# Diagnosis as a By-product of Action in a Papua New Guinean Hospital

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## Introduction

The award winning American television series, *House*, provides an excellent example of contemporary images of diagnostic process produced within popular culture. The star of the series is Hugh Laurie, who plays a misanthropic, sardonic, but intellectually brilliant physician with a team of clever and beautiful residents at his disposal. Each episode has roughly the same story-line. A patient is admitted to the hospital with a strange and unfamiliar collection of symptoms. House does an examination and directs his team to conduct several tests. He then calls a meeting in a large empty office during which he writes all the symptoms and test results on a large white flip chart, makes a diagnosis and directs his underlings to start treating the patient. But the patient always continues to deteriorate and House has to investigate further into their medical history and his own extensive medical knowledge in order to find alternative diagnoses. This usually involves conflicts with other hospital staff over his lack of care for and manhandling of the patient in his pursuit of a solution to what is, for him, an intellectual puzzle. Much of the rest of the episode usually takes place in the meeting room where House discusses the possible diagnoses with his team, eliminates some possibilities, asks for tests for others, has several arguments with the hospital administrator who never believes his diagnosis can be correct, and finally and brilliantly puts all the clues together to find the diagnosis and cure the patient.

This is an image of doctor as detective. Of an intellectually brilliant individual so involved in the science he becomes socially dysfunctional. Who assembles information, processes it, and uncovers the hidden truths of nature. For anyone who has worked or done fieldwork in a hospital, this drama is highly comical because it is so far from the messy reality of medical practice. However, this idea of diagnosis as a cognitive process that takes place in a doctor's individual mind and which leads to effective treatment and curing of a patient, is widespread within biomedical policy and practice as well as popular culture (Berg 1997; Elstein 1978; King 1982). Most significantly for the purpose of this paper such an image contains two interconnected assumptions. The first is that diagnosis precedes and leads to effective treatment. The second is that diagnosis is a cognitive and individual endeavour carried out in the doctor's mind by comparison with investigations and treatments which are carried out by the subordinates who he coordinates from his position of overseer. While the notion of diagnosis as a cognitive process has come under criticism from both anthropology and science studies, in this paper I wish to take this critique further by exploring the relationship between understandings of diagnostic process and the distributions of agency in a Papua New Guinean hospital. What is interesting in this hospital is that doctors' individual efficacy is constantly challenged by other actors in the hospital who engage in alternative distributions of agency. And diagnosis appears, I argue, only as a by-product to these struggles over recognition of one's efficacy.

**Diagnosis as Cognition**

The image of diagnosis as a cognitive process and as preceding action also made its way into the medical ward of Madang General Hospital where I conducted anthropology fieldwork for my PhD thesis. It was evident, for example, in the standardized admissions form used in the hospital. Once a medical officer in the hospital's outpatients' department decided to admit a patient they began an admissions write-up for the patient.[1] This writing process followed a standardised form that is taught in medical schools worldwide. Doctors and students were expected to know the form of admission write-up by heart and to write down the headings in the correct order themselves. Broadly, this write-up consists of summaries of the medical interview, including the patient's complaints and medical history, and a physical examination. A provisional diagnosis and differential diagnoses are then written down, followed by investigations to be done and treatment to be given. When the patient was transferred from outpatients' to a ward this same process of write-up was repeated and another (or the same) set of diagnoses, investigations and a management plan written down. A medical student described the precise nature of this write-up system to me:

> There is a particular code and order:
> 'C/O' means 'complains of'. First of all let the patient talk and explain their symptoms.
> 'HPS/HPI' means 'history of present complaints or illness'. Write how many days or weeks they have been suffering for and how it came on.
> 'SQ' – 'specific questions'. The doctor will ask questions – they should be focused on the complaints that the patient has identified. After that you can ask more general questions.
> 'PmHx' – 'previous medical history'.
> 'Fhx' – 'family history'. In particular you need to ask if there is TB or Leprosy in the family.
> 'Shx'– means 'social history'. Whether they are a chewer [of bettlenut] or smoker, whether they are married, whether they are a subsistence farmer or live in the town.
> Ok 'O/E' – this refers to 'on examination'. The doctor examines the patient and writes down what he sees. Look at the hands and eyes to see if they are yellow, at the skin to see if it is hydrated.
> 'vitals' – temperature, blood pressure, pulse, respiratory rate.
> 'CNS' – 'central nervous system'. Whether dizzy, conscious or alert.
> 'CVS' – 'Cardio vascular system'. Check finger tips. Check for Oedema in legs and arms.
> 'Resp' – [respiratory system] use a stethoscope. Are they in distress? Draw a diagram of the lungs [he laughs at his attempt]. Indicate where you can hear signs.
> 'Abdomen' – observe first, then prod, then palpate, then listen with a stethoscope. When you feel, feel for enlargement of organs. Listen for the bowel movement. Look for distension.
> 'MSS' – this is the 'Muscle Skeletal System' – make them do exercises and look at the muscles. Feel around the muscle areas.
> You can also check ears.
> 'UTS' – 'Urinary tract system'.
> It is good to check for everything before diagnosis because sometimes you find other diseases [that they haven't complained of]. *After that you have enough information to diagnose.* In this case it is severe malaria.
> In the next section write about investigations. What needs to be investigated or tests to be done. Sometimes a full blood examination is done. This is good because then if anaemic they can do cross-matching so that we can do a blood transfusion and it will be quicker. In the case of malaria you must take a blood slide before they are given treatment, otherwise the treatment will kill the parasites and the evidence will be lost.
> The next section is "treatment".

[1] Although the medical officer will already have taken a brief medical history it is only at this point that any writing will be done, as paper is scarce and staff say there is no point in using it if the patient is not admitted and a chart is not made up.

> Then they are admitted to the ward and the doctor does the same all over again, and every morning there is a review at ward round for changes, because often patients develop later symptoms. Then they write these in the notes – here.
> (emphasis added)

Doctors in the ward were very concerned to impress on students the importance of getting this admissions procedure correct. For example during ward round one day Dr. B. asked a student to report on the case of the patient whose bed we were standing next to.

> The student stumbles through the chart reporting on different aspects of the patient's symptoms and management regime. He is repeatedly interrupted by the doctor – 'what is the diagnosis? What is the treatment?' The student reads 'The differential diagnosis is tb/malaria, the provisional diagnosis is pneumonia/anaemia'. Dr. B. complains that this is the wrong way round, it should be the provisional diagnosis first. '*You should know this. This is the standardised clerking system. There is one universal system in medicine for examining and admitting patients. You will find it in every medical text book. It is very important to get it right because the chart is a legal document'*.
> (emphasis added)

The doctor then went through the procedures of writing up the admission of a patient in much the same way as described by the student above. At the end of this lecture he said:

> By the time you have written down the presenting complaints, history of complaints, past medical history, general examination and systematic examination *you will be able to look at them all and make a diagnosis.*
> (emphasis added)

In this view (and in contrast to the challenge of diagnosis represented by *House*) as long as the clerking process is conducted correctly a diagnosis is inevitable. The standardized form of the write-up helps order the available information so that the doctor can then assess it and make a diagnostic judgement. The doctor thus appears as a point of knowledge encompassment and collation. The admissions write-up seeks to draw together a cohesive account of a patient from a variety of different kinds of evidence and perspectives. Medical history is combined with social history and context, physical examination, laboratory tests and imaging technologies to give a holistic image of the patient. Similarly the body is constituted as a spatial anatomical system, divided up into different subsystems located in different parts of the body which must be separately examined and brought into relationship with one another (Berg & Bowker 1997). In so far as this tool is represented here as an aid to the doctor's cognitive abilities (Berg 1997), this drawing together of different kinds of knowledge and different bodily locales supposedly takes place not only on paper but also in the doctor's mind, where this information is processed and analysed. The out-put of this cognitive process is firstly a diagnosis and secondly orders for further diagnostic tests and a written management plan, which will be carried out by students, nurses and laboratory technicians.

This representation of and aid to knowledge production is temporal as well as spatial. The write-up process helps constitute medical practice as a clear temporal trajectory from medical interview, to examination, to diagnosis, to treatment. Both the temporal and spatial processes represented by the write-up produce an image of completion, thereby reinforcing a view of medical knowledge as comprehensive, rational and

successful. And the write-up procedure is itself intended to bring about this state of completion. So both the student and the doctor quoted above said that by the time they have written down the interview and examination parts of the write-up they should have the diagnosis.

Unfortunately, in the medical ward of Madang Hospital,[2] this temporal process (examination – diagnosis – treatment) often refused to hold still and instead folded up on itself to create new and unpredictable trajectories for a patient. In fact what became increasingly apparent throughout my research was the frequent silence in the ward concerning matters of diagnosis. I described above how a student was reprimanded by Dr. B for not reading out the chart notes clearly and systematically. This particular doctor had been working in an administrative role in the hospital for several years and had only recently resigned and returned to ward work. Although he was very concerned that workers and students in the ward conformed to universal standards, he had little time for the practical challenges involved in putting these standards into effect. And other nurses and doctors in the ward repeatedly complained about his concern with protocols and his lack of understanding of the way things 'actually work' in the ward.

When I first arrived in the hospital I was told by the acting CEO:

> You will find it very different here from a hospital in England because we don't have all the resources to make diagnoses on hand. Therefore preliminary diagnoses are made with the resources available, but final diagnoses are only made when the patient leaves.

Accordingly I found that single and stable diagnoses were rarely made in the medical ward. For example when one patient, James, was admitted to the hospital his provisional diagnosis in both the outpatients and ward admission notes was liver cirrhosis. Various differentials were recorded as malaria, peptic ulcer, TB and anaemia. There is no treatment for liver cirrhosis so James was put in the chronic side of the ward, treated symptomatically with painkillers and given malaria prophylaxis. However, looking through James' chart, and engaging in discussions with the doctors and HEO's showed that this was not a simple case of a single diagnosis, 'liver cirrhosis'. After two months Dr. A put James on TB treatment because, although an ultra sound scan had proved inconclusive, it was possible that the abdominal ascitis and pain could point towards TB, and he said that there was nothing else he could do for him. TB treatment was documented on the treatment sheets in the nurse's medicine distribution file, but never made an appearance in the patient chart. Furthermore, when Dr. B. arrived in the ward and did ward round he added suggestions of pleural effusion, enlarged spleen, and pneumatic heart disease in the ward round notes of the patient's chart. However he did nothing to pursue these possibilities (possibly assuming that simply writing these observations should precipitate a plethora of actions taken by subordinate staff) and no further notes in the chart made reference to them. In fact throughout three months of notes there was no other reference to a disease in James' chart, but instead only occasional notes stipulating whether he was 'stable', 'improving', or 'in pain'. In answer to my questions about his diagnosis in further interviews I was told by several nurses that he had liver cirrhosis, by Dr. B. that he had pleural effusion, by a medical student that he 'has an enlarged spleen' and by Dr. A. that 'he is on TB treatment'. Eventually, James

died, but still no stabilised version of his diagnosis was represented in his chart or agreed on by the different members of the medical staff.

In many ways James' case was typical of processes of diagnosis in the ward. Diagnoses rarely stabilised. Often patients were admitted with several provisional diagnoses written in their chart, which further multiplied in subsequent write-ups by other medical staff, without ever being narrowed down to one. Sometimes a single provisional diagnosis turned into another as the patient's symptoms changed or new investigations were done. But more frequently, following the admissions write-up, which was the only bureaucratic task directly requiring the recording of a diagnosis (bar death certificates), there would be no further mention of diagnosis in either paperwork or ward discussions. And if no clear diagnosis was made during the admissions process then a patient would usually never acquire a single 'disease'. My questions about diagnosis were seldom answered with reference to diseases or causes but instead with information about treatment regimes, symptoms, or physical manifestations such as an enlarged spleen. Unlike its representation by the admissions write-up form diagnosis appeared to be an ongoing process involving different members of medical staff, technologies, and objects such as the patient chart. But perhaps more importantly, medical staff did not appear to prioritise diagnosis as a central aim of their medical practice.

**Realizing efficacy**

When asked why diagnoses were so seldom made in the medical ward, doctors often complained about their 'lack of control' in the hospital. This complaint was articulated in a variety of ways. Firstly, doctors complained about a lack of resources. They said they often did not having the correct antigens in the laboratory. For example, throughout my fieldwork it was impossible for the laboratory to conduct a liver function test. Furthermore the x-ray fluid was often contaminated so that x-rays of potential TB patients appeared with white specks all over them, which the doctor was unable to distinguish from the disease itself. Thus the technologies through which it was intended that diseases would be revealed became inextricable from those diseases (Latour 1996). Secondly, doctors complained that other staff in the ward did not follow their orders. In the case of laboratory technicians doctors complained that they did not feel responsible for patients and that because they did not deal with them on a face to face basis they did not care about them and were happy to be lazy. Doctors also found that nurses did not recognise their authority in the ward because they considered their own role in facilitating a relationship between patients and God to be more significant in terms of healing than hospital medicine. Nurses frequently said that tests, protocols and doctors' orders were 'just talk' and that because the doctors did not engage in a social relationship with the patient they would not have any effect on their bodily state. Lastly, doctors complained that patients also had other agendas. Most patients considered that their illness had been caused by a break down in social relationships and they often left the hospital to attempt to rectify these disputes, invited witchdoctors into the hospital and attributed efficacy to them rather than the doctor, or hid their medicine because they were scared that its powers could be destructive as well as beneficial, particularly if they were concerned about the doctor's intentions towards them.

For example, Dr. A. often complained about the expectations on him to carry out various tasks that took for granted his own control over other actors in the hospital.

One day the physician from Lae General Hospital visited the medical ward in Madang. In Lae he had been running the WHO advised DOTS program for the prevention of the spreading of TB and was concerned that the program also be put into effect in Madang. A crucial aspect of the DOTS program is that patients are diagnosed with a sputum test rather than clinical symptoms. When he left I asked Dr. A. his opinion about the sputum as a way of diagnosing TB..

> The thing about the sputum is you have to do a lot of work. You have to label the samples, instruct the patient how to collect the morning sputum. And who is going to take it to the lab? Sometimes they are taken and no one takes it [to the lab], not even the nurse. It is good to say take a sputum, but who is going to do it? It is important to do but who is going to do it? The Physician would realise soon that he will have to do it himself. And the thing is here that it is difficult to work with the nursing staff sometimes. Sometimes you tell them to do something and they do the opposite. It is no good arguing with them. It can be precarious. You can get the nurses working back at you.

In the medical ward filling in a sputum test form is not enough to ensure that the sputum test is done, and therefore the doctor does not appear in this instance to be the overall coordinator of the ward's activities, or as author of patients' diagnoses. This example reveals how failure of diagnosis reveals diagnosis to be a collective rather than individual endeavour, and thus the limits of doctors' agency in the hospital.

While the admissions write-up form represented diagnosis as taking place in the doctor's mind, the difficulties that doctors encountered make clear that diagnosis is in practice a distributed task (Berg 1997). Making a diagnosis appear requires the collaboration of a variety of agents, including nurses, patients, technologies and paperwork. When this collaborative endeavour goes smoothly, and all the actors are aligned in a collective goal diagnosis appears retrospectively as the product of the individual doctor's agency, and he or she appears as an effective overseer (ibid. p134). It is thus the effective *distribution* of agency which simultaneously makes agency *appear* to be located in doctors as individual autonomous agents. This is especially significant in Modilon Hospital where doctors feel that their expertise and authority is not recognised by other people in the hospital, and where these others often engage in practices which distribute agency in quite different ways. Unfortunately, the effect of these divergent aims is that doctors indeed find they are ineffective agents in so far as making diagnoses is concerned. Instead, when the collaborative endeavour of diagnosis breaks down, it is this network of collaboration which is revealed.

**Reversing treatment and diagnosis**

However, the ways in which doctors dealt with this failure of diagnosis in the ward revealed that it was primarily their medical efficacy which was at stake, and not diagnosis as an end in itself. Furthermore, in this context, diagnosis was not necessarily the most important means of making claims to this efficacy. The temporal frame of diagnosis represented in the admissions form implies that it leads directly to effective treatment and discharge. And in terms of their recognition by others as effective agents in the hospital it seems that it was the latter outcome of discharge that was important to doctors in the medical ward. As one doctor explained to a medical student:

> What are the two outcomes for a patient? They live or they die. So you have to check them progressively. Everyday make routine assessments. And then do action. Lots of action while the patient is in your care because as soon as they leave the hospital there is nothing you can do for them.

The death rate for medical wards across Papua New Guinea in 2003 was 10%, a figure that doctors were very conscious of and which they repeatedly measured themselves against. They were also aware that other doctors and staff observed the number of deaths that occurred in the ward, and that it reflected badly on them if there was any increase in the numbers. Furthermore, there was a constant shortage of beds in the ward, as well as a shortage of nursing manpower, and doctors operated according to a kind of 'bed economy' by which they were continually anticipating who they could discharge and how many new patients they might have to accommodate. Their relationships with nurses in particular depended on their ability to direct a manageable flow of patients in and out of the ward. Nurses were also likely to blame deaths in the ward on the doctor's neglect of patients, and use this as evidence for the doctor's lack of medical efficacy in comparison to themselves. Rather than diagnosis, therefore, doctors were primarily concerned with prognosis and treatment possibilities. What was significant was not the uncovering of medical truths but whether patients died or where discharged. This mattered to doctors in so far as they were concerned for patients' welfare, but also because it is death and discharge rates which serve as indications of their efficacy and which determine their ability to collaborate with others in the hospital, not effective diagnoses.

Doctors thus talked about 'what we can do'. Patients who did not follow a clear 'diagnosis – treatment – discharge' trajectory often went through a variety of management plans and treatments in what constituted a trial and error process. For example, when one patient was admitted with several provisional diagnoses, the Doctor told me 'I can think of several things, but I am going to start her on TB treatment because it is something we can do'. Because TB is very common in Madang province, the Doctor nearly always considered it as a potential diagnosis. Doctors also pointed out that TB can appear in many forms and in many sites in the body, it is not pointed to by any one set of signs. Therefore, if someone had non-specific symptoms and were not getting better on antibiotics, then the doctor would try TB treatment to see if they would respond. When I asked doctors about a patient's diagnosis it was common to receive the reply 'she is improving on TB treatment'. [3] It was also common for patients to either die or get better and be discharged without a final diagnosis ever being written in their chart. As in James' case, different diseases were referred to in the chart on an ad hoc basis depending on particular treatment regimes, new doctors joining the ward team or new symptoms emerging. But diagnosis did not seem to be the aim of these medical practices. Instead doctors were

[3] Bowker and Star (Bowker, G. & S.L. Star. 2000. *Sorting Things Out. Classification and its Consequences*. Cambridge, Mass., London: MIT Press. also talk about the problems of 'classifying' TB, when its appearances are so diffuse, and it transforms over time. Latour also discusses the 'coming in to being of tuberculosis' in his discussion of whether Ramses II could have died of it before it existed as a disease (Latour, B. 2000. Did Ramses II Die of Tuberculosis? On the Partial Existence of Existing and Nonexisting Objects (ed.) L. Daston. Chicago, London: University of Chicago Press.

concerned with whether patients died or were discharged and the implications of this outcome for their recognition as effective agents in the hospital.

During an outreach trip to rural health centres, one of the surgical registrars was forced into taking on medical patients due to the absence of an internal medicine specialist on the trip. He explained his frustrations with this job and why he chose not to pursue a career as a physician:

> I don't find internal medicine satisfying because it is so difficult to make a diagnosis. Patients stay in the ward for a long time. There is no quick treatment and discharge, and so often your patients die. There is no completion. It is depressing because people are often generally sick with a lot of things – you can't just treat a specific problem and they will get better. *The difference between those who want to be surgeons and those who want to be physicians is between those who get a kick out of treating a patient and watching them get better and leave, and those who get a kick out of the diagnostic process itself*'
> (emphasis added)

In a similar manner, Nichter distinguishes between biomedicine and traditional medicines (Nichter 1996). In biomedicine, he argues, doctors attempt to search for causes and on that basis allocate the case a place in disease taxonomy. But in traditional medical systems healers are concerned with 'taskonomies' that will safeguard the well-being of the patient in the future. In both of these representations, internal medicine is defined by the goal of creating classificatory knowledge as opposed to healthy persons.

However, as the examples above demonstrate, this is not an entirely accurate depiction of the way doctors work in internal medicine. Instead I argue that medical practice is also primarily oriented towards 'taskonomies'. And diagnoses only appear as a potential by-product of these practices. So when James died and a death certificate needed to be filled out the doctor wrote TB as cause of death, as this was the last treatment regime that James had been on. When a patient left the hospital or died and the bureaucratic forms required a single diagnosis it retrospectively appeared as though this diagnosis was a certainty and came prior to treatment, when in fact it was only produced through the bureaucratic tasks of writing discharge or death certificates themselves. The single diagnosis on the death certificate had implications in terms of the provincial and nationwide statistics which were collected from this information. But what was significant for the doctor was that this patient had died and he had been unable to effectively treat him, resulting in this case, as in many, in disapproval by nurses in the ward.

So the representation of medical practice within the admissions form as consisting of a movement from (cognitive) diagnosis to (active) treatment does not seem to hold in practice. And often the admissions write-up itself becomes a part of a wide variety of writing practices surrounding a patient, which increase the number of possible diagnoses rather than narrow them down. (Although, as the case of James' death certificate makes evident, this temporal frame may be reasserted after the fact through further bureaucratic tasks). In an article about Chinese medicine practiced in Africa, Hsu has pointed out that the temporal differentiation of diagnosis and treatment in both biomedicine and representations of 'advanced traditional Chinese medicine' might be an ideal, a mark of the modern, rather than how things are done in practice (Hsu 2005). She describes how in acupuncture a vague diagnosis is given at the

admissions table, but a more specific diagnosis is only made at the moment of treatment when particular needles are selected. The temporal distinction of diagnosis and treatment, she argues may not be the only form of 'good practice'.

In fact, this temporal trajectory of diagnosis and treatment may not be an accurate representation of biomedical practice in general. However, I wish to suggest here that the inversion of the 'diagnosis' and 'treatment', or 'knowledge' and 'action', aspects of medical practice may have particular significance in Madang Hospital. I have argued that the distribution of agency in the medical ward of the hospital was continually disputed and that while the social organisation of medical work required doctors to act as coordinators or overseers they continually struggled to assert this autonomy against alternative distributions of agency enacted by other people in the hospital. I would also like to suggest in the remainder of this paper that doctors' need to procure other actors' recognition of them as effective agents may also reflect a more general concern with efficacy over knowledge in Papua New Guinean knowledge practices.

It is interesting to note the ways in which doctors' concerns with efficacy over diagnosis resonate with the practices of patients in the hospital. There has been a tendency within medical anthropology, and particularly those following a meaning-centred approach (Good 1994; Good & Good 1980; Kleinman 1980) to focus on patient's attempts to make sense of and create coherent explanations of their illness. In this view it is up to the anthropologist to undertake semiotic analysis of patient narratives in order to uncover the symbolic distinctions and associations through which patients make sense of the world. Such 'explanatory models' (Kleinman 1980) can then be used to explain and understand patients' treatment choices and decisions. This approach is also reflected less subtly in attempts within health care policy to recruit social anthropologists to uncover the 'beliefs' which explain non-compliance or will predict patient responses to medical practices and technologies.

However, patients in the medical ward of Madang hospital did not seem to be concerned with explanations of their illness.[4] And in their narratives they often drew on multiple explanations at once, usually referring to the breakdown of several different social relationships and their different effects. For example during the course of a single interview the sister of one patient, Claire, explained to me that his illness had been caused by the breakdown of his relationship with his wife, by sorcery after he got into a fight with people from another village when working in the town, by God as punishment for his bad behaviour, and by chemicals from the factory that he was working at in town. Such stories always involved reference to what must be done to ameliorate these social conflicts. In fact, rather than a list of possible explanations for her brother's sickness, Claire's narrative could be read as a list of actions that were required to rectify and 'put straight' the various relationships that had gone wrong, including paying compensation to his wife, praying to God, and requesting compensation from the factory boss. Patients and their relatives did not seem to be concerned to establish a single cause of their illness. Instead illnesses

[4] For another recent critique of the meaning-centred approach in medical anthropology, drawing on the work of sociologist Pierre Bourdieu, see Mogensen, H.O. 2005. Finding a Path through the Health Unit: Practical Experience of Ugandan Patients. *Medical Anthropology* **24**, 209-236.

make apparent problems in multiple relationships which need to be put right, and the hope is that in doing so the patient will recover. No one of these relationships is perceived as more 'real' or important than any other. Patients pursued relationships with doctors in a similar vein. Hospital medicine, it was said, would not be effective without the good intentions of the doctor. And patients knew, for example, that stating their belief that they had a western disease rather than were afflicted by sorcery was one means of eliciting the doctor's approval. So the multiplicity of different relationships or explanations of sickness which patients referred to need not be read as contradictory representations of reality, or multiple diagnoses. Instead these very stories can be read as attempts to engage in and change those relationships. Through their narratives patients can be seen not to be producing explanations (diagnoses) of their illness, but as orienting themselves towards different relationships in the hope of having particular effects.

Just as patient diagnoses often appeared as a by-product of doctors' attempts to treat and manage them, so if a patient did get well after attempting to straighten a particular relationship the illness was sometimes retrospectively attributed to this single cause. However, it was more often the case that following a recovery there would be little discussion of causes. More importantly, in so far as it was a product of other peoples' good intentions, the patient's recovered body provided them with evidence of their own social efficacy and the recognition of this efficacy by those they were in productive relationships with. Like the multiple provisional diagnoses which required action but were never narrowed down, talking about social relationships served as a predicate for action, but the intention was to act on these relationships not to narrow multiple causes down to one.

So just as with doctors, what is at stake here is a concern with efficacy, not natural truths. Single causes, or diagnoses, appear as potential by-products of action not as their goal. Instead, in both the cases of patients and doctors, the goal can be seen to be effective outcomes, but also recognition of that efficacy by others. For doctors, it was only through enlisting the recognition of other actors in the hospital that they were able to appear as autonomous agents. For patients it was only in enlisting others recognition of them that they were able to sustain the social relationships which would give them a healthy body.

So when we ask the ethnographic question 'how do diagnoses get made' we might discover that what is of concern to us as social scientists, in terms of how knowledge gets constructed, is not what is of concern to our informants, for whom what is significant is the distribution of agency and the possibilities for effective action. Unlike the version of medical practice we are given by television programmes such as *House*, or medical protocols and forms, diagnosis may not be the aim of medical practices, but a by-product of them. The inversion of the 'diagnosis to treatment' temporal frame in medical practice also, perhaps, has further significance for the social sciences in general. I described how within medical anthropology analysts often look for 'beliefs' as predictors of actions, and also that it is often assumed that patients are themselves concerned with finding explanations. Similarly protocols for hospital admissions assume that diagnosis, an intellectual process, must come before treatment, a practical process. The theoretical assumption underpinning these analytic approaches is that knowledge comes prior to and determines action. In recognising that knowledge production is itself a distributed and practical process, but also that

knowledge production may not be as significant to actors taking part in the practices as the social distribution of efficacy and recognition, we may need to rethink these theoretical concepts.

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