...*

DOC *Mm. Would you mind if I ask you why does... you think that... the cause...?*

4.4.3.7 Addressing delayed concern

This hyperfunction responded to a patient concern raised earlier in the consultation, and could be done with or without explicit reference to the concern or delay in addressing it.

In Example 99 the doctor uses a post without sign with the warning shot function to bring the conversation back to a concern raised previously by the patient, explicitly referencing this concern.

In Example 100, the doctor uses a sign without post with explaining/clarifying function to return the conversation to concerns that the patient had expressed earlier.

Example 99: candidate 28, scenario 2

DOC Now, you mentioned one of your concerns was it might be related to the [disease], and I'm afraid to say that might be the case, okay?

Example 100: candidate 39, scenario 9

DOC Okay. And it could confirm whether that's been happening or not.

PAT Right.

*DOC Um **now regarding, regarding [concern]** I think you can keep on driving because these [symptoms].*

4.4.3.8 Shut down

This hyperfunction category discouraged the patient from asking questions or voicing concerns.

In Example 101, the doctor uses a directing emotion behaviour with the reassuring function to respond to the patient.

The doctor in Example 102 uses a post signpost with the reminding function – repeating the steps that must be done – which is used as a response to the patient concern raised at the start of the extract.

Example 101: candidate 37, scenario 5

PAT *Right, okay, well, I'm a bit worried about that because that made me very, um, ill beforehand.*
DOC *No, don't think about that way because we we have to sort out the problems that what's going on with you isn't it rather than you living with your [symptoms].*

Example 102: candidate 70, scenario 8

PAT *Well it sounds serious.*
DOC *Umm. Yes it might be serious if if it is a [diagnosis]*
PAT *Right.*
DOC *It might be serious.*
PAT *Right.*
DOC *That's why we need to make sure **first**.*

4.4.3.9 Soliciting concern

Behaviours with this hyperfunction invited patients to express concerns by encouraging questions.

In Example 103 the doctor uses a post without sign with the explicit function of introducing questions, as well as a launch pad for eliciting additional concerns from the patient.

The doctor in Example 104 uses an invite behaviour – a limited choice with the final check function, again to encourage the patient to express their worries.

Example 103: candidate 16, scenario 3

DOC *Okay, **can I ask you**, what do you think's going on at the moment, do you have any thoughts?*

Example 104: candidate 69, scenario 9

PAT *Sweating... er... I was a bit [symptoms] when I came to. [Symptoms] because I remember the lady telling me that.*
DOC *Okay. Er, so **before I go any further, I would like to ask you is there anything particular going through your mind what might be going on?***

4.4.3.10 Empathy

This hyperfunction added an element of empathy alongside the main function of the behaviour.

One example of empathy as a hyperfunction is in Example 105, attached to the one example of an open choice behaviour with the 'inviting patient to construct the consultation' function. The

patient has mentioned a concern, and the doctor uses their turn to give the patient free choice to steer the consultation forward, while empathising with the concern.

Example 105: candidate 9, scenario 2

PAT It has been playing in my mind, yes, just whether, whether... probably that's, you know, why I went to the GP. Although I do need to get, you know, [medication].

DOC Yes, certainly. So it's sort of obviously one thing you want to get out of today is to get [medication], is there anything else you were sort of expecting out of today that you're wanting to get out of this consultation?

4.4.4 Other hyperfunctions

There were three additional instances of behaviours that had a hyperfunction that did not relate to structure, content or concerns. All three had a similar theme, and were categorised as 'professional disclosure'.

4.4.4.1 Professional disclosure

Similar to the 'professional disclosure' function, this hyperfunction invoked the professional role of the doctor but in a less explicit manner.

The doctor in Example 106 uses a post signpost with the reminding function to reiterate that they were invoking their professional role to be honest.

Example 106: candidate 48, scenario 4

DOC That's something which I have been thinking. And that's that's my clinical assessment. I could be wrong, but that's my significant suspicion of that.

PAT Yeah.

DOC But I wanted to make sure that I, I prewarn you, so...

4.4.5 Frequencies of hyperfunctions

This section discusses the frequencies of the previously defined hyperfunctions. Table 4.3 shows the number of behaviours carrying each hyperfunction.

Table 4.3: Frequency of hyperfunctions

Hyperfunction	No. of behaviours	% behaviours
<i>Relating to structure</i>		
Transition between consultation phases	31	8%
Change prompted by examiner time signal	13	3%
Plan	9	2%
Inviting fixed patient contribution	6	1%
<i>Subtotal</i>	59	14%
<i>Relating to content</i>		
Medical uncertainty	49	12%
Introducing sensitive question	12	3%
False list	9	2%
Warning shot	7	2%
<i>Subtotal</i>	77	19%
<i>Relating to patient concerns</i>		
Ignoring concern	71	17%
Postponing concern	57	14%
Reassuring	41	10%
Reframing concern	31	8%
Parking concern	24	6%
Responding to biomedical aspect	20	5%
Addressing delayed concern	10	2%
Shut down	8	2%
Soliciting concern	3	1%
Empathy	1	0%
<i>Subtotal</i>	267	66%
<i>Other</i>		
Professional disclosure	3	1%
<i>Subtotal</i>	3	1%
Total	406	100%

Hyperfunctions related to concerns were the most common (266/410, 66%), with ignoring and postponing concerns being the most common within this category (71/406, 17% and 57/406, 14% respectively).

4.4.5.1 Hyperfunction by behaviour types

Table 4.4 shows the frequency of hyperfunctions found per verbal behaviour.

Table 4.4: Frequency and proportion of hyperfunctions per behaviour type

Behaviour type	Total no. behaviours	No. behaviours with hyperfunctions	% behaviours with hyperfunctions
<i>Inform</i>			
Signpost	319	150	47%
Post without sign	208	85	41%
Sign without post	146	26	18%
Bi-directional signpost	141	43	30%
Post signpost	81	21	26%
<i>Subtotal</i>	895	325	36%
<i>Invite</i>			
Limited choice	35	10	29%
Check in	12	1	8%
Test	3	0	0.0%
Open choice	1	1	100%
Rhetorical question	1	1	100%
<i>Subtotal</i>	52	13	25%
<i>Instruct</i>			
Directing input	14	0	0%
Directing emotion	13	3	23%
<i>Subtotal</i>	27	3	11%
Total	974	341	36%

Given that the test, open choice and rhetorical question functions all occurred in low frequencies, they will not be considered. Beyond these, the majority of behaviour types were found to carry hyperfunctions. Signposts were the behaviour next most likely to carry a hyperfunction alongside the main function of the behaviour (150/319, 47%). More generally, the inform category of behaviours were most likely to carry hyperfunctions (325/895, 36%). The number of behaviours with hyperfunctions (341) does not align with the number of hyperfunctions (410), as a number of behaviours carried multiple hyperfunctions.

4.4.6 Summary

In this section we have seen the creation of a taxonomy of additional functions that verbal signalling behaviours could have, known as hyperfunctions. The hyperfunctions identified are shown in Figure 4.3. Looking at verbal signalling behaviours once they were placed back into the

context of the consultation also led to the discovery that a number of behaviours were used in rapid succession. During the analysis of hyperfunctions it was discovered that a number of behaviours were composed of two elements indicating the rapid succession of activities, typically indicated by words such as *before*, *then*, and *first*. This led to the discovery that in the following section we will present these emergent findings, which considered whether the signalling behaviours occurred in isolation or were combined by doctors.

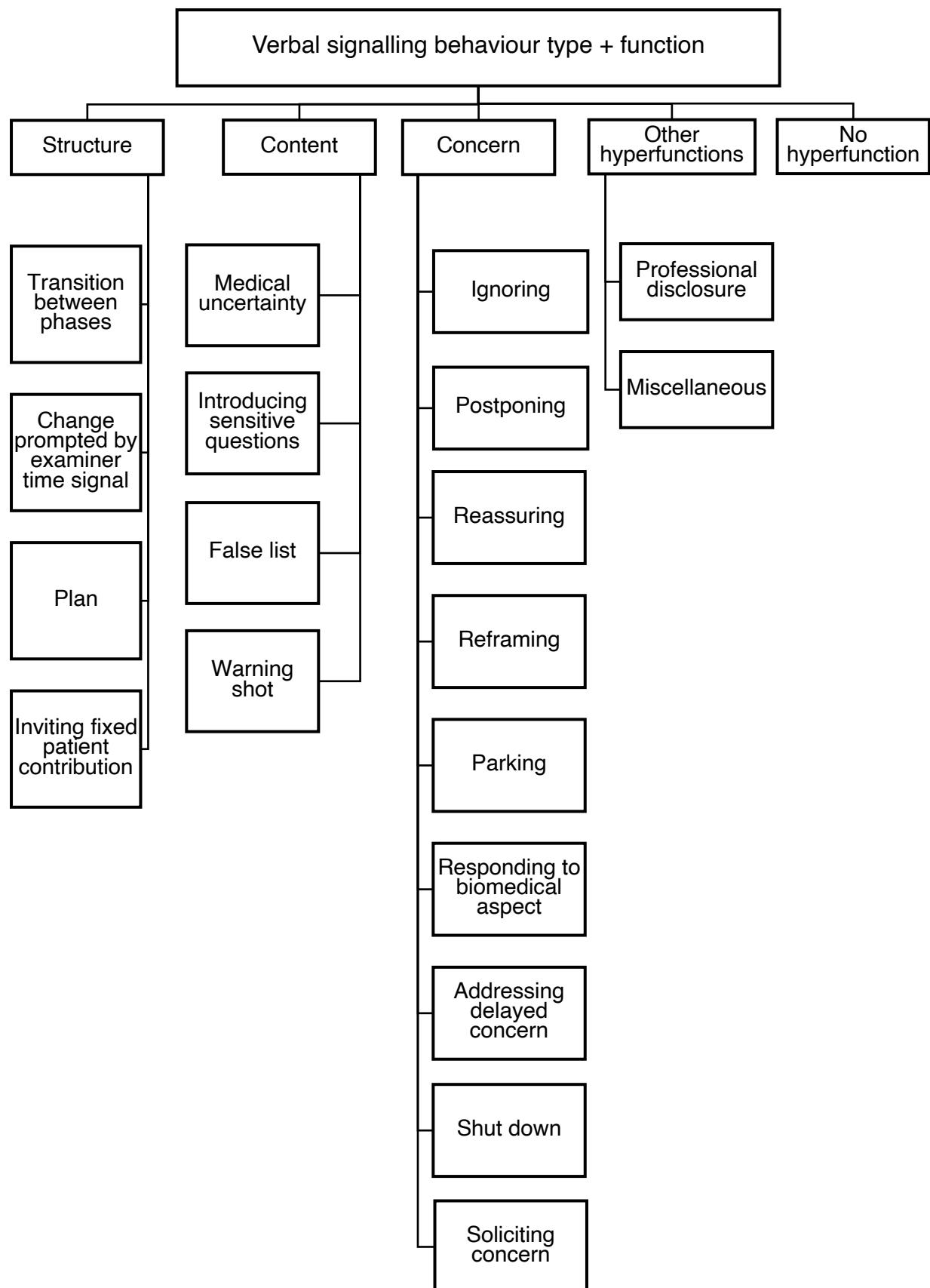


Figure 4.3 Taxonomy of verbal signalling behaviour hyperfunctions in 'History-taking' consultations (N=78)

4.5 Verbal signalling behaviours used in combination: Stacking

This section discusses the emergent finding that some verbal signalling behaviours were used in rapid succession. This could be next to each other, or within the same turn of the doctor, or within an extended doctor's turn punctuated by minimal acknowledgements from the patient, such as 'right', 'yeah' and 'okay'. This phenomenon was named 'stacking'.

A stack of two signposts with the postpone and transition to summary functions can be seen in Example 107, with the two verbal signalling behaviours highlighted in green and red. The colours are used to show the behaviours only, and do not reflect the phase of the consultation the example is taken from. The columns to the right of the example show each behaviour's type and function respectively.

Example 107: candidate 16, scenario 7		Behaviour type	Behaviour function
DOC	<i>Okay, I'll get to that in a minute. I just want to sort of, go over a few things with you again to see if I've got all the information, see if I've missed out on anything.</i>	Signpost Signpost	Postpone Transition to summary

Behaviours that were stacked maintained their individual types, but were able to combine their functions and hyperfunctions to contribute to the overall hyperfunction of the stack.

This section will discuss the following properties of stacks:

1. Behaviour types

How did the individual behaviour types combine to create stacks?

2. Functions

Which individual functions contributed to stacks?

3. Hyperfunctions

What were the overall effects of combining the functions of the stacks?

Table 4.5 shows the number of stacks found in the data, and the total number of behaviours contributing to the stack.

Table 4.5: Number of stacks and stacked behaviours in 'History-taking consultations (N=78)

Number of behaviours per stack	Number of stacks	Number of behaviours
2	83	166
3	13	39
4	1	4
Total	97	209

Stacks were named double, triple and quadruple according to the number of behaviours present. Double stacks were the most frequent combination. In the rest of this section we will consider how behaviour types, functions and hyperfunctions combined to create stacks.

4.5.1 Behaviour types

Table 4.6 gives an overview of the frequencies of behaviour types appearing in a stack.

Table 4.6: Frequency of stacked behaviours by type in ‘History-taking consultations (N=78)

Behaviour	Number of instances of behaviour type appearing in a stack	% of total number of each behaviour type
<i>Inform</i>		
Signpost	100	48%
Post without sign	47	22%
Post signpost	17	8%
Bi-directional signpost	16	8%
Sign without post	12	6%
<i>Subtotal</i>	192	92%
<i>Invite</i>		
Limited choice	4	2%
Check in	3	1%
Open choice	1	0%
Test	1	0%
Rhetorical question	0	0%
<i>Subtotal</i>	9	4%
<i>Instruct</i>		
Direct input	4	2%
Direct emotion	4	2%
<i>Subtotal</i>	8	4%
Total	209	100%

Signposts contributed to almost half the total number of behaviours involved in a stack 100/209, 48%). The majority of stacked behaviours belonged to the inform category of behaviours (192/209, 92%), in a proportion equal to the proportion of total inform behaviours in the data (895/974, 92%).

4.5.1.1 Frequencies of behaviour types in stacks

Of the 83 double stacks, the most common configuration was signpost+signpost (22/83, ‘27%’), followed by signpost+post without sign (8/83, ‘10%’) and post without sign+post without sign (7/83, ‘8%’). Inform behaviours were involved in all but one of the double stacks: check-in+limited choice (invite+invite). The majority of behaviours were combinations of signposts, posts without signs and signs without posts (49/83, ‘59%’).

Signposts were the most versatile when it came to triple stacking: signost+signpost+sign without post was the most common combination for triple stacks (2/13). Signposts were involved in all the configurations of triple stacks, as well as the lone quadruple stack (signpost+post without sign+signpost +check-in).

4.5.2 Functions

Table 4.7 shows the frequencies of the most frequently occurring behaviour functions appearing in stacks.

Table 4.7: Frequency of most frequently occurring functions in stacked behaviours in ‘History-taking’ consultations (N=78)

Function	Number of times function appeared in stack	Percentage of total behaviours in stack with corresponding function
Plan	37	18%
Introducing questions	26	12%
Listing	20	10%
Reminding	20	10%

The ‘plan’ was the most versatile function, contributing to almost a fifth of the total number of instances of behaviours appearing in a stack (37/209, 18%). However, it did not feature in the most common combination: introducing questions+introducing questions which occurred five times.

4.5.3 Hyperfunctions of stacks

This section will consider the overall effect of combining behaviours, resulting in the hyperfunction of the stack. All stacks had a hyperfunction, although these typically reflected the functions of the constituent behaviours. Example 108 given at the start of this section contained two signposts with the postpone and transition to summary functions, which combined to form the hyperfunction of the stack.

Some stacks had hyperfunctions that were not reflected in the functions of the constituent behaviours. The following examples will show these types of stacks, with the colours corresponding to the behaviours indicated in the example title.

4.5.3.1 Reassuring

The two signposts in Example 108 combine to provide a more complete plan. The doctor acknowledges and validates the patient concern; both these signposts have the reassurance hyperfunction, and they carry it through to the stack.

Example 108: candidate 14, scenario 5	Behaviour type	Behaviour function
DOC <i>No, it's a real problem, it's a real thing, it's something we recognise. And it's something that... maybe we'll ask you a few more questions and we get a read on what we might need to do, but we could talk about what we could do to prevent that again.</i>	Signpost	Plan
	Signpost	Plan

4.5.3.2 Ignoring concern

The stack in Example 109 is a triple, combining two signposts and a check-in. They carry the postpone hyperfunction, in response to the patient concerns about whether their symptoms indicated the recurrence of a serious medical condition. While they combine to give the patient more of an idea of what will come next, we could propose that the overt function of this stack is a plan, that also has the ignore hyperfunction.

Example 109: candidate 61, scenario 2	Behaviour type	Behaviour function
PAT <i>I mean, I'm wondering if there's a connection at all. I mean, I hope not, but it has crossed my mind.</i>		
DOC <i>Sure. Sure. So, let me quickly summarise, uh, uh, what your problem here is. If I've missed anything important, please do let me know. And then we discuss the plan, okay?</i>	Signpost Check-in Signpost	Introduction to Summary Checking with patient Plan

The patient's turn at the start of Example 110 contains language about what is worrying them that the doctor has the opportunity to address in their following turn, but does not. The patient brings this language up again in their next turn, and the doctor uses their response to provide two signalling behaviours that do not address the cue raised.

Example 110: candidate 48, scenario 4		Behaviour type	Behaviour function
<i>PAT</i>	<i>No, because I'm on top of the job, but I'm not as good as I was. I know that sounds terrible if you don't... But I'm not as I'm not as sharp or as enthusiastic as I was.</i>		
<i>DOC</i>	<i>Mm. Have you been getting any [symptoms]?</i>		
<i>PAT</i>	<i>No, I just... just because nothing seems to... like, it's every day, that is just not going away, so...</i>		
<i>DOC</i>	<i>Okay, right. I'm quickly going to summarise and tell you what I've got from you. Tell me if I've missed anything, just let me know.</i>	Signpost Directing input	Introduction to Summary Final check

4.5.3.3 Postponing concern

While none of the behaviours in Example 111 carry a hyperfunction on their own, the first behaviour is overt reassurance. However, the patient has expressed a concern in their turn preceding this, so this stack moves away from the overt concern. Particularly if we consider the final turn is a plan that mitigates what is going on in this consultation (it is *just history*).

Example 111: candidate 65: scenario 4		Behaviour type	Behaviour function
<i>DOC</i>	<i>I will tell you, definitely don't worry at the moment, [beeping] you know, we cannot comment at the moment. We are having, you know, just history. I will examine you, I will conduct the investigations and I will be [overtalking].</i>	Directing emotion Signpost Signpost	Reassurance Warning what won't happen Plan

Interestingly, all three of the verbal signalling behaviours in Example 112 carry a hyperfunction: the first is a plan that ignores the concern; the second warns what won't happen while addressing

the delayed concern by postponing; the third is a sign without post with the explaining/clarifying function that also ignores the concern. The overall effect that seeps through here is the postponement present in the second behaviour.

Example 112: candidate 67, scenario 3		Behaviour type	Behaviour function
PAT	<i>It's just I'm... I'm so extremely tired. I just can't believe, you know, that this... there must be a problem, you know, because it's more than just... that's normal. A normal tiredness. And...</i>		
DOC	<i>Right, so, to a first start, actually, we need to a few... it's difficult for me to give you a definite answer at this stage. What we need to do, is to do some blood tests, run some blood tests, and um, and do a chest x-ray.</i>	Signpost Signpost Sign without post	Plan Warning what won't happen Explaining/clarifying

The stack of behaviours in Example 113 are used as a direct response to the patient concern in the preceding turn. The two remind signposts also carry additional hyperfunctions of medical uncertainty and postponing discussion of the patient concern each, giving this stack of behaviours four explicit functions, and four hyperfunctions. Despite none of the behaviours explicitly postponing discussion of the patient concern, the overall stack carries this function through the hyperfunctions.

Example 113: candidate 65, scenario 4		Behaviour type	Behaviour function
PAT	<i>Is [diagnosis] serious?</i>		
DOC	<i>And you are having the history of [redacted], but, uh you don't I cannot comment at the moment what's wrong with you, but we need to rule out every other problem why you are having [redacted] and why you are feeling [redacted]. So, first of all, I will, you know... I cannot comment is it serious or not. Are you getting me?</i>	Signpost Post without sign Signpost Check-in	Reminding Listing Reminding Checking with patient

4.6 Summary

In this chapter we have looked at the results of the analysis of the verbal signalling behaviours occurring in the 'History-taking' consultations. We have found that verbal signalling behaviours can be categorised according to whether they inform the patient about the structure of the consultation; invite the patient to contribute or instruct the patient to progress through the structure. We have seen that signalling behaviours can have a number of different functions, not just relating to signalling the structure and content of what follows next, but also to overtly respond to concerns by providing reassurance or delaying addressing them. We have seen that as well as the overt function denoted by the words in the signalling behaviour, a number of signalling behaviours also carry an additional role given to them by the doctor, named the hyperfunction. Finally, we have seen that behaviours can be combined in a phenomenon christened stacking, and that if individual behaviours have a hyperfunction, these contribute to the hyperfunction of the stack.

In the next chapter we will look at the language in these verbal signalling behaviours, to see how power was shared at the granular level through strategies suggested by Politeness Theory.

Chapter 5: Results of lexicogrammatical analysis of verbal signalling behaviours in 'History-taking' consultations

In this chapter we will discuss the linguistic features of the verbal signalling behaviours found in the consultations in the 'History-taking' station that may show where power is being shared between doctor and patient. As outlined in the Methods, this analysis applies strategies taken from Politeness Theory onto the language used in the consultation. This analysis shows how power is manifested through these signalling behaviours and provides answers to the third research question:

- How does the language in verbal signalling behaviours empower the patient during a station called 'History-taking'?**

The language analysis was conducted on six levels:

1. Person-centredness

Who is the main subject of the behaviour?

2. Deference

Is the behaviour phrased in a way that could show deference to the patient?

3. Effect of signalling behaviour: mitigation or intensification

Do doctors use the word *just* to draw attention from the change coming up on the flow of the consultation? Do they use adjectives to mitigate the effect of an unexpected subject, or to flag up and intensify a change?

4. Specificity or vagueness

Is the language used vague or specific regarding the structure and content ahead?

5. Provides reason for the task signalled by the signalling behaviour

Does the behaviour contain a rationale for what will be happening, or does the signal include obligation?

6. Temporal aspects

Does the signal include language showing when it will happen in the consultation?

The six levels of linguistic analysis were conducted on all 974 behaviours, grouped into the three overarching type categories of inform, invite and instruct.

Table 5.1 shows the frequencies of linguistic features per category of behaviour. The 'Total behaviours' row shows the total number of inform, invite and instruct behaviours, that add up to 974. Each row then shows the number of verbal signalling behaviours per category that exhibited each linguistic feature. A verbal signalling behaviour could incorporate more than one linguistic feature.

Table 5.1: Frequency of linguistic features found in signalling behaviours in 'History-taking' consultations (N=78)

Linguistic feature	No. linguistic features found in types of behaviour		
	Inform	Invite	Instruct
Total behaviours	895	52	27
Person-centredness	524	46	26
Deference	160	8	5
Mitigation vs intensification	368	9	10
Specificity vs vagueness	942	52	27
Provides rationale vs suggesting obligation	155	23	5
Temporal aspects	177	15	2

Furthermore, a verbal behaviour could also include more than one instance of the same linguistic feature. For the *Specificity vs vagueness* category, the total numbers identified in the inform category exceeds the number of signalling behaviours found. Both specificity and vagueness can be seen in the signpost "*So I've got a letter from your GP asking me to see you and have a quick chat with you because your GP has filed that you've been [symptoms]*": the doctor specifies the reason for the patient's visit by using a specific medical term (which has been redacted), but *quick chat* is vague about the consultation process that will follow.

The following sections will discuss each linguistic feature, beginning with the frequency of linguistic features found followed by examples from the three major behaviour types (inform,

invite, instruct). The verbal signalling behaviours are bold in each example, with the linguistic features underlined.

5.1 Person-centredness

Table 5.2 shows the sub-categories of the person-centredness linguistic feature found in the signalling behaviours. As before, the ‘Total behaviours’ row at the top of the table shows the total number of inform, invite and instruct behaviours adding up to 974. The ‘Total linguistic features’ row at the bottom of the table is the sum of behaviours containing each linguistic feature.

Table 5.2: Person-centredness in signalling behaviours found in ‘History-taking’ consultations (N=78)

Person centredness	No. linguistic features found in types of behaviour			
	Inform	Invite	Instruct	Total
Total behaviours	895	52	27	974
Doctor (“I”)	359	7	2	368
Patient (“you”/imperative)	32	37	23	92
Doctor and patient (“let’s”)	6	0	0	6
Third person (“he/she/they/your doctor”)	8	0	1	9
Unclear focus (“we”)	66	2	0	68
Total linguistic features	471	46	26	543

While the majority of behaviours featured a grammatical person (543/947, 57%), invite and instruct behaviours were more likely to feature a grammatical person (46/52, ‘88%’ and 26/27 ‘96%’ respectively) than inform behaviours (471/895. 53%).

5.1.1 Inform behaviours

The doctor was typically the focus of these behaviours (359/895, 40%), as per the bi-directional signpost shown below in Example 1. Of the three major behaviour types, this group was the only one to feature the other grammatical persons. This included the second person ‘you’ referring to

the patient (the post signpost in Example 2), the first-person plural “*let’s*”, which clearly referred to the doctor and patient (the signpost in Example 3) or the less clear ‘*we*’ (the post without sign in Example 4). Some behaviours invoked third parties, such as other doctors (the signpost in Example 5), while other behaviours did not feature a person (the sign without post in Example 6).

Example 1: candidate 35, scenario 2

DOC *Okay, I'd like to go back and address all these issues.*

Example 2: candidate 60, scenario 1

DOC *That's good. Sorry you have to answer this question.*

Example 3: candidate 17, scenario 1

DOC *Yes, okay, all right. Okay, let's just go over a few things again.*

Example 4: candidate 2, scenario 1

DOC *And any history, we have to ask, of any illicit drug use, or anything?*

Example 5: candidate 12, scenario 2

DOC *Your doctor has asked me to see you about some of your blood tests.*

Example 6: candidate 40, scenario 1

DOC *Okay, mhmm. So how about the cough? The cough is when you exert yourself or it's just?*

5.1.2 Invite behaviours

The majority of invite behaviours featured a grammatical person (46/52, ‘88%). Of these the patient was typically the focus (37/52, ‘71%’), as seen in the check-in behaviours in Examples 7 and 8. The doctor occasionally appeared as the focus of the behaviour, as in the check-in in Example 9. There were also instances where invite behaviours did not specify a person, as in the check-in in Example 10.

Example 7: candidate 29, scenario 7

DOC *Okay. Is there anything else you wanted to discuss today?*

Example 8: candidate 45, scenario 1

DOC *Any issues, any concerns, anything that you didn't understand today?*

Example 9: candidate 71, scenario 5

DOC *Am I correct in saying that?*

Example 10: candidate 31, scenario 9

DOC *Does that sound reasonable?*

5.1.3 Instruct behaviours

Instruct behaviours also focused on the patient, often through the use of the second-person 'you' as in the directing emotion and directing input behaviours in Examples 11 and 12 respectively. It could also focus on the patient through the use of an imperative verb e.g. 'do/don't/let', as in the case of the directing input behaviour Example in 13, and the directing emotion behaviour in Example 14.

Example 11: candidate 44, scenario 1

DOC *But, uh, I think it's not that much problematic, uh so you don't have to much worry.*

Example 12: candidate 65, scenario 4

DOC *Sorry, you may talk, yeah.*

Example 13: candidate 18, scenario 5

DOC *No. Nothing like that. Okay. Um, let me just ask you a few questions about your past medical history.*

Example 14: candidate 78, scenario 7

DOC *Don't worry, we'll try to get a handle on this so...*

5.2 Deference

Table 5.3 shows the sub-categories of linguistic features indicating deference found in the signalling behaviours.

Table 5.3: Deference in signalling behaviours found in ‘History-taking’ consultations (N=78)

Deference	No. linguistic features found in types of behaviour			
	Inform	Invite	Instruct	Total
Total behaviours	895	52	27	974
Modal politeness	73	8	2	83
Contains politeness tag at start/before behaviour	47	0	2	49
Contains politeness tag midway	5	0	0	5
Contains politeness tag at end/after behaviour	35	0	1	36
Total linguistic features	160	8	5	173

The majority of behaviours did not contain linguistic features showing deference, appearing in 18% (173/974) of behaviours. As discussed in the Methods, using modal auxiliary verbs like *can*, *could* and *would* in questions was the most common way deference was manifested in the signalling behaviours (83/974, 9%).

5.2.1 Inform behaviours

When inform behaviours included deference, these mostly took the form of modal politeness, seen in the signposts in Examples 15 and 16. Inform behaviours also used politeness tags, such as *if you don’t mind*, both at the start (Example 15 again) and at the end of behaviours (the post without sign in Example 17). However, what was more likely overall was to have behaviours that did not include a politeness tag, as was the case in the signpost in Example 18 and the post without sign in Example 19.

Example 15: candidate 55, scenario 4

DOC *And if you don't mind, can I ask you a bit more about the [medical condition]*

Example 16: candidate 51, scenario 4

DOC *Okay. Okay, Mr [patient name], I would like to ask more questions regarding how you've been...*

Example 17: candidate 13, scenario 8

DOC *And at the moment just with regards, um, just another question for you if you don't mind.*

Example 18: candidate 8, scenario 4

DOC *We'll come back to your work in a moment. Um, so you've had [symptom]*

Example 19: candidate 15, scenario 9

DOC *Okay, um, and a few more questions. When... Before it happened, did you have any chest pain?*

5.2.2 Invite behaviours

Few invite behaviours contained politeness tags: of those that did, it came in the form of modal auxiliaries (as per the check-in in Example 20). As with inform behaviours, invites tended to occur without deference (the check-in in Example 21).

Example 20: candidate 69, scenario 9

DOC *Okay. Er, so before I go any further, I would like to ask you is there anything particular going through your mind what might be going on?*

Example 21: candidate 65, scenario 4

DOC *Are you getting me?*

5.2.3 Instruct behaviours

Instruct behaviours were the most likely to contain deference (5/27, '19%). These took the form of politeness tags at the start such as *please* (as with the directing emotion behaviour in Example 22), or with modal auxiliaries as in Example 23. As with the previous two categories, instruct behaviours were still more likely to not contain deference overall, as with the directing emotion behaviour in Example 24 and the directing input behaviour in Example 25.

Example 22: candidate 52, scenario 7

DOC Yes. *Right now, please not to be worried.*

Example 23: candidate 19, scenario 2

DOC ... and *maybe if you could fill in any gaps that I've left out*

Example 24: candidate 37, scenario 5

DOC No, *don't think about that way* because we we have to sort out the problems that what's going on with you isn't it rather than you living with [symptoms]

Example 25: candidate 31, scenario 9

DOC Okay. All right. *Just go back to when these all started today*, do you remember feeling at all [symptom] when this happened?

5.3 Effect of signalling behaviour: mitigation vs intensification

Table 5.4 shows the sub-categories of linguistic features that could draw attention to or from a signalled change.

Table 5.4: Linguistic mitigation or intensification in signalling behaviours found in 'History-taking' consultations (N=78)

Mitigation vs intensification	No. linguistic features found in types of behaviour			
	Inform	Invite	Instruct	Total
Total behaviours	895	52	27	974
'Just' mitigation	132	3	6	141
Adjective/adverb mitigation	149	3	3	155
Adjective/adverb intensification	87	3	0	90
Total behaviours	368	9	9	386

Mitigating the effect of a signalled change was most frequently done through the use of adjectives like *few* or adverbs like *quickly* (155/974, 16%). Using the word 'just' to lessen effects of signalled changes was also found in just over a tenth of cases (141/974, 14%).

5.3.1 Inform behaviours

Inform behaviours were more likely to include language intended to mitigate the effects of signalled changes through just and adjectives or adverbs (132/895, 15% and 149/89517%). This

can be seen in the signposts in Examples 26 and 27. A smaller proportion of behaviours contained language that intensified the signalled change (90/895, 10%), as can be seen in the signpost in Example 28. However, the majority of behaviours did not contain any sort of mitigation or intensification, as per the sign without post in Example 29.

Example 26: candidate 14, scenario 5

DOC *Can I just go back to your bowels, if that's all right?*

Example 27: candidate 28, scenario 2

DOC *Okay, okay. I'll just briefly run through a few other systems, if that's all right.*

Example 28: candidate 64, scenario 1

DOC *Like I've said, um, it's very difficult to say at... to say, if, you know, what you have at the moment.*

Example 29: candidate 71, scenario 5

DOC *Alright, and do you have any... Besides these medical problems, there isn't anything else, right?*

5.3.2 Invite behaviours

Invite behaviours were twice as likely to mitigate (6/52, '12%) than intensify (3/52, '6%) their signalled changes. Mitigation was equally spread through the use of *just* (the limited choice Example 30) and adjectives/adverbs (the limited choice behaviour in Example 31). Adjectival intensification can be seen in the limited choice behaviour in Example 32. Overall, however, invite behaviours neither mitigated or intensified their signalled changes, as per the limited choice behaviour in Example 33.

Example 30: candidate 53, scenario 4

DOC *Alright. Is there any other thing that you'd er like to emphasise so that we can, uh, discuss before I just tell you about the plan?*

Example 31: candidate 31, scenario 9

DOC *Okay. Okay, right, fine. Is there anything else that you want to tell me before I ask you a few more questions?*

Example 32: candidate 64, scenario 1

DOC *Is there anything that we didn't touch here, which is important?*

Example 33: candidate 61, scenario 2

DOC *Anything else you wanted to add?*

5.3.3 Instruct behaviours

Of the three main categories of behaviour types, instruct behaviours were most likely to contain language that mitigated the signalled change (9/27, '33%). There were no instances of language that intensified the change coming. The directing input behaviour in Example 34 shows mitigation through the use of *just*, while the directing input behaviour in Example 35 shows *just* and adjectival mitigation. The directing input behaviour in Example 36 is more typical of this behaviour, displaying no language pertaining to mitigation or intensification.

Example 34: candidate 52, scenario 7

DOC *Okay. So [patient title+surname], just allow me to just summarise your [symptoms].*

Example 35: candidate 78, scenario 7

DOC *Okay. All right, okay. Um, let me just ask you a few questions.*

Example 36: candidate 15, scenario 9

DOC *Stop me if I'm wrong there?*

5.4 Specificity or vagueness

Table 5.5 shows the instances of specific or vague language found in the signalling behaviour. As a reminder, deixis included pronouns such as *this* and *that*, where the subject that the pronoun referred to was clear from the preceding talk.

Table 5.5: Linguistic specificity or vagueness in signalling behaviours found in 'History-taking' consultations (N=78)

Specificity vs vagueness	No. linguistic features found in types of behaviour			
	Inform	Invite	Instruct	Total
Total behaviours	895	52	27	974
Specific language (including deixis)	612	25	23	660
Vague language	330	27	4	361
Total behaviours	942	52	27	1021

Overall, signalling behaviours were almost twice as likely to contain specific language (660/974, 68%) than vague language (361/974, 37%). However, these proportions varied greatly among the three behaviours.

5.4.1 Inform behaviours

In just over two-thirds of behaviours, informs contained specific language (612/895, 68%), particularly in the case of signs without post as in Example 37. However, just over a third contained vague language, as per the signpost in Example 38. This accounts for the instances where vague and specific language occur in the same behaviour, as per the signpost in Example 39.

Example 37: candidate 4, scenario 6

DOC Okay, and going back to the smoking, have you stopped smoking?

Example 38: candidate 3, scenario 5

DOC My name is Dr. [name]. I've been asked to have a quick chat with you here today, if that's okay.

Example 39: candidate 14, scenario 5

DOC Okay, and just a few more questions about sort of, your family and things like that. Are there any problems that run in your family?

5.4.2 Invite behaviours

Contrary to inform behaviours, invites were slightly more likely to contain vague language (27/52, '52%). This can be seen in the check-ins in Examples 40 and 41. Just under half the behaviours were more specific (25/72, '48%), as with the check-in behaviour in Example 42.

Example 40: candidate 31, scenario 9

DOC *Okay. Okay, right, fine. Is there anything else that you want to tell me before I ask you a few more questions?*

Example 41: candidate 46, scenario 6

DOC *Um, is there anything you wish to tell me?*

Example 42: candidate 68, scenario 8

DOC *So you're happy if I do investigation quickly and keep you in hospital [overtalking].*

5.4.3 Instruct behaviours

In contrast to the other categories, instructs were predominantly specific (23/27, '74%). While the word selection in the directing input behaviour in Example 43 may be jargon, it is specific nonetheless. The directing emotion Example in 44 is also specific about what the patient should not be worried about (the medical test).

Example 43: candidate 2, scenario 1

DOC *If we just run through a few systems, if that's okay?*

Example 44: candidate 37, scenario 5

DOC *But we have to go into the root that what is causing it. Okay, but we... I'm not just... don't worry about the [specific medical test] right now.*

5.5 Provides reason for signalled change

Table 5.6 shows if the signalling behaviours per phase provided a rationale or suggested obligation for a signalled task.

Table 5.6: Providing reason for signalled change in signalling behaviours found in 'History-taking' consultations (N=78)

Rationale vs obligation	No. linguistic features found in types of behaviour			
	Inform	Invite	Instruct	Total
Total behaviours	895	52	27	974
Provide rationale	111	22	6	139
Suggest obligation	44	1	0	45
Total behaviours	155	23	6	184

Broadly, signalling behaviours were more likely to provide a rationale for the signalled task (139/974, 14%) than they were to suggest the signalled task was coming out of obligation (45/974, 5%). Overall, just under a fifth of behaviours accounted for the signalled change (184/974, 19%).

5.5.1 Inform behaviours

Inform behaviours were more likely to provide a reason for the signalled change (111/895, 12%) than to suggest obligation (44/895, 5%). A purpose for questions being asked can be seen in the signpost in Example 45, while the language in the signpost in Example 46 indicates obligation as the rationale for the consultation. A behaviour that does not account for the signalled change can be seen in the sign without post in Example 47.

Example 45: candidate 66, scenario 8

DOC *Well, I have to ask you... these are just general screening questions, because basically they shed more light on what could be going on.*

Example 46: candidate 76, scenario 3

DOC *Hello [patient name]. I'm [doctor name] I'm one of the doctors working here. So I've been asked to see you with regards to recent problems that you've been having*

Example 47: candidate 71, scenario 5

DOC *Okay, and incidentally, by any chance, have you ever fainted or lost consciousness?*

5.5.2 Invite behaviours

Invite behaviours were much more likely to provide a reason (22/52, '42%') than suggest obligation (1/52, '2%). The rationale in the check-in in Example 48 is that the discussion points may have been omitted. The limited choice behaviour in Example 49 does not provide any account for the signalled change. The lone obligation shown in invite behaviours can be seen in the limited choice in Example 50.

Example 48: candidate 52, scenario 7

DOC *Is there anything that you would like to bring up that you think we have not discussed?*

Example 49: candidate 48, scenario 4

DOC *Um, to... Would you like me to explain a bit, or explain it more?*

Example 50: candidate 2, scenario 1

DOC *Okay, fine. Um, and just to confirm you didn't want anyone else... I should have asked probably, you didn't want anyone else to do consultation*

5.5.3 Instruct behaviours

There were low frequencies of accounting in instruct behaviours: 6/27, or '22%' gave a rationale, while all other behaviours did not account for the signalled change. The rationale provided in the directing input behaviour in Example 51 focuses on topics that might have been omitted. The directing input in Example 52 does not account for why the topic of questions will be asked.

Example 51: candidate 12, scenario 2

DOC *Okay. Those are the main things, you can patch up wherever you think it's appropriate that we've missed.*

Example 52: candidate 18, scenario 5

DOC *No. Nothing like that. Okay. Um, let me just ask you a few questions about your past medical history.*

5.6 Temporal aspects

This section will focus on time-related language (e.g. *next*, *before*, *after* etc.). This linguistic feature was found throughout the consultations, although not always in a signalling behaviour. Table 5.7 shows the number of signalling behaviours per phase that contained language related to time, or that indicated certainty or probability of something happening.

Table 5.7: Providing temporal aspects in signalling behaviours found in 'History-taking' consultations (N=78)

Temporal aspects	No. linguistic features found in types of behaviour			
	Inform	Invite	Instruct	Total
Total behaviours	895	52	27	974
Contained temporal aspect	177	15	3	195

A fifth of signalling behaviours (195/974, 20%) contained time-related language that could show the patient what phase of the consultation they were in, or indicated the sequence of events that would occur within the consultation.

5.6.1 Inform behaviours

A fifth of inform behaviours included temporal language (177/895, 20%). The signpost in Example 53 indicates when in the consultation the doctor will return to a point of discussion. The post without sign in Example 54 does not give any indication of the sequence of duration of events.

Example 53: candidate 27, scenario 9

DOC *Okay. Um. If it's okay with you, I'll, I'll maybe just shelve that for a moment and we'll come back to it towards the end of the consultation, if that's ok?*

Example 54: candidate 34, scenario 8

DOC *Um, I don't... I don't... Well, I think we need to ask a few more questions and do a few more things*

5.6.2 Invite behaviours

Invite behaviours were more likely than inform behaviours to include temporal language (15/52, '28%). The open choice behaviour in Example 55 suggests a time in '*out of today*', which broadly refers to the session. The limited choice behaviour in Example 56 gives an indication of time although *some time* is vague about the allocated amount.

Example 55: candidate 9, scenario 2

DOC *Yes, certainly. So it's sort of obviously one thing you want to get out of today is to get some [medication], is there anything else you were sort of expecting out of today that you're wanting to get out of this consultation?*

Example 56: candidate 22, scenario 5

DOC *Do you want some time to have a think about it?*

5.6.3 Instruct behaviours

Few instruct behaviours contained any reference to time or sequence: only 3/27, '11%' made any such reference. The directing emotion behaviour in Example 57 gives the patient an indication of when not to worry, while the directing input in Example 58 does not specify when the patient can make corrections.

Example 57: candidate 65, scenario 4

DOC *I will tell you, definitely don't worry at the moment*

Example 58: candidate 48, scenario 4

DOC *Okay, right. I'm quickly going to summarise and tell you what I've got from you. Tell me if I've missed anything, just let me know.*

5.7 Summary

In this chapter we have reported on the analysis of linguistic features relating to strategies suggested by Politeness Theory as a means of showing where power lies in the consultation. We have seen that the vast majority of behaviours feature the first-person singular, making the

doctor the main subject of the signalling behaviour and that the second-person singular, indicating the patient, occurs in the smallest proportion as the main subject of the signalling behaviour. Showing deference was typically shown through the use of modal verbs like *would* and *could*, that softened the request that was about to come. Verbal signalling behaviours were also more likely to contain elements of language that mitigated what was being signalled, with the word *just* playing a key role. Specific language was used in the majority of verbal signalling behaviours, although a number were also vague about the role of the patient in what was to come. Verbal signalling behaviours typically did not suggest a reason for the signalled change, and did not contain temporal aspects that showed the patient when the information signalled by the verbal signalling behaviour would happen in the consultation.

Chapter 6: Results of structure analysis in ‘Communication Skills and Ethics’ consultations and comparison with findings from ‘History-taking’ consultations

In Chapters 3-5 we focused on the results of the analysis conducted on the ‘History-taking’ consultations looking at structure, verbal signalling behaviours and linguistics respectively. The next three chapters focus on the results of the analysis of the ‘Communication Skills and Ethics’ consultations, with this chapter reporting on the structure.

This chapter will provide answers to the question:

- What structure do doctors give their consultations during a station called ‘Communication Skills and Ethics’?**

Comparisons will also be made with the findings reported in Chapter 3, regarding the structure analysis of the ‘History-taking’ consultations, providing answers for an additional question:

- What are the differences in structure between ‘History-taking’ and ‘Communication Skills and Ethics’ consultations, taking into account that these consultations are the same length, from the same examination and feature the same doctors?**

6.1 Presenting the data visually

In a similar format to Chapter 3, this chapter will once again use visualisations of the consultations to show the phase structure as recommended by the Calgary-Cambridge Guide to the Medical Interview. As a reminder, this is shown in Figure 6.1, along with a key to reading the diagram.

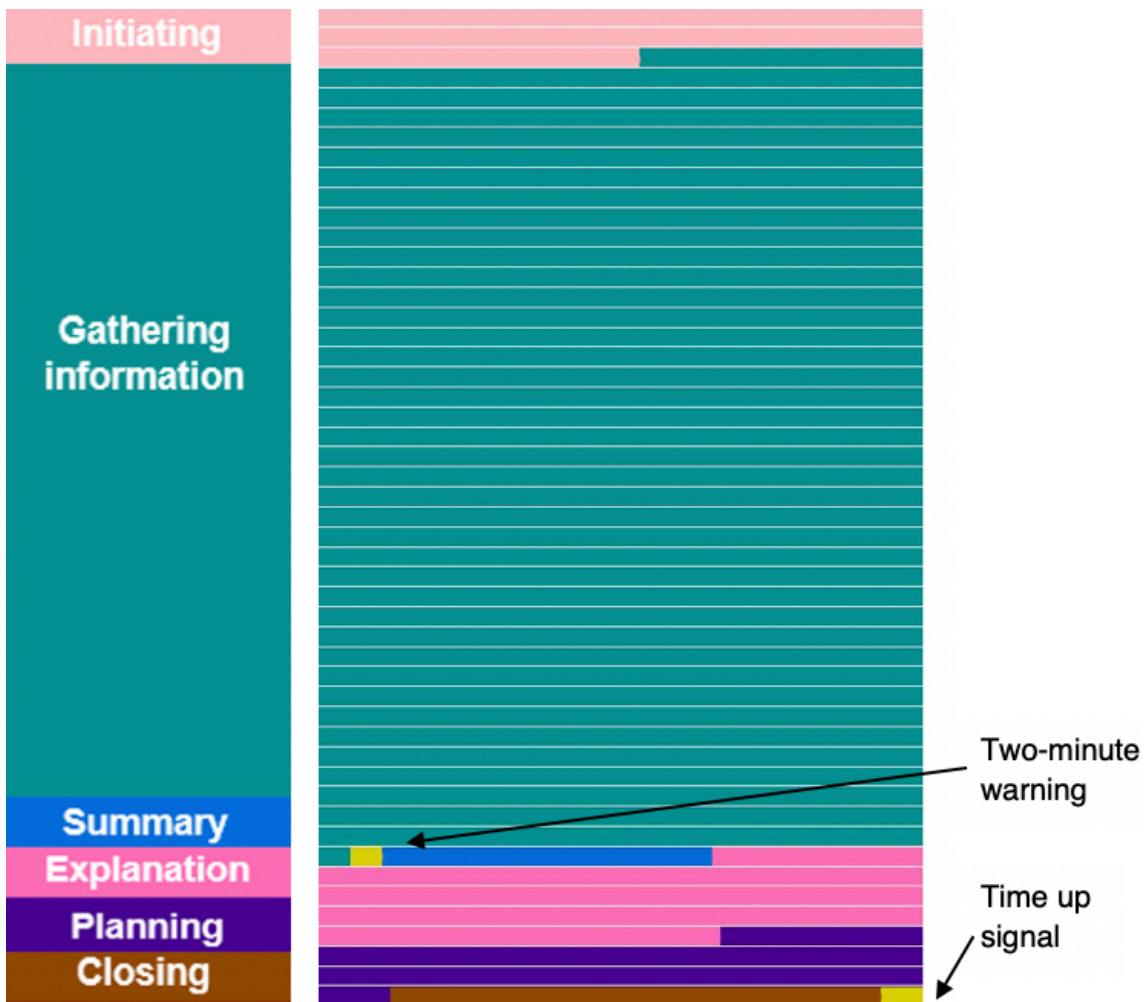


Figure 6.1 History-taking station visualisation, candidate 1

As before, the image is designed to be read across and then down: each of the 50 lines represents 2% of the talk in the 14-minute consultation.

6.2 Consultation structure in ‘Communication Skills and Ethics’

The analysis of consultation structure was conducted on the same three levels as previously described from the ‘History-taking’ station. Additionally, comparisons were made between the two stations regarding the clarity of structure, and amount of talk allocated to each phase.

This chapter therefore provides results to the following questions:

1. Clarity of structure

- Are all the phases proposed by the Calgary-Cambridge Guide present?
- Do the phases occur in the same chronological order as proposed by the Guide?
- Are the phases discrete?
- How do the 'Communication Skills and Ethics' consultations compare with the 'History-taking' consultations with regards to presence, chronological order and discreteness of phases?

2. Phase characteristics

- How much talk was allocated to each phase proposed by the Calgary-Cambridge Guide?
- What were the dominant phases?
- How did the amount of talk allocated to phases differ between 'Communication Skills and Ethics' and 'History-taking'?

3. Comparison of structure across consultation scenarios

- Did structure differ between the different scenarios set?
- Did structure differ between consultations in the same scenario?

6.3 Clarity of structure

6.3.1 Presence of phases as proposed by the Calgary-Cambridge Guide

Table 6.1 gives a breakdown of the number of phases per consultation across the two stations.

Table 6.1: Number of phases present in each consultation of 'Communication Skills and Ethics' (N=76) compared to 'History-taking' (N=78)

Phase counts	Number of 'Communication Skills and Ethics' consultations	Number of 'History-taking' consultations
Contained 6 phases	15	23
Contained 5 phases	29	37
Contained 4 phases	29	17
Contained 3 phases	3	1
TOTAL	76	78

Just under a third of the consultations in 'History-taking' contained all the phases (23/78, '30%) (15/76, '20%'), compared to a fifth in 'Communication Skills and Ethics'. While the majority of consultations in 'History-taking' were most likely to omit one phase (37/78, '47%'), consultations in 'Communication Skills and Ethics' were equally likely to omit one or two phases (29/76, '38%). Table 6.2 shows the number of consultations featuring each phase of the Calgary-Cambridge Guide to the Medical Interview.

Table 6.2: Number of consultations containing each phase across 'Communication Skills and Ethics' (N=76) and 'History-taking' (N=78):

Phase	Number of 'Communication Skills and Ethics' consultations	Number of 'History-taking' consultations
Initiating	75	77
Gathering Information	64	78
Summary	27	54
Explanation	76	77
Planning	76	77
Closing	42	31

The Explanation and Planning phases were found in all the 'Communication Skills and Ethics' consultations. Similarly, they were only omitted once each in the 'History-taking' station. Gathering Information was the only phase present in all the 'History-taking' consultations but was omitted in almost a fifth of 'Communication Skills and Ethics' consultations (12/76, '16%). The biggest difference was seen in the presence of the Summary phase between the two stations: over two-thirds of the 'History-taking' stations featured the phase (54/78, '69%'), while just under two-thirds omitted it in the 'Communication Skills and Ethics' station (49/76, 64%).

Consultations in 'Communication Skills and Ethics' were more likely to include a Closing phase (42/76, '55%) than in 'History-taking' (31/78, '40%). This is also reflected in the number of doctors who completed the 'Communication Skills and Ethics' consultation before the end of the allocated 14 minutes. Exactly a quarter of the 'Communication Skills and Ethics' consultations

were completed by the doctor within the allocated time (19/76, '25%'), compared to just over a tenth in 'History-taking' (9/78, '11%').

A visual illustration of what consultations look like in both stations when they contain all the phases and are completed in the 14 minute allocation can be seen in Figure 6.2. These are typical consultations from each dataset.

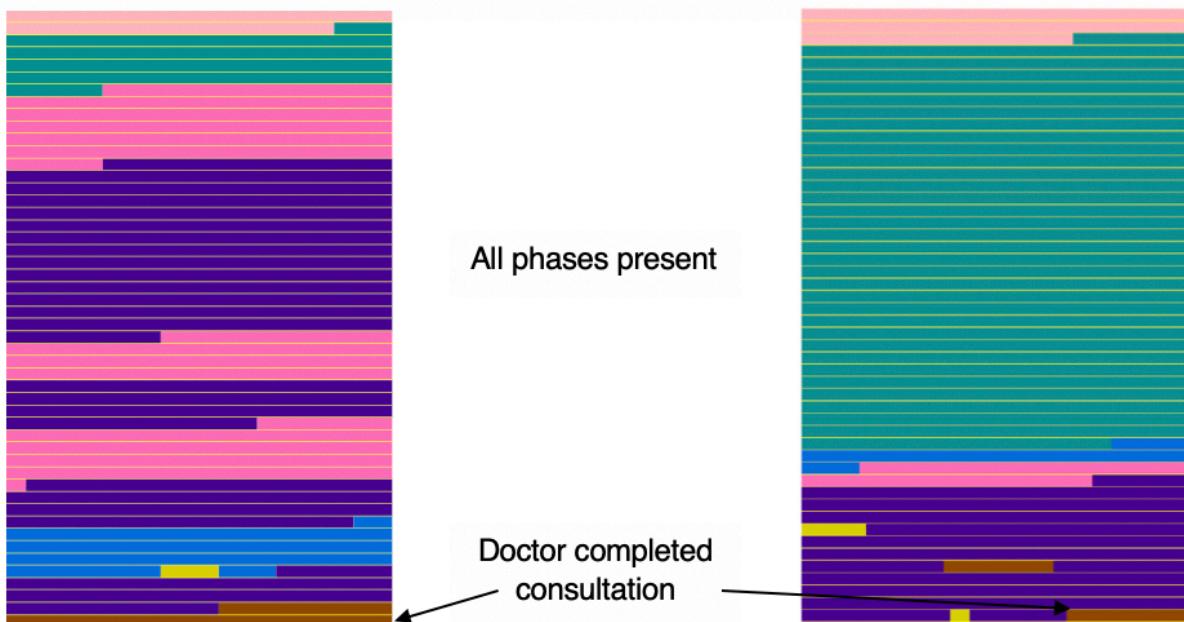


Figure 6.2 Candidates 57 in 'Communication Skills and Ethics' (left) and 39 in 'History-taking' (right)

While both consultations contained all the phases and were completed before the end of the 14 minutes, we can see that the 'Communication Skills and Ethics' consultation contained more talk in an intertwined Explanation and Planning, while the 'History-taking' consultation contained more talk in a discrete Gathering Information phase.

Table 6.3 shows the phases doctors were in at the end of the 14 minutes across the two stations. Doctors were more likely to be in either the Planning or Closing phase in 'Communication Skills and Ethics' (both at 37/76, '49%') at the end of the 14 minutes, whereas over half the doctors in 'History-taking' were in the 'Planning' phase (42/78, '54%').

Table 6.3: Phase at the end of 14-minute allocation in ‘Communication Skills and Ethics’ (N=76) and ‘History-taking’ (N=78)

Phase of consultation at 14 minutes	Number of ‘Communication Skills and Ethics’ consultations	Number of ‘History-taking’ consultations
Gathering Information	0	3
Explanation	2	14
Planning	37	42
Closing	37	19

6.3.2 Order of phases

The expected chronological order of phases was as follows:

- Initiating
- Gathering Information
- Explanation
- Planning
- Summary
- Closing

This sequence can be seen in the ‘Communication Skills and Ethics’ consultation shown earlier in Figure 6.2.

We will now consider the variations on the order of phases as suggested above. The first step is to see consultations that feature all the phases appearing in chronological order, but where the phases are not discrete. Figure 6.3 shows two of these consultations. The ‘Communication Skills and Ethics’ consultation contains the Summary partway through Gathering information and Closing, while both consultations display intertwined Explanation and Planning phases.

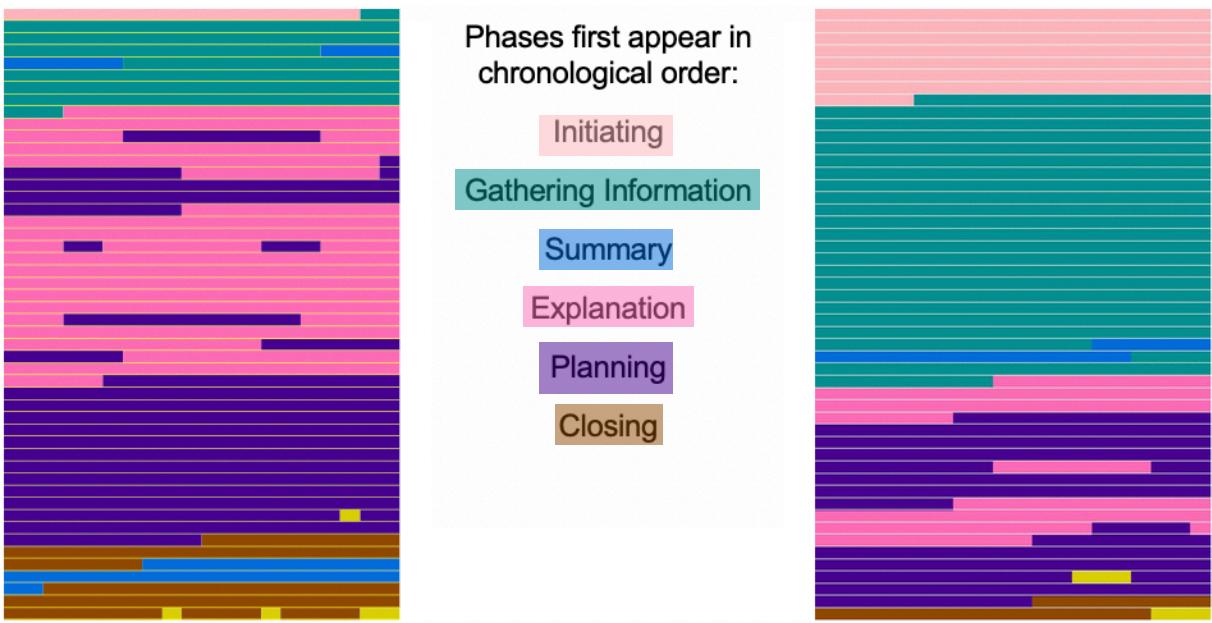


Figure 6.3 Candidates 60 in 'Communication Skills and Ethics' (left) and 41 in 'History-taking' (right)

The next step is to look at consultations that omit phases but show chronological order as suggested by the Calgary-Cambridge Guide in the phases that are present. Examples of this can be seen in Figure 6.4.

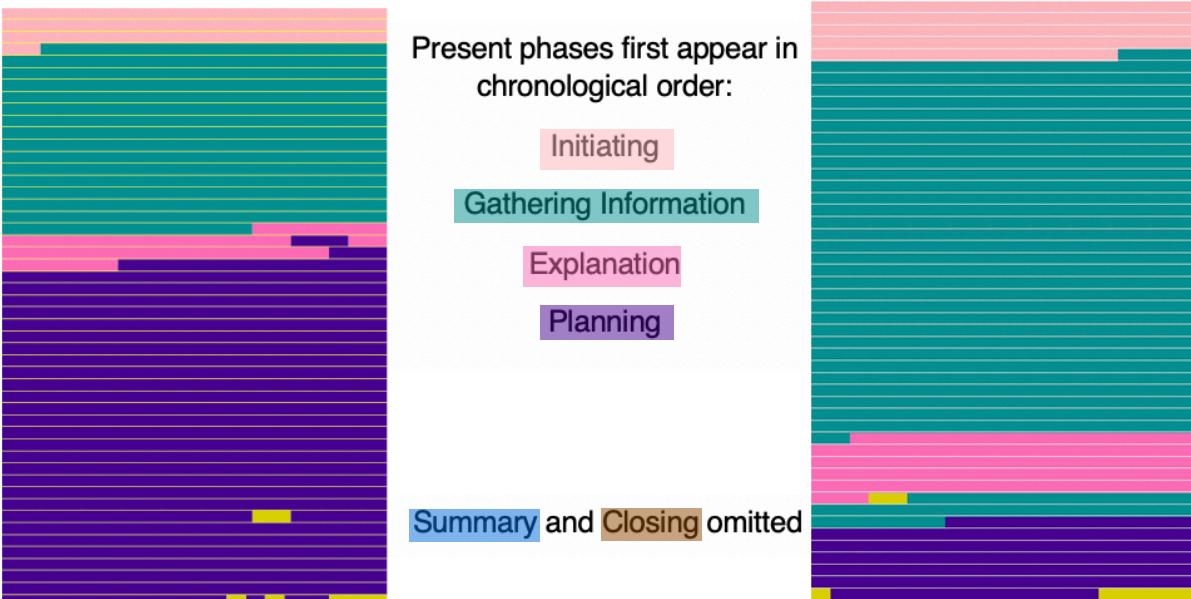


Figure 6.4 Candidates 16 in 'Communication Skills and Ethics' (left) and 76 in 'History-taking' (right)

Figure 6.5 shows examples of consultations where all the phases are present but do not occur in the chronological order suggested by the Calgary-Cambridge Guide: both Explanation and

Planning occur before Gathering Information in the ‘Communication Skills and Ethics’ consultation, while Planning occurs before Explanation in the ‘History-taking’ consultation.

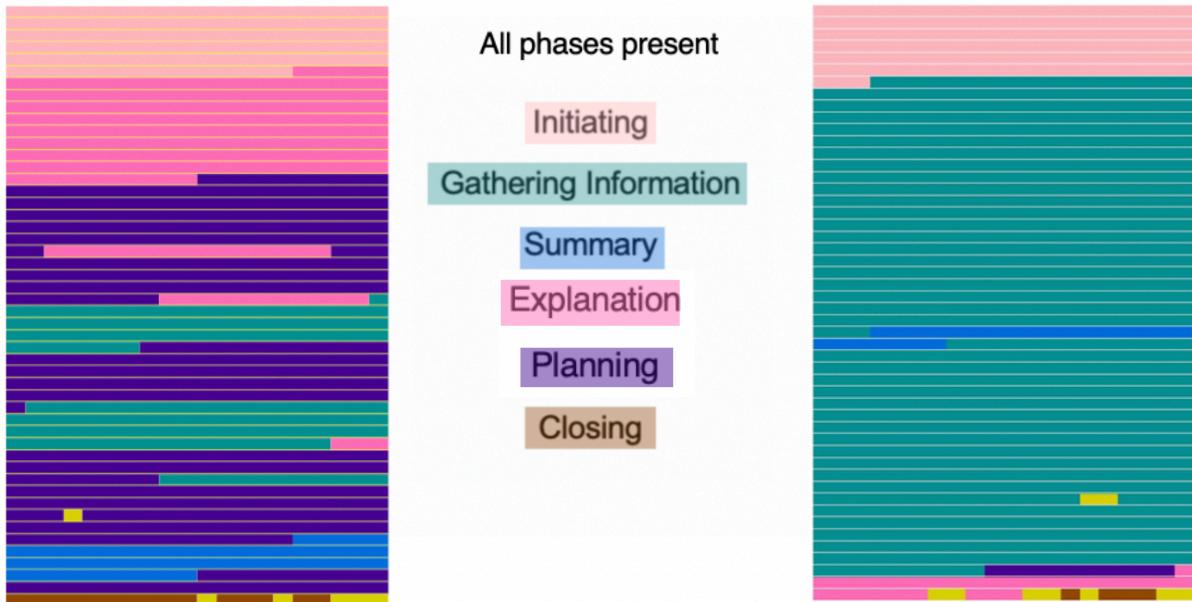


Figure 6.5 Candidates 27 in ‘Communication Skills and Ethics’ (left) and 75 in ‘History-taking’ (right)

Considering the frequency of consultations showing the chronological order as predicted by the Calgary-Cambridge Guide, Table 6.4 shows that ‘History-taking’ consultations were more likely to follow the chronological order of phases (40/78, ‘51%’) than ‘Communication Skills and Ethics’ (30/76, ‘40%’).

Table 6.4: Consultations featuring phases in chronological order in ‘Communication Skills and Ethics’ (N=76) and ‘History-taking’ (N=78)

Chronological order of phases?	Number of ‘Communication Skills and Ethics’ consultations	Number of ‘History-taking’ consultations
Yes	30	40
No	46	38

Considering variations in the chronological order of phases, Table 6.5 shows the breakdown of consultations featuring phases in chronological order across the two stations, taking into account

if these phases were intertwined (as in Figure 6.3), if phases were missing (as in Figure 6.4), or a mixture of the two.

Table 6.5: Variations of consultations featuring phases in chronological order across ‘Communication Skills and Ethics’ (N=30) and ‘History-taking’ (N=40)

Type of variation	Number of ‘Communication Skills and Ethics’ consultations	Number of ‘History-taking’ consultations
No variation	0	1
Missing phase(s)	0	5
Intertwined phases	2	7
Missing phase(s) and Intertwined	28	27

Across both stations, consultations that followed the chronological order of phases were likely to both omit phases and have intertwining among those present (28/30, ‘93%’ in ‘Communication Skills and Ethics’ and 27/40, ‘68%’ in ‘History-taking’).

Table 6.6 gives a breakdown of the consultations across both stations that did not follow the expected sequence as per the Calgary-Cambridge Guide, and the phase or phases per consultation that occurred earlier than expected in the sequence of phases.

Table 6.6: Consultations featuring phases occurring earlier than expected in ‘Communication Skills and Ethics’ (N=46) and ‘History-taking’ consultations (N=38)

Phase(s) occurring earlier than expected	Number of ‘Communication Skills and Ethics’ consultations	Number of ‘History-taking’ consultations
Main Summary	0	6
Explanation	11	2
Planning	2	26
Explanation and Planning	30	3
Planning and Closing	0	1
Main Summary, Explanation and Planning	3	0

Of the 46 ‘Communication Skills and Ethics’ consultations that deviated from the chronological order suggested by the Calgary-Cambridge Guide, the majority were likely to move into

Explanation and Planning before Gathering Information (30/46, '65%). Consultations that deviated from the order in 'History-taking' were more likely to move into Planning earlier than expected (26/38, 68%).

6.3.3 Discreteness of phases

Table 6.7 shows the number of interrupted phases per consultation across the two stations.

Table 6.7: Number of interrupted phases in 'Communication Skills and Ethics' (N=76) and 'History-taking' consultations (N=78)

Phase	<i>Communication Skills and Ethics</i>		<i>History-taking</i>	
	Number of consultations containing phase	Number of consultations with phase interruptions	Number of consultations containing phase	Number of consultations with phase interruptions
Initiating	75	0	77	1
Gathering Information	64	35	78	57
Summary	27	9	54	29
Explanation	76	76	77	57
Planning	76	76	77	58
Closing	42	12	31	16

Initiating was the only phase in 'Communication Skills and Ethics' that was not interrupted by another phase, making it unique. This is consistent with its presence in 'History-taking', where it was interrupted once by a Summary.

Interruptions of the Gathering Information phase were less likely in 'Communication Skills and Ethics' (35/64, '55%') than in 'History-taking' (57/78, '73%'). The same was true of the Summary (9/27, '33%' in 'Communication Skills and Ethics'). However, Explanation and Planning were both much more likely to be interrupted in 'Communication Skills and Ethics'; both appeared in every consultation, intertwined with each other and occasionally with other phases. Closing was also less likely to be interrupted in 'Communication Skills and Ethics' (12/42, '29%') than in 'History-taking' (16/31, '52%').

6.3.4 Consultations displaying ‘clear’ structure according to prediction from the Calgary-Cambridge Guide

Given that every instance of Explanation and Planning was intertwined, none of the consultations in ‘Communication Skills and Ethics’ met the ‘clear’ criteria of having all discrete phases in chronological order. Table 6.8 shows how many consultations were considered ‘clear’ against the above criteria, compared against those that met the criteria in ‘History-taking’.

Table 6.8: Number of consultations according to clarity of structure in ‘Communication Skills and Ethics’ (N=76) and ‘History-taking’ (N=78)

Clarity of structure	Number of ‘Communication Skills and Ethics’ consultations	Number of ‘History-taking’ consultations
All discrete phases in chronological order	0	1
All phases present with Summary, Explanation and Planning intertwined	5	2
Missing phases and/or all phases intertwined	71	75

When allowing for intertwined Explanation and Planning phases and the interim Summary, five consultations were considered ‘partially clear’ in ‘Communication Skills and Ethics’. Therefore across both stations, the majority of consultations displayed ‘unclear’ structure in comparison to the predicted structure from the Calgary-Cambridge Guide. As seen in Table 6.8, across the two stations, according to the criteria, eight consultations would be considered as having a ‘clear’ or ‘partially clear’ structure, and these are shown in Figure 6.6.

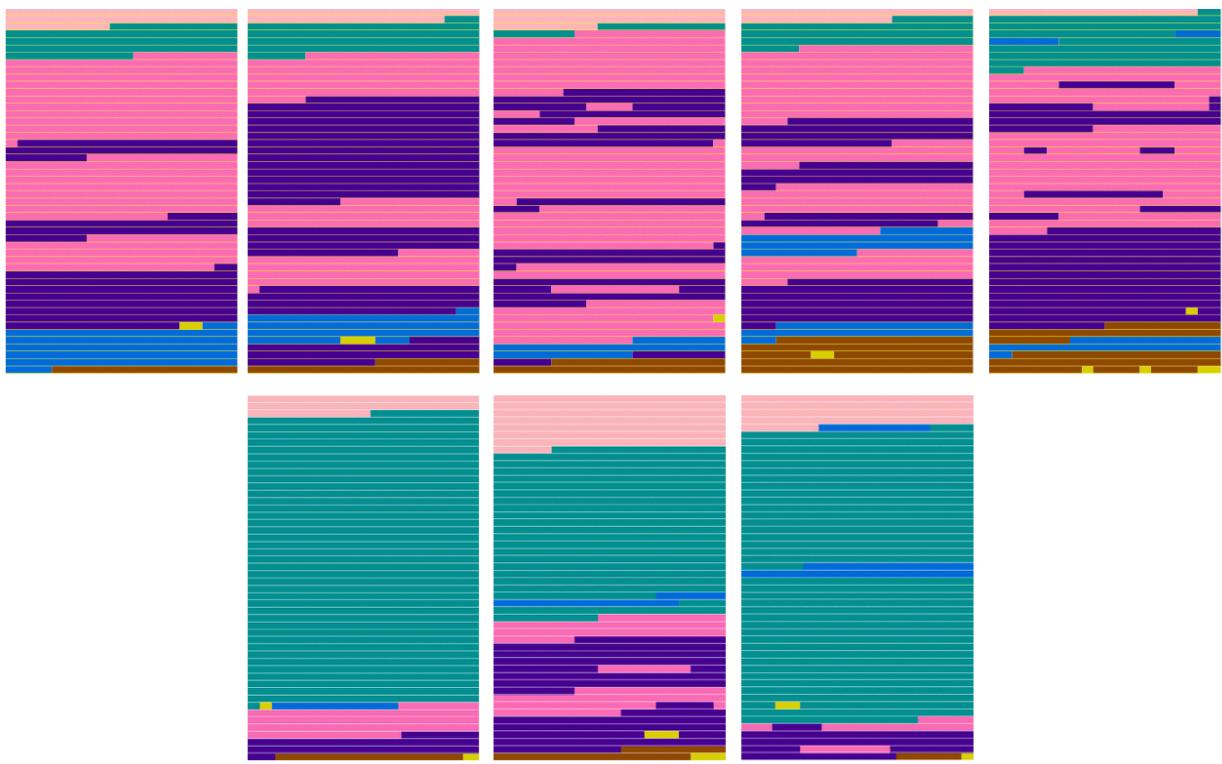


Figure 6.6 'Clear' and 'partially clear' consultations according to Calgary-Cambridge recommendations.

Top row, left to right: Candidates 28, 57, 4, 9, 60 in 'Communication Skills and Ethics'

Bottom row, left to right: Candidates 1, 41, 7 in 'History-taking'

6.4 Amount of talk allocated to each phase of the doctor-patient consultation

This section focuses on the following sub-questions:

- How much talk was allocated to each phase proposed by the Calgary-Cambridge Guide?
- What were the dominant phases?
- How did the amount of talk per phase compare between 'Communication Skills and Ethics' and 'History-taking'?

Chart 6.1 shows that the greatest proportion of talk in 'Communication Skills and Ethics' was allocated to the Planning phase, with one consultation spending nearly three-quarters of the talk in that phase. This was followed by the Explanation, with one consultation spending just over two-thirds of the talk here.

These two phases, along with Gathering Information, showed the greatest range of allocated talk: Explanation showed a range of 0% to 69%, while doctors spent between 0% and 75% of the consultation in Planning. For Gathering Information, allocated talk ranged from none to half the consultation.

Zero bars have been highlighted across the data, to show that almost two-thirds of doctors (47/78, '60%') did not include a Summary in their consultation.

The Closing was omitted by just under half the doctors (34/76, '45%'), and doctors who did include this phase spent no more than 15% of the consultation talk in it.

Chart 6.1: Percentage of talk allocated to each phase in 'Communication Skills and Ethics' (N=76)

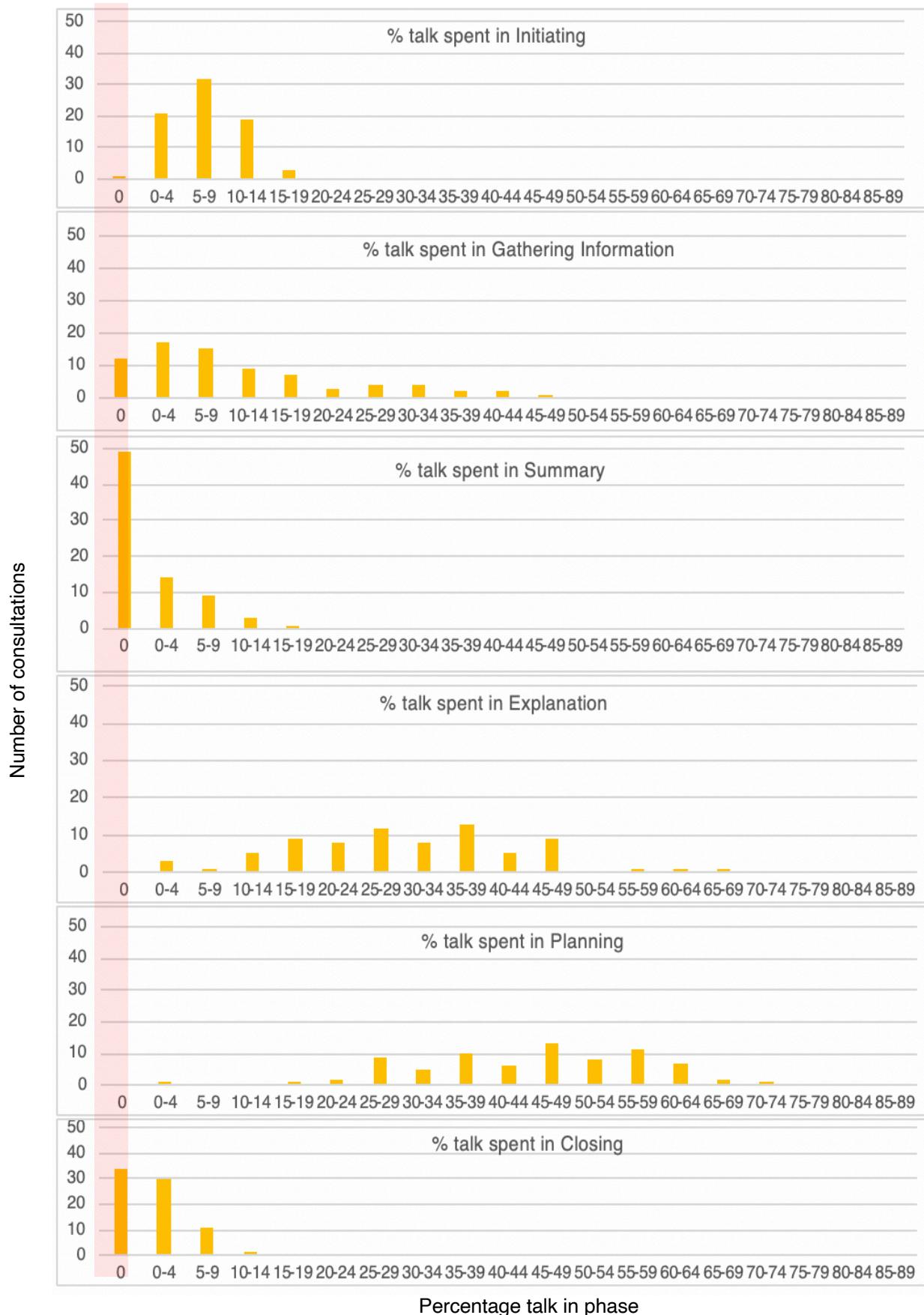


Chart 6.2 plots the percentage of talk spent across both consultations together for comparison, with the 'History-taking' percentages in blue and the 'Communication Skills and Ethics' date in orange.

Across 'Communication Skills and Ethics' and 'History-taking', doctors spent roughly equal proportions of talk in the Initiating, Summary and Closing phases. The latter two were also the phases most likely to be omitted in both stations.

The most noticeable difference in allocated talk between stations was in the Gathering Information phase, and to a lesser extent, in Explanation and Planning. These proportions were almost reversed between the two: Gathering Information was the dominant phase in 'History-taking', while Planning was most dominant in 'Communication Skills and Ethics'.

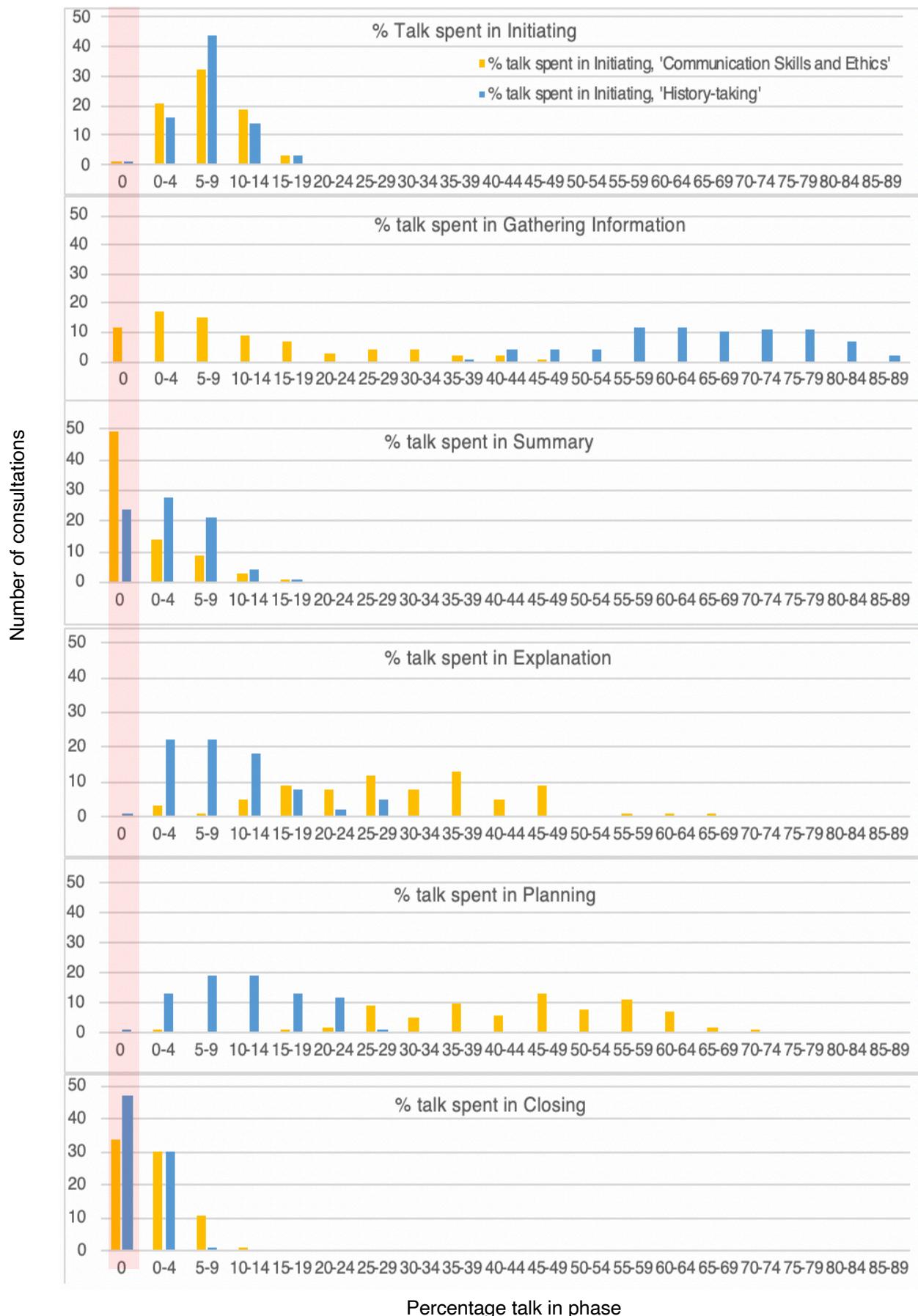
When Explanation and Planning were considered as one phase this figure jumps considerably, from a maximum of 55% in 'History-taking' to a maximum of 92% in 'Communication Skills and Ethics', as seen in Table 6.9.

**Table 6.9: Amount of talk allocated to each phase by amount of words in
'Communication Skills and Ethics' (N=76) and 'History-taking' station (N=78)**

Phase	Mean word count (standard deviation)	Minimum word count	Maximum word count	Mean word percentage (standard deviation)	Minimum word percentage	Maximum word percentage
<i>Communication Skills and Ethics</i>						
Initiating	184 (98)	0	425	8% (4)	0%	17%
Gathering Information	289 (291)	0	1117	12% (12)	0%	48%
Summary	49 (83)	0	334	2% (4)	0%	16%
Explanation	729 (335)	94	1500	30% (13)	4%	65%
Planning	1077 (353)	73	1900	45% (14)	3%	72%
Combined Explanation and Planning	1806 (374)	927	2793	75% (11)	41%	92%
Closing	59 (74)	0	315	2% (3)	0%	12%
<i>History-taking</i>						
Initiating	175 (81)	0	376	7% (3)	0%	16%
Gathering Information	1560 (330)	805	2262	66% (12)	36%	86%
Summary	89 (90)	0	373	4% (4)	0%	19%
Explanation	236 (156)	0	682	10% (7)	0%	30%
Planning	288 (168)	0	662	12% (7)	0%	28%
Combined Explanation and Planning	524 (282)	49	1255	22% (12)	2%	55%
Closing	14 (26)	0	103	1% (1)	0%	5%

A wide range of talk was allocated to all the phases in both stations. The dominant phases in each station also showed the greatest variance: Gathering Information (36-86%) in 'History-taking', and Planning (3-72%) in 'Communication Skills and Ethics'.

Chart 6.2: Percentage of talk allocated to each phase in 'Communication Skills and Ethics' (N=76) and 'History-taking' (N=78)



6.5 Comparison of consultation structure across scenarios

As with the ‘History-taking’ consultations, this final section presents the analysis of structure when comparing the different scenarios doctors were presented in ‘Communication Skills and Ethics’, analysing this on two levels:

- Did structure differ between the different scenarios set?
- Did structure differ between consultations in the same scenario?

Read left to right and then down, the visualisation in the top left of each set is the consultation that met the most criteria, with the consultation in the bottom right meeting the fewest. As a reminder, these criteria are:

- All phases of the Calgary-Cambridge Guide are present
- All phases occur in chronological order
- All phases are discrete

If consultations met the same number of criteria, additional factors contributed to the ranking, such as:

- Whether the doctor completes the consultation before the end of the allocated time
- Fewer instances of intertwined phases

6.5.1 Scenario 1 (N=20)

Figure 6.7 shows the 20 consultations that were set scenario 1 in ‘Communication Skills and Ethics’. A common thread uniting all twenty consultations was that the majority of talk was allocated to Explanation and Planning, with three consultations not including Gathering Information. Four of the 20 consultations contained all six phases, and the majority included a Closing phase (15/20, ‘75’%). The first three consultations in this set met the ‘partially clear’ criteria outlined at the start of the chapter, while the five consultations at the other end of the set omitted two phases (a combination of Gathering Information, Summary and Closing), and showed intertwining among the phases that were present, apart from Initiating. Unique to this

scenario, over half the doctors completed the consultation before the end of the 14 minute allocation.

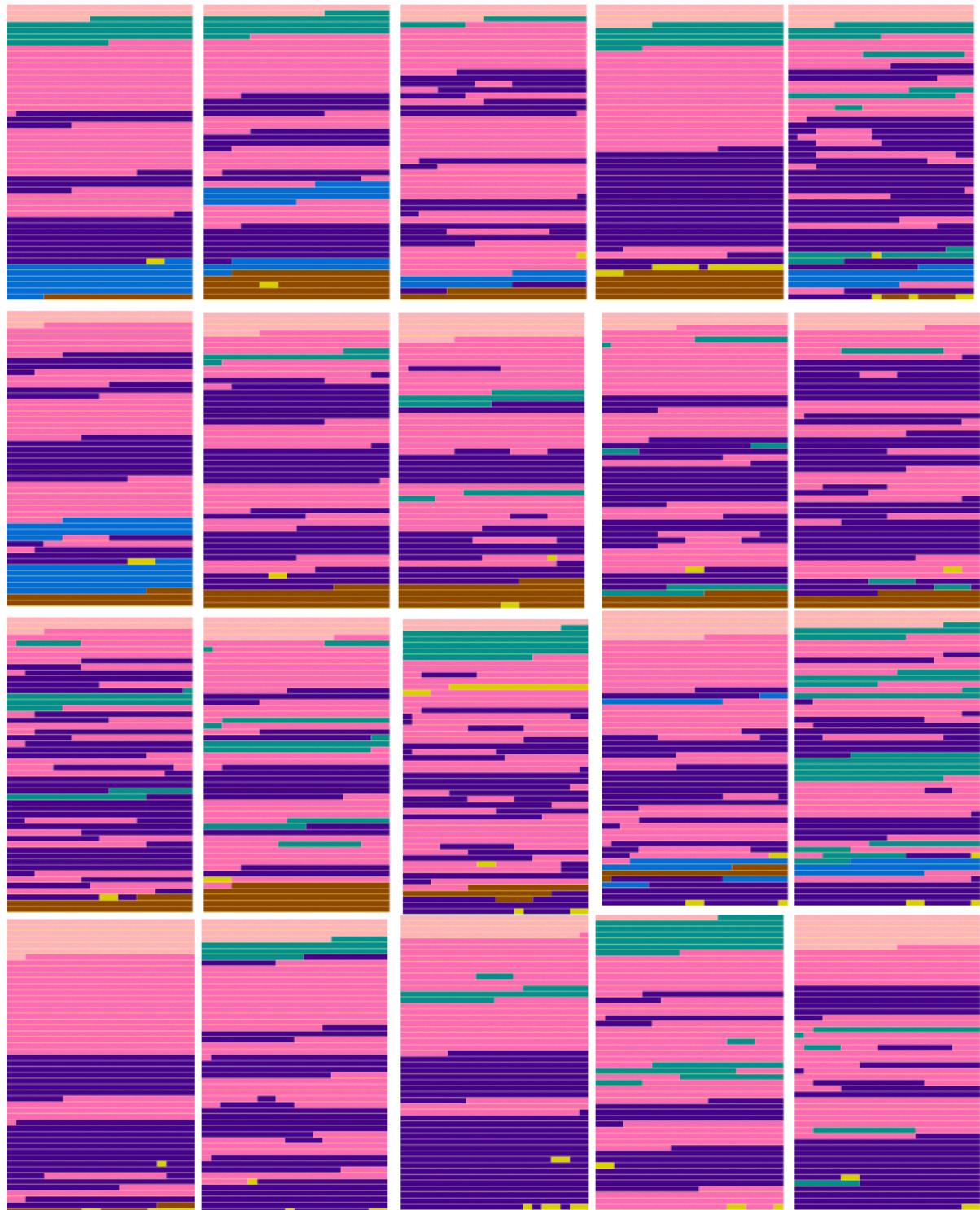


Figure 6.7 Communication Skills and Ethics visualisations in scenario 1

Top row candidates from left to right: 28, 9, 4, 38, 8

Second row: 10, 19, 48, 12, 35

Third row: 36, 61, 51, 11, 47

Bottom row: 53, 65, 30, 55, 75

6.5.2 Scenario 2 (N=8)

Figure 6.8 shows the eight consultations in scenario 2. A common thread linking the consultations was the proportion of time spent in the Planning phase, which was similar across all eight consultations. Six of the eight also had very short Gathering Information phases, which occurred in the first half of the consultation. The first consultation of the set also partially met the 'clear' criteria set out at the start, including an intertwined Explanation and Planning. Of the four that included a Closing phase, two completed the consultation before the end of the allocated time. The consultation at the end of this set omitted three phases: Gathering Information, Summary and Closing.

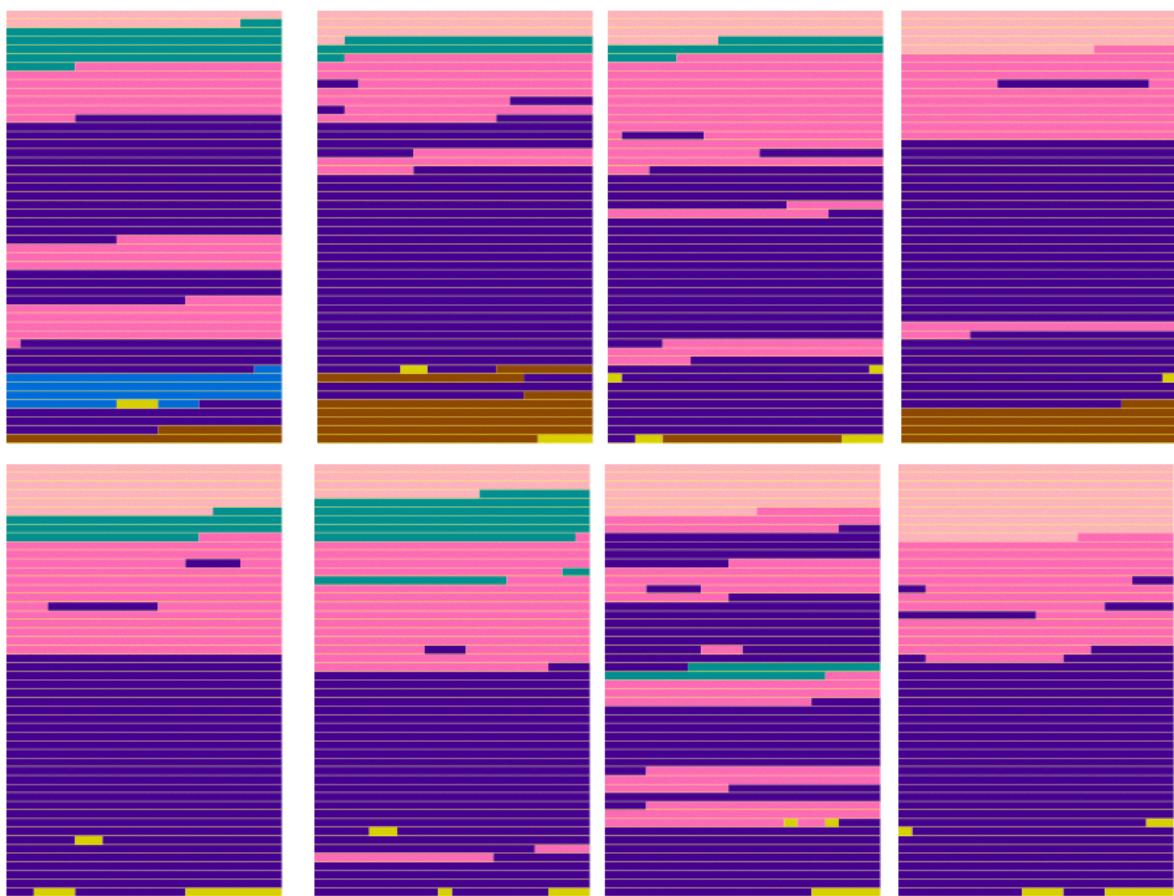


Figure 6.8 Communication Skills and Ethics visualisations in scenario 2.

Top row candidates from left to right: 57, 42, 49, 41. Bottom row: 46, 33, 58, 32.

6.5.3 Scenario 3 (N=6)

Figure 6.9 shows the six consultations in scenario 3. All of the consultations omitted at least one phase, with the consultation at the end of the set missing three (Gathering Information, Summary and Closing). Five of the consultations were united by the amount of talk allocated to Planning, while candidate 52, second from right, allocated more talk to Explanation. The first two doctors in the set completed the consultation before the end of the 14 minute allocation.

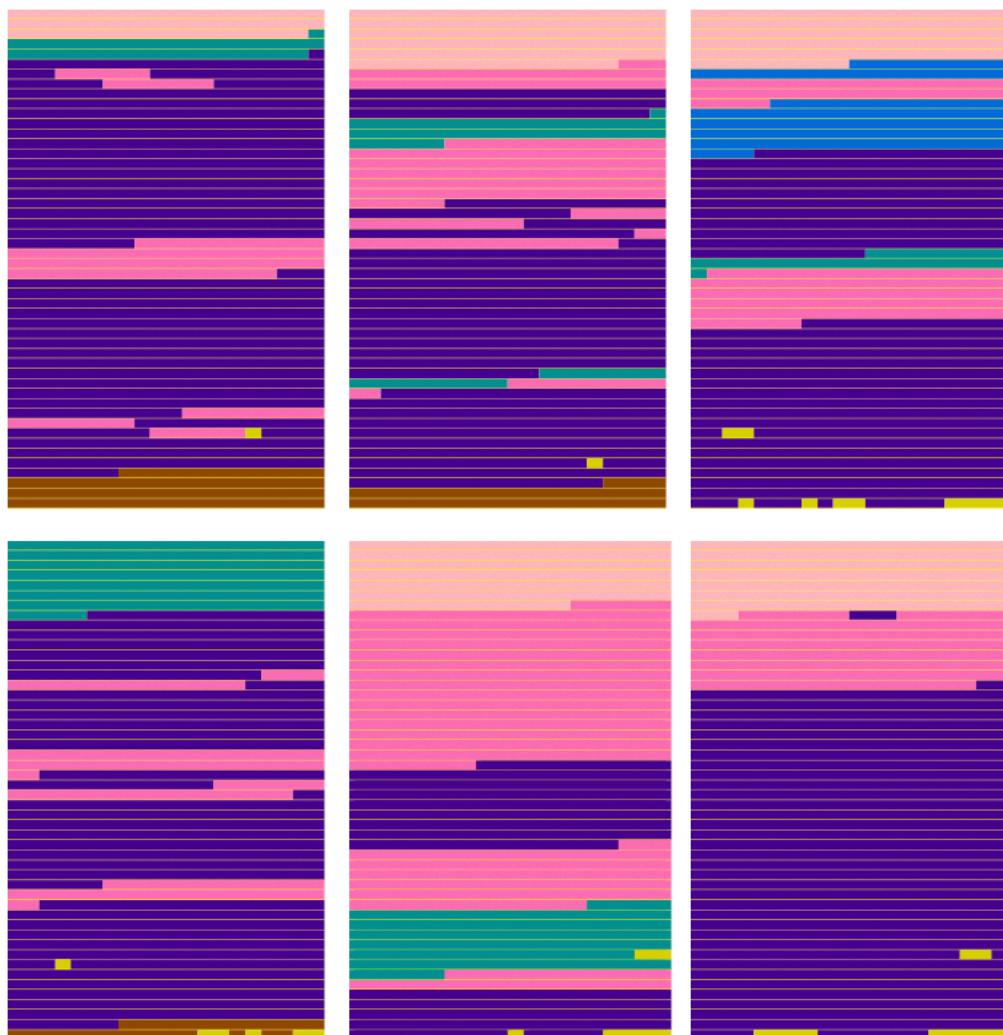


Figure 6.9 Communication Skills and Ethics visualisations in scenario 3

Top row candidates from left to right: 29, 78, 1

Bottom row candidates from left to right: 73, 52, 72

6.5.4 Scenario 4 (N=4)

The four consultations in this scenario can be seen in Figure 6.10. The first consultation in the set contained all the phases, while the consultation at the opposite end omitted Summary and Closing. A large block of Explanation followed by a slightly smaller chunk of Planning was a unifying pattern of this scenario. While three of the four contained a Closing phase, none completed the consultation in the time allocated. This was one of three scenarios that had a Gathering Information phase in all of the consultations – regardless of proportion allocated (roughly 5% of the talk was allocated to Gathering Information in consultation 39).

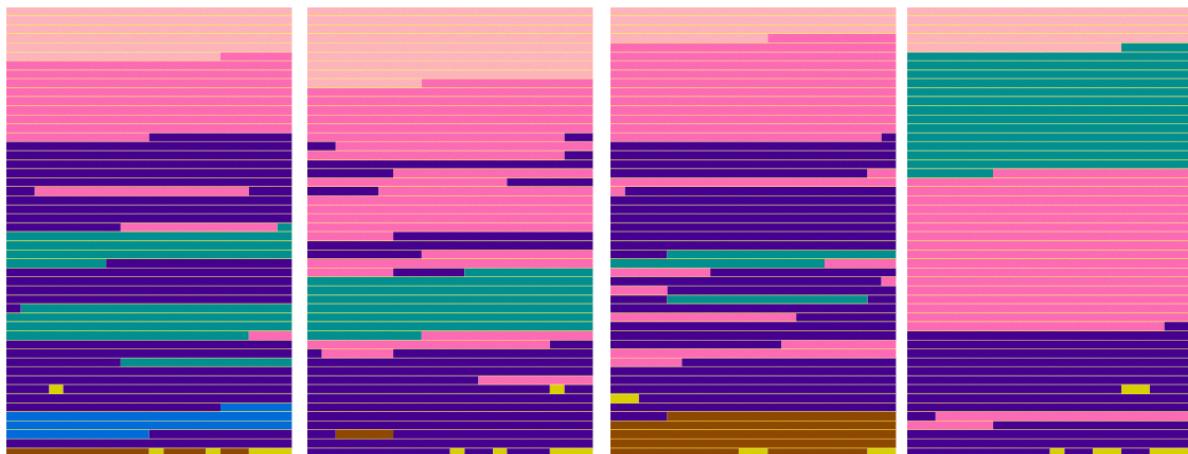


Figure 6.10 Communication Skills and Ethics visualisations in scenario 4.

Candidates from left to right: 27, 15, 39, 69.

6.5.5 Scenario 5 (N=9)

The nine consultations in scenario 5 can be seen in Figure 6.11. The first consultation in the set was the only one to feature all six phases, with the consultation at the other end missing Gathering Information, Summary and Closing. A noticeable trend in this consultation was the splitting of the Explanation and Planning phases. The first half of each of the consultations was largely spent in the Explanation, while the second moved into the Planning phase. Consultations 22 and 18 are anomalous to this trend, in that their second halves also contained a large

proportion of Explanation. However, they did still contain the majority of the Planning in the latter half. Candidate 22 was also the only one to complete the consultation in the allocated 14 minutes in this scenario.



Figure 6.11 Communication Skills and Ethics visualisations in scenario 5.

Top row candidates from left to right: 26, 14, 37, 22, 71. Bottom row: 54, 3, 50, 18.

6.5.6 Scenario 6 (N=6)

Figure 6.12 shows the six consultations of scenario 6. They shared common ground in having little to no Gathering Information in their consultations. Another unifying theme here was the intertwining of the phases, which included a few instances of Gathering Information, as well as the expected Explanation and Planning. All six consultations allocated very similar proportions of talk to the Initiating phase (between 10-15%). The first consultation of the set was the only one to contain all six phases, while the two consultations at the opposite end of the set were missing Closing and Summary. While consultations 13 and 68 both contained Closing phases, only candidate 68 completed the consultation in the allocated time.

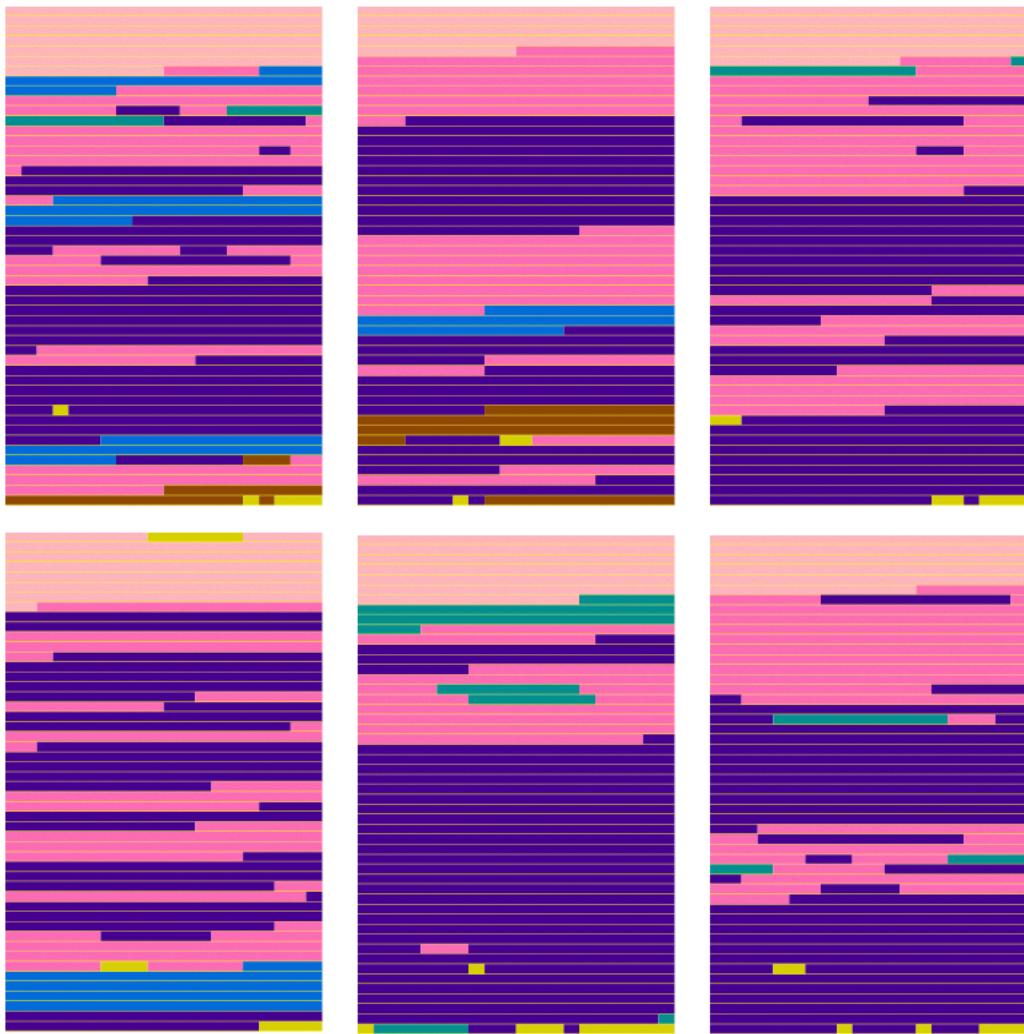


Figure 6.12 Communication Skills and Ethics visualisations in scenario 6.

Candidates from left to right: 13, 68, 24, 34, 70, 66.

6.5.7 Scenario 7 (N=4)

The four consultations in Figure 6.13 share a number of structural features. They all allocated less than 10% talk to the Initiating phase. They also allocated at least 25% talk to Gathering Information, which occurred in multiple stages across all four consultations. The chunking of the Explanation phase was also common to all four candidates. Consultation 23 contained all six phases, while the other three consultations omitted one phase each: Summary in consultation 74 and Closing in consultations 59 and 44. The first two candidates also completed the consultation before the end of the 14 minute allocation.

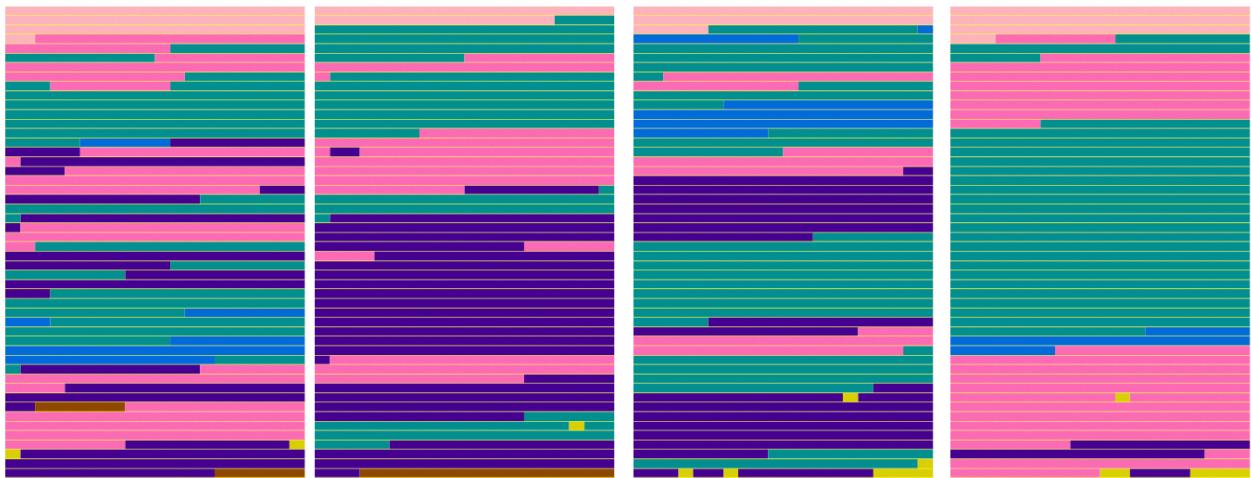


Figure 6.13 Communication Skills and Ethics visualisations in scenario 7.

Candidates from left to right: 23, 74, 59, 44.

6.5.8 Scenario 8 (N=9)

The nine consultations in Figure 6.14 all contained a Gathering Information phase, similar to scenarios 4 and 7. This phase mostly occurred in the first half of each consultation. Another common feature in this scenario was the relatively small proportion of talk allocated to Explanation compared to the larger proportion allocated to Planning. The first four consultations of the scenario contained all six phases, with the first candidate completing the consultation in the allocated time. At the other end of the set, the final four consultations omitted the Summary and Closing phases.

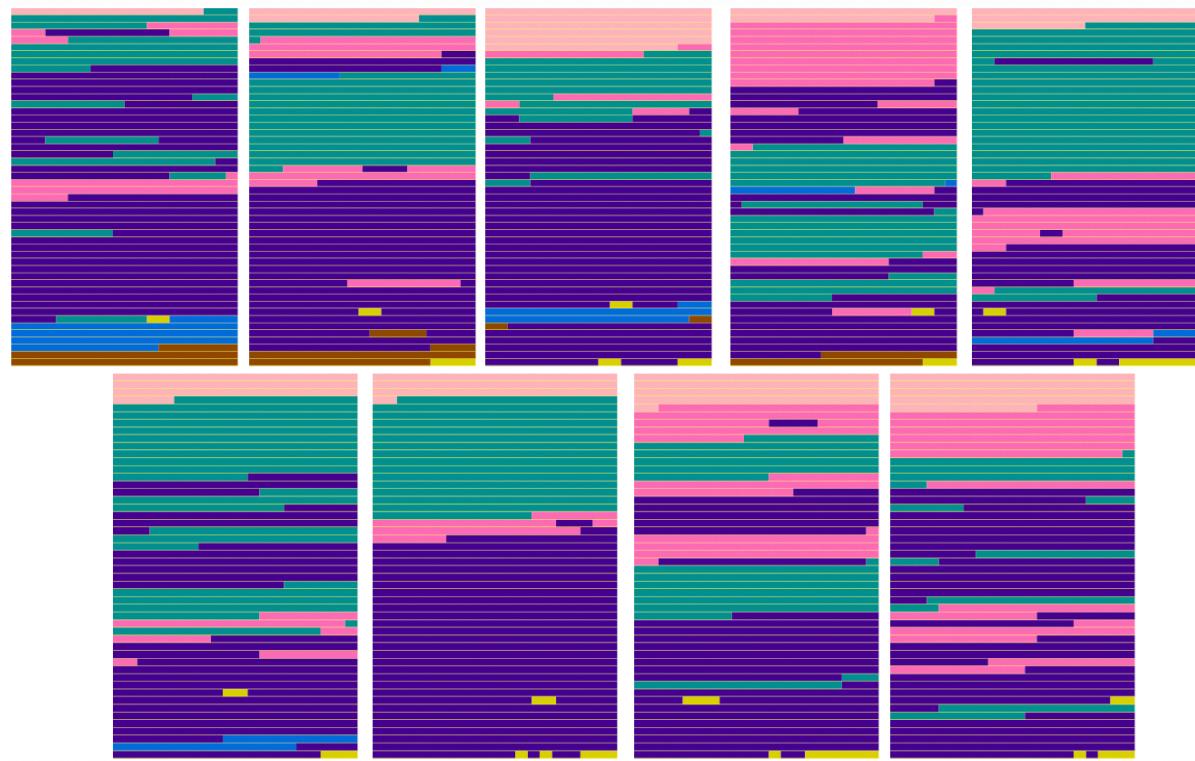


Figure 6.14 Communication Skills and Ethics visualisations in scenario 8.

Top row candidates from left to right: 56, 7, 77, 21, 43. Bottom row: 20, 16, 63, 76

6.5.9 Scenario 9 (N=10)

The ten consultations in this final scenario can be seen in Figure 6.15. Similar to scenario 4, all the consultations in this scenario shared the common feature of a large chunk of Explanation followed by a large block of Planning. Candidate 2 repeated this pattern twice in their consultation. The consultations broadly followed the chronological order of phases suggested by the Calgary-Cambridge Guide, even when phases were omitted. The exception to this was consultation 62, which included a brief foray into Explanation before returning to a large Gathering Information phase. Over half the consultations contained a Closing phase, although none of the doctors completed the consultation before the end of the 14 minutes. The first three consultations, belonging to candidates 60, 2 and 5 contained all six phases, with candidate 60 partially meeting the 'clear' criteria at the start of the chapter. At the other end of the set, the final five consultations omitted two phases each: a combination of Gathering Information, Summary and Closing.



Figure 6.15 Communication Skills and Ethics visualisations in scenario 9.

Top row candidates from left to right: 60, 2, 5, 45, 6. Bottom row: 40, 64, 17, 25, 62.

To summarise, as with 'History-taking' these comparisons between and within scenarios in 'Communicating Skills and Ethics' show great variation in the consultation structure doctors can create in controlled situations. Despite that, there are some common features that were shared by consultations in the same scenarios. The majority of consultations belonging to scenario 1 were heavily dominated by Explanation and Planning. Consultations in scenario 2 spent the same amount of time in the Planning phase. None of the consultations in scenario 3 contained all six phases. The four consultations in scenario 4 all contained a Gathering Information phase, and none were completed in the 14 minute allocation. Consultations in scenario 5 all contained the majority of their Planning phase within the second half of the consultation. The six consultations in scenario 6 contained little to no Gathering Information and had multiple intertwined sections of Explanation and Planning. In scenario 7, the consultations spent at least a quarter of the talk in multiple stages of Gathering Information. Consultations in scenario 8 spent more talk in Planning than Explanation. The consultations in scenario 9 featured a large chunk of Explanation followed

by a large chunk of Planning. Nonetheless, despite some commonalities within scenarios, the structure was not predictable in terms of the model proposed by the Calgary-Cambridge Guide or in terms of what doctors were doing within a given scenario.

6.5 Summary

In this chapter we saw the results of the analysis of structure conducted on the 'Communication Skills and Ethics' station and compared it to the structure results from 'History-taking'. It was discovered that doctors allocated more talk to Explanation and Planning in 'Communication Skills and Ethics' than in 'History-taking'. Conversely, more talk is allocated to Gathering Information in 'History-taking' than in 'Communication Skills and Ethics'. Despite having the same amount of time allocated to each consultation, more doctors contained a Closing phase in 'Communication Skills and Ethics', and more doctors completed the consultation before the end of the allocated time. Consultations in 'Communication Skills and Ethics' were less 'clear' compared to the structure predicted by the Calgary-Cambridge Guide on two levels: all consultations featured an intertwined Explanation and Planning phase, and many did not proceed through the major phases of the consultation in the order suggested by the Calgary-Cambridge Guide. Finally, while there were some structural features that united consultations belonging to the same scenario, doctors created varying structure within the same clinical task. While the blueprints of the Calgary-Cambridge Guide to the Medical Interview were still applicable to this station, the landscape is noticeably different.

Chapter 7: Results of verbal signalling behaviour analysis in ‘Communication Skills and Ethics’ consultations and comparison with findings from ‘History-taking’

In the previous chapter we reported on the findings of the structure analysis of the ‘Communication Skills and Ethics’ station and compared it with the structure analysis of the ‘History-taking’ station. We will adopt the same approach in this chapter: presentation of the verbal signalling behaviour analysis in the ‘Communication Skills and Ethics’ station, and comparison with the findings regarding signalling behaviours in the ‘History-taking’ station. These findings contribute to the following research question:

- How do doctors signal information about the structure to their patients during a station called ‘Communication Skill and Ethics’?**

Following on from the analysis of signalling behaviours in ‘History-taking’, the analysis of ‘Communication Skills and Ethics’ will be presented on the following levels:

- 1. Types of signalling behaviours**
- 2. Functions**
- 3. Types of signalling behaviours by function**
- 4. Hyperfunctions**
- 5. Stacks**

This chapter will present the results of these analyses in turn. The comparison will show whether the same types of signalling behaviours were found, if they were used for the same purposes and whether or not they appeared in the same frequencies.

7.1 Types of structural behaviours

The behaviour types identified in the ‘Communication Skills and Ethics’ station were the same types identified in ‘History-taking’. A reminder of the taxonomy of signalling behaviour types introduced in Chapter 4 can be found in Figure 7.1.

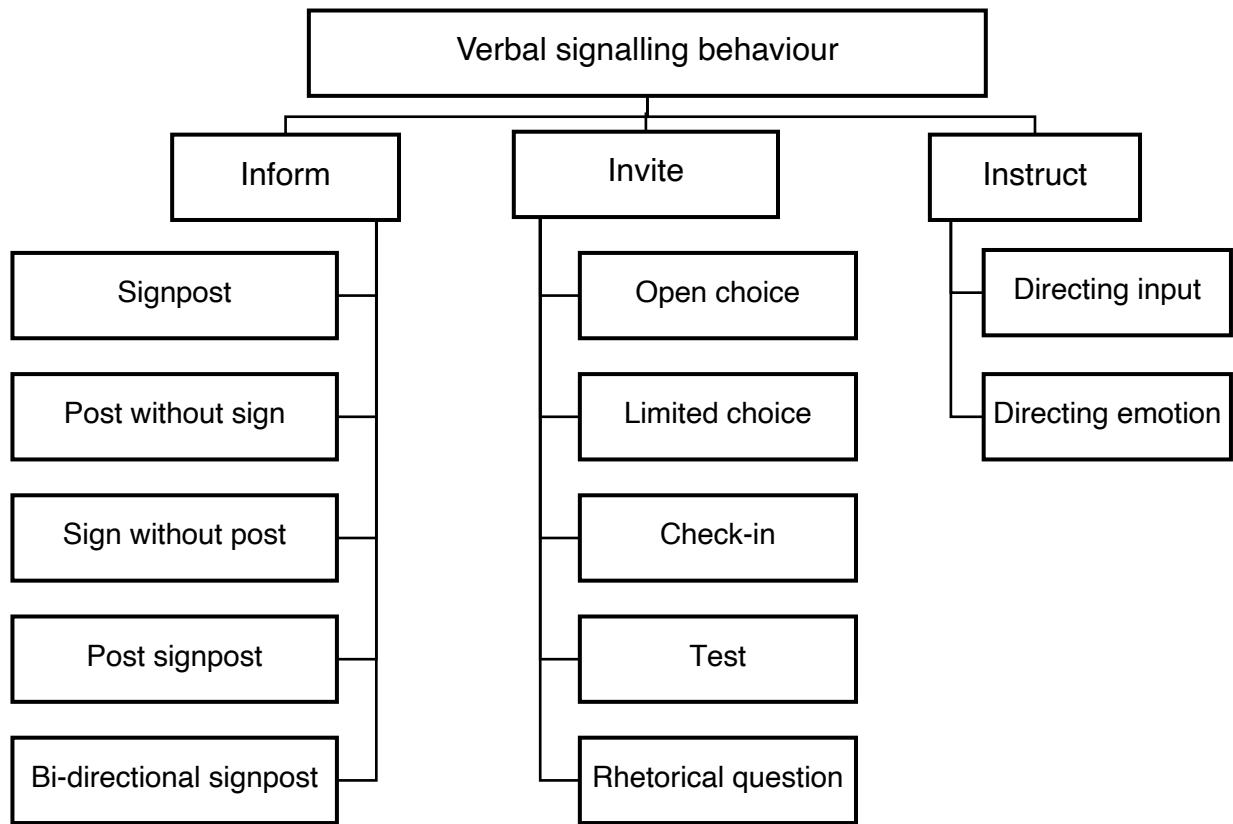


Figure 7.1 Taxonomy of verbal signalling behaviour types in 'History-taking' and 'Communication Skills and Ethics' consultations

Table 7.1 summarises the types, along with reminders of their definitions and examples from the 'Communication Skills and Ethics' dataset. Verbal signalling behaviours in the examples are in bold.

Table 7.1: Definitions and examples of behaviour types found in 'Communication Skills and Ethics' station (N=76)

Type	Examples
Behaviours that inform the patient about changes in the consultation	
Signpost	Example 1: Candidate 2, scenario 9 <i>DOC Okay. Erm, well, as you know, I've asked, been asked to see you, just about your previous hospital admission.</i>
Verbal behaviour that explicitly signals what will happen in the consultation	Example 2: Candidate 11, scenario 1 <i>DOC We'll take, we're here to take you through everything, what the test shows and what we need to do in the future.</i>
Post without sign	Example 3: Candidate 54, scenario 5 <i>DOC And what about, if I may ask, um, about your partner?</i>
Signals a change coming, but not the specific content of the change	Example 4: Candidate 5, scenario 9 <i>DOC Okay. Um, and just a couple of other questions as well, if that's okay.</i>
Sign without post	Example 5: Candidate 27, scenario 4 <i>DOC Well, um, what in in terms of what you do for work, you say you've been off work for a period of time.</i>
Flashes up content of what is coming next, but does not provide information about patient's role in discussion	Example 6: Candidate 54, scenario 5 <i>DOC Okay, all right, that's fine. With regards to this infection, however...</i>
Bi-directional signpost	Example 7: Candidate 48, scenario 1 <i>DOC And that's apparent only on the [redacted medical test] usually.</i> <i>PAT Right.</i> <i>DOC Um, then we can, I'll explain to you what does this mean to you...</i>
Indicate a change coming ahead while simultaneously referring back to previous discussion	Example 8: Candidate 69, scenario 4 <i>DOC Er, I asked you a question initially, do you have any particular worry that you thought that might be causing the [redacted symptoms]</i>
Post signpost	Example 9: Candidate 8, scenario 1 <i>DOC Um, so um, I've painted a very bleak picture. At the moment you're feeling very well in yourself, but...</i>
Refers back to discussion that had previously happened	Example 10: Candidate 42, scenario 2 <i>DOC I know it's a lot of information and it's, it's, uh, a lot to take in.</i>
Behaviours that invite the patient to choose what happens next in the consultation	
Open choice	Example 11: Candidate 9, scenario 1
Offer to patient to freely contribute to construction	

of the consultation

DOC So, you've come to the [specialty clinic] today, I'm one of the doctors working in clinic. Um, so, what were you here expecting to chat about?

Example 12: Candidate 26, scenario 5

DOC Okay, so would you like me to tell you more about how this test is being done?

Table 7.1 (continued): Definitions and examples of behaviour types found in

'Communication Skills and Ethics' station (N=76)

Type	Examples
<i>Behaviours that invite the patient to choose what happens next in the consultation (continued)</i>	
Limited choice Presents patient with the opportunity to contribute to existing structure	Example 13: Candidate 14, scenario 5 <i>DOC Do you need to have a think about it, or do you want to go ahead with the [redacted] test, or?</i> Example 14: Candidate 66, scenario 6 <i>DOC If that's what you want. Is that what you want?</i>
Check-in Refers back to what had just been discussed and invites patient contribution to that content	Example 15: Candidate 10, scenario 1 <i>DOC Yeah, I do appreciate that. Is there anything else that you were hoping to talk about or any questions?</i> Example 16: Candidate 20, scenario 8 <i>DOC Um, how, how does that sound to you?</i>
Test Patient opportunity to contribute correct understanding of the purpose of the consultation	Example 17: Candidate 60, scenario 9 <i>DOC Do you know why you are here?</i> Example 18: Candidate 73, scenario 3 <i>DOC Okay. Can I just clarify, just, you know, what you've taken back from this whole conversation, what you've understood?</i>
Rhetorical question A grammatical question that does not expect a response, used to preface delivery of information	Example 19: Candidate 53, scenario 1 <i>DOC And how much it deteriorate? It will depend on different individuals.</i> Example 20: Candidate 37, scenario 5 <i>DOC Yes. It's a very good thing, why, because it would help the all the management. Because without doing, that we are not in any way standing. We don't know.</i>
<i>Behaviours that instruct the patient on how to progress through the consultation</i>	
Directing input Focuses patient contribution using commands indicating what patient should or should not do	Example 21: Candidate 45, scenario 9 <i>DOC Alright. Let me just explain it. Eh, you had previous x-rays, eh.</i> Example 22: Candidate 51, scenario 1 <i>DOC See, [patient title+surname], just listen to me, see, your, the scan is showing that there's some [redacted symptoms]</i>
Directing emotion	Example 23: Candidate 55, scenario 1

Instruct patient emotion that could affect the flow of the consultation	DOC <i>So no need to worry about anything right now.</i> Example 24: Candidate 71, scenario 5 DOC <i>Don't worry.</i>
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7.1.1 Frequency of verbal signalling behaviours by type

Table 7.2 shows the total number of behaviours identified in the data from the ‘Communication Skills and Ethics’ station, compared against the total number of behaviours identified from the ‘History-taking’ station.

Table 7.2: Verbal behaviour types identified from ‘Communication Skills and Ethics’ consultations (N=76) compared against types in ‘History-taking’ station (N=78)

Type	Communication Skills and Ethics		History-taking	
	Number of behaviours	% behaviours	Number of behaviours	% behaviours
Inform				
Signpost	577	33%	319	33%
Post without sign	315	18%	208	21%
Post signpost	274	15%	81	8%
Bi-directional signpost	257	15%	141	14%
Sign without post	52	3%	146	15%
<i>Subtotal</i>	1475	83%	895	92%
Invite				
Check-in	124	7%	12	1%
Limited choice	44	2%	35	4%
Test	19	1%	3	0%
Open choice	17	1%	1	0%
Rhetorical question	8	0%	1	0%
<i>Subtotal</i>	212	12%	52	5%
Instruct				
Directing emotion	52	3%	13	1%
Directing input	31	2%	14	1%
<i>Subtotal</i>	83	5%	27	3%
Total	1770	100%	974	100%

There were almost twice as many signalling behaviours found in the ‘Communication Skills and Ethics’ station. From the table we can see that inform behaviours remained the most frequent type of behaviour across the two stations: 83% in ‘Communication Skills and Ethics’ and 92% in ‘History-taking’. A third of all behaviours in both stations were signposts. However, there was a much lower proportion of posts without signs in ‘Communication Skills and Ethics’ (52/1770, 3%) than in ‘History-taking’ (146/974, 15%).

While there was a greater proportion of invite behaviours in 'Communication Skills and Ethics' (212/1770, 12%) than in 'History-taking' (52/974, 5%), this was largely owing to the greater number of check-in behaviours used: 124/1770 in 'Communication Skills and Ethics' (7%), compared to 12/974 in 'History-taking' (1%).

The proportion of instruct behaviours was similar across the two stations (27/974, 3% in 'History-taking' and 83/1770, 5% in 'Communication Skills and Ethics'). However, while there were roughly equal numbers of the two types in the 'History-taking' station (13/974 directing emotion and 14/974 directing input behaviours, both 1%), there were almost twice as many directing emotion behaviours in 'Communication Skills and Ethics' (52/1770, 3%) as there were directing input (31/1770, 2%).

7.2 Functions

Similar to the previous section, verbal signalling behaviours in 'Communication Skills and Ethics' performed mostly the same functions as they did in 'History-taking', although there were a few new roles found. This section will begin with a table summarising the functions that reappeared in 'Communication Skills and Ethics', followed by the introduction of new functions that were identified.

Table 7.3: Definitions and examples of behaviour functions found in 'Communication Skills and Ethics' station (N=76)

Function	Example
<i>Functions related to structure</i>	
Agenda setting Typically occurring in the initiating phase or just after, it establishes the plan for the consultation, by providing a summary or overview	<p>Example 25: Candidate 53, scenario 1</p> <p>DOC <i>Yeah, yeah. Alright. Uh, and that, that's why I'm here to tell you...</i></p> <p>PAT <i>Uh-huh.</i></p> <p>DOC <i>In detail what, what the results are.</i></p> <p>Example 26 Candidate 73, scenario 3</p> <p>DOC <i>And, um, so, uh, and I, I understand you're here to talk about your brother.</i></p>
Plan Provides an overview of what would come next or at a later stage in the consultation.	<p>Example 27: Candidate 56, scenario 8</p> <p>DOC <i>Right, I just need, you know, we just need to have a talk about what medicines and how you're going to take them.</i></p> <p>Example 28: Candidate 14, scenario 5</p> <p>DOC <i>Can I, can I go through some questions with you, to try and get an idea of that, that risk first?</i></p>
Inviting the patient to construct the consultation Provides the patient with an opportunity to contribute to the consultation	<p>Example 29: Candidate 35, scenario 1</p> <p>DOC <i>It would actually. So um going to the discussion of the genetics of this would be a bit complex, I don't know if you want me to go into that, I'm quite happy to discuss that with you if you want?</i></p> <p>Example 30: Candidate 32, scenario 2</p> <p>DOC <i>Is there anybody else you'd like to talk to? Would you like...? We can have, um, sort of specialists nurses that deal with this. You know, you can ask if you'd like to speak to somebody else</i></p>
Transition between consultation phases Indicates a change coming in terms of phases beginning or ending; the phase is not always explicitly named	<p>Example 31: Candidate 44, scenario 7</p> <p>DOC <i>That's fine. [patient title+surname], before I proceed, uh, talking, uh, can I ask you how much you know about your condition already?</i></p> <p>Example 32: Candidate 72, scenario 3</p> <p>DOC <i>Okay. Well, uh, uh, your father was kind enough to let us, uh, discuss his case with you, okay? Well, uh, we are here to discuss it further, but before that I just wanted to know your insight. Uh, how much do you know about the problem?</i></p>

Table 7.3 (continued): Definitions and examples of behaviour functions found in 'Communication Skills and Ethics' station (N=76)

Function	Example
<i>Functions related to structure (continued)</i>	
Transition to summary	Example 33: Candidate 20, scenario 8 DOC Yes, or walk-in, or just seek medical attention from somebody that can hope-, hopefully deal with this. So in summary, I'd like to, uh, if, if it's all right, to just bring things through.
Explicitly signals a summary is about to come	Example 34: Candidate 24, scenario 5 DOC No, okay. That's brilliant, okay. Alright. So just to summarise , you've had [redacted scenario information] in the last five years?
External activity	Example 35: Candidate 15, scenario 4 DOC Okay, and, um, so, the headaches are the main, um, symptom that you've had. Although I noticed you've seen... I'm just looking at the letter now , [redacted scenario information]. Is that all to investigate the [symptoms] is it?
	Example 36: Candidate 11, scenario 1 DOC Well, it's, if I just show, if I just draw a diagram to tell you
<i>Functions related to content</i>	
Change of topic	Example 37: Candidate 20, scenario 8 DOC Okay? So, I'll just go back to this, the house, [redacted scenario information] .
Indicates a shift in the topic of discussion: the content is not always specified	Example 38: Candidate 69, scenario DOC So, er, going back to what I was saying ; do you have any expectations of what... what... what might come out of the blood tests?
Introducing questions	Example 39: Candidate 76, scenario 8 DOC Okay, may I ask are there any other concerns that you have, uh, other than this?
Indicates a question or line of questioning is coming; topic not always specified	Example 40 Candidate 27, scenario 4 DOC Well, um, what in in terms of what you do for work , you say you've been off work for a period of time.
Introducing sensitive questions	Example 41: Candidate 44, scenario 7 DOC Okay, that's fine. And, uh, just a personal question , everything you say is confidential. When did you have the separation from your partner or something like that?
Signals a question that may cause discomfort or seem surprising	Example 42: Candidate 49, scenario 2 DOC I mean, er, I'm sorry to ask you , uh have you, I know that you understand you being smoked before?

Table 7.3 (continued): Definitions and examples of behaviour functions found in 'Communication Skills and Ethics' station (N=76)

Function	Example
<i>Functions related to content (continued)</i>	
Explaining/ clarifying Indicates an explanation or clarification is coming regarding jargon, diagnosis or treatment	<p>Example 43: Candidate 55, scenario 1</p> <p>DOC <i>So that's fine at the moment. So it's, it's just that... what I mean is in the long run, if the [symptom] is controlled properly, you might not even develop the [disease] but this only would happen if the [symptom] is not controlled properly.</i></p> <p>Example 44: Candidate 9, scenario 1</p> <p>DOC <i>Now, um, as you've said, you, you've not known anything about this before so I'll explain a little bit about the disease, if that's all right.</i></p>
Warning shot Signals that the doctor is about to deliver bad news	<p>Example 45: Candidate 2, scenario 9</p> <p>DOC <i>I, I think we do need to brace ourselves for that possibility.</i></p> <p>Example 46: Candidate 37, scenario 5</p> <p>DOC <i>[Patient name], I really haven't got a very good news with this test.</i></p>
Acknowledging sensitive topic Occurs after discussion or introduction of a sensitive topic, typically includes an apology or rationale	<p>Example 47: Candidate 15, scenario 4</p> <p>DOC <i>I know it's difficult to discuss with someone you've not met before</i></p> <p>Example 48: Candidate 65, scenario 1</p> <p>DOC <i>He died. Okay. I'm sorry to listen this. Um. You know the nature of what this disease is it is having [symptoms].</i></p>
Acknowledging bad news Highlights the doctor has delivered bad news that the patient may need to process, includes empathy	<p>Example 49: Candidate 61, scenario 1</p> <p>DOC <i>I'm really sorry I have to break this news, I mean, at this time. How did you come to the hospital?</i></p> <p>Example 50: Candidate 37, scenario 5</p> <p>DOC <i>I know it's too much for a day so we can arrange another appointment.</i></p>
Thanking patient for information Acknowledges patient delivery of information	<p>Example 51: Candidate 29, scenario 3</p> <p>DOC <i>But, I do appreciate and understand your feelings, and your relationship with your brother. And, it's been very useful to have this discussion with you.</i></p> <p>Example 52: Candidate 72, scenario 3</p> <p>DOC <i>Okay, okay, okay. Well, uh, thank you very much for, uh, giving the elaborate history and, uh, sharing your concerns.</i></p>

Table 7.3 (continued): Definitions and examples of behaviour functions found in 'Communication Skills and Ethics' station (N=76)

Function	Example
Functions related to content (continued)	
Professional disclosure Frames the information provided within the professional values of the doctor's role e.g. limits of their expertise or requirement to be honest.	Example 53: Candidate 2, scenario 9 DOC <i>I... Without knowing, without knowing the degree of involvement that may be there, I've, I wouldn't want to give you any false information, really.</i> Example 54: Candidate 71, scenario 5 DOC <i>Um. I can only tell you what is best. What are the pros and cons of everything.</i>
Checking with patient Provides patient with opportunity to ask for clarification or contribute to information just given	Example 55: Candidate 20, scenario 8 DOC <i>Um so, how, how does that sound to you? Does that sound like a reasonable plan?</i> Example 56: Candidate 9, scenario 1 DOC <i>Yeah. And, and any kind of worries or concerns that, kind of, spring to mind straightaway for you?</i>
Final check Elicits remaining questions or concerns from patient towards the end of the consultation	Example 57: Candidate 28, scenario 1 DOC <i>Okay, and is there anything else you'd like to discuss about today?</i> Example 58: Candidate 24, scenario 6 DOC <i>Is there anything else that you...?</i>
Functions related to structure or content	
Listing Signals start of a list or that list is coming, but not always explicitly or indicating how long list will be	Example 59: Candidate 23, scenario 7 DOC <i>Okay. The other thing that some people find it helpful is just putting a little reminder on their phone or a little alarm just to say taking their medication.</i> Example 60: Candidate 59, scenario 7 DOC <i>First of all you said that, um, you, you, you are apprehensive about it, about taking it and taking it for a long time. Do you get time for yourself, uh, uh, at home?</i>
Reminding Serves to repeat or reinforce what doctor has said previously	Example 61: Candidate 65, scenario 1 DOC <i>Right now don't worry about [relative] ...</i> PAT <i>Right. Okay.</i> DOC <i>And we are there to take care of you. Don't worry me.</i> Example 62: Candidate 21, scenario 8 DOC <i>So it's got a really important job to do.</i>

Table 7.3 (continued): Definitions and examples of behaviour functions found in 'Communication Skills and Ethics' station (N=76)

Function	Example
<i>Functions related to structure or content (continued)</i>	
Emphasis	Example 63: Candidate 51, scenario 1 DOC <i>See, [patient title+surname], just listen to me, see, your, the scan is showing that there's some [redacted symptoms]</i>
	Example 64: Candidate 20, scenario 8 DOC <i>Yes, I see. So, uh, sometimes the key with [condition] is catching it quite early, when you are gett- when things are getting worse.</i>
Rationale for moving forward	Example 65: Candidate 71, scenario 5 DOC <i>Well, the reason I'm asking you this is that if you don't... If you recall anything that could have put you at risk. For us, it would be of help.</i>
	Example 66: Candidate 58, scenario 2 DOC <i>And, um, if we are later doing the [test], I haven't finished explaining everything...</i>
Warning what won't happen	Example 67: Candidate 6, scenario 9 DOC <i>I think that in your case because there have already been delays then I will do everything I can for this to be done as, as I say as soon as possible. Um as we sit here in this room I can't tell you exactly when it is going to happen...</i>
	Example 68: Candidate 18, scenario 5 DOC <i>It's something I can't, I can't promise.</i>
<i>Functions related to concerns</i>	
Reassuring	Example 69: Candidate 29, scenario 3 DOC <i>And, at this moment in time, he wants us to try all that we can. So, if that's of any reassurance to you at this moment in time, that we are, sort of, doing things by...</i>
	Example 70: Candidate 53, scenario 1 DOC <i>And I request you not to blame yourself for the disease.</i>
Postponing	Example 71: Candidate 3, scenario 5 DOC <i>Sure. Um. Can I just, um, ask a few more questions before I explain?</i>
	Example 72: Candidate 60, scenario 9 DOC <i>Uh, if you just bear with me.</i> PAT <i>Uh-hmm.</i>

DOC *And I will let you know later. Uh, I will have a discussion with [redacted scenario information]. It really depends upon the [overtalking]...*

7.2.1 New behaviour functions

Three new behaviour functions were discovered in ‘Communication Skills and Ethics’.

7.2.1.1 Empathy

Empathy was a new function found in the ‘Communication Skills and Ethics’ station, but that existed as a hyperfunction in ‘History-taking’. There was one behaviour in the dataset carrying this function overtly, seen in Example 73 in the box below. The doctor uses the post signpost to acknowledge the patient’s problem-telling at the start of the consultation.

Example 73: Candidate 69, scenario 4

PAT *You know, so we'll at long last try and find out what's causing these... these [symptoms], you know. Um, because they don't seem to be going away.*

DOC *Yeah, I'm quite sorry to hear it, it is a long time that you've been suffering with it.*

7.2.1.2 Presenting patient with decision

Another new function found in ‘Communication Skills and Ethics’ was offering the patient a choice regarding investigation, tests or treatment. It signalled that the decision itself would be made in the consultation, while the results of the decision would not necessarily take place in the consultation.

Example 74 in the box below shows the function attached to a limited choice, presenting the patient with the opportunity to make a decision regarding treatment. Example 75 is a signpost signalling that the opportunity to make the decision is coming.

Example 74: Candidate 14, scenario 5

DOC *Do you need to have a think about it, or do you want to go ahead with the [redacted] test, or?*

Example 75: Candidate 71, scenario 5

DOC *Um, so, it would perhaps be the case in this situation to see whether you would like to take this test. Have you ever thought of doing it before?*

7.2.1.3 Verifying patient understanding

Typically attached to the ‘test’ behaviour type, the third new function found invited patients to contribute their knowledge or ideas in response to the doctor’s request for information.

Example 76 is a test behaviour with this function, inviting the patient to show their understanding before the discussion moved on, while Example 77 is an instruction to the patient, directing their input to a *little synopsis* of their current symptoms.

Example 76: Candidate 41, scenario 2

DOC *Okay. So, okay. I've got information, erm, from my consultant, who asked me to speak to you, today. You have some [symptoms] and, erm, err, you have [symptoms] and, erm, we have done some investigation to you, and then, so, can I know how far you understand what your problem, before I discuss with you.*

Example 77: Candidate 27, scenario 4

DOC *If you just give me a little synopsis.*

7.2.2 Frequency of verbal signalling behaviours by function

Table 7.4 shows the number of behaviours found with each function in the 76 ‘Communication Skills and Ethics’ consultations, ordered by most frequent per category.

Table 7.4: Behaviour functions identified from ‘Communication Skills and Ethics’ consultations (N=76) compared with functions in ‘History-taking’ consultations (N=78)

Function	Communication Skills and Ethics		History-taking	
	Number of behaviours	Percentage of behaviours	Number of behaviours	Percentage of behaviours
Structure				
Plan	75	4%	66	7%
Agenda setting	71	4%	29	3%
External activity	60	3%	12	1%
Invite construction	50	3%	8	1%
Move to summary	25	1%	38	4%
Move between phases	18	1%	12	1%
Move to physical examination	0	0%	2	0%
<i>Subtotal</i>	299	17%	167	17%
Content				
Acknowledging bad news	100	6%	11	1%
Explaining/clarifying	97	5%	27	3%
Checking with patient	90	5%	28	3%
Professional disclosure	63	4%	11	1%
Final check	54	3%	28	3%
Introducing questions	53	3%	299	31%
Warning shot	45	3%	4	0%
Introducing sensitive questions	13	1%	30	3%
Verifying understanding	13	1%	0	0%
Change of topic	12	1%	62	6%
Acknowledging sensitive topic	11	1%	13	1%
Presenting decision	10	1%	0	0%
Thanking patient for information	2	0%	3	0%
Empathy	1	0%	0	0%
<i>Subtotal</i>	564	32%	516	53%
Structure or content:				
Structure				
Reminding	166	9%	54	6%
Listing	41	2%	23	2%
Emphasis	9	1%	10	1%
Warning what won't happen	7	0%	2	0%
Rationale for moving forward	5	0%	2	0%

<i>Subtotal</i>	228	13%	91	9%
Structure or content:				
Content				
Listing	235	13%	68	7%
Reminding	104	6%	36	4%
Emphasis	95	5%	7	1%
Warning what won't happen	77	4%	32	3%
Rationale for moving forward	76	4%	12	1%
<i>Subtotal</i>	587	33%	155	16%
Concerns				
Reassuring	85	5%	27	3%
Postponing	7	0%	18	2%
<i>Subtotal</i>	92	5%	45	5%
Total	1770	100%	974	100%

From Table 7.4 we can see that functions that were related to content were the most numerous across the two stations (671/974, 69% in ‘History-taking’ and 1151/1770, 65% in ‘Communication Skills and Ethics’). The biggest change was seen in the appearance of the ‘introducing question’ function, which was almost a third of all functions in ‘History-taking’ (299/974, 31%) but accounted for 3% of all functions in ‘Communication Skills and Ethics’ (53/1770). The most frequently occurring function found was listing related to content, which appeared in just over a tenth of behaviours (235/1770, 13%).

Functions that were related to structure appeared in similar frequencies across the two stations (527/1770, 30% in ‘Communication Skills and Ethics’ and 258/974, 26% in ‘History-taking’). The ‘plan’ and ‘reminding’ remained the most frequent structure-related functions across the two stations: 66/974, 7% and 68/974, 6% in ‘History-taking’, and 75/1770, 4% and 166/1770, 9% in ‘Communication Skills and Ethics’.

The overarching ‘related to concerns’ function category appeared in the same proportion across the two stations (92/1770 in ‘Communication Skills and Ethics’ and 45/974 in ‘History-taking’, both 5%). However the frequencies of the two functions within concerns were noticeably different across the stations: while roughly equal in ‘History-taking’ (postponing was at 18/974, 2% and reassuring was 26/974, 3%), reassuring was more frequent in ‘Communication Skills and Ethics’ (85/1770, 5%) while postponing virtually disappeared (7/1770, 0%) in terms of overall proportion of signalling behaviours.

Figure 7.2 summarises the taxonomy of functions found in the 'Communication Skills and Ethics' station.

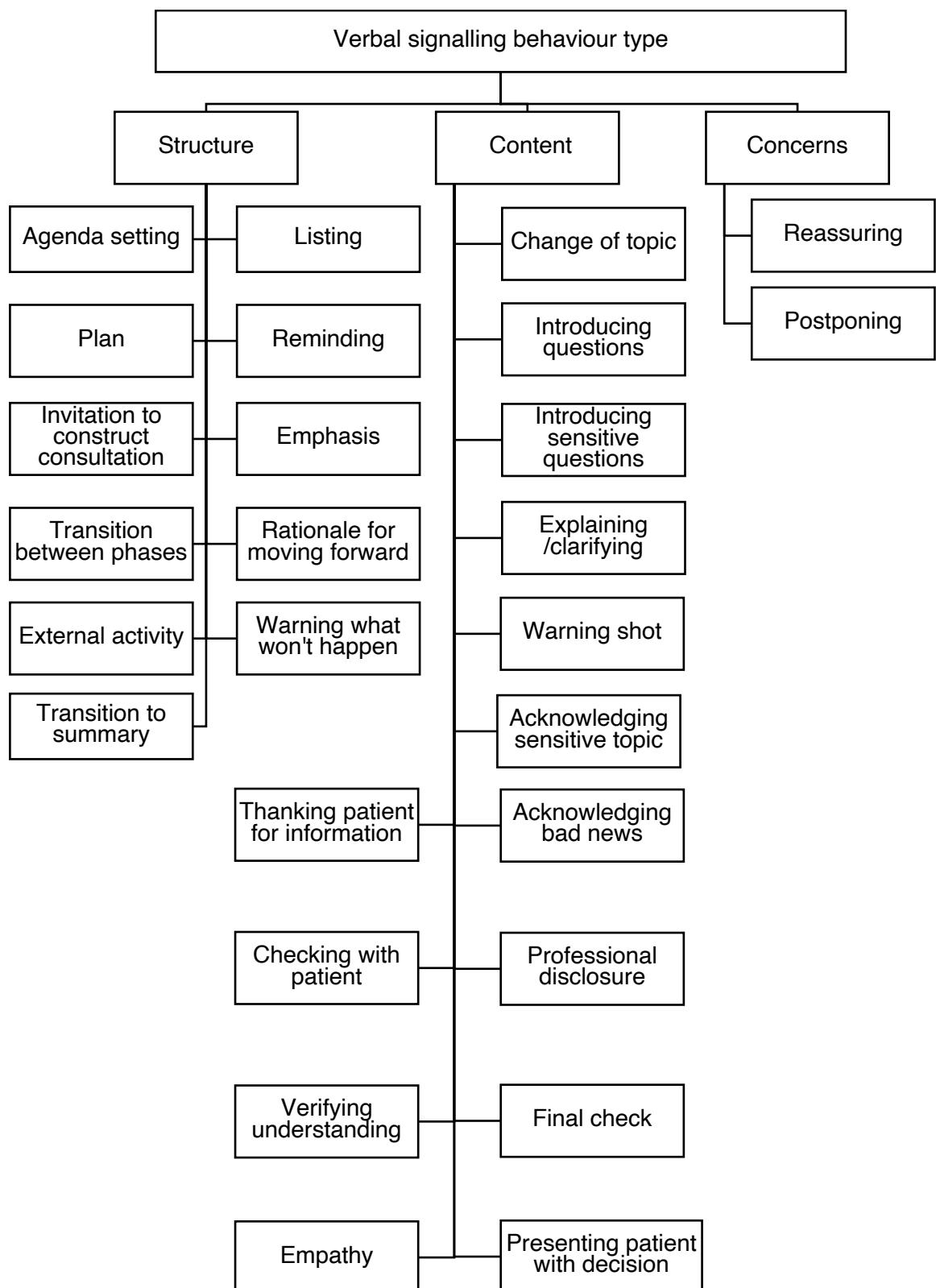


Figure 7.2 Taxonomy of verbal signalling behaviour functions in 'Communication Skills and Ethics' station

7.3 Types of verbal behaviour by function

In the previous two sections we reported on the behaviour types and functions that were found in the data. In this section, we will compare the different verbal behaviour types by function, looking at the most common roles each behaviour played. We will also compare the findings with the results from the comparisons of behaviour types by function in ‘History-taking’. Chart 7.1 shows the number of behaviours used for each function in ‘Communication Skills and Ethics’.

Chart 7.1: Function categories by behaviour type in 'Communication Skills and Ethics' consultations (N=76)

Function	Behaviour type													Total					
	Inform	Signpost	Post without sign	Sign without post	Post signpost	Bi-directional signpost	Subtotal	Invite	Open choice	Limited choice	Check-in	Test	Rhetorical question	Subtotal	Instruct	Directing input	Directing emotion	Subtotal	
Structure																			
Agenda setting		63	1		1	65		1		5		6		0	71				
Plan		56	6	1	1	4	68					0		7	7	75			
Invite to construct consultation		6		1			7	15	17	4	1	37		6	6	50			
Transition between phases		8	6		2		16				1	1		1	1	18			
Transition to summary		15			5		20				1	1	2	3	3	25			
External activity		48	4		1	53				5		5	2	2	2	60			
<i>Subtotal</i>		196	17	2	8	6	229	16	22	4	8	1	51	19	0	19	299		
Content																			
Change of topic		4	2	5		1	12					0		0	0	12			
Introducing questions		5	34	13		1	53					0		0	0	53			
Introducing sensitive questions		1	12				13					0		0	0	13			
Explaining/clarifying		36	11	25	3	10	85				7	7	5	5	5	97			
Warning shot		15	23	2	4	1	45					0		0	0	45			
Acknowledging sensitive topic							11		11			0		0	0	11			
Acknowledging bad news		2			97	1	100					0		0	0	100			
Empathy						1	1					0		0	0	1			
Thanking patient for information						2	2					0		0	0	2			
Professional disclosure		37	4		18	4	63					0		0	0	63			
Presenting patient with decision		7					7	3			3		0		0	10			
Checking with patient						3	3	1	5	79	2	87		0	0	90			
Verifying understanding		1			1	2				1	9	10	1	1	1	13			
Final check						0		14	40		54			0	0	54			
<i>Subtotal</i>		108	86	45	140	18	397	1	22	120	11	7	161	6	0	6	564		
Structure or content: Structure																			
Listing		7	34				41					0		0	0	41			
Reminding		4	1		5	128	138					0		28	28	166			
Emphasis		2	5			1	8					0	1	1	1	9			
Rationale for moving forward						1	4	5				0		0	0	5			
Warning what won't happen		6				1	7					0		0	0	7			
<i>Subtotal</i>		19	40	0	6	134	199	0	0	0	0	0	0	1	28	29	228		
Structure or content: Content																			
Listing		117	96	1	18	3	235					0		0	0	235			
Reminding		17	14	2	54	17	104					0		0	0	104			
Emphasis		24	44	1	16	10	95					0		0	0	95			
Rationale for moving forward		2	1	1	14	58	76					0		0	0	76			
Warning what won't happen		69	2		2	4	77					0		0	0	77			
<i>Subtotal</i>		229	157	5	104	92	587	0	0	0	0	0	0	0	0	0	587		
Concern																			
Reassuring		21	14		16	7	58					0	3	24	27	85			
Postponing		4	1				5					0	2	2	2	7			
<i>Subtotal</i>		25	15	0	16	7	63	0	0	0	0	0	5	24	29	92			
Total		577	315	52	274	257	1475	17	44	124	19	8	212	31	52	83	1542		

The inform category of behaviours was the most versatile when it came to carrying functions in 'Communication Skills and Ethics', appearing in all the categories. Invite behaviours only appeared with functions related to content or structure outright. Instruct behaviours mostly had structure-related or concern-related functions.

As a reminder, Chart 7.2 shows the number of behaviours used for each function in 'History-taking'.

Chart 7.2: Function categories by behaviour type in 'History-taking' consultations (N=78)

Function	Behaviour type											Total						
	Inform	Signpost	Post without sign	Sign without post	Bi-directional signpost	Post signpost	Subtotal	Invite	Open choice	Limited choice	Check-in	Test	Rhetorical question	Subtotal	Instruct	Direct input	Direct emotion	Subtotal
Structure																		
Agenda setting		18	9			27						2	2			0	29	
Plan		49	13		3	65						1	1	1	1	1	67	
Transition between phases		2	6		1	3	12					0			0	12		
Transition to summary		36	1			37						0	1	1	1	38		
Invite to construct consultation						0	1	6				7	1	1	1	8		
Transition to physical examination						2						0			0	2		
External activity		11	1			12						0			0	0	12	
<i>Subtotal</i>		118	30	0	4	3	155		1	6	0	2	1	10	3	0	3	168
Content																		
Change of topic		26	15	16	1	1	59					0	3	3	3	62		
Introducing questions		17	84	118	79	298						0	1	1	1	299		
Introducing sensitive questions		3	25	2		30						0			0	30		
Explaining/clarifying		13	2	6	4	2	27					0			0	27		
Warning shot						4						0			0	4		
Acknowledging sensitive topic						13	13					0			0	13		
Acknowledging bad news						11	11					0			0	11		
Thanking patient for information						3	3					0			0	3		
Professional disclosure		4	5		1	1	11					0			0	11		
Checking with patient		1		3		4			9	10	1	20	4	4	4	28		
Final check					1	2	3		20	2		22	3	3	3	28		
<i>Subtotal</i>		64	136	145	87	31	463		0	29	12	1	0	42	11	0	11	516
Structure or Content: Structure																		
Listing		7	16			23						0			0	23		
Reminding			3		40	11	54					0			0	54		
Emphasis			9			1	10					0			0	10		
Rationale for moving forward			1		1	2						0			0	2		
Warning what won't happen			2			2						0			0	2		
<i>Subtotal</i>		9	29	0	41	12	91		0	0	0	0	0	0	0	0	0	91
Structure or Content: Content																		
Listing		62	5			1	68					0			0	68		
Reminding		8	2		3	23	36					0			0	36		
Emphasis			5			2	7					0			0	7		
Rationale for moving forward					1	4	7	12				0			0	12		
Warning what won't happen		30			1	1	32					0			0	32		
<i>Subtotal</i>		100	12	1	8	34	155		0	0	0	0	0	0	0	0	0	155
Concerns																		
Reassuring			12			1	1	14				0		13	13	27		
Postponing discussion			16	1			17					0			0	17		
<i>Subtotal</i>		28	1	0	1	1	31		0	0	0	0	0	0	0	13	13	44
Total		319	208	146	141	81	895		1	35	12	3	1	52	14	13	27	974

Across both stations, inform behaviours were most frequently used across the function categories, appearing in every single one – this is in line with their relative frequencies across

the data. Invite behaviours were never used with concern-related functions across either of the two stations. They appeared with five different functions in ‘History-taking’, compared with nine in ‘Communication Skills and Ethics’. Across both stations, invite behaviours performed functions that were in the structure-related or content-related categories outright, and not the functions that could belong to both.

The instruct behaviours showed some differences between the two stations. In ‘History-taking’, these behaviours predominantly performed concern-related functions, namely reassuring’. In ‘Communication Skills and Ethics’, they were just as frequently found with functions that could be related to either structure or content.

7.4 Hyperfunctions

In this section we will report the hyperfunctions found in the ‘Communication Skills and Ethics’ consultations and compare the frequencies across the two stations. Mirroring Sections 7.1 and 7.2, existing hyperfunctions which were found again in the ‘Communication Skills and Ethics’ consultations will be summarised in the first half of the section (Table 7.5), while new hyperfunctions will be introduced after.

Table 7.5: Definitions and examples of behaviour hyperfunctions found in 'Communication Skills and Ethics' station (N=76)

Hyperfunction	Example
<i>Hyperfunctions related to structure</i>	
Transition between consultation phases Occurs at the start or end of a stage or task but does not make explicit reference to this transition.	Example 78: Candidate 28, scenario 1 DOC <i>Okay, any other questions?</i> Example 79: Candidate 18, scenario 5 DOC <i>Well, first of all I think we need to find out whether you do have [disease]</i>
Change prompted by examiner time signal Occurs after the examiner has given the 'two minutes remaining' warning, and changes the direction the consultation is going in.	Example 80: Candidate 61, scenario 1 EX <i>You've about two minutes left.</i> DOC <i>Is there anything that I've not been able to answer? Any query you have?</i> Example 81: Candidate 14, scenario 5 DOC <i>You've got...</i> EX <i>Two minutes.</i> DOC <i>Okay.</i> PAT <i>Okay. Um...</i> DOC <i>Do you need to have a think about it, or do you want to go ahead with the test, or?</i>
Plan Suggests a plan alongside the main function of the behaviour.	Example 82: Candidate 63, scenario 8 PAT <i>No, I got the impression that's what I was seeing you for today.</i> DOC <i>It's actually my task to explain. Unfortunately, your [healthcare specialist], she's on leave. Uhh, but I will try to make things as simple as possible.</i> Example 83: Candidate 11, scenario 1 PAT <i>Yeah, he had a massive haemorrhage, yeah.</i> DOC <i>Right, okay, yeah, okay, I'll come onto that in a moment.</i>
Inviting fixed patient contribution Provides the patient with the opportunity to make a narrow and specific contribution.	Example 84: Candidate 22, scenario 5 PAT <i>Yes. Excellent, yes. How did that go?</i> DOC <i>Before we discuss that, was there anything else you wanted to discuss with me today?</i> Example 85: Candidate 11, scenario 1 PAT <i>Right, I'm worried now.</i> DOC <i>I know you're worried, okay. Just, can you give me some background as to why you had this scan before I tell you the results?</i>

Table 7.5 (continued): Definitions and examples of behaviour hyperfunctions found in 'Communication Skills and Ethics' station (N=76)

Hyperfunction	Example
Hyperfunctions related to content	
Medical uncertainty Highlights the lack of certainty in a diagnosis, tests or treatments	<p>Example 86: Candidate 6, scenario 9</p> <p>DOC <i>And it would be a concern to us whether this might possibly look, I cannot definitely say, whether this might represent the [disease]</i></p>
	<p>Example 87: Candidate 58, scenario 2</p> <p>PAT <i>Okay, so that's less worrying. That's less worrying.</i></p> <p>DOC But I don't want to give you the impression that that's what I think it is either.</p>
Introducing sensitive question Attaches to behaviours that do not signal that a sensitive question is about to be asked	<p>Example 88: Candidate 59, scenario 7</p> <p>DOC <i>And, uh, secondly I would like to ask you, because I'm much more concerned about how you take your drug and, and, uh, uh, what we call in the medical term is compliance, that you take the drug and we see the effects.</i></p>
	<p>Example 89: Candidate 61, scenario 1</p> <p>DOC Can I ask whether, I mean, with regards to family, do you wish, I mean, do you have any other plans in terms of family? Having more kids?</p>
False list Indicates a list is coming but the doctor does not subsequently go beyond providing one item.	<p>Example 90: Candidate 54, scenario 5</p> <p>DOC <i>All right, now one possibility could be infection with certain viruses. Have you ever had any, um, doubts or any concerns that you might be suffering from any viral infections at all, like, er, [virus]</i></p>
	<p>Example 91: Candidate 50, scenario 5</p> <p>PAT <i>So is it possible that I haven't, I haven't got [disease]</i></p> <p>DOC This is one possibility that we are thinking...</p>
Warning shot Prefaces the delivery of bad news, without making this explicit to the patient	<p>Example 92: Candidate 11, scenario 1</p> <p>DOC <i>Um, do you want to know everything about the disease or do you only want to know a little bit?</i></p>
	<p>Example 93: Candidate 37, scenario 5</p> <p>PAT <i>Right, um, yes. I don't really think... I mean, I haven't... Really, I mean, I'm just, uh... I really don't, I mean I don't think I could have, I don't think, no, I don't think so.</i></p> <p>DOC Yes. It might be, it might be, I'm not saying, I'm not definitely that you have got that one, but it is the one of the most potent cause.</p>
Ignoring Does not address the concern raised by the patient	<p>Example 94: Candidate 11, scenario 1</p> <p>PAT <i>Should I have... Is it bad? I mean should I have somebody with me, is this bad news or just..?</i></p> <p>DOC Okay, it, we have got the results of the test, and if you haven't got anyone with you, that's fine. I'll give you the results, okay.</p>

Table 7.5 (continued): Definitions and examples of behaviour hyperfunctions found in 'Communication Skills and Ethics' station (N=76)

Hyperfunction	Example
<i>Hyperfunctions related to concerns</i>	
Postponing	Example 95: Candidate 14, scenario 5 PAT <i>Okay. Right, and how big a possibility is it that I haven't got [disease]?</i> DOC <i>Can I, can I go through some questions with you, to try and get an idea of that, that risk first?</i>
	Example 96: Candidate 57, scenario 2 PAT <i>But, it can be cured? It can be cured?</i> DOC <i>Erm, again, difficult to say. Erm, usually, erm, [disease], erm, is, erm, unlikely to be curable.</i>
Reassuring Provides reassurance but in a less explicit manner.	Example 97: Candidate 11, scenario 1 DOC <i>And also, the massive brilliant thing is your blood tests are fine. The [redacted scenario information] is working well, the [redacted scenario information] is working well.</i> Example 98: Candidate 53, scenario 1 PAT <i>Right. So, so what, what, what do I do then? Do I have my [relative] tested now or do, do...? What do I do?</i> DOC <i>Well, as, as far as the testing is concerned there is no urgent need of testing at this point in time.</i>
Reframing Changes the focus of the discussion when a patient concern is raised.	Example 99: Candidate 15, scenario 4 DOC <i>No, that's not... that's not what I'm saying. I'm saying that sometimes we don't find a cause; people still very much experience the symptoms and the signs. But there is no sinister cause so we need to find a way to help you with that, okay? And you mentioned, sort of, work life and family life. Would you mind me just asking a little bit about that? Um, what did you do?</i> Example 100: Candidate 33, scenario 2 DOC <i>Yeah. We would share your concern too.</i> PAT <i>But you don't think it is that?</i> DOC <i>Well, coming onto the [test]. There is a [symptom].</i>
Parking Moves the discussion away from concern, by promising information at a later stage	Example 101: Candidate 42, scenario 2 PAT <i>Is there anything else that it could be?</i> DOC <i>Uh, it's difficult to say without doing the [test]. It's very difficult. Another thing that we need to do is we need to do a [test] as well. Have you ever heard of that?</i>

Table 7.5 (continued): Definitions and examples of behaviour hyperfunctions found in 'Communication Skills and Ethics' station (N=76)

Hyperfunction	Example
<i>Hyperfunctions related to concerns (continued)</i>	
Responding to biomedical aspect Responds to the patient concern without addressing the emotional aspect raised.	<p>Example 102: Candidate 13, scenario 6</p> <p>PAT <i>That [relative] got a reaction to this, why that's been completely, blatantly ignored?</i></p> <p>DOC <i>Yes, and that's something that I need to take very seriously, because as you've said, it's very serious. It has consequences for [redacted scenario information].</i></p> <p>Example 103: Candidate 2, scenario 9</p> <p>PAT <i>But, that's a possibility? Is that what you're saying?</i></p> <p>DOC <i>I, I think we do need to brace ourselves for that possibility. Erm, I think it's, it's a very early investigation, the [test]</i></p>
Addressing delayed concern Responds to a concern raised earlier in the consultation, can be done with or without explicit reference to the concern or delay.	<p>Example 104: Candidate 65, scenario 1</p> <p>DOC <i>You are feeling well? That's very great that you are feeling well. So, uhh [patient full name] you are [condition]. On routine check up your [test] was done? Uh?</i></p> <p>PAT <i>Yes.</i></p> <p>DOC <i>And, for that you are worried. You are here to discuss about it?</i></p>
Shut down Discourages the patient from asking questions or raising concerns.	<p>Example 105: Candidate 69, scenario 4</p> <p>PAT <i>But could that go on for like 10 years or... or more. Could... could that... could that...?</i></p> <p>DOC <i>The thing to support that is, er, if you would agree on that with me is that for 10 years we are still... even if there was something that was missed initially you would have expected that it would have come out eventually, we would have discovered...</i></p>
Empathy Behaviour contains element of empathy that is not explicit	<p>Example 106: Candidate 15, scenario 4</p> <p>PAT <i>I don't think that I'll remember that term to be honest.</i></p> <p>DOC <i>I can write it... I can write it down for you.</i></p> <p>Example 107: Candidate 71, scenario 5</p> <p>DOC <i>Whether it is [redacted condition]. If it is the case.</i></p> <p>PAT <i>Okay.</i></p> <p>DOC <i>Then, having confirmed that, we need to...</i></p> <p>PAT <i>Okay.</i></p> <p>DOC <i>Do you perhaps need something? Perhaps a drink? Or anything?</i></p>

Table 7.5 (continued): Definitions and examples of behaviour hyperfunctions found in 'Communication Skills and Ethics' station (N=76)

Hyperfunction	Example
<i>Other hyperfunctions</i>	
Professional disclosure	Example 108: Candidate 13, scenario 6 DOC <i>So, sorry, I'll just, um, make sure I'm... I'll just reiterate it, because I think I'm getting a bit confused. I do apologise.</i>
Invokes the role of the doctor as a professional in a less explicit way than it would as a main function.	Example 109: Candidate 71, scenario 5 PAT <i>But, he might have. I don't know. I mean, you know. I mean, it sounds a bit accusatory. Um.</i> DOC <i>No. I don't mean to accuse anyone. But, um, I just wanted to see whether there is a risk for you to have had this to have acquired it.</i>

7.4.1 New hyperfunctions

Five new hyperfunctions were identified in 'Communication Skills and Ethics'.

7.4.1.1 Inviting patient to construct consultation

This newly identified hyperfunction was previously found as a function: it invited the patient to co-create the consultation structure.

The signpost in bold in Example 110 has the main function of setting the agenda for the consultation, but also has the additional function of providing the patient with the opportunity to create this agenda.

Example 110: Candidate 14, scenario 5

DOC *Hello, I'm Dr [name], doctor on the ward. So I think you wanted to have a chat about your results, is that right?*

7.4.1.2 Emphasis

Like its main function counterpart, this hyperfunction added an element of emphasis to the signalling behaviour it attached to.

Example 111 is a post without sign that introduces a question, while the language suggesting necessity ('*I need to establish*') implies importance. Example 112 is a bi-directional signpost with the reassuring function. As with Example 111 the word choice here (*fortunately*) highlights what the doctor is about to say in a more positive manner.

Example 111: Candidate 44, scenario 7

DOC *Right. One thing I need to establish here, that, uh, since last six month how he has been? Has been having more [symptoms] or something like that?*

Example 112: Candidate 39, scenario 4

PAT *The blood tests haven't picked up anything at all?*

DOC *Uh, **fortunately** the, the blood tests are, are normal. Everything seems to be okay. From the tests we've carried out, everything's fine.*

7.4.1.3 Acknowledging bad news

Another newly identified hyperfunction that had a main function counterpart, this behaviour added an additional acknowledgment that the doctor had delivered bad news.

Example 113 is a post signpost with the main function of reminding, related to content – the phrase *once again* indicates that this a reminder or repetition of an acknowledgement the doctor has previously made regarding the bad news.

Example 114 has the checking with patient function. The word selection in forming the behaviour ('*a bit too much information*') indicates empathy regarding the emotions of the patient.

Example 113: Candidate 17, scenario 9

DOC *Mmm. Um, well, I'll go down and see, uh, see what I can do. **And sorry once again that the news hasn't been good news.** But at the same time, I'm glad that you've been feeling better, um, in yourself, and that you've been managing things at home, um, and I'm sorry that this has come un-, unexpectedly.*

Example 114: Candidate 35, scenario 1

DOC *Um and if that did happen it would be quite devastating obviously because a [condition] um could affect all the sorts of uh functions that your brain controls. **Is that a bit too much information to take in?***

PAT *It's a lot yeah.*

7.4.1.4 Presenting patient with decision

As well as being a newly identified function, presenting the patient with a decision was also a hyperfunction. Alongside the main function it attached to, it had the additional element of signalling that the patient had a decision to make in the consultation.

Examples 115 and 116 in the box below both have external activity as the functions, attached to a directing input and signpost respectively. Both explicitly refer to activity out with the conversation that are both connected to decisions that the patient can make in the consultation.

Example 115: Candidate 57, scenario 2

DOC So if, if you agree to do a [test], I'd just like you to sign a consent, for me.

Example 116: Candidate 2, scenario 9

DOC Like I said, I, I've got no problem speaking to any family members that you would like me to speak to, to explain the situation. Or, if you would like to make an, another meeting, then, by all means, I'll leave you with my, my contact details to do so.

7.4.1.5 Explaining/clarifying

This final, newly identified hyperfunction in the ‘Communication Skills and Ethics’ station also had a parallel main function and served to add an explanation or clarification to its main function. In Example 117, the doctor uses a post without sign with the external activity function with the additional element of explanation.

Example 117: Candidate 41, scenario 2

PAT Right. I'm sorry. I'm not sure what you're telling me.

DOC Yes

PAT Erm, what's the situation?

DOC Okay. So, can I draw for you?

7.4.2 Frequencies of hyperfunctions

Table 7.6 shows the number of behaviours carrying each hyperfunction alongside the frequencies of hyperfunctions found in ‘History-taking’.

Table 7.6: Behaviour hyperfunctions identified from ‘Communication Skills and Ethics’ consultations (N=76) compared with hyperfunctions in ‘History-taking’ station (N=78)

Hyperfunction	Communication Skills and Ethics Number of hyperfunctions	Communication Skills and Ethics Percentage of hyperfunctions	History-taking Number of hyperfunctions	History-taking Percentage of hyperfunctions
Structure				
Phase transition	29	3%	31	8%
Change prompted by time warning	24	3%	6	1%
Plan	23	3%	9	2%
Inviting fixed contribution	13	2%	13	3%
Invitation to contribute	2	0%	0	0%
<i>Subtotal</i>	<i>91</i>	<i>11%</i>	<i>59</i>	<i>14%</i>
Content				
Warning shot	107	13%	7	2%
Medical uncertainty	101	12%	49	12%
Emphasis	45	5%	0	0%
Introducing sensitive questions	8	1%	12	3%
False list	6	1%	9	2%
Acknowledging bad news	3	0%	0	0%
Presenting decision	2	0%	0	0%
Explaining/clarifying	2	0%	0	0%
<i>Subtotal</i>	<i>274</i>	<i>33%</i>	<i>77</i>	<i>19%</i>
Concerns				
Responding to biomedical aspect	145	17%	20	5%
Empathy	111	13%	1	0%
Reassuring	101	12%	41	10%
Postponing concern	63	8%	57	14%
Reframing concern	5	1%	31	8%
Shut down	3	0%	8	2%
Parking concern	2	0%	24	6%
Ignoring concern	2	0%	71	17%
Addressing delayed concern	2	0%	10	2%
Soliciting concern	0	0%	3	1%
<i>Subtotal</i>	<i>434</i>	<i>52%</i>	<i>266</i>	<i>65%</i>
Miscellaneous				
Professional disclosure	23	3%	3	1%
Other	18	2%	5	1%
<i>Subtotal</i>	<i>41</i>	<i>5%</i>	<i>8</i>	<i>2%</i>
Total	840	100%	410	100%

The majority of hyperfunctions across both stations belonged to the ‘related to patient

concerns' category (434/840, 52% in 'Communication Skills and Ethics' and 266/410, 65% in 'History-taking'). However, there were a number of differences within this category: 'ignoring' was the most frequently found hyperfunction in 'History-taking' (71/410, 17%), while it was virtually absent in 'Communication Skills and Ethics' (2/840, 0%). The most frequently found hyperfunction in 'Communication Skills and Ethics' was 'responding to biomedical aspect of concern' (145/840, 17%) which almost quadrupled in proportion from 'History-taking' (20/410, 5%). 'Empathy' was found in greater proportions in 'Communication Skills and Ethics' (111/840, 13%) than in 'History-taking' (1/410, 0%).

The overarching content hyperfunction category was higher in number in 'History-taking' (77/410, 19%) than in 'Communication Skills and Ethics' (274/840, 33%). The 'warning shot' hyperfunction had the biggest difference, from 7/410 (2%) in 'History-taking' to 107/840 in 'Communication Skills and Ethics'. Another contributor to the overall difference in the content category was 'emphasis', which was not present in 'History-taking' and accounted for 5% in 'Communication Skills and Ethics' (45/840). Fig. 7.3 shows the taxonomy of hyperfunctions found in the 'Communication Skills and Ethics' station.

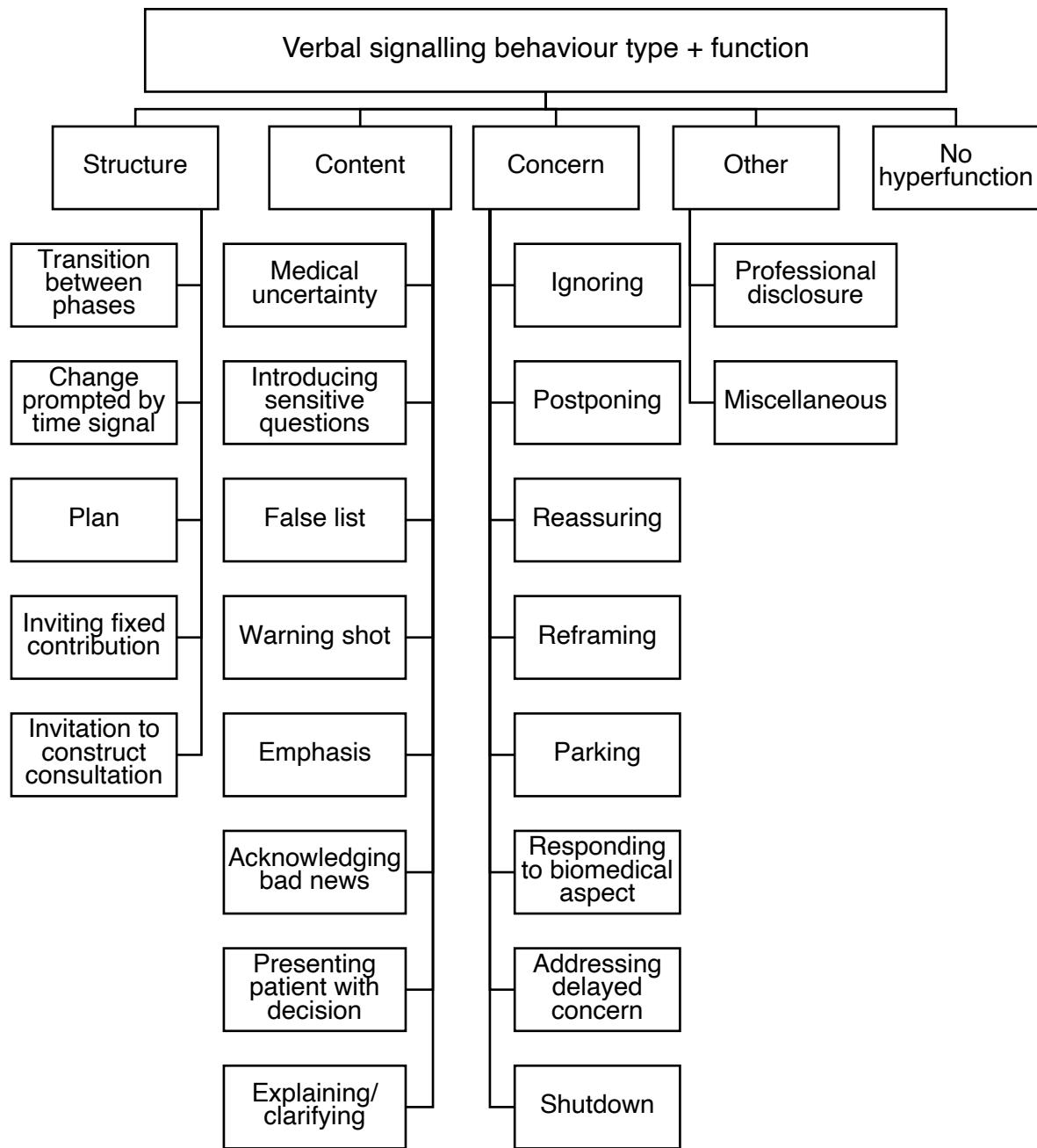


Figure 7.1. Taxonomy of verbal signalling behaviour hyperfunctions in 'Communication Skills and Ethics' station

7.5 Hyperfunction by behaviour types

Table 7.7 shows the frequency of hyperfunctions found per structural behaviour, compared against the frequencies found in 'History-taking'. It is noted that certain behaviours e.g. rhetorical questions and tests, were present in low frequencies, making it difficult to make meaningful comparisons.

Table 7.7: Hyperfunctions by type in ‘Communication Skills and Ethics’ consultations**(N=76) compared with hyperfunction by type in ‘History-taking’ station (N=78)**

Behaviour type	Communication Skills and Ethics			History-taking		
	Number of behaviour with hyperfunction	Total behaviours	Percentage behaviour with hyperfunction	Number of behaviour with hyperfunction	Total behaviours	Percentage behaviour with hyperfunction
<i>Inform</i>						
Post signpost	142	274	52%	21	81	26%
Signpost	234	577	41%	150	319	47%
Bi-directional signpost	96	257	37%	46	141	33%
Post without sign	110	110	35%	86	208	41%
Sign without post	11	11	21%	27	146	18%
<i>Subtotal</i>	<i>533</i>	<i>1475</i>	<i>36%</i>	<i>330</i>	<i>895</i>	<i>37%</i>
<i>Invite</i>						
Open choice	11	17	65%	1	1	100%
Limited choice	18	44	41%	10	35	29%
Rhetorical question	3	8	38%	1	1	100%
Test	7	19	37%	0	3	0%
Check-in	28	124	23%	1	12	8%
<i>Subtotal</i>	<i>67</i>	<i>212</i>	<i>32%</i>	<i>13</i>	<i>52</i>	<i>35%</i>
<i>Instruct</i>						
Directing emotion	34	52	65%	3	13	23%
Directing input	13	31	42%	0	14	0%
<i>Subtotal</i>	<i>47</i>	<i>83</i>	<i>57%</i>	<i>3</i>	<i>27</i>	<i>11%</i>
Total	707	1770	40%	346	974	36%

Approximately a third of all inform and invite behaviours across both ‘History-taking’ and ‘Communication Skills and Ethics’ carried hyperfunctions. However, the instruct category had the biggest difference in terms of hyperfunctions found: from 11% in ‘History-taking’ to 57% in ‘Communication Skills and Ethics’, owing to a higher number of hyperfunctions across both directing emotion and directing input behaviours.

Looking more closely, the inform type of behaviour with the biggest difference in terms of

carrying hyperfunctions was the post signpost: in ‘History-taking’ just over a quarter had a hyperfunction (21/81, ‘26%’) while this doubled to just over half in ‘Communication Skills and Ethics’ (142/274, 52%).

The check-in behaviour also increased in proportion from ‘History-taking’ to ‘Communication Skills and Ethics’ (1/12, ‘8%’ to 28/124, 23% respectively).

Both behaviours in the instruct category were found to carry hyperfunctions in much higher proportions in ‘Communication Skills and Ethics’ than in ‘History-taking’. Directing emotion almost tripled in proportion (from 3/13, ‘23%’ to 34/53, ‘65%’), while directing input behaviours had no hyperfunctions in ‘History-taking’ but almost half did in ‘Communication Skills and Ethics’ (13/31, ‘42%’).

7.6 Stacks

This section reports how signalling behaviours stacked and will compare findings with the ‘History-taking’ results. This section will present the analysis on the following levels:

1. Types

How did the individual behaviour types combine to create stacks?

2. Functions

Which individual functions contributed to stacks?

3. Hyperfunctions

What were the overall effects of combining behaviours into stacks?

Table 7.8 shows the number of stacks found in the data, and the total number of behaviours contributing to the stack compared against the results obtained from ‘History-taking’.

Table 7.8: Number of stacks and stacked behaviours compared across ‘Communication Skills and Ethics’ (N=76) and ‘History-taking’ consultations (N=78)

Number of behaviours per stack	Communication Skills and Ethics		History-taking	
	Number of stacks	Number of behaviours	Number of stacks	Number of behaviours
2	216	432	83	166
3	58	174	13	39
4	20	80	1	4
7	1	7	0	0
9	1	9	0	0
Total	295	702	97	209

Almost double the proportion of behaviours were stacked in ‘Communication Skills and Ethics’ (702/1770, 40%) than in ‘History-taking’ (209/974, 22%). Across both stations, double stacks of behaviours were the most frequently found. A new discovery in ‘Communication Skills and Ethics’ was that some stacks featured up to nine individual behaviours, which will be discussed later in the section.

Example 118 in the box below shows a double stack of behaviours from the ‘Communication Skills and Ethics’ station, featuring a signpost and a limited choice.

Example 118: Candidate 61, scenario 1 DOC Okay. Erm, [patient title+surname], I'm afraid I don't have a good news for you, today. Erm, would you like to have someone else along with you or...?	Behaviour type Signpost Limited choice	Behaviour type Warning shot Invitation to construct consultation
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Example 119 shows a triple stack, combining directing input, post without sign and limited choice behaviours.

Example 119: Candidate 1, scenario 3 DOC Okay. Right. I understand what you're saying. Um, let me just try to summarise to tell you a bit, what's been happening. First of all, is there anyone else you would like to be here, anyone else in the family you would...	Behaviour type Directing input Post without sign Limited choice	Behaviour type Transition to summary Listing Invitation to construct consultation
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In Example 120 below, the four stacked behaviours are all signposts.

Example 120: Candidate 25, scenario 9	Behaviour type	Behaviour function
DOC Okay. Well, the, <i>the most important thing</i> and, <i>this is not to, to frighten you, but I just want to make you fully aware of, of everything that, that might be possible.</i>	Signpost	Emphasis
<i>Erm, one of the things we need to rule out, if it is, err, a [diagnosis redacted] Okay?</i>	Signpost	Reassuring
	Signpost	Professional disclosure
	Signpost	Listing

7.6.1 Behaviour types

Table 7.9 gives an overview of the frequencies of behaviour types appearing in a stack compared against the results found in 'History-taking'.

Table 7.9: Frequency of behaviour types occurring in stacks compared across 'Communication Skills and Ethics' (N=76) and 'History-taking' (N=78) consultations

Behaviour	Communication Skills and Ethics		History-taking	
	Number of behaviours in stack	% of behaviours	Number of behaviours in stack	% of behaviours
Inform				
Signpost	274	39%	100	48%
Post without sign	127	18%	47	22%
Post signpost	116	17%	17	8%
Bi-directional signpost	91	13%	16	8%
Sign without post	13	2%	12	6%
<i>Subtotal</i>	<i>621</i>	<i>88%</i>	<i>192</i>	<i>92%</i>
Invite				
Check-in	29	4%	3	1%
Limited choice	13	2%	4	2%
Open choice	7	1%	1	0%
Test	6	1%	1	0%
Rhetorical question	1	0%	0	0%
<i>Subtotal</i>	<i>53</i>	<i>8%</i>	<i>9</i>	<i>4%</i>
Instruct				
Direct emotion	19	3%	4	2%
Direct input	9	1%	4	2%
<i>Subtotal</i>	<i>28</i>	<i>4%</i>	<i>8</i>	<i>4%</i>
Total	702	100%	209	100%

All the individual types in ‘Communication Skills and Ethics’ were found in stacks. Across both stations the majority of stacked behaviours were composed of inform behaviours (621/702, 88% in ‘Communication Skills and Ethics’ and 192/209, 92% in ‘History-taking’).

7.6.2 Functions

Table 7.10 shows the most frequent functions that appeared in stacks across both ‘Communication Skills and Ethics’ and ‘History-taking’. The combined proportions make up half of the functions found in stacks in each station.

Table 7.10: Frequency of most frequent behaviour functions occurring in stacks in ‘Communication Skills and Ethics’ consultations (N=76) compared to ‘History-taking’ consultations (N=78)

Function	Communication Skills and Ethics		History-taking		Percentage of behaviours
	Number of behaviours in stack	Percentage of behaviours	Function	Number of behaviours in stack	
Listing	153	22%	Plan	37	18%
Reminding	109	16%	Introducing questions	26	12%
Acknowledging bad news	49	7%	Listing	20	10%
Emphasis	43	6%	Reminding	20	10%

‘Listing’ was the most common function, contributing to almost a quarter of the total (161/702, 22%) in ‘Communication Skills and Ethics’. Along with reminding, it was also one of the more frequent functions found in a stack in ‘History-taking’. While the ‘plan’ and ‘introducing question’ functions were more frequently found in stacks in ‘History-taking’, the ‘acknowledging bad news’ and ‘emphasis’ functions were more frequently found in ‘Communication Skills and Ethics’.

7.6.3 Hyperfunctions in stacks

This section will consider the overall effect of combining behaviours, resulting in the

hyperfunction of the stack. The following examples will show the turns containing the behaviours, with the colours corresponding to the behaviours indicated in the example title.

7.6.3.1 Plan with empathy

The seven verbal behaviours in Example 121 combine to form a stack with the overall hyperfunction of a plan with empathy. The empathy is carried over from the professional disclosure signpost, but none of the other verbal behaviours individually have a plan function or hyperfunction – the only hyperfunction was the aforementioned empathy. The doctor uses the verbal behaviours in quick succession to address the patient's request to do something that would *help the most*. Each verbal behaviour then contributes the function as individual items of a plan, resulting in a list of steps that signal what will happen next in the consultation.

Example 121: Candidate 6, scenario 9		Behaviour type	Behaviour function
PAT	<i>That's what would help me the most rather than, you know, making a complaint, it's done now.</i>		
DOC	<i>Yeah. Okay. Well, that's the priority for today. Um, I think what we'll do from here is, would you like to sit with someone just now while I go off and speak to the [redacted] directly.</i>	Post signpost Limited choice	Reminding Inviting patient to construct consultation
PAT	<i>Yeah.</i>	Signpost	External activity
DOC	<i>Um we can get one of the nurses to wait with you.</i>	Signpost	Professional disclosure
PAT	<i>Okay.</i>		
DOC	<i>I don't like the idea of just letting you wander out by yourself as I think that would be unkind.</i>	Signpost	External activity
PAT	<i>Yeah.</i>		
DOC	<i>Um we're gonna get one of the nurses to sit with you, and discuss things with you.</i>	Signpost	External activity
PAT	<i>Okay.</i>		
DOC	<i>I'll go speak to the [redacted] in person just now if I can and I'll try and get you a date. If I'm unable to speak to the [redacted] then I'll get your phone number and I'll call you at home this evening if you're okay with that.</i>	Signpost Signpost	External activity External activity

7.6.3.2 Shutting down through reassurance

In Example 122 the nine verbal behaviours combine to form a stack with the hyperfunction of shutting down the patient's concern. The extract is taken from early on in the consultation, immediately after the patient has discussed why they have come in and after they have stated that the current situation is going smoothly. While the majority of the verbal behaviours carry a hyperfunction, this is mostly reassurance. However, placing these behaviours into the context reveals that the doctor is using a succession of directing emotions with reassuring functions and reminding behaviours also with the reassuring hyperfunction, which appear to have the additional function of preventing the patient from bringing emotion.

Example 122: Candidate 65, scenario 1		Behaviour type	Behaviour function
PAT	Yeah. Because there's a as far as I know there's a problem and I've been told to come in. So I don't know what it is.		
DOC	<p>Yah. So we are here to discuss about your thinking, you are having the worry that there is something wrong with your [redacted]. So, first of all relay your anxiety okay, be relax. There, nothing will you know, bother, don't worry about your kid now. Whoever is in, your newborn, okay, don't worry about this pregnancy. Okay. First of</p>	<p>Signpost</p> <p>Post without sign</p> <p>Directing emotion</p> <p>Directing emotion</p> <p>Directing emotion</p> <p>Directing emotion</p>	<p>Plan</p> <p>Listing</p> <p>Reassuring</p> <p>Reassuring</p> <p>Reminding</p> <p>Reminding</p>
PAT	Oh oh okay.	Post without sign	Reminding
DOC	First of all relax, okay? We are going to discuss about your problem. So um are you happy to	Directing emotion	Reassuring
PAT	So there's nothing wrong with the baby, is that what you're saying?	Signpost	Reminding

7.7 Summary

In this chapter we have looked at the results of the analysis of the structural behaviours occurring in the 'Communication Skills and Ethics' consultations and compared it with the findings from 'History-taking'. We have found that despite the differing names and tasks of the

consultation, the types of behaviours found across the two stations were the same. Despite there being two consultations fewer, almost double the number of verbal signalling behaviours were found in 'Communication Skills and Ethics'. The functions of behaviours were similar across the two stations, with three new functions found in 'Communication Skills and Ethics'. However, the frequencies of behaviours did show some differences: there were fewer 'introducing questions' in 'Communication Skills and Ethics', and more 'warning shots' and 'listing'. The hyperfunction categories found in 'History-taking' were also found in 'Communication Skills and Ethics', with five new additions. Hyperfunctions related to concerns were the most numerous across both stations, with 'warning shots' and 'responding to biomedical aspects' replacing 'ignoring' and 'postponing' concerns as the most frequently found in 'Communication Skills and Ethics'. Finally, stacked behaviours occurred in greater frequency in 'Communication Skills and Ethics', with larger combinations of behaviours seen. These larger combinations of behaviours were found occurring near instances where patient emotion featured prominently in the consultation.

Chapter 8: Results of lexicogrammatical analysis of verbal signalling behaviours in ‘Communication Skills and Ethics’ consultations and comparison with ‘History-taking’

In the previous chapter we saw how verbal signalling behaviours were used to signal what was happening in the ‘Communication Skills and Ethics’ consultations, and in this chapter we will see how the linguistic strategies of Politeness Theory feature in the behaviours as a way of manifesting power. As in the previous two chapters, the linguistic analysis from the consultations in the ‘Communication Skills and Ethics’ station will be compared with the findings from ‘History-taking’, highlighting differences between the two. Findings from this chapter will provide results that will contribute to answering the following research question:

- How does the language in verbal signalling behaviours empower the patient during a station called ‘Communication Skills and Ethics’?**

As with the ‘History-taking’ consultations, the linguistic analysis was carried out on the following levels:

1. Person-centredness

Who is the main subject of the verbal signalling behaviours in ‘Communication Skills and Ethics’?

2. Deference

Does the behaviour use language that signals deference to the patient?

3. Effect of signalling behaviour: mitigation or intensification

Do doctors use the word *just* that could draw attention from the effect of the change coming up on the flow of the consultation? Do they use adjectives that could reduce the effect of an unexpected subject, or that could flag up and intensify a change?

4. Specificity or vagueness

Does the behaviour provide clarity about the information coming ahead?

5. Provides reason for the task contained in the verbal signalling behaviour

Does the behaviour contain a rationale for what will be happening, or does it suggest obligation?

6. Temporal aspects

Does the signal include language showing when it will happen in the consultation?

The six levels of analyses were carried out on all 1770 verbal signalling behaviours found in 'Communication Skills and Ethics'. Each section will begin with a table giving examples of the linguistic features found in the signalling behaviours. As in the Chapter 5, the behaviour in the examples is in bold, while the linguistic feature is underlined. The second half of each section will then present the frequencies of each linguistic feature, with frequencies found in 'History-taking' also presented for comparison.

8.1 Person-centredness

This section will report on how person-centredness was manifested in the consultation, through analysis of whether the doctor, the patient, both or neither were the main subjects of the verbal signalling behaviour. The subjects of the behaviours found in 'Communication Skills and Ethics' were the same as those found in 'History-taking'. Table 8.1 presents examples of the analysis of person-centredness in 'Communication Skills and Ethics'.

Table 8.1: Person-focus in signalling behaviours in ‘Communication Skills and Ethics’ consultations (N=76)

Person focus of behaviour	Example
Behaviours that inform the patient about what is happening in the consultation	
Doctor is the main subject (“I”)	Example 1: Candidate 13, scenario 6 DOC <i>I'm [doctor name], I've been asked to see you today.</i>
Patient is the main subject (“you”)	Example 2: Candidate 57, scenario 2 DOC <i>Erm, so, erm, you've come here to discuss this, err, erm, erm, your results</i>
Doctor and patient are main subjects (“let's”/ “we”)	Example 3: Candidate 72, scenario 3 DOC <i>Okay, okay. Well, um, uh, we're here to discuss, uh, the future management of your father, okay?</i>
External person (“they”/ “he”/ “she”/ “your” “doctor”)	Example 4: Candidate 69, scenario 4 DOC <i>And my consultant asked, er, me to see you, er, because I think you were expecting some results from your latest investigation.</i>
Unclear focus (“we”)	Example 5: Candidate 11, scenario 1 DOC <i>Well, you know you, it's, it's for your support, but we, we can give it to you. Would you like someone to be present when we give you the results?</i>
No person	Example 6: Candidate 5, scenario 9 DOC <i>Um, just wondering, we've not met before, just a bit of a background really.</i>
Behaviours that invite the patient to choose what happens in the consultation	
Doctor is the main subject (“I”)	Example 7: Candidate 3, scenario 5 DOC <i>Can I just possibly check, um, how much you, um, understand why you're here today?</i>
Patient is the main subject (“you”)	Example 8: Candidate 74, scenario 7 DOC <i>Hello, [doctor name]. What do you know, so far, about your condition?</i>
Doctor and patient are main subjects (“let's”/ “we”)	Example 9: Candidate 19, scenario 1 DOC <i>Just before we start, can I just check, um, what your understanding is of why you've been referred to us, um?</i>
Unclear focus (“we”)	Example 10: Candidate 14, scenario 5 DOC <i>And we've kind of found another question which we need to answer, which is why have you got this bug?</i>
No person	Example 11: Candidate 26, scenario 5 DOC <i>Or any concerns that you've got. Does that sound all right?</i>

Table 8.1 (continued): Person-focus in signalling behaviours in ‘Communication Skills and Ethics’ consultations (N=76)

Person focus of behaviour	Example
<i>Behaviours that instruct the patient on how to progress</i>	
Doctor is the main subject (“I”)	Example 12: Candidate 11, scenario 1 DOC <i>So <u>I</u> don’t want you to worry about [relative]</i>
Patient is the main subject (“you”)	Example 13: Candidate 27, scenario 4 DOC <i>If <u>you</u> just give me a little synopsis.</i>
Doctor and patient are main subjects (“let’s”/ “we”)	Example 14: Candidate 72, scenario 3 DOC <i>Hello. Nice to meet you. Uh, my name is Dr. [name] and I’m one of the doctor here. Um, <u>before we discuss, uh, let me confirm</u> few thing.</i>
No person	Example 15: Candidate 55, scenario 1 DOC <i>So no need to worry about anything right now.</i>

8.1.1 Frequencies

Table 8.2 shows the frequencies of linguistic features per category of behaviour, with findings from ‘Communication Skills and Ethics’ in the top half of the table, and ‘History-taking’ in the bottom half. The total number of behaviours per category in each station are in bold at the end of each half, while the ‘Total features’ column at the end of the table shows the total number of linguistic features per row.

**Table 8.2: Frequencies of person-focus in signalling behaviours across
'Communication Skills and Ethics' (N=76) and 'History-taking' (N=78) consultations**

Person focus of the verbal behaviour	No. linguistic features found in types of behaviour			Total features
	Inform	Invite	Instruct	
<i>Communication Skills and Ethics</i>				
Doctor ("I")	744	26	19	789
Patient ("you"/imperative)	80	151	70	301
Doctor and patient ("let's"/"we")	50	6	6	62
Unclear focus ("we")	75	4	0	79
Third person ("he/she/they/your doctor")	6	0	0	6
Contains no person	626	50	3	679
Total station behaviours	1475	212	83	1770
<i>History-taking</i>				
Doctor ("I")	359	7	2	368
Patient ("you"/imperative)	32	37	23	92
Doctor and patient ("let's"/"we")	6	0	0	6
Unclear focus ("we")	66	2	0	69
Third person ("he/she/they/your doctor")	8	0	1	8
Contains no person	424	6	1	431
Total station behaviours	895	52	27	974

In both 'Communication Skills and Ethics' and 'History-taking', the doctor was the main focus of the majority of inform behaviours (744/1475, 50%), while having no person present in the inform behaviours was more frequent in 'History-taking' (424/895, 47%). Patients were always the main focus of invite behaviours (151/212, 71% in 'Communication Skills and Ethics' and 37/52 '71%' in 'History-taking'), and instruct behaviours (70/83, '84%' in 'Communication Skills and Ethics' and 23/27, '85%' in 'History-taking'). The use of 'we' that clearly indicated the doctor and patient was more likely to be found in inform behaviours. However, these occurred in small frequencies in consultations from both stations.

8.2 Deference

Linguistic deference did not differ in use in ‘Communication Skills and Ethics’ compared to the ‘History-taking’ consultations. Table 8.3 presents a summary of sub-categories of deference and examples found in the signalling behaviours in ‘Communication Skills and Ethics’.

Table 8.3: Deference in signalling behaviours in ‘Communication Skills and Ethics’ consultations (N=76)

Deference in behaviour	Example
Behaviours that inform the patient about what is happening in the consultation	
Modal politeness (“can”/ “could”/ “may”/ “would” etc)	Example 16: Candidate 50, scenario 5 DOC <i>But, you know, um, <u>I would like to explain you about the, you know, the results.</u></i>
Contains politeness tag at start/before behaviour	Example 17: Candidate 49, scenario 2 DOC <i>I mean, er, <u>I'm sorry to ask you</u>, uh have you, I know that you understand you being smoked before?</i>
Contains politeness tag midway	Example 18: Candidate 6, scenario 9 DOC <i>However, again this is part of the uncertainty just now and I'm <u>I'm so sorry</u> that I can't give you a absolute one hundred percent answers, particularly with what's happening to you.</i>
Contains politeness tag at end/after behaviour	Example 19: Candidate 2, scenario 9 DOC <i>Oh. Okay. And, what was the titles time course of that? <u>If you don't mind me asking.</u></i>
Behaviours that invite the patient to choose what happens in the consultation	
Modal politeness (“can”/ “could”/ “may”/ “would” etc)	Example 20: Candidate 34, scenario 6 DOC <u>Would that be something that you would like?</u>
Behaviours that instruct the patient on how to progress	
Modal politeness (“can”/ “could”/ “may”/ “would” etc)	Example 21: Candidate 69, scenario 4 DOC <i>The thing to support that is, er, <u>if you would agree on that with me</u> is that for 10 years we are still...</i>

8.2.1 Frequencies

Table 8.4 shows the frequencies of the sub-categories of deference found in Communication Skills and Ethics, in compared against the findings for the same sub-categories in ‘History-taking’.

Table 8.4: Frequencies of deference in signalling behaviours across ‘Communication Skills and Ethics’ (N=76) and ‘History-taking’ (N=78) consultations

Deference	No. linguistic features found in types of behaviour			Total features
	Inform	Invite	Instruct	
<i>Communication Skills and Ethics</i>				
Modal politeness	131	48	1	180
Contains politeness tag at start/before behaviour	46	0	0	46
Contains politeness tag midway	3	0	0	3
Contains politeness tag at end/after behaviour	12	0	0	12
Total station behaviours	1475	212	83	1770
<i>History-taking</i>				
Modal politeness	73	8	2	83
Contains politeness tag at start/before behaviour	47	0	2	49
Contains politeness tag midway	5	0	0	5
Contains politeness tag at end/after behaviour	35	0	1	36
Total station behaviours	895	52	27	974

Inform signalling behaviours were just as likely to contain modal verbs as a form of deference in ‘Communication Skills and Ethics’ as they would in ‘History-taking’ (131/1475 and 73/895 respectively, both 8%). Invite behaviours were more likely to contain modal politeness in ‘Communication Skills and Ethics’ (48/212, 23%) than in ‘History-taking’ (8/52, ‘15’%). While there were more instruct behaviours in ‘Communication Skills and Ethics’, there were proportionately fewer instances of linguistic deference (1/83, ‘1’%).

8.3 Effect of signalling behaviour: mitigation or intensification

Table 8.5 shows the sub-categories of linguistic features that could have the potential to reduce or increase the effect of a signalled change on the flow of the consultation, with examples from ‘Communication Skills and Ethics’.

Table 8.5: Mitigation/intensification in signalling behaviours in ‘Communication Skills and Ethics’ consultations (N=76)

Mitigation/intensification	Example
<i>Behaviours that inform the patient about what is happening in the consultation</i>	
‘Just’ mitigation	Example 22: Candidate 3, scenario 5 DOC <i>Sure. Um. Can I just, um, ask a few more questions before I explain?</i>
Adjective/adverb mitigation	Example 23: Candidate 26, scenario 5 DOC <i>Uh, it’s just questions we ask <u>normally</u> of everyone.</i>
Adjective/adverb intensification	Example 24: Candidate 42, scenario 2 DOC <i>Especially since you didn’t have any symptoms at all. I know this, this is a <u>great</u> shock.</i>
<i>Behaviours that invite the patient to choose what happens in the consultation</i>	
‘Just’ mitigation	Example 25: Candidate 73, scenario 3 DOC <i>Okay. Can I just clarify, just, you know, what you’ve taken back from this whole conversation, what you’ve understood?</i>
Adjective/adverb intensification	Example 26: Candidate 9, scenario 1 DOC <i>Mm-hmm, yeah. Anything you want me to explain <u>further</u> or <u>clarify</u> more?</i>
<i>Behaviours that instruct the patient on how to progress</i>	
‘Just’ mitigation	Example 27: Candidate 45, scenario 9 DOC <i>Alright. Let me <u>just</u> explain it. Eh, you had previous x-rays, eh.</i>
Adjective/adverb mitigation	Example 28: Candidate 27, scenario 4 DOC <i>If you just give me a <u>little</u> synopsis.</i>
Adjective/adverb intensification	Example 29: Candidate 12, scenario 1 DOC <i>If I’m going <u>too fast</u> or giving you <u>too</u> much information then stop me and and cut me in between.</i> PAT <i>Mm hm, yeah no.</i> DOC <i>Mm hm, yeah no.</i> PAT <i>Mm hm.</i> DOC <i>Mm hm, yeah no.</i>

8.3.1 Frequencies

Table 8.6 shows the frequencies of language that could mitigate or intensify the effect of a signalled change across both ‘Communication Skills and Ethics’ and ‘History-taking’.

Table 8.6: Frequencies of mitigation/intensification in signalling behaviours across ‘Communication Skills and Ethics’ (N=76) and ‘History-taking’ (N=78) consultations

Mitigation vs intensification	No. linguistic features found in types of behaviour			Total features
	Inform	Invite	Instruct	
<i>Communication Skills and Ethics</i>				
‘Just’ mitigation	103	10	8	121
Adjective/adverb mitigation	140	8	0	148
Adjective/adverb intensification	297	16	3	316
Total station behaviours	1475	212	83	1770
<i>History-taking</i>				
‘Just’ mitigation	132	3	6	141
Adjective/adverb mitigation	149	3	3	155
Adjective/adverb intensification	87	3	0	90
Total station behaviours	895	52	27	974

Overall, mitigation occurred more frequently in ‘History-taking’ (296/974, 30%) than in ‘Communication Skills and Ethics’ (269/1770, 15%). However, intensification was more likely in ‘Communication Skills and Ethics’ (316/1770, 18%) than in ‘History-taking’ (90/974, 9%). The word ‘just’ was used to mitigate the signalling behaviour across inform, invite and instruct behaviours in both stations. In inform behaviours, it was less likely to be used in ‘Communication Skills and Ethics’ (103/1475, 7%) than in ‘History-taking’ (132/895, 15%).

8.4 Specificity or vagueness

Specific and vague aspects of language were used in the same way in ‘Communication Skills and Ethics’ as they were in ‘History-taking’. Table 8.7 presents a summary of these two elements and examples from ‘Communication Skills and Ethics’.

Table 8.7: Specificity/vagueness in signalling behaviours in ‘Communication Skills and Ethics’ consultations (N=76)

Specificity/vagueness	Example
Behaviours that inform the patient about what is happening in the consultation	
Includes specific language	Example 30: Candidate 48, scenario 1 DOC <i>I'll give you a <u>detailed information leaflet about the condition</u></i>
Includes vague language	Example 31: Candidate 14, scenario 5 DOC <i>Can I ask you <u>some other questions</u>? So, about the other thing that you mentioned, it would be drugs.</i>
Behaviours that invite the patient to choose what happens in the consultation	
Includes specific language	Example 32: Candidate 60, scenario 9 DOC <i>So you're happy with <u>the plan</u> now?</i>
Includes vague language	Example 33: Candidate 11, scenario 1 DOC <i>Yeah, <u>was there anything you wanted me to address today?</u> I know it's a lot of information we need to take.</i>
Behaviours that instruct the patient on how to progress	
Includes specific language	Example 34: Candidate 11, scenario 1 DOC <i>So I don't want you to worry <u>about your [relative]</u>.</i>
Includes vague language	Example 35: Candidate 2, scenario 9 DOC <i>My name is [doctor name] I was asked to have a <u>bit of a chat with you</u>.</i>

8.4.1 Frequencies

As in ‘History-taking’ signalling behaviours could contain both specific and vague elements of language. The combined frequencies in Table 8.8 therefore exceed the total number of signalling behaviours found in ‘Communication Skills and Ethics’.

Table 8.8: Frequencies of specificity/vagueness in signalling behaviours across ‘Communication Skills and Ethics’ (N=76) and ‘History-taking’ (N=78) consultations

Specificity vs vagueness	No. linguistic features found in types of behaviour			Total features
	Inform	Invite	Instruct	
<i>Communication Skills and Ethics</i>				
Specific language (including deixis)	1137	208	78	1423
Vague language	750	109	30	889
Total station behaviours	1475	212	83	1770
<i>History-taking</i>				
Specific language (including deixis)	612	25	23	660
Vague language	330	27	4	361
Total station behaviours	895	52	27	974

The majority of inform behaviours across both stations contained specific language, or deixis where the reference was clear in context (1137/1475, 77% in ‘Communication Skills and Ethics’ and 612/895, 68% in ‘History-taking’). While the majority of invite behaviours in ‘Communication Skills and Ethics’ contained specific language (208/212, 98%), over half the behaviours also contained vague language (109/212, 51%). Instruct behaviours were more likely to contain specific language across the stations (78/83, ‘94%’ in ‘Communication Skills and Ethics’ and 23/25, ‘92%’ in ‘History-taking’).

8.5 Provides reason for signalled change

Signalling behaviours in ‘Communication Skills and Ethics’ were able to provide a reason for the signalled content by providing a rationale or suggesting obligation, in the same way they did in ‘History-taking’. Table 8.9 gives a summary of the two sub-categories and examples from ‘Communication Skills and Ethics’.

Table 8.9: Provides reason in signalling behaviours in 'Communication Skills and Ethics' consultations (N=76)

Reason/obligation	Example
<i>Behaviours that inform the patient about what is happening in the consultation</i>	
Provides rationale	Example 36: Candidate 11, scenario 1 <i>DOC Okay. So if we just go through what we've talked about today, <u>so that I make sure that we've got everything, um, together and we've addressed all of your concerns</u></i>
Suggests obligation	Example 37: Candidate 41, scenario 2 <i>DOC Okay. So, okay. I've got information, erm, from my consultant, <u>who asked me to speak to you, today.</u></i>
<i>Behaviours that invite the patient to choose what happens in the consultation</i>	
Provides rationale	Example 38: Candidate 12, scenario 1 <i>DOC Okay? <u>Just stop me at any point if it gets too confusing.</u></i>
Suggests obligation	Example 39: Candidate 14, scenario 5 <i>DOC And we've kind of found another question which <u>we need to answer</u>, which is why have you got this bug?</i>
<i>Behaviours that instruct the patient on how to progress</i>	
Provides rationale	Example 40: Candidate 1, scenario 3 <i>DOC So let me just try to make a little summary about what's been happening <u>so that I can make sure we're on the, on the right page.</u></i>

8.5.1 Frequencies

Frequencies for the two sub-categories of providing reason can be found in table 8.10, comparing findings from 'Communication Skills and Ethics' with findings from 'History-taking'.

Table 8.10: Frequencies of rationale/obligation in signalling behaviours across ‘Communication Skills and Ethics’ (N=76) and ‘History-taking’ (N=78) consultations

Rationale vs obligation	No. linguistic features found in types of behaviour			Total features
	Inform	Invite	Instruct	
<i>Communication Skills and Ethics</i>				
Provide rationale	83	10	11	104
Suggest obligation	56	1	0	57
Total station behaviours	1475	212	83	1770
<i>History-taking</i>				
Provide rationale	111	22	6	138
Suggest obligation	44	1	0	45
Total station behaviours	895	52	27	974

All three major types of behaviours were proportionally less likely to show a rationale in ‘Communication Skills and Ethics’ than they would in ‘History-taking’. Under a tenth of inform behaviours (139/1475, 9%) in ‘Communication Skills and Ethics’ provided a rationale or suggested obligation, compared to almost a fifth of inform behaviours in ‘History-taking’ (155/895, 17%). Invite behaviours showed the biggest change, with 5% (11/212) in ‘Communication Skills and Ethics’ compared to 44% in ‘History-taking’ (23/53). Instruct behaviours also showed lower proportions in providing rationale in ‘Communication Skills and Ethics’ (11/83, 13%), compared to ‘History-taking’ (6/27, 22%).

8.6 Temporal reference

Examples from ‘Communication Skills and Ethics’ of time-related language that showed when the signalled change would happen can be found in table 8.11.

Table 8.11: Temporal language in signalling behaviours in ‘Communication Skills and Ethics’ consultations (N=76)

Temporal reference	Example
Behaviours that inform the patient about what is happening in the consultation	
Contains time-related language	Example 41: Candidate 50, scenario 5 DOC <i>All right. So, actually, you can ask me any questions <u>now or any time</u>.</i>
Behaviours that invite the patient to choose what happens in the consultation	
Contains time-related language	Example 42: Candidate 35, scenario 1 DOC <i>Have you any questions just now?</i>
Behaviours that instruct the patient on how to progress	
Contains time-related language	Example 43: Candidate 63, scenario 8 DOC <i>Okay. Certainly what happens, this [condition], it's. Let me explain, if you give me a minute.</i>

8.6.1 Frequencies

Table 8.12 shows the frequency of time-related language in the signalling behaviours in both ‘Communication Skills and Ethics’ and ‘History-taking’.

Table 8.12: Frequencies of temporal aspects in signalling behaviours across ‘Communication Skills and Ethics’ (N=76) and ‘History-taking’ (N=78) consultations

Temporal aspect	Inform	Invite	Instruct	Total features
Communication Skills and Ethics				
Contain temporal aspect	191	47	33	271
Total station behaviours	1475	212	83	1770
History-taking				
Contain temporal aspect	177	15	4	196
Total station behaviours	895	52	27	974

Inform behaviours were less likely to include language that showed the patient when the signalled change would happen in the ‘Communication Skill and Ethics’ consultations (191/1475, 13%) than in ‘History-taking’ (177/895, 20%). Invite behaviours were just as likely to include time-related language across both stations (47/212, 22% in ‘Communication Skills

and Ethics' and 15/52, '29%' in 'History-taking'). Instruct behaviours were more likely to include time-related language in 'Communication Skills and Ethics' (33/83, 40%) than in 'History-taking' (4/27, 15%).

8.7 Summary

In this chapter we have seen that the linguistic features seen in 'History-taking' were found in 'Communication Skills and Ethics'. The analysis of person-focus shows that doctors remain the focus of inform behaviours across both stations, while invite and instruct behaviours most likely feature the patient as the main subject across 'Communication Skills and Ethics'. Linguistic politeness is not a common feature in any of the behaviours in either station. Signalling behaviours were more likely to contain language that mitigated the change ahead in 'History-taking', while containing more intensifying language in 'Communication Skills and Ethics'. Both inform and invite behaviours could contain specific and vague language to prepare the patient, while instruct behaviours were more likely to be specific. Providing a reason in signalling behaviour was more likely in 'History-taking' than in 'Communication Skills and Ethics'. Signalling behaviours tend not to include language that shows when the signalled change will happen, apart from instruct behaviours in the 'Communication Skills and Ethics' station.

Chapter 9: Discussion

This study has explored the relationship between power and structure in the consultation, by investigating how doctors involve patients in the construction of the conversation. In Chapters 3-8 we presented the results of the analysis conducted on the structure, verbal signalling behaviours and language used in these verbal signalling behaviours, across both 'History-taking' and 'Communication Skills and Ethics' stations. In this chapter we will interpret these findings, framing them within the literature review conducted in Chapter 1 and comparing findings from consultations in the two stations. Discussion will be presented in three stages. The first section will interpret the findings of the structure analysis, discussing how the presence and clarity of phases played a part in the sharing of power. The second section will discuss the relationship between the verbal signalling behaviours and the power in the consultation. The third section will discuss the results of the lexicogrammatical analysis conducted on all 2744 verbal signalling behaviours found in the data, discussing through the lens of Politeness Theory how the language doctors used in these behaviours manifested power. This chapter will then conclude with a brief discussion regarding the strengths and limitations of the research.

9.1 Structure of the medical consultation

9.1.1 Overview

Patient-centred care is the underpinning philosophy of healthcare across the UK and beyond (National Institute for Health and Care Excellence, 2016; Institute of Medicine 2001). To ensure that healthcare addresses patients' needs, wishes, concerns and values, patient-centred behaviours such as working in partnership in with patients and shared decision making are accepted as the national standard (General Medical Council 2013; Montgomery v Lanarkshire, 2015). As patient-centred care is promoted in educational models for doctors and medical students, this project has implications across all forms of medical care.

In Chapter 1 we saw that models promoting efficient patient-centred care highlighted the importance of an organised consultation structure into which the patient perspective could be incorporated, thus facilitating patient empowerment (Frankel and Stein, 1999; Cole and Bird, 2000; Fortin et al. 2013; Silverman et al. 2013). It was therefore postulated that doctors would give the consultation a predictable and clear structure containing organised and logically sequenced phases, and then share this with the patient. The structure of the consultation reflects the overall aims and plan of the conversation, which are always framed as the tasks of the doctor (Byrne and Long, 1976; Frankel and Stein, 1999; Cole and Bird, 2000; Silverman et al., 2013), and as patients are not taught the structure of the consultation, doctors sharing this knowledge may provide opportunities for patient empowerment. Given the context of the dataset, this was particularly relevant for two reasons. Firstly, the consultations are designed to represent a first outpatient appointment with a doctor that the patient has never met before, and therefore the doctor may not be able to assume the amount of knowledge about the structure of a medical outpatient consultation that exists within the patient's epistemic domain. Secondly, candidates sitting the examination were experienced doctors seeking to gain membership of the Royal Colleges of Physicians, and were therefore were subject to marking criteria. As part of the marking criteria under 'Clinical Communication Skills' for both 'History-taking' and 'Communication Skills and Ethics' stations, doctors were expected to explain 'relevant clinical information in an accurate, clear, structured... manner', rather than providing 'poorly structured' information (MRCPUK, 2019). As outlined in Chapter 2, the uniform length of time available to all candidates (14 minutes) and the use of a finite number of set scenarios allows for the comparison of structure created by doctors within controlled conditions, and how different doctors responded to the same patient scenario.

We will begin the discussion on structure by recapping the main points from Chapters 3 and 6, which reported on the findings of the analysis of structure in the 'History-taking' and 'Communication Skills and Ethics' stations.

Firstly, while Byrne and Long (1976) and ten Have (1989) paved the way for examining structure in observed consultations, the research community did not push this innovation forward. There has been no subsequent follow up to this research over the last thirty years, nor an established methodology developed for examining consultation structure. Despite this, many educational models defined the recommended structure of the medical consultation using the blueprints of Byrne and Long. The new methodology created and described in Section 2.2.2 presents an innovative approach to viewing the consultation structure, by revisiting the phases coined by Byrne and Long through the Calgary-Cambridge interpretation. This method synthesises the original Byrne and Long findings with the recommendations from the educational models, presenting an innovative approach to analysing the structure of any medical consultation.

Secondly, phases of the consultation very similar to those observed by Byrne and Long (1976) were found across the two stations. All the elements of structure that doctors created in either station could be explained by educational models such as the Calgary-Cambridge Guide. However many consultations omitted at least one phase, with the Summary and Closing phases most likely to be omitted. Each of the six phases was omitted at least once throughout the entire dataset. The omission of the Initiating phase, or the Gathering Information phase during a 'Communication Skills and Ethics' consultation counters the argument that doctors ran out of time, as these are phases that occur earlier in the consultation.

Thirdly, phases were broadly intertwined across the two stations, rather than occurring in discrete stages: Explanation and Planning were the most likely to be intertwined together, although all other phases apart from the Initiating were also intertwined across the data.

Thirdly, the proportion of talk allocated to each phase was related to the tasks set by the station: in 'History-taking', consultations were dominated by the Gathering Information phase, while the lion's share of talk was allocated to the Explanation and Planning phases in the 'Communication Skills and Ethics' station.

Fourthly, across both stations, consultations were unlikely to be completed by the doctor within the 14-minute allocation, with one in five consultations completed in the ‘History-taking’ station and one in four completed in the ‘Communication Skills and Ethics’ station.

Finally, we reported that varying structure was seen in consultations where doctors were set the same scenarios, featuring the same patients presenting the same problems and symptoms, all within the same 14 minute time allocation.

The next five subsections will discuss these findings and the implications for power-sharing between patient and doctor.

9.1.2 Presence of phases

This subsection discusses the findings regarding the presence and absence of phases in the ‘History-taking’ and ‘Communication Skills and Ethics’ stations, and how they relate to the power balance in the consultation.

The consultation structure identified in the two stations provides evidence of the longevity of the phase structure identified by Byrne and Long (1976). Their observations and naming of the consultation phases permeate the current clinical communication skills models and can still be observed in practice, as evidenced by the consultations in Chapters 3 and 6. Applying the tasks of a commonly used educational model in the UK, the Calgary-Cambridge Guide to the Medical Interview, onto the ‘History-taking’ and ‘Communication Skills and Ethics’ consultations, showed that the Byrne and Long phases are present and relevant in current medical practice: there were no elements of the consultation that could not be explained by the Calgary-Cambridge structure. This adds weight to the suggestion by Silverman et al. that the proposed tasks of the consultation are applicable regardless of the type of conversation that will happen during the consultation.

Certain phases consistently featured in the consultations across both ‘History-taking’ and ‘Communication Skills and Ethics’ stations. Table 6.2 in Chapter 6 showed that not a single consultation in the former omitted the Gathering Information phase, while in the latter, Explanation and Planning was included in every single consultation. These phases contain the elements of the consultation that meet the demands of the station: ‘taking a history’ is synonymous with Gathering Information, while scenarios that require the breaking of bad news, or responding to a complaint, or educating a patient all naturally focus on the Explanation and Planning phase. The omnipresence of these phases is therefore not surprising and easily explained. However, key to these points is that these are the tasks that the doctor must complete. Stepping back and acknowledging that these are the demands of the consultation within an examination setting highlights that these are the priorities of the doctor in this context, placing the doctor’s agenda as the central force driving the creation of the consultation. Taking this perspective positions the patient in more of a passive role, for example as a source of information in ‘History-taking’, and a recipient of information in ‘Communication Skills and Ethics’, thus reducing the patient of power and agency.

Moving onto the phases that were absent from the consultation moves the discussion onto deviations from what was recommended by the Calgary-Cambridge Guide to the Medical Interview. Table 6.1 in Chapter 6 showed that less than a third of the ‘History-taking’ consultations and less than a fifth of the ‘Communication Skills and Ethics’ consultations contained all the phases. The majority missed either the Closing or Summary, or in several cases, both. Omission of the Gathering Information phase was also found in the ‘Communication Skills and Ethics’ station.

Given that the omissions of the Initiating and Gathering Information phases were too few to make any meaningful inferences, we will start by discussing the implications omitting the Summary may have on sharing power. Table 6.2. in Chapter 6 showed that the Summary phase was omitted in nearly a third of the ‘History-taking’ consultations, and in nearly two-

thirds of the ‘Communication Skills and Ethics’ consultations. The Calgary-Cambridge Guide to the Medical Interview underlines the importance of a summary at the end of Gathering Information, to ensure there is no confusion going into the Explanation and Planning phase. This is of mutual benefit to both patient and doctor: summarising provides patients with the opportunity to correct information or fill in gaps before the doctor provides a diagnosis (Silverman et al 2013): for doctors, it ensures accuracy of information and provides an opportunity to check that all relevant information has been gathered (van Thiel et al., 2000). While the emphasis may be for the doctor to summarise to ensure that the information elicited is accurate and complete, patients may use the opportunity to raise important concerns that may have been previously overlooked. This provides an opportunity to empower the patient, ensuring their needs are part of the conversation moving forward.

Another important omission was the Closing phase. As seen in Table 6.2 in Chapter 6, just under half the consultations omitted the Closing phase, which provides key points for consolidating the agreed plan and checking for further concerns that need to be addressed before the meeting ends. As with the Summary, the omission of the Closing phase removes an opportunity for the patient to raise concerns that may have been omitted or remain unresolved, or to correct any information provided by the doctor (Silverman et al., 2013: 25). This phase includes confirmation of the agreed next steps, including making plans for how to seek help if the plan is not working, known as ‘safety netting’. Omitting the phase therefore reduces opportunities for patients to be empowered to ensure all their needs have been met.

In this subsection we have discussed the implications that the presence and absence of phases may have on how power is shared in the consultation. Phases containing the tasks that were relevant to each station were never omitted, such as Gathering Information for ‘History-taking’ and Explanation and Planning for ‘Communication Skills and Ethics’, highlighting the priority placed on these tasks and the priority placed on the doctor’s agenda. The omission of phases resulted in visible unpredictability. This suggests that regardless of

any pre-existing knowledge a patient may have had in their epistemic domain about the structure of the medical consultation, signalling would be needed to share the structure that the individual doctor was applying. Much like a meeting agenda, showing the plan for the consultation enables the patient to fully participate. In the following section we will go beyond the presence of phases to consider the sequence of phases present in the consultations, and how discrete or intertwined they were played a role in sharing or withholding power.

9.1.3 Clarity of structure

We considered the clarity of structure on two levels: did the phases appear in the chronological order proposed by the Calgary-Cambridge Guide to the Medical Interview, and were phases discrete or were they intertwined amongst each other? The Calgary-Cambridge Guide to the Medical Interview recommends a logical progression through the sequence of phases, in the following order: Initiating the consultation, Gathering information, Physical Examination (when present), Explanation and Planning and Closing the consultation. Other clinical communication models that promote a similarly phased structure also recommend progression in stages (Frankel and Stein, 1999; Cole and Bird, 2000; Makoul, 2001). There are no mentions of returning back and forth between phases in the clinical communication models, which does not imply that it is not recommended: the lack of discussion on this feature in the models renders the position unclear. While a logical sequence is taught in clinical communication skills models, Byrne and Long stated that 'The logical form finally agreed on rarely appears in practice and should be seen as an ideal' (1976: 15). They proposed that if the doctor 'has progressed through his examination of the patient and is detailing treatment and then suddenly asks a diagnostic question or even a question about why the patient is there at all, he is moving the consultation back in sequence because he is not satisfied with the position he has' (1976: 23). These observations therefore place the logical structure of the consultation secondary to the satisfaction the doctor has with the information they have.

This weaving back and forth between phases was also observed by ten Have (1989), who found 'many deviations from it that seem to be quite acceptable to the participants'. In line with Byrne and Long, ten Have described these observations as the 'Ideal Sequence' precisely because it was not the actual sequence he saw occurring. While ten Have does not expand on the phases that are returned to, he states that problems arising later in the consultation are associated with returns to earlier phases – the 'problems' he suggests could very well be the very same issues of doctor satisfaction identified by Byrne and Long.

This observation was also seen in the current dataset, where returns to the Gathering Information phase after Explanation and Planning had been introduced were seen across both 'History-taking' and 'Communication Skills and Ethics'. This raises an interesting point about the Byrne and Long proposal of phase structure that underpins clinical communication skills models: the sequence of phases of the consultation. While these were based on their observations of UK general practice consultations and the educational models based their recommendations on these observations, there is a gap between the proposed logical sequence and the observed. The educational models clearly advocate a chronological sequence of phases to enable an efficient and clear structure to the conversation, but there is no guidance on whether or not these are to be expected as discrete phases. Indeed, the initial observations of Byrne and Long suggest deviations from the chronological sequence is the norm, while ten Have proposed they were quite acceptable.

The clarity of consultation structure varied across both 'History-taking' and 'Communication Skills and Ethics'. As reported in Chapters 3 and 6, consultation structure was determined 'clear' if the consultation contained all the phases proposed by the Calgary-Cambridge Guide and if they completed passage through these phases uninterrupted and in the chronological sequence proposed by the guide. The visualisations show that the majority of doctors moved back and forth between phases in both stations, and that a number contained phases that did not appear in the order proposed by the guide. Across the 154 consultations analysed, only

one featured all the phases in the sequence proposed by the Calgary-Cambridge Guide, with no intertwining or weaving back and forth between phases.

The first criterion for clarity of structure was progression through the phases in the chronological sequence proposed by the Calgary-Cambridge Guide (2013: 18). While the majority of consultations across both stations featured phases that did not follow this sequence, there are differences to consider: just over half the consultations in 'History-taking' featured chronologically ordered phases, which is a higher proportion than those in 'Communication Skills and Ethics', as was shown in Table 6.4 in Chapter 6. However, virtually all consultations started with the Initiating phase, where greetings and introductions occur, and where educational models propose the agenda be established in order to reach agreement of joint priorities for discussion (Frankel and Stein, 1999; Makoul, 2001; Fortin et al., 2013; Silverman et al., 2013). From the perspective of power, this has one major implication. Firstly, we have seen that educational models propose logical ordering of phases as a means of working towards opportunities for the patient agenda to be launched (Frankel and Stein, 1999; Silverman et al., 2013). Remembering that almost all the consultations began with the Initiating phase where agenda setting takes place it is not an unreasonable expectation for the patient to receive information about how the consultation will unfold at the outset. This also suggests potential for there to be space for the patient agenda to be incorporated into the consultation at the outset, although these assumptions cannot be made without examining the doctor talk taking place within this phase.

The second criterion for identifying 'clear' consultations was if phases occurred in one, discrete instance rather than being intertwined. The visualisations of consultation structure in Chapters 3 and 6 shows that across both 'History-taking' and 'Communication Skills and Ethics' stations Explanation and Planning phases were the two most likely to be found intertwined. While the Calgary-Cambridge Guide proposes this as one phase, it also splits the phase into discrete 'Explanation' and 'Planning' halves, outlining progression through the two chronologically, as

per their main content: defining the medical problem the patient has sought help with, and then devising a practical plan to address it. This reminds us of the justification for the splitting of the phase into two as outlined in Section 2.2.1 in Chapter 2. However, we found three-quarters of consultations in ‘History-taking’ contained intertwined Explanation and Planning phases, while in ‘Communication Skills and Ethics’ they did not occur as discrete phases at all, most frequently intertwined with each other but also with Gathering Information, Summary and Closing. In terms of power, we could argue that the intertwining of phases presents multiple opportunities for patients to exercise their right to steer the conversation. The forays back and forth between phases presents opportunities for patients to raise concerns or needs that may have been overlooked in the first progression through the phase. Viewed from this perspective recalls the observations ten Have found regarding acceptable deviations in structure (1989: 118). In this instance, a flexible approach to phases appears to favour sharing of power, putting it at odds with educational models and the guidelines for the examination, stating candidates are expected to ‘explain relevant material in an accurate, clear, and structured manner... lead a structured interview’ (MRCPUK, 2019). With this in mind, whether phases are discrete or intertwined may be of less importance, as long as the structure the doctor creates is signalled to the patient. Ley (1979) also recommended clear signalling as one of the key strategies to orient the patient to the information that was to come, in order to aid the patient’s understanding and recall of medical advice. This was of particular value during the phases of the consultation where the doctor would explain the medical problem and the steps taken to address it. It is important to remember at this stage that proposing an ideal approach is not the aim of this project: the aim of the analysis was to determine what structure existed in order to examine how it was signalled to the patient.

In this subsection we have discussed the implications clarity of phase structure has on the power sharing between patients and doctors. A chronological progression through the phases provides patients with stepping stones into the consultation, if this progression is known.

Conversely, a fluid weaving through phases may present patients with multiple opportunities to bring up preferences and needs. In the next section we will discuss how the amount of talk allocated to each phase impacts how power is shared in the consultation.

9.1.4 Allocation of talk to each phase

The proportion of talk allocated to phases between ‘History-taking’ and ‘Communication Skills and Ethics’ can also be explained by the demand characteristics of each station. This explanation is therefore similar to the discussion regarding the presence of phases in each station: Gathering Information was found in all the ‘History-taking’ consultations as it is the crucial phase in the doctor’s task of ‘taking a history’ – so it is unsurprising that most of the talk in each consultation was allocated to this phase. Equally, Explanation and Planning contain the tasks most suited to a consultation where a doctor must address an ethical dilemma, respond to a complaint or break bad news (Silverman et al. 2013: 224). It is therefore found in all the ‘Communication Skills and Ethics’ consultations, with the highest proportion of talk allocated to it in each consultation when treated as one phase. Given the parallels between the amount of talk allocated and the presence of phases per station, the implications for power are also similar. The emphasis in both stations is on the doctor as the focus of the examination, as the main agent conducting the tasks. The language of the station title ‘History-taking’ overtly signals the patient as a passive provider in the consultation (Lloyd, Bor and Noble 2019: 31), while the tasks in the ‘Communication Skills and Ethics’ station focus on the two core areas of professional practice that the doctor is expected to demonstrate. Neither title focuses on the patient’s needs or aims for the consultation.

In this subsection we have seen that the allocation of talk to each phase of the consultation mirrored the presence or absence of the phases as discussed in Section 9.1.2, and that there are similar implications for power – namely that the agenda of the doctor is observed to take

precedence. In the next discussion we will see how the completion of consultations impacted on the power balance in the consultation.

9.1.5 Completion of consultations

A surprise finding was the rate of completion across the two stations. In the ‘History-taking’ station, only one in ten doctors completed the consultation within the allocated fourteen minutes, while a quarter completed the consultation in the ‘Communication Skills and Ethics’ station. The rate of consultation completion suggests different approaches to each station, leading to these varying completion rates. Furthermore less than half the consultations in the ‘History-taking’ consultations contained a Closing phase while just over half included the Closing phase in ‘Communication Skills and Ethics’.

In the ‘History-taking’ station, the guidelines to candidates suggest a systematic and thorough medical history must be elicited, including identification of the patient’s concerns and agreement of a management plan, the latter being a key feature of the Closing phase. Meanwhile, one of the skills being assessed linked to one of the five marking criteria ‘managing patient welfare’ suggests that one of the reasons for failure may be ‘running out of time to ask the patient/relative if they have any questions and to answer them’ (MRCPUK, 2019). Taken together, it is clear from the guidance to candidates that it is expected that a full consultation will be conducted, to conclude within the time limit, including the task of responding to patient questions. The design of the simulated consultation is intended to mirror the expectations of a ‘real’ outpatient clinic consultation, which is one of the daily professional activities of doctors taking this examination. However, the evidence from this station suggests that the main focus implied by the station title – to gather a history – overrides the more fundamental aspect of finishing the consultation with the patient.

Less than half the consultations across both stations contained the Closing phase, with just under a fifth of all consultations completed within the fourteen minute allocated. This is a

surprising finding, given that the candidates were all experienced, practising professionals and that in clinical practice, all consultations must be completed.

There are implications for the completion of the consultation and power. During the Closing phase, the Calgary-Cambridge Guide recommends the eliciting of final questions to ensure all the patient needs and preferences have been met, and that information provided is understood (2013: 217). As discussed in Section 9.1.2, the final stage of the consultation is important for consolidation of the agreed plan going forward, and as such is a key element of the consultation for patient empowerment. The absence of this phase shows a reduction in the space available for patient empowerment to take place. Consultations that contained the Closing phase but were not completed at the end of the fourteen minutes may also indicate that not all patient needs or preferences have been met, or that information has been fully understood. These two possibilities show reduced patient empowerment at the end of the consultation.

In this subsection we have discussed how consultations completed in the fourteen minutes allocated included the Closing phase, where patient empowerment is key for ensuring that the plan agreed during the rest of the consultation is taken forward. That the majority of consultations did not complete the consultation adds to the unpredictability of the structure for the patient. Furthermore, this does not align with the expectations from the educational models or assessment guidance. In the final section on structure we will discuss how the structure shown in the different scenarios provides more information on the relationship between power and structure.

9.1.6 Scenario comparison

Variation was seen in the consultations produced by doctors sitting the same scenarios across the 'History-taking' station. All the previous variations were seen among these consultations, including omitted phases, differences in proportions of the consultation allocated to each

phase, varying progression through the sequence of phases and varying levels of clarity in the structure. Doctors are therefore creating visibly different structures when presented with the same patient presenting the same symptoms, concerns and goals, all within a controlled fourteen minute allocation.

Doctors exposed to the same scenarios in the 'Communication Skills and Ethics' station produced consultation structures that varied greatly, although there were some elements of structure that could be considered particular to each scenario. For example, the eight candidates in Scenario 2 contained either very short Gathering Information phases or none at all in the first half of their consultation. This would then be followed by chunks of Explanation and Planning. Nonetheless, these consultations still varied in the proportion of talk allocated to each phase, the number and types of phase omitted and whether the doctor passed through the phases in chronological order.

While consultations grouped by scenario in 'Communication Skills and Ethics' shared some common elements of structure, the same cannot be said for the consultations grouped by scenarios in 'History-taking': there were no scenario-defining features of structure found. We could propose therefore that the characteristics of each scenario in the 'Communication Skills and Ethics' station played a greater role in shaping the structure of the consultations than those in 'History-taking'. An additional interpretation could be that the structure created during a consultation focusing on 'History-taking' is more consistent, whereas the structure created during scenarios that fall under 'Communication Skills and Ethics' is more flexible.

The lack of predictability in the consultation structure for doctors sitting the same scenarios indicates the need for the consultation structure to be shared in order to empower patients to raise and enact their agenda. Even patients who regularly experience the medical consultation would not be able to predict every possible structural deviation that was observed to occur. The fact that the same patient presenting the same symptoms, concerns and goals could be

presented with varying structure depending on the doctor clearly underlines the need for each doctor to signal what will be happening in each consultation.

In this subsection we have seen the implications for power based on the scenarios in each station. We will now summarise the main points of discussion before moving onto the second section, discussing the relationship between verbal signalling behaviours and power.

9.1.7 Summary of structure discussion

This section discussed the relationship between the structure seen in the ‘History-taking’ and ‘Communication Skills and Ethics’ stations, and the implications for empowering the patient to take an active role in the consultation. A lack of predictability was seen in the consultation structure. The majority of consultations omitted phases of the consultation that contained tasks that by definition explicitly gave patients the opportunity to steer the conversation (Summary and Closing), or allocated a small amount of talk to these phases when they were present (Initiating), contributing to this unpredictability. This lack of defined structure, containing certain elements in a certain sequence meant patients could not be expected to find a predictable consultation in their visit to this simulated ‘outpatient appointment’. The visual analysis permitted in Chapters 3 and 6 showed that phases of the consultation where patient empowerment can take place, such as the Initiating, Summary and Closing were omitted or allocated a low proportion of talk. This was in favour of allocating a greater amount of space to phases containing the tasks that met the priorities outlined by the station titles, such as the Gathering Information, Explanation and Planning phases. However, given that there is no clear guidance from educational models as to what the ‘best’ structure of a consultation is for facilitating patient-centred care, empowerment must therefore rely on what is being signalled to patients about what is happening in the consultation. In the next section, we will discuss the verbal signalling behaviours that were used and how they influenced the sharing of power between patient and doctor.

9.2 Verbal signalling behaviours found in the medical consultation

9.2.1 Overview

Having discussed the structure doctors were creating in the ‘History-taking’ and ‘Communication Skills and Ethics’ station, we will now discuss the behaviours doctors were using to share information about this structure with the patient and the implications this may have had on the power in the consultation. Sharing information about the structure of the consultation provides patients with knowledge about what will happen and can therefore provide opportunities for the patient agenda to be raised (Silverman et al. 2013: 116) These launch points for the patient to introduce preferences, concerns, and values may give the patient the power to steer the conversation forward and shape the content in partnership with the doctor. This section is split into four subsections. The first subsection will discuss the types found in the ‘History-taking’ and ‘Communication Skills and Ethics’ stations, and discuss the implications for power of expanding the taxonomy of verbal signalling behaviours beyond the signpost. Subsection two discusses the functions of these verbal signalling behaviours and their relationship to power. Subsection three will show how verbal behaviours can be used to play a part in sharing and withholding power. Subsection four will interpret how stacks of verbal signalling behaviours were used to play a part in power sharing between patients and doctors. We will then summarise these findings before moving onto the final level of analysis, involving the language used in the verbal signalling behaviours.

9.2.2 Types

As seen in Chapter 1, an analysis of the literature going in to the study identified three verbal signalling behaviours: *invite*, (Fortin et al., 2013), *inform* (Frankel and Stein, 1999) and *instruct* (Cole and Bird, 2000). However, these verbal signalling behaviours had never been placed into these conceptual categories representing power before. This thesis proposed that

these verbal signalling behaviours could be considered to fall on a spectrum of the extent to which power is being shared between doctor and patient: the patient can be *invited* to choose what comes next; they can be *informed* about what is coming next, or they can be *instructed* to simply follow what will come next. Thus the three overarching types of behaviours coined in this project reflected the power in the consultation.

Although a small variety of types of signalling behaviours had been mentioned in the literature either through educational models or observed in doctor-patient consultations as per Table 1.1 in Chapter 1, there was no established method for identifying or classifying these behaviours. The concept of a 'signpost' and its broad definition, as per Table 1.2 in Chapter 1, was used as the starting point for the identification of verbal signalling behaviours. Through developing an innovative methodology and conducting an iterative systematic examination of 154 consultations across the two stations, another layer of taxonomy was created. The *inform* category was split into five different types, based on how much information was being signalled by the behaviour, how explicit the information was, and whether the verbal behaviour signalled what would happen, what had happened, or both. Through the same iterative process, the *invite* category was also split into five further types, according to the type of choice presented to the patient, and the *instruct* category was split into two categories, whether it concerned patient input or patient emotion.

Analysis of the consultations found that the two additional *inform* behaviours showing what was coming next – coined the post without sign and the sign without post – differed in the amount information they provided, where the former was vague about what was coming, and the latter was specific about what was coming but vague about how the patient was to be involved. As we saw from Table 1.1 in Chapter 1, these types of verbal behaviours did not feature in the educational models, as they are essentially half-formed signposts that do not give the patient the full sense of what to expect next in an explicit manner. By containing partial information about what is coming next, or being vague about the content that is to come, these

verbal signalling behaviours give patients some element of preparation but not the full picture.

These therefore do not provide all the information needed for a patient to be fully empowered.

Another new discovery were verbal signalling behaviours that referred backwards to what had just happened – coined the post signpost and the bi-directional signpost. These were not explicitly taught as types of signposting in the Calgary-Cambridge Guide, although reference to the purpose they serve was alluded to: these behaviours ‘make the progression from one section to another’ (2013:116). It was necessary for the purposes of this study to distinguish between a signpost, bi-directional signpost and post signpost for a number of reasons. A signpost is explicitly taught in education models to signal what will happen in the consultation (Silverman et al. 2013). Examples can be found where it does not have to show the progress from one section to another e.g. at the very start of a consultation. The post signpost type had to be created to classify behaviours identified that referred back to what had just happened. This was an entirely new phenomenon that did not meet the definition of a signpost, featuring in the consultations despite not forming part of the educational models. While not pointing forward to what is going happen, these behaviours served to signal structure as they highlight what had been discussed, often as an end point to a section. The bi-directional signpost type had to be created to classify verbal signalling behaviours identified which pointed both forwards to what would happen and backwards to what had already happened. It was alluded to in the educational models, but was not named and provided information in a different way from the signpost and the post signpost. Another newly-christened phenomenon, this behaviour bridged between two phases and shared information about the structure that had happened in relation to what was coming.

The expansion of the inform behaviours beyond the signpost therefore distinguished between types of behaviours that previously fell under the umbrella term ‘signpost’, and showed that doctors use more types of verbal signalling behaviours than are accounted for in educational models. In terms of power, these five verbal signalling behaviours shared power: they

informed the patient about was coming next, and although they did not explicitly invite or discourage a response from the patient.

Inviting involvement from the patient also featured in educational models, as seen in Chapter 1 (Fortin et al., 2013; Silverman et al., 2013). The existence of inviting behaviours shows that doctors can be more explicit about encouraging collaboration and partnership than simply informing patients about what is coming next. Inviting the patient to choose what comes next places the wheel in their hands. Fortin et al. proposed inviting contributions from the patient in the final stages of their model (2013). However, the umbrella term ‘invite contributions’ does not distinguish the type of contributions patients are invited to make, nor the type of choices they are presented.

Through examining doctors’ observed behaviours, the creation of the open choice and limited choice types addressed this by distinguishing whether doctors were presenting a free choice for patients to decide what was coming next, or gave options. This distinction hearkens back Smith and Hoppe (1991): despite doctors empowering patients to make choices about where the consultation goes next, the choice of topics is still limited to the options presented by the doctor. This is therefore a type of limited empowerment, that gives patients the opportunity to choose what comes next but with some guidance. One of the most significant types of giving patients the power to shape the direction of the consultation lies in the ability to decide what is coming next in the broadest sense, not just at the level of topic of discussion. Beyond choosing what comes next, the invite category expanded the type of contributions patients were invited to give: the check-in invited patients to provide additional information to what had previously been discussed, while the test invited an opportunity for the patient to contribute their understanding. As with the limited choice, these behaviours do invite patient contributions but only related to the topics decided by the doctor. The final invite behaviour identified was the rhetorical question, which gave the illusion of inviting the patient to contribute, but was used as platform for the doctor to move forward in the consultation.

Thus these five verbal signalling behaviours ostensibly belonged to the ‘sharing power’ end of the spectrum, although the level of power shared was on a sliding gradient. These new verbal signalling behaviours can empower patients at different levels: from co-constructing the broad structure of the consultation, to making smaller choices about the content to be discussed during the consultation. Whilst this type of analysis has revealed the existence of these behaviours on this sliding scale of empowerment, it does not reveal whether there is an optimum number or location for their use.

The final category of behaviour types were the instruct behaviours, that explicitly directed patient contributions to the consultation. These are only alluded to in educational models (Cole and Bird, 2000) although sometimes considered a positive behaviour when curtailing ‘a talkative patient’ (van Thiel et al., 2000: 20) and thus the role they have in sharing power has not been explored previously. By examining doctors’ behaviours, the expansion of this type distinguished between instructing patients on the input (or not) of information, and on the instruction of emotion they could show going forward. On the spectrum of patient empowerment, the instruct behaviours were the clearest example of verbal signalling behaviours that kept doctor authority over the creation and development of the consultation. The directing emotion behaviour was the most restrictive of behaviours in terms of power, placing control over the emotions that the patient had the right to express.

In terms of power, both ‘History-taking’ and ‘Communication Skills and Ethics’ stations featured more verbal signalling behaviours belonging to the *inform* category. The most common behaviour type found in the ‘History-taking’ station was the signpost, while a third of the 1770 verbal signalling behaviours found in ‘Communication Skills and Ethics’ were signposts. This aligns with its prominence in the Calgary-Cambridge Guide, where it is taught to make organisation overt. While it is not surprising that the signpost was the most frequent verbal signalling behaviour found, it is surprising that there were fewer than expected despite the overall frequency. The Calgary-Cambridge Guide proposes seven different uses for

signposts during the consultation, including the transition between phases, moving from open-ended to closed questions and when soliciting patients' ideas, concerns and expectations (2013: 116). On the basis that all 154 consultations would feature these seven needs for signposts as a minimum, the minimum expected number of signposts would be 1078. The actual observed number of signposts was well below this, at 896. Coupled with the discussion in Section 9.1 about the lack of organised structure consisting of chronologically sequenced and discrete phases, this implies that the opportunities for providing patient involvement (Silverman et al, 2013: 112) and thus patient empowerment were fewer than expected at the structure level, and those that were present were not shared with the patient at the verbal signalling behaviour level.

The proportion of invite behaviours was greater in the 'Communication Skills and Ethics' station, with check-ins being the verbal signalling behaviour responsible for this change. As discussed earlier, the use of the check-in does invite patient participation, but on content that has already been discussed. The proportion of instruct behaviours was also slightly greater in the 'Communication Skills and Ethics' station, owing to the higher numbers of '*don't worry*' phrases and equivalents. These findings combine to show the picture that verbal signalling behaviours encoded with sharing or exerting power occurred more in the scenarios found in 'Communication Skills and Ethics' than in 'History-taking'.

In terms of the power encoded in verbal signalling behaviours, these findings imply that doctors use neutral (inform) behaviours more frequently than behaviours that either share (invite) or exert (instruct) power. This may, however, be an oversimplification of the evidence. At this level regarding the types of verbal signalling behaviours used to share information about the consultation, the story of sharing power is more poignant considering the types of behaviours used in combination with the consultation structure, rather than how many of each type were used.

This subsection has described the creation and development of an original taxonomy of verbal signalling behaviours identified from the data from the systematic and iterative analysis of observed consultation data. These behaviours have been found to exist on a sliding gradient in terms of the extent to which they empower the patient. In the next subsection we will discuss the relationship between power and the functions of these verbal signalling behaviours.

9.2.3 Function

As with the types of verbal signalling behaviours, the various functions of these behaviours appeared in both educational models and in research on observed doctor-patient consultations (Table 1.1 in Chapter 1). And similarly with the types, there was no established methodology for identifying the functions of verbal signalling behaviours, or an existing taxonomy bringing these functions together. As outlined in Section 2.3.4 in Chapter 2, an innovative methodology was created to identify the functions verbal signalling behaviours, using combined principles from Speech Act Theory and Conversation Analysis. The same systematic and iterative approach to identifying verbal signalling behaviour types was taken to identifying their functions. These functions were split into whether they signalled that what was coming was related to the structure of the consultation, the content of what was to be discussed, or if it related to patient concern. More broadly, the distribution of behaviour functions among structure, content and concerns was consistent across the two stations, with the majority of verbal signalling behaviours used to refer to content rather than to the structure of the consultation.

As mentioned in the previous subsection, the demand characteristics of the stations had a guiding hand in the types of verbal signalling behaviours used as well as in the gross structure as described earlier in this chapter in Section 9.1, and the same is true of the functions the behaviours played. The results of the behaviour type by function analysis showed that by far the most frequent purpose of verbal signalling behaviours was to introduce questions in the

‘History-taking’ consultations. This is not unsurprising, given that the main task of the station is to elicit a patient’s medical history, which perhaps prioritises information seeking.

Educational models and observed studies promote agenda setting as an opportunity for the patient agenda to be integrated into the structure of the consultation in tandem with the agenda of the doctor (Meeuwesen et al., 2007; Mauksch et al. 2008; Fortin et al.; 2013; Silverman et al., 2013), and is thus the first opportunity for sharing power in the consultation. As we saw in Section 9.1.3, setting the agenda is a task that occurs in the Initiating phase of the consultation, where we saw the potential for the doctor and patient agendas to be integrated into the consultation structure. On the back of the unpredictable structure of the consultation seen throughout the consultations in ‘History-taking’ and ‘Communication Skills and Ethics’, setting the agenda would be an expected behaviour used to signal to the patients that a fluid structure would be coming. The contrast between the use of ‘agenda setting’ verbal signalling behaviours between the two stations is remarkable: there were almost three times as many ‘agenda setting’ behaviours in ‘Communication Skills and Ethics’, than there were in ‘History-taking’. This was also mirrored by the number of ‘invite construction’ behaviours seen between the two stations: there were almost twenty times as many seen in ‘Communication Skills and Ethics’ than in ‘History-taking’. The change in numbers implies that setting the agenda and providing opportunities for the patient to integrate their preferences and values into the consultation was seen more broadly across the ‘Communication Skills and Ethics’ station than in ‘History-taking’. This provides additional evidence that the ‘History-taking’ consultations were a setting in which doctors shared less power than the ‘Communication Skills and Ethics’ consultations, right from the outset.

An expectation raised by the Calgary-Cambridge Guide was that signposts would be used to signal the move from one phase to another. However, verbal signalling behaviours were not frequently used at the transitions between phases. In the ‘History-taking’ consultations, few were used to show the transition between one phase and another, including moves to the

Summary and the hypothetical Physical Examination. Of the seven different uses for signposts outlined in the Calgary-Cambridge Guide, four refer to information about the structure: namely the move between phases of the consultation. The findings show that during the 'History-taking' station, doctors relied on signposts and other verbal signalling behaviours to signal that they were going to ask questions, but the structure that they had created as outlined in Section 9.1.1 was not signalled to the patients.

The most frequent behaviour function found in 'Communication Skills and Ethics' was the listing content function, which had a parallel in the Calgary-Cambridge Guide as 'categorising' and came from Ley's (1979) strategy of sharing with the patient how many points were coming in order to aid understanding and recall. This function is explicitly taught as a function of signposting during the Explanation and Planning phase as it 'allows the information to be divided into discrete sections and enables a logical sequence to be followed' (2013: 172). Given that the scenarios in 'Communication Skills and Ethics' all dictated a reliance on the Explanation and Planning phase, it is not surprising that this was the most common function found. It could be proposed that in this way, doctors were making attempts to structure the content they were providing, even if the overall structure of the consultation itself remained un signalled to the patient. This sharing of information illuminates again that the sharing power occurs at the micro-level in terms of content, but not at the macro-level in terms of structure.

Reflecting on the tasks doctors were expected to complete, the 'History-taking' stations were dominated by behaviours that introduced questions, while the 'Communication Skills and Ethics' station focused on behaviours that listed content such as investigations, diagnoses and treatments. More crucially, the overt display of power encoded in postponing a topic of discussion raised by the patient was more frequently found in 'History-taking', which places the patient as the passive provider of information rather than an active instigator of topic change. This once again invokes the importance of the task of 'taking a history', which was returned to once the concern had been postponed through the use of a verbal signalling

behaviour intended by authors of educational models to facilitate the patient agenda. The use of a patient-centred strategy precisely to reduce patient-centredness is a new phenomenon emerging from this thesis.

This subsection has discussed how the functions of verbal signalling behaviours related to the power in the consultation. As with the structure, the demand characteristics of the consultation steered the verbal signalling behaviours used: behaviours that shared power with the patient, such as 'agenda setting' and 'invite construction' were found in higher proportions in the 'Communication Skills and Ethics' station, while behaviours that focused on the task of the doctor, such as 'introducing questions' were more frequently seen in 'History-taking'. In the next section we will discuss the implications the hyperfunction had on the power in the consultation.

9.2.4 Hyperfunction

In order to examine the verbal signalling behaviours in the context of how they were used in the consultation, an innovative combination of Speech Act Theory and Conversation Analysis was used. The use of Speech Act Theory was sufficient to identify the function of a behaviour. The principle of each utterance being a relevant part of an organisation of sequences was taken from Conversation Analysis. This lens enabled showed whether the verbal signalling behaviour could be viewed as a response to the preceding talk or not. This led to the discovery that depending on the context, doctors could assign multiple roles to these strategies, a phenomenon christened the 'hyperfunction'. Other frameworks have alluded to behaviours carrying multiple roles, typically through differences between the literal or semantic meaning of the words used and the intended or pragmatic meaning (Stiles, 1992; Kravitz et al., 1999). However, the discovery of the hyperfunction has a particular impact on the role that verbal signalling behaviours have on influencing the power of the patient. Ostensibly, signposts are taught to medical students and doctors as a means of letting the patient know explicitly what

is coming next in order to give patients time to prepare. In the 'History-taking' consultations, almost half the signposts contained a hyperfunction. The majority of hyperfunctions related to concerns raised by the patient, with most used to ignore, delay or address only biomedical aspects of the concern. These two findings together suggest that during the 'History-taking' station, doctors were using behaviours taught to empower patients as a means of moving the conversation away from the patient agenda by redirecting the conversation back to the main task of 'History-taking'. This phenomenon has not been described in the literature, where educational models and empirical observations state that verbal signalling behaviours only have one, overt function. There are major implications for research, teaching and assessment: the effect of these verbal signalling behaviours must be studied and taught, not just the verbal signalling behaviours themselves.

The verbal signalling behaviours found in 'History-taking' have thus far shown two ways in which they may reduce the power the patient has: overtly, for example, through the use of behaviour types falling under the instruct category, or through the use of overt functions such as postponing the discussion of the patient concern. The second way is more subtle, as it apparently adheres to the role of a signpost: to give patients time to prepare and be more involved. But by using a verbal signalling behaviour which ostensibly has one function, such as introducing a new topic of questioning as a response to an enactment of the patient agenda – the raising of a concern – the doctor is using a tool taught in a patient-centred approach to medicine to move the consultation away from the patient agenda.

In terms of hyperfunctions in the 'Communication Skills and Ethics' station, the most frequently found were related to concerns (responding to biomedical aspect, empathy and reassuring) and to content (warning shot and medical uncertainty). Of these five hyperfunctions, three have parallels as overt functions (empathy, reassuring and warning shot). What is interesting is that doctors assign these as hyperfunctions rather than overt functions that directly address the patient concern or break bad news. Thus we can infer that these are secondary functions

that are more frequently attached to main functions. These hyperfunctions are again guided by doctors' responses to the demand characteristics of each scenario within 'Communication Skills and Ethics': breaking bad news alone is responsible for four of the most frequent: empathy, reassuring, warning shot and medical uncertainty.

In terms of the power encoded, however, it is interesting to compare the number of overt warning shot functions with the more subtle hyperfunction version, of which there were almost three times as many. This suggests that doctors were almost three times as likely to use other functions to ease the patient into the breaking bad news zone, rather than directly preparing patients for bad news with the explicit function. In terms of recognising the patient as an expert in their own right (Tuckett et al. 1985), and empowering patients with direct information, it is interesting to observe that doctors use hints to allude to bad news as the more frequent strategy. As with the absence of verbal signalling behaviours showing the transition between phases, the breaking bad news hyperfunction shows that opportunities to provide patients with information are not taken. Comparing it with the higher proportion of medical uncertainty hyperfunctions found in 'Communication Skills and Ethics' does seem to suggest that there may have been an orientation towards hinting at bad news, and delivering this as a possibility rather than as a certainty.

The most common hyperfunction found in 'Communication Skills and Ethics' was the concern-related 'responding to biomedical information', which was used to provide information that answered the medical aspect of the concern raised by the patient, but not the emotional content. While it is beyond the scope of this thesis to comment on whether addressing the biomedical aspect and not the emotional content is appropriate, it is worth remembering that 'managing patient concerns' was one of the domains being assessed in both stations. It may be a semantic loophole to suggest that this has been sufficiently done if the doctor responds to the biomedical aspect of the concern, and if the doctor has fully acknowledged the power the patient has invoked in asking a question if they only answer part of it. This is a known

strategy used by doctors in response to patient concerns as shown by its inclusion as a category in the Verona Coding Definitions of Emotional Sequences (del Piccolo et al., 2017), where doctors may respond to concerns raised by the patient by only addressing the biomedical aspect and not acknowledging the emotional affect. It is also worth noting that there is additional overlap between other categories of the Verona codes and some of the functions and hyperfunctions discovered in verbal signalling behaviours, such as the postpone function and hyperfunction, and the ignore hyperfunction. The intersection between these zones of research – verbal signalling behaviours and doctors' responses to patient concerns – shows that there may be further opportunities for reciprocal learning between these strands of enquiry.

One of the biggest differences in the use of verbal signalling behaviours between 'Communication Skills and Ethics' and 'History-taking' relates to the way hyperfunctions were used. As discussed previously, hyperfunctions present an opportunity for doctors to use behaviours that facilitate the patient agenda in a way that moves away from it. In the 'Communication Skills and Ethics' station, ignoring the patient concern virtually disappeared from use as a hyperfunction, while responding to the biomedical aspect of the concern took its place as the most commonly used hyperfunction. As mentioned previously, this presents a semantic loophole for candidates: that addressing only the medical content of a concern sufficiently meets the expectations of 'managing patient concerns'. This aligns with the very factors that instigated the move towards a patient-centred philosophy of care: that the emotional wellbeing of a patient was overlooked in pursuit of curing the biomedical illness (Balint, 1957; Byrne and Long, 1976; Engel, 1977). This is also reflected in the Verona codes, where categories were created to recognise that responses could address the biomedical content of the concern separately from the emotional aspect (del Piccolo et al. 2017). However this thesis views doctors' use of verbal signalling behaviours from the lens of power for the first time and how it affects the patient-centredness of the consultation.

In this section we have discussed a phenomenon that has never been discussed before in healthcare communication. The hyperfunction of verbal signalling behaviours can have an impact on the power sharing between patient and doctor. Hyperfunctions are subtle ways in which doctors can use signalling behaviours, and where equivalents between functions and hyperfunctions lie, such as ‘warning shots’, doctors have been seen to favour the subtle approach rather than a more direct one. In terms of sharing power we can deduce that strategies taught to overtly facilitate the patient agenda and empower patients can be repurposed to draw back to the agenda of the doctor. In the next section we will explore an additional new phenomenon identified through the examination of verbal signalling behaviours, the use of stacking.

9.2.5 Stacks

The final new discovery from this analysis, and the third previously undocumented way in which verbal signalling behaviours could be used and could affect the power of the patient was through a phenomenon coined stacking. This was the ability of verbal signalling behaviours to be used in quick succession, either directly after each other or with the doctor holding the turn, with only the most minimal of acknowledgements from the patient such as ‘right’, ‘mmhmm’, ‘yeah’ and ‘ok’. This led to the combination of the individual functions, and hyperfunctions if these were present.

Stacks occurred most frequently as immediate responses to patient concerns, which is perhaps the most consistent characteristic of verbal signalling behaviours across the two stations. A typical combination would be overt reassurance to immediately address the concern, followed by a plan moving forward, which theoretically empowers the patient as it acknowledges the concern raised and takes steps to address it. An interesting discovery was the creation of hyperfunctions for the stack of behaviours that did not match either the hyperfunction or functions of the constituent behaviours. Of particular interest are stack

hyperfunctions that postpone or ignore concerns, when none of the constituent parts feature these in their functions or hyperfunctions – as seen in Examples 109 to 113 in Chapter 4, and Examples 121 and 122 in Chapter 7. It would be logical to assume that combining multiple opportunities of patient empowerment would lead to more informed patient empowerment, but in these instances, the combined behaviours cancelled out opportunities for sharing power with the patient.

Stacked behaviours also occurred in the ‘Communication Skills and Ethics’ station. Almost half the behaviours in this station were stacked. This ties in with the earlier observation that stacks were most frequently seen in response to patient concerns, which were consistently discussed in the scenarios that made up the ‘Communication Skills and Ethics’ station. A particularly remarkable discovery regarding stacks were two extended stacks of seven and nine individual behaviours. The amount of talk contained in these stacks indicates that the doctors were able to hold the conversational floor for an extended period of time, in order to deliver these behaviours in rapid succession. While these were only two lone examples of extended stacks and meaningful inferences cannot be generated, they are proof that doctors may create towering stacks of these behaviours.

Behaviours stacked in similar ways across ‘Communication Skills and Ethics’ and ‘History-taking’, with the majority contributing to double, triple and quadruple stacks. In both ‘History-taking’ and ‘Communication Skills and Ethics’ these compound responses tended to provide the patient with a plan for what was going to happen next, while simultaneously providing reassurance, or ignoring the concern that had just been raised. Finding stacks used in the same way in both stations supports the theory that using a combination of these patient-centred behaviours is a reaction to the enactment of the patient agenda. The stack addresses the attempt of the patient to use the power to drive the consultation forward but also corrects the course deviation by showing the patient what will happen next, and therefore the next opportunity for the patient to be involved.

This subsection has shown how doctors combined verbal signalling behaviours in ways that were not reflected in the literature regarding sharing structure. Through the identification of verbal signalling phenomena, we have discovered that they can also be stacked together. By viewing these stacks through the same Speech Act Theory and Conversation Analysis lenses used to identify the functions and hyperfunctions of verbal signalling behaviours, we have found that the uses of these stacks are complex. By using verbal signalling behaviours in quick succession, doctors were seen to partially respond to instances of the patient agenda being raised and postpone fully addressing them to a later point. In other instances, they also used stacks to provide reassurance and a plan in response to patient concerns. We will now summarise this section before moving onto the third level of analysis, on the language used invoking Politeness Theory, and the implications for power.

9.2.6 Summary of verbal signalling behaviour discussion

In this section we have discussed the relationship between verbal signalling behaviours and the power in the consultation. This section has shown that power exists at each level of the verbal signalling behaviour analysis. At the level of verbal signalling behaviour types, behaviours exist on a power gradient, with power-sharing invite behaviours connected to power-exerting instruct behaviours by inform behaviours in the centre. In terms of function, a number of verbal signalling behaviours had power-sharing roles such as 'agenda setting' and 'invite construction' which were more frequently used during the 'Communication Skills and Ethics' station, while behaviours that exerted power such as 'postpone' were more frequently seen in the 'History-taking' station. The newly-discovered hyperfunction is a way for behaviours to be assigned multiple roles, through the pragmatic use seen from the context of the surrounding talk. This gives opportunities to provide reassurance alongside the main function of a behaviour, or to postpone a concern. Another new discovery coined stacking, involved the combination of verbal signalling behaviours, and could be used in a variety of

contexts that could sometimes facilitate or delay the patient agenda. In the next section we will go down to the very micro-level and discuss how the language that comprised the verbal signalling behaviours related to the power balance through the application of Politeness Theory.

9.3 Language of the verbal signalling behaviours

9.3.1 Overview

In this section we will consider how the language that made up these verbal signalling behaviours encoded power through the application of the strategies proposed by Politeness Theory, which suggests that the speaker can share power with the hearer through a number of linguistic strategies. The speaker can convey that they are cooperating or collaborating with the hearer through the use of the inclusive pronouns such as *we*, or by explaining the rationale for what they are about to say or do. Speakers can use language to overtly show deference and respect to the patient by using words that minimise the imposition of what they are about to say. Additionally, speakers can acknowledge the hearer as their equal by respecting their right to information about what is coming, by using specific language that includes details about what is expected of them and when it is expected. This section will discuss the following six levels of analysis conducted:

1. How is power shared through the verbal signalling behaviours through the use of pronouns that included the patient and doctor?
2. Does the verbal signalling behaviour share power through the use of language that shows deference to the patient, through the use of auxiliary model verbs like *could* or *would*, or politeness tags like *please* or *do you mind*?
3. Does the verbal signalling behaviour share power by minimising the imposition of the change signalled through adjectives or adverbs, or does it withhold power by drawing the patient attention to it by using adjectives and adverbs that intensify the change?

4. Does the verbal signalling behaviour share power through the use of specific language that directly explains the change and the role of the patient, or does it infringe on the patient's right to clear information by containing vague language?
5. Does the verbal signalling behaviour share power by providing a reason for the change that is being signalled?
6. Does the verbal signalling behaviour share power by letting the patient know when the change will happen in the consultation?

Each section will discuss how these concepts contributed to the overarching inform, invite and instruct types of verbal signalling behaviours, and how they influenced the power of the patient across both 'History-taking' and 'Communication Skills and Ethics' stations.

9.3.2 Person-centredness

As discussed in Section 1.7 in Chapter 1, Skelton et al. found that doctors used *we* more than patients did in their consultations, implying partnership between patient and doctor (2002). This was backed up by Kacewicz et al. (2014), who reported that higher status individuals used the pronoun *we* in conversations with individuals of lower status, a parallel seen in the doctor-patient relationship. This is in line with Brown and Levinson's (1978) strategy where the speaker's claim that they and the hearer are co-operators may lead to the positive unfolding of a conversation. The relevance to this study is that doctors may use the personal pronoun *we* to claim partnership with the patient, treating them as co-operator and equal, and therefore sharing power. The use of the personal pronoun '*I*' meanwhile, according to Brown and Levinson, associates the doctor closely with the change being signalled and places them as the main agent of the verbal signalling behaviour.

While there were slight differences in who played the main subject of the inform behaviours across the 'History-taking' and 'Communication Skills and Ethics' station, having no person attached to the inform behaviours and having the doctor feature as the main person were the

most common findings. The relevance here is that when doctors were informing patients about what was coming next, either the doctor was the centre of that change, or there was no person involved and the focus would shift onto the content e.g. the subject of the questions to be asked.

For the inform behaviours we can set up the following hierarchy of person-centredness: the doctor is predominantly the main actor of the signalled change coming ahead. Then the content of the signalled change takes precedence: if questions are to be asked, the focus of the change ahead is on the question. Third in this hierarchy is the patient and fourth is collaboration between the doctor and the patient. The doctor was therefore the main subject of the behaviour, and the main actor or instigator of what was going to happen next and drew attention to their power to instigate these changes through the use of '*I*'. The second person singular '*you*' was rarely used in the inform behaviours across either station, and thus the patient was less likely to be the centre of the change signalled. In terms of fostering collaboration and partnership, the first-person plural pronoun '*we*' was used to some extent, with objectively clear understanding that the doctor was referring to themselves and the patient. However, there were a number of uses of unclear '*we*', where it could not be said that the patient was involved in the behaviour. In fact, where these could be plausibly interpreted to mean the healthcare system, it effectively excludes the patient, which was previously noted in the literature (Byrne and Long 1976; Skelton et al., 2002). Across the inform behaviours, the use of this type of '*we*' was less frequent than the use of '*you*', signalling the patient. In terms of power, this hierarchy shows that the doctor is typically the first person with claim to power, while the patient comes third, after the content of the signalled change.

There are counters to this: the use of '*I*' could perhaps indicate accountability on the part of the doctor, or ownership of the change to come, such as in the example '*I must be honest with you*'. However, underpinning these arguments is the fact that the doctor is the centre of the inform behaviour, and that they are the instigator of changes in the consultation structure.

Conversely, the invite and instruct behaviours both placed the patient as the main subject of the signalled change, through the second person singular pronoun ‘you’ in the case of the former and through the use of the imperative in the latter. However, there are still distinctions to be made here: the ‘you’ used in the invite behaviours is grammatically the only person-centred of the two to focus on the patient, making the patient the main subject of the behaviour and the instigator of the change. While the instruct behaviour does place the patient at the centre of the behaviour, a phrase such as “*don’t worry*” implicitly means “*I want you to not worry*”. Viewed in this way, instruct behaviours carry the same self-centric approach found in the inform behaviours, and therefore focus on the doctor as the unseen instigator of the change.

In terms of grammatical person, we can see that the doctor lies at the centre of the majority of the inform and instruct behaviours, and as the main instigator of the signalled changes contained therein, the power continues to lie with them.

9.3.3 Deference

Using elements of language to soften a request or command may show deference for the hearer, acknowledging them of equal status and giving the option for the request or command to be refused. This was a strategy proposed by Brown and Levinson (1978), which was adapted by Parry et al. (2014) in the use of hypothetical questions. The identification of language that showed deference for the patient centred around the use of verbs such as *would* and *could*, known as the modal auxiliary verbs. These serve to soften requests that could otherwise appear to cause an imposition on the hearer (Holmes, 2006; Adolphs et al., 2007). As well as modal auxiliary verbs, the use of *please*, *do you mind* and *sorry*, known as politeness tags, were also counted when they formed part of the verbal signalling behaviour or were attached either to the beginning or to the end of the behaviour.

Across the ‘History-taking’ and ‘Communication Skills and Ethics’, the inform behaviours were the most likely to contain language showing deference towards the patient. These were predominantly shown through the use of modal auxiliaries. The phrases “*if you don’t mind*” and “*I’m sorry to ask*” were particular to the introduction of a sensitive question focusing on lifestyle habits, as seen in the literature (Floyd et al. 1999, Parry et al. 2014) and so it is not surprising to see that these inform behaviours were consistently softened so as to show deference to the patient. Topics of these nature, such as lifestyle questions involving alcohol consumption or drug intake could be perceived to be judgemental of the patient. Other topics could be seen to be intrusive, such as sexual history, or outside the realm of medical information, such as the patient’s employment. These types of information would fall outside the doctor’s epistemic domain, and the use of deferential language manifests the seeking of permission to access this information (Stivers and Rossano, 2010). Despite this, showing deference did not feature in many inform behaviours, indicating that if doctors were requesting information of patients it was typically exhibited as a right or fact, rather than access to an epistemic domain that required permission.

Invite and instruct behaviours contained proportionally fewer instances of deference as linguistic features across both stations. Having previously discussed that these were the two behaviour types that ostensibly focused on the patient as the main subject and instigator of change, doctors phrased these signalling behaviours in a direct manner, that eschewed niceties. Showing deference was almost absent in the instruct behaviours used in the ‘Communication Skills and Ethics’ station, where 1/83 behaviours contained a feature of language showing deference. While one instance is too small to make any generalisations, that in itself paints a compelling story for how doctors use language to show the patient as an equal in the consultation. However, inferences can only be made to extent of this analysis, which has focused on the frequencies of these linguistic features. As seen from the analysis of functions of the verbal signalling behaviours, there could be value in conducting a more

detailed analysis of the behaviours in context. As this is the first time Politeness Theory has been used to analyse these behaviours, it would be an avenue that would benefit from further research.

9.3.4 Drawing attention away from or to the signalled change: mitigation vs intensification

In terms of power, this aspect of language could smooth over bumps in the conversation and attempt to keep the conversation on track, or draw attention to what was happening. As a parallel to limited choices, where doctors present the options for patients to choose from, use of this feature presents what doctors may deem is important for patients to know or not know. Verbal signalling behaviours that drew attention from the signalled change included the words *just, a few* and *a little* or *a little bit*, while language that drew attention to a signalled change would include words such as *many, very, really* and *extremely*. The use of the former served to minimise and mitigate the effect of the signalled change on the flow of conversation, while the use of the latter drew the patient's attention to what was being said as a form of emphasis, preparing them for the change coming.

The demand characteristics of 'History-taking' and 'Communication Skills and Ethics' once again make an appearance and were observed to influence how doctors prepared patients for what was coming next. Drawing attention away from the signalled change was most frequently found in 'History-taking', typically drawing attention away from a long list of questions by mitigating their asking e.g. "*a few more questions*"/"*just one more question*". These phrases were found deployed in multiple consultations, regardless of the number of questions that followed or had already been asked. Given the proportion of talk allocated to the Gathering Information phase, multiple means of drawing attention away from the number of questions asked was a strategy of keeping the flow of questions and answers going. While this is proposed as a strategy that shows deference to the patient by minimising the imposition of

questions on them, the fact that it was used in conjunction with much longer lists of questions suggests that it is sometimes only nominally used to show deference. It therefore maintains the power to control the conversation in hands of the doctor, by misaligning the information signalled with what follows. Drawing attention away from the signalled change was true for inform, instruct and invite behaviours across the ‘History-taking’ station.

In ‘Communication Skills and Ethics’, more behaviours drew attention towards the signalled change. Using these techniques provided doctors with the opportunity to prepare the patient for what was coming next. While it was still in the power of the doctor to decide how much to prepare the patient, as a manifestation of linguistic power it showed that doctors were drawing the patient’s attention to what was coming next, which could impact how the flow of the rest of the consultation. For example, doctors could use the phrases ‘*it is important*’ or ‘*it is urgent*’, that use adjectives that intensify what is to follow, to draw attention to a piece of medical advice that they would want to emphasise.

As tools encoded with power, drawing attention to and from what is about to be said can prepare patients in seemingly opposed ways. Brown and Levinson (1978) propose intensifying interest in the signalled change as a positive politeness strategy, that asserts that the speaker (doctor) knows best for the hearer (patient) e.g. the phrase ‘*what is important*’ could be rephrased as ‘*What I have decided that you’ll find important*’. Emphasis is also recommended in clinical communication models as a patient-centred strategy (Silverman et al., 2013), by drawing the patient’s attention to key points that they need to know. Having a grasp of the key information is an essential prerequisite of being able to make an informed decision (Elwyn et al., 2012). On the other hand, Brown and Levinson propose minimising the imposition as a negative politeness strategy so as not to impinge on the right of the hearer (patient) to freedom of space and time to act, think or speak. Equally, and as with verbal signalling behaviours, these features of language can be used to have the opposite of the intended effect and depend largely on the context in which that are used. Drawing attention away from the number of

questions being asked in order to ask more questions does not give the most truthful expectations for the patient. On the other hand, drawing attention to what is about to be said in order to prepare the patient for the worst allows the patient the opportunity to consider pausing the consultation at the point or after the delivery of bad news. This linguistic feature can therefore be used by the doctor share some power with the patient, particularly with regard to how the conversation flows after the signalled change.

9.3.5 Specificity or vagueness

In terms of gleaning power, this analysis showed that doctors were able to provide specific information patients about the content of what was coming next, but simultaneously did not tell patients how they were to be involved. For example, the sign without post '*So, alcohol*' signals the topic of discussion to the patient, but not what their role in the discussion will be. These linguistic elements were at the disposal of the doctor and could be used to adequately prepare the patient for what to expect next. Brown and Levinson propose that being direct through the use of specific language and hedging through the use of vague language are two negative politeness strategies that may avoid infringing on the hearer's right to space and independence. The former through direct language that does not waste time, and the latter through indirect language that hedges and does not force the hearer into doing something. The specific route is to signal the change coming ahead directly, respecting the right of the patient to clear information and to not waste their time. The vague route, to signal a change in language that is not specific about what will happen, when it will happen and how the patient is to be involved more closely aligns with the strategy of hedging, which was seen in the literature on vague language used to respond to questions or provide information about end of life care (Christakis and Iwashyna, 1998; Davidson, 2007; Ahluwalia et al., 2001).

In our study verbal signalling behaviours could contain language that specifically named the upcoming change and the role of the patient, or they could be vague about both. In some

instances, the verbal signalling behaviour could contain both elements – vagueness about how many questions the patient would be asked, or specific about the topic coming next but not how the patient was to be involved in the discussion.

Across both ‘History-taking’ and ‘Communication Skills and Ethics’, verbal signalling behaviours as a whole were more likely to contain specific language than vague language. In terms of power this would suggest that the strategy adopted was to use clear, direct language in the verbal signalling behaviours to make the upcoming change clear to the patient, working towards patient empowerment. In ‘Communication Skills and Ethics’, the proportion was slightly higher, which may have been an effect of the demand characteristics of the name of the station to the type of communication required. There were a number of verbal signalling behaviours that included both vague and specific language, such as in the phrase *‘I need to ask you some questions about your risk of having [disease redacted]’*. This vagueness in this behaviour focuses on the amount of questions that will be asked, while the content of the questions is specifically named. Instances where both vague and specific elements of language are present partially share power in that they contain part of the information showing what is coming next, as in the example above.

Vague language was proposed as a strategy for minimising the imposition on the hearer, as seen in the example *‘I was asked to have a bit of a chat with you’*, which was an agenda setting behaviour taken from a consultation focusing on breaking bad news to a patient in the ‘Communication Skills and Ethics’ station. The vague language in *a bit* modifies the word *chat*, implying through the semantic meaning that what will follow will be a short, informal conversation. The strategy of minimising the imposition on the hearer can be seen in the vague language that hedges what is to follow. However, given the context of the consultation scenario, it is worth noting that this minimisation does not empower the patient, as it does not provide preparation for the bad news that is to come. While the doctor is ostensibly using a strategy that should theoretically share power with the patient, the use of minimisation in this

instance withholds information from the patient about the nature of the conversation they are about to have.

As in Section 9.3.2, this preliminary analysis of linguistic features reveals that further investigation of the context in which they are used could show how patient empowerment is promoted or not in certain types of consultations.

9.3.6 Providing reason for signalled change

As a manifestation of sharing power, this feature of language showed that many doctors did not provide patients with reasons for what was coming next across the majority of the verbal signalling behaviours found in either station. As a means of sharing power and facilitating the patient agenda, providing a rationale for what is coming next not only prepares the patient but acknowledges that they have a right to know why they will be providing certain information. For example, Brown and Levinson (1978) propose this as a positive politeness strategy that shares power between speaker and hearer by portraying them as co-operators. Providing a rationale for what is coming next also features in the Calgary-Cambridge Guide, where one of the three definitions for a signpost is 'the process of explaining to the patient where the interview might be going next and why' (Silverman et al., 2013: 172).

There were low proportions of providing a rationale found in the verbal signalling behaviours across the 'History-taking' and 'Communication Skills and Ethics' stations, through either providing a reason or suggesting obligation. By their nature, instruct behaviours implied obligation to go through what was being signalled – however, these were not explicit in the instruct behaviour itself.

Doctors in the present study were seen to provide a rationale in the verbal signalling behaviour by explaining the reason for what was coming next, as in the example '*... just to give you an idea so that you anticipate what's going to happen there*'. Alternatively, doctors also suggested

that going through the signalled change was an obligation, as in the example '*We need to discuss those points today*'. Given that providing rationale for what was coming next was one of the main purposes of a signpost, as outlined by the Calgary-Cambridge Guide to the Medical Interview, it was expected that this would feature more prominently in the verbal signalling behaviours.

Providing rationale featured more frequently in the verbal signalling behaviours found in the 'History-taking' station than in the 'Communication Skills and Ethics' station. This could possibly be related to the demand characteristics of the task – explaining the need to ask questions or elicit a medical history – but equally, the same could be said of the scenarios that appeared in the 'Communication Skills and Ethics' station.

The analysis of this linguistic feature suggests that providing a rationale for what is coming next does not feature in the majority of verbal signalling behaviours, despite this being a feature of signpost recommended by educational guidance such as the Calgary-Cambridge Guide.

9.3.7 Temporal reference

In terms of facilitating the patient agenda, this aspect of language showed patients when the content of the signalled change would happen in the consultation, showing opportunities for patient empowerment. In terms of sharing power by showing how events in the consultation would unfold, doctors were more likely to include some reference to timing or sequence during the slightly more formulaic structure of the 'History-taking' station, than in the more flexibly structure 'Communication Skills and Ethics' station.

Doctors could provide patients with information about when to expect the signalled change. Aspects of language that indicated time, such as *next, first, by the end or before that* gave the patients clues as to when changes would be occurring, which would create an image of the

sequence of events that would unfold in the consultation. Doctors could also include references to the phases of the consultation without specifically naming them, such as in the signpost "*I'm just going to ask a few questions, then I'm going to tell you what I think might be wrong*" which refers to the Gathering Information phase and the Explanation half of Explanation and Planning.

As discussed in Section 1.7, Adolphs et al. (2007) reported that tentative time frames were used to create distance between unpleasant information and the present, and thus we could expect to see some time references in breaking bad news situations or if doctors were suggesting the possibility of a serious medical condition. It was expected that doctors would use language that referenced time in the consultations in the 'Communication Skills and Ethics' stations, where the scenarios focused on breaking bad news and other difficult conversations. Contrary to these expectations, Table 8.12 shows that temporal aspects of language featured in a fifth of the verbal signalling behaviours found in the 'History-taking' consultations, proportionally more than occurred in the 'Communication Skills and Ethics' station. This counters what we expected regarding references to breaking bad news, but could be explained by the prominence of introducing questions as an inform behaviour in the 'History-taking' station, which contained language that alluded to a sequence of questions being asked. Additionally, the fluid structure seen in the 'Communication Skills and Ethics' station showed a flexible approach to creating structure, which may have had an impact on how doctors presented information about what would be happening i.e. without a fixed timeframe.

As a means of sharing power with the patient by showing when events would happen in the consultation, temporal aspects were infrequently used across both the stations. The language indicating these time references also tended to be vague e.g. "*don't worry at the moment*". In this example, the time reference could be interpreted by the patient as a signal to not worry at that moment in time, but without excluding the possibility that the patient might need to worry

at a later point. Temporal references therefore need to be specific in order to give the patients a full idea of the consultation structure.

9.3.8 Summary of lexicogrammatical analysis

In this section we have discussed the linguistic features that were present in the verbal signalling behaviours that could be used to share or exercise power. Contrary to the findings reported by Skelton et al (2002) and Kacewicz et al (2014), doctors in this study used the personal pronoun 'I' more frequently, while uses of 'we' could not always plausibly be attributed to mean the doctor and patient. In terms of power, doctors were the focus of verbal signalling behaviours, rather than explicitly signalling a partnership between the patient and doctor. Showing deference, which as a negative politeness strategy respects the right of the patient to refuse a request, was infrequently seen in the verbal signalling behaviours. Drawing attention to content in verbal signalling behaviours was more frequently seen in 'Communication Skills and Ethics', while drawing attention away from content was more frequently seen in 'History-taking', reflecting the tasks of each station and the power of the doctor to decide what would be important for the patient to know or not. Verbal signalling behaviours were more likely to contain specific language in a direct way, that informed the patient about what was coming next, although full information was not always given about how the patient was to be involved in the discussion, thus withholding that power. As a negative politeness strategy, providing a rationale was not seen in many behaviours. Similarly, doctors did not include time references that showed patients when changes would be occurring in the consultation.

This is a new, innovative approach to analysing verbal signalling behaviours and the features of language that comprise them, and the first time a conceptual framework like Politeness Theory has been applied to power and structure. The approach shows promise in examining the interplay of power in the medical consultation. This preliminary analysis has revealed

frequencies of linguistic features, and the analysis could be developed further in the future, through the application of a more detailed analysis to the functions of these phenomena in context.

9.4 Summary of Discussion

In this chapter we have interpreted the results of the analysis conducted on the structure, verbal signalling behaviours and the language making up these verbal signalling behaviours across the two stations of a UK postgraduate examination for experienced doctors aspiring to specialise as physicians.

We have related how these levels of analyses provide multiple opportunities for the power to construct the consultation to be shared with the patient in the medical consultation. We were able to apply the phases of the Calgary-Cambridge Guide onto the consultations, discovering that little is known about the consultation structure in practice and that a new method had to be devised in order map expected consultation structure onto observed consultations. In doing so, we found elements of structure that were consistent with observational research and educational models of the consultation but not a predictable structure across the two different types of consultations in 'History-taking' and 'Communication Skills and Ethics'. Even when the same scenarios were set across a group of consultations, structure was varied and unpredictable. This lack of predictability has implications for what patients might know about the structure, and therefore indicates a need for verbal signalling behaviours to show the patient what is happening in the consultation. Furthermore, phases of the consultation were frequently omitted, which was not predicted by either the educational models or the expectations of the examination, which may impact the opportunities for patients to be empowered to enact their agenda. Thus the providing of opportunities for patient empowerment did not occur through organised structure nor through the signalling of the structure present.

Educational models promote the use of verbal signalling behaviours to provide opportunities for the patient agenda to be enacted and thus for power to be shared between doctor and patient, and some of these behaviours have been observed in clinical practice. Through a new conceptual synthesis, this thesis brought together these behaviours onto a sliding gradient of power, featuring invite, inform and instruct behaviours. In the absence of an established methodology for identifying and categorising these behaviours a new methodology was created, using a complementary inductive and deductive approach that combined principles from Speech Act Theory, Conversation Analysis and Politeness Theory. Through an iterative, systematic and rigorous methodology, an original and innovative taxonomy of verbal signalling behaviours was created, bringing together the previously described inform, invite and instruct behaviours from the literature. Using signposts as the starting point in the inform category, these overarching categories were expanded to create an original taxonomy that encompassed the various ways in which doctors signalled the consultation structure to the patient. An additional layer of taxonomy was created to describe the functions these behaviours could have, while viewing these behaviours in the context of the surrounding talk led to the discovery of additional functions the behaviours could have, coined the hyperfunction. A further discovery was that these verbal signalling behaviours could be combined, which was christened stacking. We have seen that power runs through the entirety of these behaviours: through the types of behaviours that convey information to the patient; through the roles they play; through the ways in which doctors use them, and in the ways in which these behaviours interact with each other. Power could be enacted through the use of behaviours at the macro level, setting the agenda for the consultation. Power was more frequently enacted at the micro level, showing the transitions between topics and introducing questions. These verbal signalling behaviours could also be used to exercise power rather than share it, seen through their use as responses when patients enacted their agenda

through raising concerns. This is an entirely new discovery that contradicted the purpose with which these behaviours are taught.

Finally, we have seen that doctors have access to a wide range of grammatical and lexical choices that can partially share power as constituent parts: by making the patient the main actor of the signalled change; by using language that shows the patient respect and treats them as an equal partner in the consultation; by providing specific information that draws attention to what is being said, provides a rationale for what is happening and informs the patient how they will be involved in the change when it happens. This analysis illuminates the manifestation of power in an original way by examining observed verbal behaviours at the different levels of the gross and micro structure of the consultation, and through its linguistic elements.

9.5 Strengths and limitations

9.5.1 Strengths

This thesis has numerous strengths, through its original contributions to theory, methods, concepts and empirical evidence.

Theoretically, it reveals how patient-centred strategies that are taught to provide opportunities for patient empowerment realise this aim, and conversely, how they may also be used to work against it. The synthesis of literature, featuring educational models and empirical research, showed that there was lack of an established definition for these behaviours: this thesis has addressed this by providing a definition for verbal signalling behaviours, and brings together previously described verbal signalling behaviours under this umbrella.

Methodologically, this thesis created a new process for visualising the structure of a consultation, using the verbatim talk between doctor and patient. The lack of an established method for identifying verbal signalling behaviours led to the creation of a novel, innovative

framework that combined principles from Speech Act Theory, Conversation Analysis and Politeness Theory. This iterative, systematic and rigorous method led to the creation of an original, innovative taxonomy of verbal signalling behaviours.

Conceptually, the taxonomy of verbal signalling behaviours collected previously described behaviours from the literature and placed them onto a sliding gradient of power, based on whether they informed, invited or instructed the patient agenda. Additionally, this thesis created a second taxonomy, based on the functions these behaviours had. Using the principles of Conversation Analysis, this thesis discovered the existence of additional roles doctors could assign these verbal signalling behaviours, christened the hyperfunction. This analysis also revealed that verbal signalling behaviours could be combined, resulting in a phenomenon christened stacking. The innovative application of conceptual strategies from Politeness Theory suggests ways in which doctors can use the language in verbal signalling behaviours to recognise the patient as an equal in the consultation, and share power with them. However, as with the functions of verbal signalling behaviours, these strategies may be repurposed depending on the context in which they are used. This avenue shows promise for further analysis.

Empirically, this thesis has countered the claim that verbal signalling behaviours are used to provide opportunities for patient empowerment. While they feature in educational models with this intended spirit, they may also be used to deflect away from the patient agenda and work towards the doctor agenda instead.

9.5.2 Limitations

This thesis also had numerous limitations. It does not claim to know what constitutes 'good' or 'bad' structure, and reports only on the recommendations present in the educational models, noting where absences of recommendations limit the positions that can be taken. It does not pass judgement on what is 'correct' use of a verbal signalling behaviour, nor where

the ‘right place’ is for it to be used, as these require outcome data such as patient evaluations which are not available. There was no information known about what patients already understood about the consultation structure. Inferences could only be made about what information was signalled to them, not how the use of these verbal signalling behaviours met the needs of the patient.

The generalisability of findings to doctors’ behaviours in clinical practice is an important question. The ability to make inferences about doctors’ communication in consultations featuring ‘real patients’ and those featuring simulated patients was raised in Section 1.5 when discussing the differences between consultations featuring ‘real’ patients and those featuring simulated patients. Given that this dataset featured doctors taking part in an observed assessment featuring a simulated patient, there are limitations on the ability to generalise the observed structure and verbal signalling behaviours to how physicians conduct consultations in real outpatient clinics. The demand characteristics of each station may have had a profound effect on the behaviour of doctors, and the same can be said of the fact that the consultations themselves were observed and formed part of a professional examination. In order to infer that these behaviours are generalisable to ‘real’ clinical consultations, the project would have had to observe physicians in clinical settings, ideally the same doctors in their current practice, for direct comparison of behaviour in simulation and the outpatient setting. However, the frequencies of verbal signalling behaviours identified in this corpus do speak to the generalisability of doctors’ behaviours in this setting, which was a real postgraduate examination. Future research could show that this is also therefore possibly generalisable to other postgraduate examinations in other specialities, where doctors are faced with the same high stakes.

This thesis did not speculate on the motivations or mental processes of doctors, and only assessed the evidence presented. Not all manifestations of the patient agenda were analysed,

such as all patient concerns, requests or questions, as these were only considered when in proximity to doctors' verbal signalling behaviours.

It could be considered that the transcript-only approach to analysing the data was a limitation of the research project. It limited the analysis to the words doctors used and did not take into account how prosodic features such as intonation could have affected the delivery of the verbal signalling behaviour. However, it was decided at an early stage of the project that access to the video data or even audio would introduce bias, while using software to mask candidates' identities would result in distortions that would reduce the quality of prosody that could be assessed. Similarly, the approach taken to examining structure, verbal signalling behaviours and the language used in verbal signalling behaviours did not distinguish between candidates who were awarded a high or low mark in the examination. Understanding the relationship between the creation and sharing of consultation structure, and doctors' success in the examination might have provided useful information in considering the effectiveness and appropriateness of doctors' approaches to these consultations. However, it should be noted that a direct connection between the structure created by doctors and the scores they were awarded would be difficult to establish in this setting, as marks were not specifically awarded for the structure of the consultation. Other features of the consultation (such as clinical content) may have had a greater impact on examiners' scores. Furthermore, the marking process in the examination did not include actor ratings of the 'patient's' evaluation of the effectiveness of the consultation, which could have provided another important perspective for examining the process-outcome relationship.

The preliminary analysis of linguistic features shows promise in that doctors were seen to use a variety of strategies suggested by Politeness Theory that would relate to power sharing. However, a full analysis of the use of these strategies would require a detailed examination of their function in context, which was beyond the scope and time available for the current project.

Chapter 10: Conclusion

This chapter brings the thesis to a close by revisiting the research questions asked at the start of the project, the rationale for the study and the study design. We will then summarise the main findings from the discussion. The thesis ends with consideration for the direction future research could take using the frameworks and findings of this project as a basis, and practical implications the findings could have.

10.1 Research questions

This research project was driven by the following top-level question:

- **How does the language doctors use to provide information about the process of the medical consultation share the power to construct the consultation with the patient?**

Answering this question involved breaking it down into the following constituent parts:

- **What structure do doctors give their consultations?**
- **How do doctors signal information about the structure to their patients?**
- **How does the language in verbal signalling behaviours empower the patient?**

10.2 Study rationale

Providing an organised structure is one of the key messages taught by clinical communication models espousing a patient-centred approach. A clear and logically sequenced consultation provides the setting in which patient empowerment may take place, creating opportunities for the patient to express needs, values and preferences that can then be integrated into the consultation structure. Clinical communication models also teach verbal techniques such as signposts to share the structure of the consultation as a means of empowering the patient. Letting the patient know the path that will be taken through the consultation gives patients

knowledge of how the structure will progress, providing opportunities for the patient agenda to be raised. Using these verbal signalling behaviours can therefore facilitate partnership between the doctor and patient in the creation of the consultation as it develops. Using clear, specific language that includes the patient in these verbal signalling behaviours may also foster a sense of collaboration and share power, while providing a rationale for the consultation structure. While an organised structure is featured in numerous clinical communication skills models, how this is applied has not been studied in observed clinical practice. Verbal behaviours as strategies for signalling information about the consultation feature in clinical communication models and have been observed in practice, but there is no universal definition or theory to support how they empower patients, or any systematic methodology for collecting or categorising them. The language that is used to formulate these verbal signalling behaviours has also not been studied, nor their roles when used in the consultation.

10.3 Study design

The research project used data that had originally been collected in 2012 for a research project investigating cultural influences on communication, that analysed a small subset of the recorded consultations (Verma et al., 2016). This project analysed the full dataset of recorded consultations. The data were taken from verbatim transcripts of 154 simulated consultations featuring 78 doctors sitting the 'History-taking' and 'Communication Skills and Ethics' stations of a postgraduate medical examination which qualifies doctors for Membership of the Royal Colleges of Physicians. There were numerous advantages to using this dataset. Candidates were experienced, practising doctors. Consultations were all standardised in order to meet the time allocation and featured trained actors in the role of simulated patients. The setup of these standardised consultations form part of an established method for assessing doctors' clinical and communication competence. The marking criteria included 'managing patient concerns' ensuring by design that there were patient needs to be elicited and responded to in the

standardised consultations, thus providing all doctors with the opportunity to demonstrate a patient-centred approach.

The methodological foundations combined an inductive approach to discovering what is in the data with deductive reasoning informed by literature on how doctors are taught or are observed to share the structure of the consultation to the patient. The literature review has shown that verbal signalling behaviours are taught in the educational models and have been observed in clinical practice. This thesis used the previously defined behaviours as a starting point for the deductive approach, while remaining open to the existence of new types through the inductive approach.

A new method of visualising the consultation structure was created, that used the Calgary-Cambridge Guide to the Medical Interview as a basis for identifying the underlying phases of the conversation based on Silverman et al.'s (2013) chronological tasks. The complementary inductive-deductive approach was used to create a taxonomy of verbal signalling behaviours based on how they informed, invited or instructed patient participation. By combining principles from Speech Act Theory and Conversation Analysis, this research project created an additional taxonomy of verbal signalling behaviours based on what information they explicitly signalled, and how doctors could use them in ways that were not explicit. Using the strategies proposed by Politeness Theory, the grammar and semantics of these verbal signalling behaviours were then analysed to reveal how they played a role in sharing power between doctor and patient.

The following three sections give an overview of the findings observed on the structure of the consultations, the verbal signalling behaviours used to share information about the consultations, and the language these verbal signalling behaviours contained. The implications these findings have on current knowledge and for practitioners and educators will also be elaborated.

10.4 Structure of the consultation

Through the use of the Calgary-Cambridge guide to the Medical Interview (Silverman et al., 2013), we have seen that the components of consultation structure – the phases – are the primary building blocks doctors use to construct the consultation. These phases were present in the majority of consultations. However, we have seen that doctors are able to use these phases in different ways, largely dictated by the demand characteristics of the consultations in this examination setting. Thus consultations focusing on ‘taking a history’ all feature a Gathering Information phase which contains the bulk of doctor-patient talk. Consultations requiring the discussion of bad news, an ethical dilemma or aspects of patient education are all dominated by the Explanation and Planning phases. In both these instances, the naming of the station (‘History-taking’ in the former and ‘Communication Skills and Ethics’ in the latter) highlight the activity of the doctor, arguably framing the patient in more of a passive role.

In this study, ‘History-taking’ and ‘Communication Skills and Ethics’ are two stations forming part of a postgraduate examination for membership into the Royal Colleges of Physicians. In the pursuit of completing these tasks, other phases such as Initiating the consultation and Closing the consultation – the two phases where investment in the patient-doctor relationship play important roles (Fortin et al., 2013; Silverman et al., 2013) – are either omitted or allocated the smallest proportion of talk. These are crucial phases of the consultation in any setting (Frankel and Stein, 1999; Cole and Bird, 2000; Fortin et al. 2013.; Silverman et al., 2013) Omission of these at the behest of expanded phases that serve the purpose of the consultation task reduces the instances where the patient perspective plays an important role, and may therefore reduce opportunities to enact patient-centredness through ensuring that the patient’s needs, preferences, values and concerns are incorporated into the discussion.

While consultations in the ‘History-taking’ station showed a broadly formulaic and organised structure, this was infrequently shared through the use of verbal signalling behaviours. In the ‘Communication Skills and Ethics’ stations, consultations exhibited less organisation and a

more fluid, intertwined structure, where more verbal signalling behaviours were used to share information about the consultation structure from the outset.

The elements of consultation structure that Byrne and Long (1976) first identified are all still visible in consultations being conducted decades later. While testament to the longevity of this landmark study, consideration must be given to the logical structure that current educational models teach (Frankel and Stein, 1999; Cole and Bird, 2000; Makoul, 2001; Fortin et al., 2013; Silverman et al., 2013; Stewart et al., 2014). This logical structure was infrequently seen across the 154 consultations. It bears reminding that this logical sequence was described as 'ideal' by Byrne and Long given that they usually found the logical sequence with phases omitted. While they did not include exact figures on the proportion of consultations they observed that followed the logical sequence, they did state that doctors returned to earlier phases of the consultation with 'a frequency greater than three consultations in 10' (1976: 134). The educational models previously referenced have all adopted the phases of Byrne and Long and recommend progression through them in a logical sequence. True to the point of being 'ideal', finding the logical sequence containing all phases was rare in the current, modern data. There are therefore implications to consider regarding the way the logical sequence is recommended or taught within educational models and how it is subsequently applied in practice. The evidence shows the logical sequence Byrne and Long described as 'ideal' in 1976 remains elusive in high-stakes consultations conducted by experienced doctors.

10.5 Verbal signalling behaviours that share the structure of the consultation

Firstly, through systematic examination using an inductive approach to the data, this study has created an original taxonomy of verbal signalling behaviours available to doctors, of which signposts are just one type. Building on concepts featured in the literature, this original taxonomy categorised behaviours into groups that inform the patient about what is coming next, invite the patient to choose what comes next, or instruct the patient to progress in a

certain way. These three categories are imbued with power. The invite category shares the most power by providing opportunities for the patient to choose what comes next. The inform category shares some power by revealing the pre-existing structure, show opportunities where the patient agenda can be integrated. The instruct category shares the least power, by simply directing patients how to proceed forward. However, through the combined lenses of Speech Act Theory (Austin, 1962; Searle 1969) and Conversation Analysis (Sacks et al. 1974), we have seen the literal meaning of a verbal signalling behaviour does not always align with its social function. The principle of sequence organisation from Conversation Analysis, proposing that every utterance has a role which makes the next response relevant, was applied to the verbal signalling behaviours to show whether or not it was used as a response to the talk preceding it. Therefore to understand how doctors use these signalling behaviours in clinical practice, this study has demonstrated that their purpose has to be considered by examining their role in the context of the doctor-patient talk in the consultation.

Secondly, the use of verbal signalling behaviours was directly affected by the task of the consultation. Flagging the topic of questions was the most common use of these verbal behaviours in the 'History-taking' station, while acknowledging the delivery of bad news was most frequent in 'Communication Skills and Ethics'. These reflect the demands of the task, and coupled with the structure created by doctors in each station, reflects the doctor agenda. What can therefore be deduced from this is that the structure of the consultation can change as per the task set by the consultation, but conveying these changes or the base structure itself happens infrequently in the consultations observed in this study. Sharing the power to construct the consultation with the patient therefore occurs less frequently at the macro level of deciding what will happen, and occurs more frequently at the micro level of contributing to the upcoming content.

Thirdly, we have seen that verbal signalling behaviours have overt functions that reflect the meaning of the words used. However, doctors may also use verbal signalling behaviours as

a response to opportunities where the patient agenda is being enacted, such as through the voicing of concerns, in order to provide non-explicit reassurance or to non-explicitly postpone or ignore them. This additional function given to these behaviours, named the hyperfunction, shows that verbal signalling behaviours can be repurposed. Doctors can attach a variety of hyperfunctions to a behaviour, with some verbal behaviours carrying more than one hyperfunction. Some of these hyperfunctions have overt function counterparts, such as the transition between phases and introducing questions. Others, such as ignoring the concerns raised by the patient, only exist as hyperfunctions. In direct contradiction to their purported role in educational models, sharing information about the consultation structure through the use of verbal signalling behaviours can sometimes work in the opposite direction and reduce the opportunities for the patient to be involved in the construction of the consultation.

Verbal signalling behaviours are more frequently used to share micro-level structure such as topic transitions or introducing questions rather than broader, macro-level agenda setting. In terms of power, these verbal signalling behaviours therefore provide more opportunities for patients to contribute to the content of the consultation, rather than the gross structure. Thus patient empowerment can be said to occur at the granular level, but not at the broadest level where the aims and agenda of the patient are incorporated into the plan for the conversation.

These findings have profound implications for the understanding and enactment of patient-centredness. Using the invite-inform-instruct taxonomy created by this study, educational models may caveat that verbal signalling behaviours are tools that can control the amount of empowerment they provide: from the most open of choices about what comes next, to the directing of emotions that the patient may experience in the consultation. Furthermore education models that promote patient-centredness must acknowledge that verbal signalling behaviours are strategies that do not automatically promote the patient agenda, but are tools whose purpose is defined by the context in which they are used. In order to teach verbal

signalling behaviours as tools for facilitating the patient agenda, what these strategies look like and the function they perform must be taught in conjunction with how they can be used.

10.6 Language used in verbal signalling behaviours

Using clear and specific language that includes the patient in verbal signalling behaviours may foster a sense of collaboration while providing a rationale for the consultation structure. Focusing on a 'we' that indisputably includes the patient rather than 'I' may function to focus on partnership between patient and doctor, while phrasing verbal behaviours so that 'you' is the main subject places the patient as the main subject of what is coming next. Through the strategies of Politeness Theory (Brown and Levinson, 1978), softening requests for information with deferential language such as '*could*', '*would*' or '*please*' can acknowledge the possibility that the patient has the right to refuse the request.

This study has shown that verbal signalling behaviours typically feature either the doctor as the main subject of what is happening in the consultation rather than the patient. Verbal signalling behaviours are typically direct rather than softened, and while they may be specific about the content of what is coming next, they infrequently provide information about when the content is happening, why it is happening, and how patients are to be involved.

These features of language were consistent in verbal signalling behaviours in both 'History-taking' and 'Communication Skills and Ethics' stations, revealing a universal approach to the construction of these verbal behaviours, regardless of the demands of the consultation they appear in. The implication here is that while these features of language that manifest power are present across the verbal signalling behaviours, this granular level of power is eclipsed by the power encoded in the verbal signalling behaviours and how they are used.

This level of analysis and the methods used show potential for examining how doctors may promote or inhibit the patient agenda, and is a starting point for further analysis. There are

also similar implications regarding the use of verbal signalling behaviours: that strategies taken from Politeness Theory are not indicative of sharing power in their own right, but are dependent on the context in which they are used. Research looking at linguistic features of verbal signalling behaviours in more contextual detail may therefore shed additional light on further implications for patient empowerment.

10.7 Future research

In Section 9.1.2 it was noted that not all instances of explicit patient agenda enactment were studied, as this study was concerned with the verbal signalling behaviours only. Using the innovative combination of principles from Speech Act Theory and Conversation Analysis pioneered in this study, future research could start from the perspective of behaviours which enact the patient agenda. This could use expressions of concerns, questions, needs and preferences to investigate how doctors respond to all manifestations of the patient agenda.

Additionally, having the identified structure of consultations lends itself to the examination of how the patient agenda is addressed in an evolving way over the consultation. The frameworks created in this study, relating to the identification of consultation structure and the verbal signalling behaviours, can therefore be applied to other healthcare settings, or indeed any dataset featuring verbatim transcripts to reveal how power is transferred through the presence of structure and the use of verbal signalling behaviours. This may reveal doctors' responses to manifestations of the patient agenda depending on the stage of the consultation, which may be of use to medical educators and patients.

The discovery of stacked verbal signalling behaviours to address patient concerns was a new phenomenon that emerged from analysis of the dataset. This combination of strategies for empowering patients or deflecting away from the patient agenda shows that the use of stacks may be dependent on the context, and therefore further research is required to reveal further

insights about stacks. Access to outcome data such as patient evaluation of the consultation may reveal further insights into how these stacks affected the enactment of the patient agenda.

The focus of this thesis has been the discovery of the relationship between consultation structure and power through doctors' use of language. Recent healthcare policies and legal precedents have pushed healthcare towards reducing the power asymmetry and increasing collaboration to enable patients to make the decisions that meet their needs in their individual contexts. This research has implications for the educational models that promote the structure and verbal signalling behaviours that espouse patient-centredness, and further research can be conducted – for example, at the linguistic level – to show how the power asymmetry persists and the steps that can be taken to address it.

The methods used to reveal this relationship can be used to discover where power lies in any conversation. Structured conversations featuring a power asymmetry, such as courtrooms, job interviews and educational settings may glean further insight into how power is manifested through the structure, verbal signalling behaviours and language present in these settings. The visualisations of structure can be applied to verbatim transcripts, if educational models exist that promote a structure in other settings. The taxonomy of verbal signalling behaviours can be applied to verbatim transcripts, with adaptations made to the functions and hyperfunction categories e.g. introducing questions has some universality, whereas medical uncertainty may not have relevance in all interviews, but has huge implications for shared decision making in healthcare. Combining these analyses with the additional lens provided by Politeness Theory will also reveal how features of language may be used to share or withhold the power to construct the conversation at the granular level.

Additionally, the strategies of Politeness Theory that were analysed in this project were selected on the basis of a deductive methodology: through identification of the strategies that had received the most attention in the academic literature. Additional strategies of Politeness Theory that had not been selected for this research project could also be used to identify how

power is manifested in verbal signalling behaviours – this includes the use of patient's name and the uses of pauses. These two approaches to analysing data can be conducted on just the transcripts and maintain the 'blind' approach to the background characteristics of the doctor.

Furthermore, taking a corpus linguistics based approach to the data could also reveal greater insight into the frequency and composition of these verbal signalling behaviours. A corpus linguistic approach could show frequent words that occur alongside verbal signalling behaviours, known as collocates. This could show which structural elements of the consultation are typically signalled to the patient, or which topics are more signalled than others. By comparing frequencies, these results could show which topics or structural elements may be considered more in need of signalling than others.

A final angle that future research could take would be to triangulate the scores awarded to participants with the structures observed and the verbal signalling behaviours that were used. While this project relied on blinding in order to eliminate bias from the coding process, revealing candidate outcomes could potentially suggest relationships between doctors' use of structure and how they are assessed in this particular postgraduate examination. This could also reveal potential relationships between different performance outcomes grouped by participant characteristics e.g. gender, number of attempts at examination, and performance of UK-trained doctors against internationally-trained doctors.

10.8 Practical implications

This project has shown insight into the behaviours that some doctors may exhibit during a high-stakes, timed and observed simulated consultation. These findings may have implications for the teaching and assessment of communication skills, and may also contribute to discussions regarding standard setting by organisations such as medical schools and postgraduate colleges including the Royal Colleges of Physicians.

This thesis highlights the misalignment between teaching and practice, by showing how doctors can use skills that are taught in patient-centred communication models in ways that do not empower the patient. A prime example would be the use of the postpone hyperfunction attached to a reassuring signpost, that would acknowledge the concern of a patient but not expand on it at that moment. Conversely, these could be taught in a more transparent way, that acknowledges that these tools are at the disposal of doctors to facilitate discussion of patients concerns, or to implement a more tightly organised structure on the consultation. This could then lead to more frank discussions about the implications of using these behaviours in different ways for patient autonomy and efficient care.

This thesis has contributed greater understanding of the communicative performance of doctors during high-stakes postgraduate examinations. The consultation structure that doctors created varied considerably between the two stations in which they were examined. While the two stations had different titles, the marking criteria used in both were similar and referred to elements of 'whole consultations'. Across both stations, the marking criteria state that doctors' communication be should clear and structured and that patient concerns are acknowledged and addressed. Additionally, doctors are required to agree on a complete and appropriate management plan with the patient. These criteria cover the broad structure of the consultation, with emphasis on the Closing phase. This phase provides doctors with the final opportunity to ensure they have elicited and addressed all the concerns of the patient and that the patient has understood all the elements of the management plan. The discovery that not all doctors included a Closing phase, and that the majority of doctors did not complete their consultation within the fourteen minute allocation may have implications for the validity of the assessment, if examiners do not have a whole consultation to mark. The marking criteria are intended to reflect a whole outpatient consultation, and an omission of the Closing phase by all doctors sitting the exam may have raised questions about the validity of the assessment, if the time allocated did not allow for a full consultation to take place. However, a proportion of doctors

both included a Closing phase and completed their consultations within the fourteen minutes. This indicates that this was a sufficient amount of time to conduct a whole consultation, enabling candidates to fulfil the tasks required by the marking criteria, that reflect candidates' ability to conduct a whole outpatient consultation. These findings are therefore of interest to the Royal College of Physicians: the window of time afforded to candidates during the simulated consultation is of sufficient length, but not all elements that are assessed in the consultation are given the same weight by candidates.

This may have implications for examiner training in postgraduate examinations. For example, training could consider the extent to which examiners are able to award marks for the completion of all required tasks when a candidate does not finish the consultation within the allocated time. Given the structure of the consultations observed in this thesis, the particular tasks to focus on could include the candidates' response to patient concerns and clarity on a complete plan going forward. As the aim of the Closing phase is consolidation, examiner training might consider the difference between the candidate simply stating a plan (and running out of time), or a more developed plan including questions and answers, that achieves agreement with the patient before the end of the consultation. Furthermore, examiner training may benefit from consideration of how candidates signal consultation structure. This might include discussing how candidates' demonstration of a clear consultation structure may be of benefit to patients, and the implications for patients to engage and contribute to the consultation. Additionally, candidates' use of signalling behaviours in either addressing or deflecting the discussion away from patient concerns could be discussed, particularly with reference to how examiners respond to marking criteria about managing patient concerns.

This thesis intended to describe the structure and communicative behaviours that could be observed from a postgraduate examination, without passing judgement on whether these were 'good' or 'bad' performances. In that spirit, the current findings may be of use to the Royal College of Physicians and other postgraduate medical bodies in order to broaden the

discussion around the use of structure in the medical consultation, and the ways in which it can be signalled. This could then lead to increased understanding of patient-centredness, and the different approaches that may be taken for promoting patient agency and autonomy.

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