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Negotiating uncertainty in clinical encounters: A narrative exploration of naturally occurring primary care consultations

Olaug S. Lian^{a,*}, Sarah Nettleton^b, Åge Wifstad^a, Christopher Dowrick^c

^a Department of Community Medicine, Faculty of Health Sciences, University of Tromsø – the Arctic University of Norway, UK

^b Department of Sociology, University of York, UK

^c Institute of Population Health Sciences, University of Liverpool, UK

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ABSTRACT

Based on a narrative analysis of 20 naturally occurring clinical consultations between general practitioners and patients in England, sourced from the *One in a million* data archive, we explore how they conceptualize and negotiate medical and existential uncertainty. To capture the interactional element, which is often overlooked, three consultations receive special attention. While exploring the ongoing dynamics of the moment-to-moment realization of negotiations, we relate their actions to the institutionalized positions of doctor and patient. Situating their negotiations in the sociocultural context in which their interaction is embedded reveals how consultations unfold as a result of communication between two different positions in a normatively structured system. When uncertainty prevails, both patients and GPs mainly conceptualize uncertainty indirectly. By conceptualizing uncertainty indirectly and in a depersonalized manner, GPs manage to safeguard against clinical errors without compromising their authority and credibility. Contrary to medical uncertainty, which is continuously discussed, existential uncertainty usually recedes in the background. However, as our consultations unfold it becomes evident that medical and existential dimensions of uncertainty are inextricably linked. By acknowledging that clinical uncertainty is not only an epistemic concern but also an existential one, existential aspects may usefully rise to the surface.

1. Introduction

In this article, we undertake a sociological exploration of how patients and general practitioners (GPs) negotiate medical and existential uncertainty in clinical encounters. Empirically, our point of departure is verbatim transcripts of 20 naturally occurring consultations between patients and GPs in England, sourced from a corpus of 212 consultations from the *One in a Million: Primary Care Consultations Archive* (Barnes, 2017; Jepson et al., 2017). Our main aim is to narratively explore the ways in which negotiations of perceived illness-related uncertainties are carried out *in situ* between GPs and patients. While doing so, we aim to identify how the two actors seek, obtain, exchange and interpret relevant information; how they conceptualize uncertainty; and how they decide how to deal with it. This includes exploring patient agency, and whether or not the two parties align to and build on each other's utterances. Finally, we explore how GPs, in the face of uncertainty, deal with the challenging juxtaposition between patient-centered care and medical responsibility (Dowrick, 1999), and how they balance being

candid about uncertainty against risking their authority and credibility.

1.1. Medical and existential uncertainty

Clinical medicine is rife with uncertainty, and all medical encounters revolve around things we do not know (Mackintosh and Armstrong, 2020). Perceptions of these uncertainties encompass experiences of wondering, being insecure or worrying about something hypothetical that might or might not be or become. When uncertain situations involve known probabilities, we are dealing with risk (Douglas, 2003). When risks are unknown, “there is no longer a particular risk but an uncertainty” (Zinn, 2009:512). In other words: risk always involves uncertainty, but uncertainty does not always involve risk.

Uncertainty in clinical encounters involves both medical and existential dimensions. The medical dimensions relate to limitations in biomedical knowledge, which leads to a *lack of certainty* concerning diagnostic, etiological and prognostic issues (Bhise et al., 2017). This curtails doctors' ability to identify, explain and treat patients' ailments,

* Corresponding author. 9037, Tromsø, Norway.

E-mail address: olaug.lian@uit.no (O.S. Lian).

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and to predict future developments (Helou, 2020). Movements towards evidence-based medicine are intended to increase the likelihood of healthcare interventions being informed by robust research, but even when evidence exists: “prediction, however reliable in the aggregate, is notoriously uncertain at the local or individual level” (Montgomery–Hunter, 1991:28). Scientific, technological and clinical advances might alter the contours of uncertainty, but they do not drive it away (Fox, 2000).

Whereas medical uncertainty is a lack of certainty due to the limits of medical knowledge, uncertainties of being are existential preconditions. Illness is a life-changing experience that might lead us to articulate existential questions more explicitly and experience existential uncertainty more profoundly (Carel, 2013; Gulbrandsen et al., 2016). Time is a prime dimension here: Existential uncertainty relates to our awareness that our future is open and – by definition – undetermined. Uncertainties of being can undermine the taken-for-granted sense of things and dominate illness experiences: “The familiarity of our lifeworld [...] is always pervaded by a homelessness: This is my world, but it is also at the same time not entirely mine, I do not fully know it or control it. [...] The basic alienness of my being-in-the-world, which in health is always in the process of receding into the background, breaks forth in illness to pervade existence” (Svenaesus, 2000:93). In people’s life-worlds, medical and existential uncertainty are inseparable (Adamson, 1997).

The ways in which we perceive and conceptualize uncertainty are inherently culturally contingent (Douglas, 2003; Mackintosh and Armstrong, 2020). In a context where belief in scientific knowledge has replaced beliefs in God, destiny or fate, there can be less tolerance of, and greater awareness of, uncertainty (Beck, 1992). Scientific developments and increasing instrumental rationalization encompass a process of disenchantment (*entzauberung*) of the world. In a disenchanted world, people generally believe that there are principally “no mysterious incalculable forces that come into play, but rather that one can, in principle, master all things by calculation” (Weber, 1946:139). Or perhaps better: we want and expect it to be. People who seek professional help for their illnesses are no exception. These are key features of the cultural context in which negotiations of uncertainty between patients and GPs are conducted.

1.2. Previous research

Qualitative studies based on interactional data of how uncertainty is actually dealt with in clinical consultations are scarce (Bhise et al., 2017). When clinical encounters are studied, the main focus is often on doctors; how their actions affect patients’ views, and how they best can achieve desired outcomes (Cousin et al., 2013; Tai-Seale et al., 2012). Many studies are limited to specific consultation aspects and specific patient groups, with limited general applicability (Bhise et al., 2017). Uncertainty is rarely defined, and often operationalized differently (Bhise et al., 2017; Han et al., 2019). Studies are often based on hypothetical designs (interview and survey data) and experimental methods (vignettes and simulated consultations), i.e., detached from clinical situations, and on quantified data. This kind of data do not capture the inherited qualitative interactional nature of doctor-patient encounters. The current body of research reveals a mosaic of different findings:

- In studies of clinical interaction, expressions of uncertainty among physicians are found to be both common (Gordon et al., 2000; Menichetti et al., 2021) and uncommon (Tai-Seale et al., 2012). Both doctors and patients express uncertainties more often in relation to “mental health topics” than to “biomedical topics”, and more often for chronic than acute conditions (Tai-Seale et al., 2012:4). When treatment outcomes are particularly uncertain, for instance in the field of assisted reproductive technology, doctors might commonly express uncertainty outright (Menichetti et al., 2021).

- A vignette-based study indicates that implicit communication of diagnostic uncertainty might foster patient trust, confidence and adherence more than explicit communication (Bhise et al., 2017).
- Doctors’ expressions of uncertainty seem to be associated with both increased (Gordon et al., 2000) and decreased (Ogden et al., 2002) patient satisfaction (the first being a study of clinical interaction, the latter a questionnaire study).
- Uncertainty-utterances by doctors are associated with lower patient satisfaction when the physician is a woman (both real and simulated consultations) and when the patient is a man (real consultations only) (Cousin et al., 2013).

Our study differs from most previous research both theoretically and empirically. Empirically, our data gives us a unique opportunity to explore how doctor-patient interaction is actually conducted in social situations where “action is carried out” (Jerolmack and Khan, 2014:202), rather than theorized. To capture the interactional element that is often overlooked, we explore what is going on in the interaction *between* the two parties (through dialogues). While doing so, we take into account the hierarchical positions held by both parties in the medical system, and the pre-set repertoire of culturally shared norms and values they are expected to act upon.

1.3. Conceptualizing clinical consultations

Doctor-patient interaction is embedded within, positioned and inseparable from social context. Although our empirical exploration focuses on *in situ* consultations between patients and GPs as they unfold, we situate their interaction in the sociocultural context in which it is embedded and explore their negotiation in relation to their institutionalized positions and roles. Apart from being a two-way communication with exchange of utterances, clinical interaction is also an “outcome of the socialisation of doctors (*thought styles*) and patients’ (*lifeworld*) about an event (illness) within their respective contexts” (George, 2017:131). A key element here is the professional authority of doctors, which rests on their formal medical competence *and* the assumption that they will employ their skills for the benefit of the patient (Parsons, 1951). Doctors hold the knowledge with epistemic primacy, but in situations of not knowing, the foundation of doctors’ authority and credibility may be weakened. Thereby, the issue of authority and power-distribution becomes increasingly relevant. Despite ideological shifts towards patient-centered care, there is little to suggest that clinicians are “surrendering their professional authority” (Timmermans, 2020:266). Power- and knowledge asymmetry in clinical encounters is a function of the actors’ social and organizational embeddedness (Pilnick and Dingwall, 2011).

In line with these theoretical assumptions, we approach each consultation as a co-constructed story shaped by two voices representing different epistemologies and different institutionalized positions. While negotiating uncertainty, patients and doctors provide, respectively, a medical and a lay version of the same event. Regardless of whether the two voices align or not; each consultation is *one* story insofar as the voices of both actors contribute to *the same story*, namely, the one about the patient’s illness.

2. Data and methods

Our study is based on a narrative analysis of 20 naturally occurring GP consultations, sourced from a corpus of 212 consultations from the *One in a Million: Primary Care Consultations Archive* (Supplementary Table 1).

2.1. Data material

Based on a data-grounded thematic coding of all 212 cases in NVivo version 12.4 (Lian et al., 2021), we purposively sampled 20 complete

consultations (Supplementary Table 2) that contained minimum three total scores on what we defined as 11 *patient voice* (PV) utterances (see Supplementary Table 5). Our sample contains the 10 cases with highest total PV-scores (10–19 patient utterances), and 10 cases selected on the basis of a maximum variation strategy based on patient and GP gender and age; patient education; contact reasons; GP clinics and “usual” GP (defined by patients). Among patients we have 10 women and 10 men aged 31–84, divided on seven different illnesses categories (Supplementary Table 2). The GPs (aged 32–62) belonged to 10 different publicly funded NHS clinics. Of the 20 consultations, 15 were conducted by GPs who had worked in their current practice for more than five years (up to 25 years). Because of interesting gender-related patterns identified in the 212 consultations (total PV-scores were lower than average when both patient and GP were men, and higher than average when men met women GPs), we organized our sample in four different gender-constellations of teams, each represented with five consultations (Supplementary Table 2).

2.2. Data analysis

Our study is based on an in-depth narrative analysis of verbatim transcripts of 20 complete consultations. By narrative we mean taking each story (the co-constructed dialogue) as a whole; placing it “in the context in which it has been generated and told” (Bury, 2001:281) and exploring the ways in which it unfolds. During the analysis we explored *what* was uttered (content), *how* it was uttered (form) and by *whom*. We particularly looked for the ways in which participants introduce discussion topics; request and present information and views; propose actions and conceptualize uncertainty.

In dialogues, meanings emerge through reciprocal *exchanges* of utterances that mutually derive meaning from each other. Answers, for instance, make little sense without the utterance that called it forth. By delinking collectively negotiated chains of utterances in a dialogue, the dialogical element is lost. To preserve context and meaning and capture the ongoing dynamics of the interactional flow, three complete consultations receive special attention.

2.3. Ethics

Our study has received National Health Service (NHS) ethics approval (Research Ethics Committee reference: 18/WM/0008; Integrated Research Application System (IRAS) project ID: 232578 dated 22. January 2018) and Bristol Data Repository clearance from the Data Access Committee (DAC). Ethical and legal issues pertaining to the data collection have been previously approved (Supplementary Table 1). In this study, we only include participants who in the original study gave informed written consent for their data to be accessed and reused by other bona fide researchers, subject to NHS REC and Bristol Data Repository approval. All written data were anonymized upon receipt, and there was no direct contact with study participants. The main ethical issues therefore relate to data-protection. The dataset is stored on a password-protected site at the University of York, UK, which is accessible to two researchers only (first and second author). To ensure participant confidentiality, we have abided the stipulations of the Controlled Data Access Agreement and Data Protect Act.

3. Results

To facilitate an in-depth analysis, we zoom in on three consultations where uncertainties are particularly pronounced (case 5, 9 and 16, Supplementary Table 2). These cases represent different contact reasons (neurological, cardiovascular and psychiatric conditions), and different gender constellations. In what follows, we present each consultation separately, before turning to a more detailed analysis which draws on all 20 consultations to develop our critical conceptual reflections on the ways in which uncertainty plays out in clinical interactions.

3.1. “Shooting pains”

A 58-year-old woman is coming to see her 54-year-old “usual” woman GP (case 5, Supplementary Table 2). The patient describes debilitating “shooting pains”, mainly in her head and in her right eye but also throughout her whole body. Why she gets this pain (i.e., etiological and diagnostic uncertainty) is a main theme in their discussions. Sparked by a mix of open and closed questions from the GP (“Describe it to me” and “Is it constant, or is it intermittent?”), the patient describes her symptoms: “Just like an electric shock”; it “feels like a nerve is there and trapped”, and she gets it “on and off”. “It sounds terribly unpleasant” the GP responds. When the GP asks, “Any ideas what has caused it?”, the patient explains she previously was examined for trigeminal neuralgia, but no pathology was detected, and that eye specialists found nothing wrong with her right eye. All bio-technological tests have failed to identify biological pathology, so her pain remains undiagnosed and medically unexplained. It is the patient who describes the MRI-findings to the GP, who then asks:

GP: Does that actually mean it’s not trigeminal neuralgia?

P: I don’t know.

This reversal of roles happened within the first 3 minutes of the consultation. The GP then reads out loud from the hospital discharge letter: “I’m not sure we will find a neurological cause” and the neurologist “thought that there was a reasonable chance it was trigeminal neuralgia”, before explaining:

GP: I don’t know whether we always understand what causes trigeminal neuralgia. Sometimes MRI scans show that the blood vessel goes very near the nerve and is causing pressure on the trigeminal nerve, which leads to the pain. But the way you describe the pain, it does sound like a neuralgia. So, in a way, having that report, although it’s reassuring that it hasn’t shown anything nasty, it’s also left you on the brink a bit, hasn’t it? Because you haven’t really got a diagnosis or an answer of what to do about the pain.

The GP repeatedly conceptualizes diagnostic and etiological uncertainty through both generic (“sometimes”) and patient-specific (“sound like”) utterances. She explains that they (doctors) do not always understand what causes trigeminal neuralgia, and that the lack of pathological findings does not mean the diagnosis is excluded (only that it is not confirmed). By explicitly referring to what she *heard* the patient say, the GP acknowledges the patient’s own experiences in her diagnostic reasoning. The GP names her pain as “neuralgia”, but this a symbolic act because it does not add anything new (neuralgia means nerve-pain, so simply a symptom description). The GP explicitly acknowledges that this information is not “reassuring” and still leaves her on “the brink”, but this is not further discussed. The GP then asks:

GP: You haven’t got any other ideas about what you want to do about it at the moment?

P: No, I don’t think so. The doctor shocked me when she said, “Have you got MS?” in the hospital. I said, “No.”

GP: Why on earth would they associate it with MS?

P: I don’t know. It’s just what she said. She said, “Is there a family history of it?” I said, “No.”

GP: No. This isn’t a symptom of MS. [text omitted] And you haven’t got MS.

P: Fancy throwing that at me. Thank you very much.

GP: Yes, so that must have been a bit of a shock.

P: Yes.

GP: It's not still worrying you, is it?

P: No, it isn't ... [text omitted]

GP: You haven't got MS. You've actually had an MRI scan, so you haven't got to worry about that at all.

As expected, asking "You haven't got any other ideas?" sparks a "No" from the patient (it is confirmation the GP asks for). The patient then abruptly changes the subject: "The doctor shocked me ...". The experienced GP, who after many years of practice knows a lot about doctor-patient communication, immediately picks up on this hint. She explains to the patient that she does not have MS (an acronym for multiple sclerosis, which is a potentially disabling disease of the brain and the spinal cord) by referring to the MRI scan. The GP also asks several questions to check if she is "still worrying" about it (which reveals the GPs interpretation of her utterance). This is the only time the GP asserts certainty. However, by doing so, she is willing to risk her credibility because an MRI scan is not sufficient to refute a diagnosis of MS. Assuming the GP knows this, she finds it more important to ease the patients worries than to be medically "correct".

After the GP has conveyed the grounds for the diagnostic and etiological uncertainty, she asks: "What do you think we should do next?". The patient answers that she does not want anti-inflammatories because of side effects (tiredness): "It's really not worth it", and that she does not want to use painkillers regularly:

P: I think I would prefer, rather than take something that I don't need to take every day, just for when it happens, really. That's my thoughts.

GP: Yes, I think I rather agree with you on that. You don't want to be taking tablets forever and a day, do you? [text omitted] It's only going to be short-term thing, hopefully, isn't it?

P: Hopefully, yes

The patient "think(s)" she prefers medication only when needed and emphasizes that this is her "thoughts" (i.e., not a demand), which the GP explicitly aligns to. Both agree that "hopefully", it will to be short-term. The GP supplements the patient's arguments by mentioning addiction dangers, and cautiously proposes physiotherapy and acupuncture as additional treatment: "It's almost worth trying something like acupuncture, isn't it? ... It's just a thought" (same wording as the patient previously used). By doing so, the GP demonstrates how she seeks treatment options which builds on the patients' skepticism towards taking drugs.

This consultation entails all uncertainty dimensions. Diagnostic and etiological dimensions are explicitly discussed; existential uncertainty is not. Because the etiology is a precursor to further action, treatment options involve prognostic uncertainty, but this is only indirectly expressed by the GP ("hopefully" and "worth trying"). The patient seems to acknowledge all uncertainties. At least she never says anything that indicates otherwise – contrary to the next patient.

3.2. "The third vein"

A 78-year-old man is coming to see his 54-year-old "usual" woman GP (case 9, [Supplementary Table 2](#)), which is the same GP as in the previous case. The patient has had a heart attack, which the GP describes as "a surprise" because "You've got no risk factors", and as a result of bad luck: "It's just the luck of the draw, isn't it?". The patient suggests a more biological explanation: "it presupposes that there is an overriding factor, which is presumably genetics". By uttering this medicalized view on his condition, the patient performs the "traditional" role of the doctor more than the GP does. The patient opens the consultation by explicitly stating what he came for: He wants the GP to translate "into plain English" a discharge letter he received from a cardiologist after a triple bypass

operation. He also wants "reassurance" about what to expect in the future:

P: ... it looks as if one is a triple bypass and one of them isn't [pause] one of them is blocked [text omitted]. So, it begs the question, where they took the vein out of my leg, surely, they flushed it through, so any occlusion that's occurred has occurred within 12 months of the operation, despite all the medication. So, what is the prediction from there on? If it's going at that rate –

GP: Right, so what you're thinking is that it's blocked in such a short time, is there a risk that the rest of it's going to block?

"The prediction from here" (i.e., prognosis) seems to be what the patient came for. His story about his previous heart attack reveals why: He "didn't know" it was a heart attack because it was just "a slight discomfort", which he interpreted as indigestion. At the onset of these symptoms, his wife "started moaning then, as is usual", and urged him to see a doctor, which he reluctantly did. He concludes his story by a clear question: "in future, I'd like to know, if it's blocking up at that rate, how do I know when I do have a heart attack?" Instead of answering the question, the GP continues to explain the discharge letter, which she calls "gobbledygook":

GP: They couldn't see any decent blood flow through that particular graft. I think what happens when they do these grafts is that some of them work really well and instantly work, and others just never really take on.

P: The other thing is, it reassures me - well, it didn't reassure me of anything, really, but that's incidental. The thing is, if there are three veins there and they do three, one assumes that the three have got a purpose, and if one is blocked ...

GP: What they've said here is that the one that's blocked, the area that that supplies is very tiny.

P: Yes, and it's an intermediate one.

GP: What usually happens is that the blood supply that's provided by the other two usually takes over and actually extends, to make up for the loss of the one that hasn't worked. We do see this happening. It's a graft, isn't it?

P: Yes.

GP: It's a vein graft, and for whatever reason, they don't always work. [text omitted] The thing is that cardiology isn't an exact science.

The GP conceptualizes prognostic uncertainty indirectly by generic utterances and words like "think" and "usually", and thereby opens for other possibilities. She demarcates her zone of expertise by referring to the letter from the cardiologist: "the cardiologist thinks that you're going to be alright". She also appeals the patient to "Be positive, because two out of the three have worked". The patient is not "reassured" and describes the GPs explanation as "incidental" (which might also relate to the GPs mentioning of "the luck of the draw" earlier). After 13 minutes, the patient once again repeats the question that seems to be his main concern:

P: Like I say, how do I know when I'm having a heart attack?

GP: Instead of saying to the wife, "You mustn't fuss," you'd be on the phone saying, "I've got a problem." The fact that the two grafts that you've got out of the three are working means that the chances of you having any further problems are almost nil, aren't they?

Instead of answering the "how do I know" (for the second time now), the GP advises him what to do if it happens, and quickly adds that the chances of this happening are "almost nil". The patient then confronts

the GP with something she previously said:

P: I hope so. Just going back to the last time we met, you said, "Oh, yes, you're alright. A new ___[pause], and you're alright for 20 years." I've only gone a year. I've got another 19 to meet your specification.

After yet again exposing herself to the possibility of being wrong, the GP now returns to conceptualizing uncertainty:

GP: But the other two are working perfectly well, so it may be that that graft has failed for some other reason.

P: No, it's just that if you design a motor car and decided to put three fuel engines in it, you'd – [text omitted]

GP: But this is living tissue that you've cut away from somewhere, and it may be that the vein graft didn't take, and it died.

P: It may be.

GP: If the vein graft didn't survive - because it's not a lead pipe, is it? It's a living material. If it didn't survive the surgical transfer, it would just close. That isn't a slow furring up of arteries that happens over years; that's just that the graft didn't take.

While elaborating the difference between dead and living material (the latter being more unpredictable), the GP also refers to misfortune:

GP: Unlike mechanism pipes, of course, grafts are living tissue and there is a failure rate. So unfortunately, that one hasn't worked out, but thankfully, the other two have. So, it looks like you're alright.

P: Yes, that's fine. Like I say, there's no problem. I feel alright, which brings you back to the original one; how do you know when it ...?

GP: Yes.

P: Okay. Sorry for taking your time up

The inference of the patient's last words may be "Sorry, you've wasted my time".

By half-way reiterating the question "How do I know when I'm having a heart attack?" just before he left, we see that the patient is still worrying about a new heart-attack. Perhaps the patient did not get the "reassurance" he came for because he expected more prognostic certainty than any doctor could give. Perhaps he found the indirect and generic expressions of uncertainty too vague. Perhaps the gender-and-age constellation played a role here: The woman GP was young enough to be his daughter (contrary to the previous consultation, which was performed between two women about the same age). Or has the GPs previous wrong prediction, and her repeated unscientific references to luck and misfortune, reduced the patient's trust in her? After all, why should he trust his GP when she already has demonstrated her lack of ability to predict future developments? Whatever the reasons were: That the GP did not acknowledge the uncertainty certainly did not help.

3.3. "In limbo"

A 61-year-old man is coming to see his 41-year-old "not usual" GP, who is a man (case 16, [Supplementary Table 2](#)). The patient starts with a very open opening-line: "I just thought I'd come and touch base with you" (which is probably not related to acquaintance because in the post-consultation survey, the patient answered "Disagree" on the questions "I know this doctor very well" and "This doctor knows me as a person"). During the consultation they discuss a wide range of health problems (rheumatoid disease, skin problems, lung problems, walking difficulties, muscle aches, tiredness, high blood-pressure, high cholesterol and "mood-issues"), including the existential issues they raise. The patient says that his wife is "depressed as well", and thereby indirectly labels himself as such. It is the GP who introduces the mood-issue:

GP: Okay, what about mood side effects?

P: Yes, mood, I don't think that's ever really been- I don't think I ever really get to deal with it, do you know what I mean? Obviously, the tablets help. They keep my mood on a reasonable level, but I'm not very happy if you see what I mean. And I think that's more to do with the fact that I'm kind of stuck.

GP: Right.

P: Does that make sense?

GP: Yes, yes.

P: So, I'm sort of stuck because I've been in limbo for a while because I wasn't managing the work and the mood thing with that is the fact that I was feeling I was failing students. [text omitted]

GP: Your personal standards.

P: Yes. I know that that is a problem for me. So, it sounds stupid, doesn't it? You don't live up to your expectation of yourself. I think that part of my mood is around that.

When the patient presents himself as a failure ("failing students") and that he is "stuck" and "in limbo", the GP immediately adds "Your personal standards", which hints both to the individuality of such standards as well as to the possibility of him setting his standards too high. The patient aligns ("your expectations of yourself") and says he needs "to move on" with "some new goals" and "sort of work a new way forward". The GP follows up by introducing the option of counselling:

GP: ... did you ever talk about seeing anyone –

P: Yes, we sort of talked about it. I have had counselling in the past, and I guess, I suppose, yes. I know it does help actually to sit down and discuss things. But –

GP: I'm just thinking, more than that, ways to help you move on. Identify and set those goals.

P: Goals, yes.

GP: That are realistic to you as well. Because I know what you might want to achieve, but it's what you realistically can achieve.

P: Can achieve yes. And there's that disparity between the two.

Both of them constantly repeat words uttered by the other, particularly "move on"; "goals"; "achieve" and "realistic". The patient then steers the consultation from existential issues to treatment options, and explains why he wants to continue taking prednisolone – although this might be bad for his already high blood-pressure:

P: Yes. Well, I think if I was really honest, if you were to say to me, "the prednisolone might shorten your life over getting up, feeling that much better every day", I'd take getting up, feeling that much better every day every time.

GP: Yes.

P: Because as I said, when I'm not taking it, it just gives me that little bit of energy. I know we've had this discussion before and I don't know whether we ever really unravelled it, it's that part of the condition, I feel is that I've just not got the verve, the vitality.

GP: Yes.

P: Well, that's age related to some extent. But I do feel with my condition that whatever underlies the rheumatoid has a major impact on my vitality.

GP: Yes.

P: Tired, you know. I run out of steam, that's what happens. I start to do something, and I have to stop because I just haven't got the energy sometimes to follow it through. That's not great really. But definitely the prednisolone does improve that. No shadow of a doubt about that.

The patient has "No shadow of a doubt" that prednisolone is improving his energy to such an extent that he is willing to risk its possible negative effects on his already high blood-pressure, and thereby perhaps increase his risk of having a cardiovascular disease in the future (his patient record states blood pressure 162/100 mm Hg and a 10-year risk score of 21.6%). He also tells the GP that he has stopped taking statins, which further add to this risk, and indirectly asks if his muscle-pain might be a side effect of statins:

P: I had a lot of pain up in my shoulders, and also I think I read somewhere that muscle pain is maybe one of the side effects. So, I thought, "Well, I'll give it a go".

GP: Yes. Because the simvastatin treats the cholesterol, but not the blood pressure. But they're related __[pause] because it's all about trying to reduce your risk of heart attacks and stroke and that kind of event, really.

P: When I'm feeling well, I don't sit around, I am active. [text omitted]

GP: Again, I'm not sure how much that alone will lower the blood pressure, by itself.

P: No, I don't think it probably does because I've been doing it all summer really.

GP: Yes. I suppose from my perspective there are two issues that I would have with – obviously we need to get your blood tests done [text omitted]. If you're no different off the simvastatin then I'd probably stay on it, and positive steps might be an option again in terms of referring you back for some counselling."

The patient "think(s)" he read that pain "maybe" is a side effect, and he does not "think" it "probably" is enough to be physically active. This is typical for the ways in which the patient talks: He uses the word "think" 30 times during the consultation (on average; twice every minute). Only when he talks about positive effects of prednisolone, he has "No shadow of a doubt". The consultation ends with mutual agreements regarding further actions (take blood-tests and refer to counselling), and a motivational utterance from the GP: "And also recognising all your other achievements really."

4. Discussion

Negotiating uncertainty involves seeking, obtaining and exchanging information, interpreting it, and deciding how to deal with it. The ways in which these negotiations are conducted are patterned.

4.1. Information exchange

In the three presented consultations, GPs request and obtain information from patients mainly by asking direct questions with suggested responses. This is consistent with patterns observed in all 20 consultations: GPs tend to use closed questions when they ask patients about symptoms, and more than half of their questions are formulated with suggested responses (Supplementary Table 3).

Patients request and obtain information in various ways. While the cardiologist-patient (case 9) asks direct questions, the other two seek information without directly asking for it: A woman mentions a question she received from a hospital doctor about MS, and a man "think(s)" he read something about medication side effects. The GPs *responded* to these utterances as information requests, probably because they know

the 'discursive frame' (Snow, 2008:5) of clinical encounters.

When GPs present information, interpretations and treatment options, they use a mix of medical knowledge, clinical experience, test results and information received from the patient. They present interpretations of test-results by referring to the diagnostic technology as the agent ("MRI scans show"), and to those who interpreted the findings ("They couldn't see any decent blood"). Speaking with 'the voice of medicine' (George, 2017), and within culturally defined "discursive opportunity structures" (Snow, 2008:5), they usually talk in a depersonalized manner, without explicitly referring neither to themselves nor the actual patient. When they present treatment options, they explain pros and cons of different alternatives, and when they suggest something, they do it cautiously: "It's almost worth trying something like acupuncture" and counselling "might be an option". Patients respond to these suggestions by cautiously presenting their own opinions.

4.2. Conceptualizing uncertainty

In all 20 consultations, the GPs express some kind of medical uncertainty. This is in line with some previous research (Gordon et al., 2000; Menichetti et al., 2021), but contrary to other (Tai-Seale et al., 2012). Usually, they conceptualize uncertainty *indirectly* and, again, without explicit reference either to the actual patient or themselves (neither by "I" nor "we", as in the meaning of "you and me"). With the depersonalized "voice of medicine", they refer to "it" – not "you(r)" – such as "it may be" and "it looks like". In indirect generic utterances of uncertainty, they tend to use words like "usually" and "sometimes". Occasionally, we see the subjunctive *if* ("If it [the vein] didn't survive") and references to hope ("hopefully"); luck ("the luck of the draw"); the medical profession ("I don't know whether we always understand") and medical knowledge ("cardiology isn't an exact science"). When they refer to themselves, which they rarely do, they usually say "I think". These indirect utterances are atypical ways of expressing no-knowledge: People "regularly convey what they know implicitly by stating, telling, assessing, etc. In contrast, what they don't know is typically claimed outright" (Keevallik, 2011:184). By avoiding outright no-knowledge claims through indirect utterances of uncertainty, GPs remain open to alternative interpretations without compromising their credibility. Generally, no-knowledge claims might function as "devices for getting around sensitive issues, potential blame and responsibility" (Keevallik, 2011:184). Expressing such claims directly might be difficult for those who hold the knowledge with epistemic primacy.

Despite not having an authoritative position to defend, patients also conceptualize uncertainty mainly indirectly, often with words like "think", "maybe", "probably" and "hopefully", but occasionally directly by "I don't know" or "I'm not sure". However, they tend to express themselves indirectly on a general basis, so this is part of a larger pattern. Because most consultations are GP-led, patients might align to the ways in which the GPs conceptualize uncertainty. When patients express uncertainty as response to questions, their answers sometimes appear as "default" and preliminary in the sense that they later modify or withdraw their initial response (from not knowing to knowing). Through non-demanding answers such as "I think I would prefer", patients confirm that they are subordinately positioned.

Patterns observed in all 20 consultations are consistent with these findings. Most importantly, GPs conceptualize uncertainty indirectly a total of 325 times, compared to 19 times directly (Supplementary Table 4). For patients, the pattern is opposite: They conceptualize uncertainty indirectly *less often* than GPs (224 times) but directly *more often* than GPs (40 times) (Supplementary Table 4).

4.3. Patient agency

It is usually patients who initiate negotiations that deviates from traditional asymmetric doctor-patient dialogues. Patients influence what to discuss and how to discuss it in all three consultations. Their

initiatives, however, vary a lot: One patient steers the direction of the whole consultation, one patient in major parts, and one patient only towards the end. Patient agency is most constant in the cardiology-consultation (case 9), where the patient puts the GP in a role that patients usually inhabit by being the one who asks questions. By virtue of asking, the patient expects that the GP is capable of providing answers. When he is not satisfied with the answers he gets, he repeats the questions. He also confronts the GP with a previously mistaken prediction, which highlights what is at stake when GPs utter certainty. The patient even corrects the GP when she describes his previous heart attack as “the luck of the draw” by offering a more biological explanation: “an overriding factor, ...presumably genetics”.

In the two remaining consultations, patient agency is particularly visible in relation to agenda-setting and in discussions of treatment options. The man in limbo (case 16) introduces discussion topics and presents clear views about medication issues. When the patient expresses worries about his situation at work and at home, the GP explicitly aligns to his story. While constantly repeating each other's words (“move on”; “goals”; “achieve” and “realistic”), they co-construct a consistent story. The woman with the pain generally acts in a more traditional patient role by placing herself in a subordinate position, but towards the end of the consultation she moves to a more active role by expressing clear views about her medication, which the GP agrees to.

These findings are consistent with our analysis of both the 20 and the 212 consultations: patients show different degrees of engagement, and apart from expressing worries, patients are most actively engaged in discussions about treatment options (Supplementary Table 5).

Although the degree of patient agency seen in our data is a result of how we selected our sample (i.e. consultations with particularly involved patients), it tells us something important about how consultations might unfold *if and when* patients are actively engaged: Active patients are allowed to set the agenda, and influence decisions about what to do next. When they voice their opinions very directly, it tends to spark negotiations where patients and GPs mutually build on each other utterances. In these cases, GPs explicitly acknowledge patients' first-hand knowledge by affirmative utterances. Motivational and supportive utterances from GPs (“recognising all your other achievements” and “it's also left you on the brink” in case 5 and 16) might help patients to accept unescapable uncertainty. This is in line with previous research who has shown that in the face of medical uncertainty, the main source of patient contention is the ways in which doctors engage with patients, not the lack of biomedical knowledge per se (Lian and Robson, 2019).

4.4. Medical uncertainty

Negotiations with the woman who might or might not have trigeminal neuralgia (case 5) reveals the essential role of diagnostic labels in modern biomedical health systems. Giving people a medical name for their health problems is point zero: The name is the starting point for defining, explaining and acting on our illnesses, and for predicting future developments. Nameless ailments lack this fundamental starting point, and thereby remain indecipherable (Nettleton, 2006). Diagnostic uncertainty renders patients' incapable of making sense of what is happening to them, what to do, and what to expect, and it prevents clinicians from predicting future developments, which patients often expect and sometimes ask for.

In the cardiology consultation (case 9), prognostic uncertainty is a dominating theme. Like most people, the patient would like to know what to expect regarding his illness trajectory, but as we see in this consultation: Searching for predictability in the face of an open future is a daunting task (Beck, 1992). As the story unfolds, we see how they struggle to bridge the gap between the unpredictable and the patient's quest for certainty. The discussion about medication versus high blood-pressure in case 16 is also about prognostic uncertainty. The patient has “No shadow of a doubt” about the positive effects of a drug on his energy level, which he wants to continue with although it might

increase his risk of having a cardiovascular disease. In addition, he has stopped taking statins which further adds to this risk. In both cases, individual prospects are uncertain because of limited medical knowledge, and because predictions about individuals from aggregated data about risk-factors and (side)effects of medications are uncertain.

4.5. Existential uncertainty

Existential uncertainty, which relates to people as persons and not their temporary role as patients, is explicitly discussed only in the case with the man in limbo (case 16). The patient describes being “kind of stuck” in limbo, and pinpoints his health and his teaching-job as main reasons. He describes his future as uncertain, jeopardized by his health problems and their related social implications, and that he needs “new goals” in his life. When they discuss medication issues, the patient explicitly articulates normative existential considerations by weighing his present quality of life against future risks of cardiovascular diseases: “... if you were to say to me, “the prednisolone might shorten your life over getting up, feeling that much better every day”, I'd take getting up, feeling that much better ” His conclusion means: If this offers me a better life, here and now, I accept the risk.

The story that unfolds in this consultation is mainly about existential preconditions. The patient describes how his illnesses have breached the course of his life in a way that has changed his ways of thinking about himself. Biographical disruption (Bury, 1982) and ruptured identity (Riessman, 2015) are apt concepts here. His sense of ‘being me’ is altered. He is now in a process of re-conceptualizing things he previously might have taken for granted, and reconfiguring his sense of who he is, and who he may become.

This case embodies many of the fundamental life-world alterations that illness might spark. The enigma of health is that we are most aware of it – and understand it best – when we have lost it, or when it is endangered, obstructed or compromised (Gadamer, 1996). This relates to our usually “absent body”. Our body tends to recede from our direct conscious perception as our attention often dwells on the actions we use our body to perform (Leder, 1990). However, it tends to appear again from its absent position when it no longer functions as it used to. Understood from the standpoint of “bodily being-in-the world” (Csordas, 1999:143), the same argument goes for existential aspects of our lives. Illness is a life-changing experience that deprives the ill person from taken-for-granted routines and habits and reveals aspects of human existence that often go unnoticed. These experiences put us in a state of vulnerability (Gulbrandsen et al., 2016) that might alter our sense of being in the world, remind us of our finite lifespan, and raise existentially charged questions (Fox, 2000). Apart from in case 16 (“In Limbo”), existential uncertainty is rarely explicitly discussed; it usually recedes in the background.

4.6. Interaction in context

Interactional processes of naturally occurring clinical encounters have previously received little attention. By focusing on the interactional moment-to-moment realization of negotiations, we have explored what is going on *between* the two parties in relation to the broader socio-cultural contexts in which their negotiations are embedded. As negotiations unfold, we see how stories are dynamically shaped and co-constructed through interaction between two different territories of knowledge and through the enactment of specific roles in the biomedical system. Stories about patients' illness thereby emerge as a result of communication between the experiential ‘voice of the lifeworld’ and the authoritative scientific ‘voice of medicine’ (Mishler, 1984:14). Because their interaction embodies their paired institutionalized role-positions, their negotiations reflect and create social realities at the same time.

4.7. Strengths and limitations

Working with observation-data prevents us from asking participants to elaborate their utterances, and verbatim transcriptions exclude non-verbal interactional aspects. Including only 20 cases prevents us from exploring differences between subgroups. Possible biases in the data relates to recruitment of GPs, who self-selected to take part in the study, and participants might have been influenced by being conscious about being filmed. However, our empirical data gives us a unique opportunity to explore how negotiations of uncertainty actually unfolds in clinical interactions. By exploring complete naturally occurring consultations with a heterogenous sample of patients, we capture the interactional dynamics of negotiations in relation to a wide range of consultation aspects and clinical conditions. Contextualising these negotiations enables us to see how the actions of both patients and GPs are tied to their different institutionalized positions. Through data-grounded coding of all 212 consultations, we are able to relate our in-depth cases to the wider dataset.

5. Conclusion

All consultations entail some kind of uncertainty, which patients and GPs negotiate from their different institutionalized positions in the social system. As expected, their interaction reflects their asymmetric roles and their different territories of knowledge. Both patients and GPs predominantly act according to their positions, but patients display more varied role-performances, both within and between consultations.

One of our key findings is that when uncertainty prevails, the GPs manage the moral responsibility and accountability of not knowing by conceptualizing uncertainty *indirectly*, and in a depersonalized manner. On average, the GPs utter indirect no-knowledge claims 16 times in each of the 20 consultations, compared to only once outright. The absence of direct utterances of not knowing reflects the culture of medicine, which contains a deep-rooted unwillingness to acknowledge uncertainty (Mackintosh and Armstrong, 2020). Expressing lack of knowledge runs contrary to what is expected of GPs, and by expressing it they run the risk of re-positioning themselves from knowledgeable to non-knowledgeable (Lindström and Karlsson, 2016). By conceptualizing uncertainty indirectly, GPs manage to safeguard against clinical errors without compromising their authority and credibility.

As our consultations unfold, it also becomes evident that medical and existential dimensions of uncertainty are woven together in a way that makes them inextricably linked, and thereby difficult to differentiate. However, while medical uncertainty is continuously discussed, existential dimensions tend to recede in the background. The absence of explicit discussion about existential uncertainty is noteworthy because in the case of health and illness, uncertainty is not merely an epistemic concern but also an existential one. Clinical practitioners operate in – and create – a normative field where they deal with uncertainty on behalf of other people (Cribb, 2020). Whether beneath or above the surface, existential aspects are integral parts of clinical consultations; but by receding into the background, the existential dimension of uncertainty is lost. Theoretical assumptions about uncertainty that tie medical and existential dimensions to positions (i.e., doctors deal with medical uncertainty, patients with existential uncertainty), might play a role here (Cribb, 2020). By dismantling this tie and acknowledging that medical and existential aspects intersect, existential aspects may usefully rise to the surface.

Credit author statement

Olaug S. Lian: Study design, ethics approvals, sampling, conceptualisation, data analysis, main author. Sarah Nettleton: Study design, ethics approvals, conceptualisation, data analysis, co-author. Åge Wifstad: Study design, conceptualisation, data analysis, co-author. Christopher Dowrick: Study design, ethics approvals,

conceptualisation, data analysis, co-author. All authors have approved the final version.

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Appendix A. Supplementary data

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References

- Adamson, C., 1997. Existential and clinical uncertainty in the medical encounter: an idiographic account of an illness trajectory defined by Inflammatory Bowel Disease and Avascular Necrosis. *Sociol. Health Illness* 19 (2), 133–159. <https://doi.org/10.1111/1467-9566.ep10934391>.
- Barnes, R.K., 2017. One in a Million: A Study of Primary Care Consultations. <https://doi.org/10.5523/bris.l3sq4s0w66in1x20sye7s47wv>. (Accessed 11 August 2021). accessed.
- Beck, U., 1992. From industrial society to the risk society: questions of survival, social structure and ecological enlightenment. *Theor. Cult. Soc.* 9 (1), 97–123.
- Bhise, V., Rajan, S., Sittig, D.F., Morgan, R.O., Chaudhary, P., Singh, H., 2017. Defining and measuring diagnostic uncertainty in medicine: a systematic review. *J. Gen. Intern. Med.* 33 (1), 103–115. <https://doi.org/10.1007/s11606-017-4164-1>.
- Bury, M., 2001. Illness narratives: fact or fiction? *Sociol. Health Illness* 23 (3), 263–285. <https://doi.org/10.1111/1467-9566.00252>.
- Bury, M., 1982. Chronic illness as biographical disruption. *Sociol. Health Illness* 4 (2), 167–182. <https://doi.org/10.1111/1467-9566.ep11339939>.
- Carel, H., 2013. *Illness. The Cry of the Flesh, Revised edition.* Acumen, Durham.
- Cousin, G., Schmid Mast, M., Jaunin-Stalder, N., 2013. When physician-expressed uncertainty leads to patient dissatisfaction: a gender study. *Med. Educ.* 47 (9), 923–931. <https://doi.org/10.1111/medu.12237>.
- Cribb, A., 2020. Managing ethical uncertainty: implicit normativity and the sociology of ethics. *Sociol. Health Illness* 42 (S1), 21–34. <https://doi.org/10.1111/1467-9566.13010>.
- Csordas, T.J., 1999. Embodiment and cultural phenomenology. In: Weiss, G., Haber, H.F. (Eds.), *Perspectives on Embodiment: the Intersections of Nature and Culture.* Routledge, pp. 143–162.
- Douglas, M., 2003. *Risk and Acceptability According to the Social Sciences.* Routledge.
- Dowrick, C., 1999. Uncertainty and responsibility. In: Dowrick, C., Frith, L. (Eds.), *General Practice and Ethics: Uncertainty and Responsibility.* Routledge, pp. 11–23.
- Fox, R.C., 2000. Medical uncertainty revisited. In: Albrecht, G.L., Fitzpatrick, R., Scrimshaw, S.C. (Eds.), *Handbook of Social Studies in Health and Medicine.* Sage, pp. 409–425. <https://doi.org/10.1177/1363459319889087>.
- Gadamer, H.-G., 1996. *The Enigma of Health.* Polity Press, Cambridge.
- George, M., 2017. *Institutionalizing Illness Narratives.* Springer.
- Gordon, G.H., Joos, S.K., Byrne, J., 2000. Physician expressions of uncertainty during patient encounters. *Patient Educ. Counsel.* 40 (1), 59–65. [https://doi.org/10.1016/S0738-3991\(99\)00069-5](https://doi.org/10.1016/S0738-3991(99)00069-5).
- Gulbrandsen, P., Clayman, M.L., Beach, M.C., Han, P.K., Boss, E.F., Ofstad, E.H., Elwyn, G., 2016. Shared decision-making as an existential journey: aiming for restored autonomous capacity. *Patient Educ. Counsel.* 99 (9), 1505–1510. <https://doi.org/10.1016/j.pec.2016.07.014>.
- Han, P.K., Babrow, A., Hillen, M.A., Gulbrandsen, P., Smets, E.M., Ofstad, E.H., 2019. Uncertainty in health care: towards a more systematic program of research. *Patient Educ. Counsel.* 102 (10), 1756–1766. <https://doi.org/10.1016/j.pec.2019.06.012>.
- Helou, M.A., DiazGranados, D., Ryan, M.S., Cyrus, J.W., 2020. Uncertainty in decision making in medicine: a scoping review and thematic analysis of conceptual models. *Acad. Med.* 95 (1), 157–165. <https://doi.org/10.1097/ACM.0000000000002902>.
- Jepson, M., Salisbury, C., Ridd, M.J., Metcalfe, C., Garside, L., Barnes, R.K., 2017. The ‘One in a Million’ study: creating a database of UK primary care consultations. *BJGP* 67 (658), e345–e351. <https://doi.org/10.3399/bjgp17X690521>.
- Keevallik, L., 2011. The terms of not knowing. In: *The Morality of Knowledge in Conversation* Edited by T. Stivers, L. Mondada and J. Steensig. Cambridge University Press, pp. 184–206.
- Leder, D., 1990. *The Absent Body.* The University of Chicago Press.
- Lian, O.S., Nettleton, S., Wifstad, Å., Dowrick, C., 2021. Modes of interaction in naturally occurring medical encounters with general practitioners: the ‘One in a Million’ study. *Qual. Health Res.* 31 (6), 1129–1143. <https://doi.org/10.1177/1049732321993790>.
- Lian, O.S., Robson, C., 2019. Socially constructed and structurally conditioned conflicts in territories of medical uncertainty. *Soc. Theor. Health* 17 (1), 23–39. <https://doi.org/10.1057/s41285-018-00082-w>.

- Lindström, J., Karlsson, S., 2016. Tensions in the epistemic domain and claims of no-knowledge: a study of Swedish medical interaction. *J. Pragmat.* 106, 129–147. <https://doi.org/10.1016/j.pragma.2016.07.003>.
- Mackintosh, N., Armstrong, N., 2020. Understanding and managing uncertainty in health care: revisiting and advancing sociological contributions. *Sociol. Health Illness* 42 (S1), 1–20. <https://doi.org/10.1111/1467-9566.13160>.
- Menichetti, J., Gerwing, J., Borghi, L., Gulbrandsen, P., Vegni, E., 2021. Saying “I don’t know”: a video-based study on physicians’ claims of No-knowledge in assisted reproductive technology consultations. *Front. Psychol.* 11, 61 1070. <https://doi.org/10.3389/fpsyg.2020.611074>.
- Mishler, E.G., 1984. *The Discourse of Medicine. Dialectics of Medical Interviews*. Ablex Publishing Company.
- Montgomery-Hunter, K., 1991. *Doctors’ stories. The Narrative Structure of Medical Knowledge*. Princeton University Press.
- Nettleton, S., 2006. ‘I just want permission to be ill’: towards a sociology of medically unexplained symptoms. *Soc. Sci. Med.* 62 (5), 1167–1178. <https://doi.org/10.1016/j.socscimed.2005.07.030>.
- Ogden, J., Fuks, K., Gardner, M., Johnson, S., McLean, M., Martin, P., Shah, R., 2002. Doctors expressions of uncertainty and patient confidence. *Patient Educ. Counsel.* 48, 171–176. [https://doi.org/10.1016/S0738-3991\(02\)00020-4](https://doi.org/10.1016/S0738-3991(02)00020-4).
- Parsons, T., 1951. *The Social System*. The Free Press.
- Pilnick, A., Dingwall, R., 2011. On the remarkable persistence of asymmetry in doctor/patient interaction: a critical review. *Soc. Sci. Med.* 72 (8), 1378–1382. <https://doi.org/10.1016/j.socscimed.2011.02.033>.
- Riessman, C.K., 2015. Ruptures and sutures: time, audience and identity in an illness narrative. *Sociol. Health Illness* 37 (7), 1055–1071. <https://doi.org/10.1111/1467-9566.12281>.
- Snow, D.A., 2008. Elaborating the discursive contexts of framing: discursive fields and spaces. In: Denzin, N.K. (Ed.), *Studies in Symbolic Interaction*, ume 30. Emerald Group Publishing Limited, pp. 3–28. [https://doi.org/10.1016/S0163-2396\(08\)30001-5](https://doi.org/10.1016/S0163-2396(08)30001-5).
- Svenaesus, F., 2000. *The Hermeneutics of Medicine and the Phenomenology of Health: Steps towards a Philosophy of Medical Practice*. Kluwer.
- Tai-Seale, M., Stults, C., Zhang, W., Shumway, M., 2012. Expressing uncertainty in clinical interactions between physicians and older patients: what matters? *Patient Educ. Counsel.* 86 (3), 322–328. <https://doi.org/10.1016/j.pec.2011.06.005>.
- Timmermans, S., 2020. The engaged patient: the relevance of patient–physician communication for twenty-first-century health. *J. Health Soc. Behav.* 61 (3), 259–273. <https://doi.org/10.1177/0022146520943514>.
- Weber, M., 1946. Science as a vocation. In: *From Max Weber: Essays in Sociology*. Oxford University Press, pp. 129–156.
- Zinn, J.O., 2009. The sociology of risk and uncertainty: a response to Judith Green’s ‘Is it time for the sociology of health to abandon “risk”?’’. *Health Risk Soc.* 11 (6), 509–526. <https://doi.org/10.1080/13698570903329490>.