

24 Language and Medicine

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Medicine . . . forfeited pretension to be deemed a Science, because her Professors and Doctors . . . refuse to consider, in express terms, the relations between Things, Thoughts and Words involved in their communication to others.

F. G. Crookshank, M. D., 1923

0 Introduction

A lot has been written on language and medicine. More than one might imagine, judging by the extent to which the research in this hybrid field – which staked its place on the Great Map of Knowledge essentially in the 1980s¹ – has had a demonstrable impact in three areas we might take to be “diagnostic”: medical language itself, communication between patients and physicians, and our everyday discourse about illness and disease.² The second of these areas alone has spawned an extensive body of literature, which percolates down slowly into medical education and medical practice.

For practical reasons, this chapter will concentrate on western biomedicine (vs. other models of medicine studied, e.g., by medical anthropologists and semioticians) and on research in and about English. The choice of topics for inclusion, and their relative foregrounding and backgrounding, reflects to a degree my own biases and interests within the field. It could not be otherwise.

This chapter is organized into five sections. Section 1 touches briefly on doctor–patient communication (surveyed in depth in Ainsworth-Vaughn, this volume), focusing on differences in thinking, orientation, and research methodology between studies coming out of biomedicine and studies from humanities and social science fields. Section 2 deals with medical language as an “occupational register” and its constituent written genres. Section 3 looks at the literature–medicine interface, notably at theoretical notions and approaches to the reading/interpretation of texts that medical discourse analysts have borrowed from the field of literature, in particular the study of narrative. Section 4 deals with metaphors, in and of medicine. Section 5 probes the relationship of medical language to the “real world” of sickness and health.

We regret that this line of inquiry can no longer be pursued by Fleischman herself due to her untimely death from myelodysplastic anemia.

1 Doctor–Patient Communication

By far the lion's share of literature on language and medicine is about doctor–patient communication. As this is the topic of a separate chapter (Ainsworth-Vaughn, this volume), I limit my remarks here to noting interesting differences between the approaches and methodologies of researchers from biomedicine and those of discourse analysts, coming mainly from linguistics, English for science and technology (EST), and social science fields.

Discourse analysts (DA) tend to look at lexicogrammatical features (lexical choices, tense–mood variables, hedging devices, pronouns and passive voice, transitivity relationships), discourse structures and organization (“moves,” schemas and frames, thematic progression, topic–focus relations, foregrounding and backgrounding), features of conversation analysis (turn-taking, structures of adjacency), and particularly at the functions these phenomena fulfill in the discourse forms in question. By contrast, the interactional analysis systems (ISAs) developed within medicine – “observational instruments” (the term itself is revealing) designed to analyze the medical encounter – typically involve the methodic identification, categorization, and notably quantification of salient features of doctor–patient communication. Ong et al. (1995) compare twelve such systems with regard to what they measure, their clinical relevance, observation strategies used, “inter-rater reliability validity,” and “channels” of communicative behavior (i.e. applicability of the model to verbal and/or nonverbal behavior). Their study is based on 112 publications on doctor–patient communication from medical journals on hospital practice, medical education, social aspects of medicine, and in several medical specialties (notably oncology).³ This research is highly quantitative (findings are based on survey/questionnaire data) and minimally linguistic, in the sense that the variables investigated involve general phenomena of communicative behavior (posing questions, interrupting, using technical language, giving “bad news”), physician and patient attitudes (about death, bad diseases, how much information to give patients), patient expectations, and measures of patient satisfaction (the influence of certain communicative behaviors on “patient outcomes”). For the most part, this literature does not look at texts (spoken or written), hence there is virtually no analysis, distributional or functional, of lexicogrammatical features, discourse organization, or rhetorical conventions. There is some attention to semantics (Bourhis et al. 1989; Hadlow and Pitts 1991), since the meaning of isolated words is easier to study using the methodologies these studies employ.

In order to produce the kinds of data ISAs are designed to manipulate, communicative behaviors must be identified (e.g. as “privacy behaviors” or “high physician-control” vs. “low physician-control” behaviors; Stewart and Roter 1989), categorized (e.g. as “instrumental” (task-focused, cure-oriented) vs. “affective” (socioemotional, care-oriented)), and quantified. On the basis of two studies in their survey, for example, Ong et al. report that only 7 percent of “affective” behavior is conveyed verbally, 22 percent is transferred by voice tone, but 55 percent is conveyed by visual cues such as eye contact, body positioning, etc. (1995: 908). One wonders how these statistics are produced.

The research generated within the two “camps” shows a fundamental difference in approach and orientation. Whereas the discourse analytical literature tends to be

concerned with the interpretation of data, the goal of the biomedical literature is taxonomy/quantification. Case in point: a considerable literature has been generated in both camps on the subject of interruption. One study on the effect of physicians' communicative behavior in medical interviews (Beckman and Frankel 1984) has determined that 18 seconds is the mean length of time that elapses before a doctor interrupts a patient's first response to a physician-initiated question. This finding is unreflectively categorized as exemplifying "high physician-control behavior." Yet the sociolinguistic/discourse analytical literature on interruption has demonstrated that this speech behavior cannot automatically be interpreted as a dominance-associated violation of the speaking rights of others. Interruption serves various functions in conversation; in order to assess its function in a particular situation it is necessary to know, e.g. something about the roles and identities of the participants (for a review of this literature and a summary of the functions of interruption, see James and Clarke 1993: esp. 238–47).

Some of the results obtained from these biomedical studies might seem trivially obvious, e.g. that "the frequency with which patients ask questions seems to be strongly related to the prevalence of doctors' information-giving behaviors" (Ong et al. 1995: 908), or that "review of the literature suggests that patients often do not recall or understand what the doctor has told them" (Ong et al. 1995: 911). Most of the studies surveyed by Ong et al. (I cannot give an exact percentage) rely on statistically evaluable questionnaires and surveys, a staple of science and much social science methodology. Apparently, even the intuitively obvious is more authoritative when set on a foundation of statistical evidence.

Discourse analytical approaches, on the other hand, while not necessarily eschewing quantitative methodologies (intrinsic, e.g. to variation analysis), might ask questions like: what kinds of speech acts do the various questions instantiate (questions do not have a single, universal function)? How do they relate to/shed light on the identities/roles of the participants or the situation context in which they occur? (cf. Schiffrin's analysis (1994) of questions in interview situations, as presented in §3 of her chapter on the ethnography of communication). Does "speaker meaning" differ from "semantic meaning" and if so how? Since physicians are not trained to look at language from these perspectives or, therefore, to ask these kinds of questions, one can only hope that some of the findings of the DA literature surveyed in Ainsworth-Vaughn, this volume, might eventually come to their attention. Which brings us to the question of audience.

A significant factor accounting for the differences between the two bodies of literature involves their audiences and objectives. The overall objective of the medically generated research is to improve the physician–patient relationship as part of a broader agenda of improving health-care delivery. It is directed to physicians, with the ultimate goal of producing more satisfied patients. While this is undoubtedly an agenda of the discourse literature as well, it seems in most cases not to be the primary agenda, which is rather to extend the methodologies of DA into another field of application. The "proof of the pudding" is that this literature is rarely cited by medical researchers,⁴ from which one might infer that they do not read it.

2 Medical Language and Discourse Genres

French writer Julien Green once observed that while thought flies, words walk. Jammal (1988) comments similarly that science flies and its terminology walks – typically at a pace that lags far behind scientific advances.

There is less literature than one might expect on medical language, the occupational register of a tribe of white-coated speakers that gets passed from one generation of physicians to the next through the highly ritualized institutions of medical education. It is widely recognized as what sociolinguistics would call an “in-group dialect,” i.e. largely opaque outside the medical “confraternity.”

2.1 *Spoken and written genres*

The literature on medical language tends to concentrate in two areas: doctor–patient communication (section 1 above and Ainsworth-Vaughn, this volume), where the focus is on *spoken* discourse, and the language of particular genres of medical discourse. The latter are primarily *written*, save for case presentations, formal oral performances made by physicians in training to their peers and superiors, typically in the context of hospital “grand rounds” or other types of case conferences. The case presentation is a highly conventionalized linguistic ritual⁵ involving stylized vocabulary, syntax, and discourse structures which, when examined under a linguistic microscope, reveal tacit and subtle assumptions, beliefs, and values concerning patients, medical knowledge, and medical practice to which physicians in training are covertly socialized (see Anspach 1988).

With regard to spoken language, attention has also been paid to the in-group dialect physicians use in speaking to one another, notably about patients (cf. Klass 1984; Donnelly 1986; and Anspach 1988: 358–9 for additional references). The (largely ethnographic) literature on this topic uses medical language, particularly teaching-hospital slang, as a key to understanding the subculture that develops among physicians-in-training partly as a response to stresses generated by their work environment. Ethnographers of medical socialization, Anspach notes, have been particularly intrigued by the “black humor” and pejorative expressions for referring to hospital patients (*gomers, turkeys, crocks, brainstem preparations*)⁶ or their clinical status (a terminally ill patient is *CTD*, “circling the drain,” a patient who has died is said to have *boxed*), since these language phenomena fly in the face of the ostensible aim of medical training: to impart humanitarian values or a service orientation.

2.2 *The lexicon and semantics of medicine*

From a statistical study of 100,000 words from medical English texts, Salager (1983) distills “the core lexis of medicine” across specialties, while Jammal (1988) looks at how and why (mainly how) the technical vocabularies of medical specialties come to be constituted. Based on his experience compiling a dictionary of epidemiology, he offers a practical guide to the creation of terminology for fields of specialization.

Since the dictionary he worked on was bilingual (French–English), he pays particular attention to problems of translation from English, the international language of medicine (see Maher 1986). A question Jammal raises is: who ultimately decides which name/word should be chosen, among competing alternatives, to refer to a concept or disease entity? I doubt that the arbiter in these matters is, as he suggests, the lexicographer (“because it is his/her job to think about such questions,” 1988: 536); more likely, a consensus ultimately emerges from discussions among specialists. For a fascinating window onto a terminological controversy of this sort, see the debate over the naming of “preleukemic states” (INSERM 1975, discussed in Fleischman 1999).

2.2.1 *Vocabulary of family medicine*

Dixon (1983) looks at the vocabulary of family medicine and finds it sadly wanting, offering up “a restricted and very biomedical view of the world.” In the *International Classification of Health Problems in Family Care*, which serves as a dictionary for research in family practice, he notes a sizable vocabulary for classifying and describing respiratory infections, but only one word for poverty. Similarly, infectious diseases are categorized and subcategorized, while marital and family problems are presented in amorphous chunks (1983: 360). Occupying a kind of half-way house between the everyday language patients use to talk about the “lifeworld”⁷ and the technical language of the biomedical world, the language of family practice in particular, Dixon argues, needs to be modified so as to make more of a place for human values in a professional framework that is largely committed to a reductionist, biomedical view of health. (One finds this theme reiterated throughout the literature in humanistic medicine.)

2.2.2 *Euphemism*

Johnson and Murray (1985) explore the role of euphemism in medical language. Nineteenth-century disease names, like popular disease names since earliest times, were often euphemistic – consumption, St. Vitus’ dance, shingles, “tourista” – testifying to the hope, mystification, and resignation of patient and physician alike. Our elaborate system of euphemistic signifiers apparently evolved for the purpose of allowing medical teaching to take place with the patient present. While this language is still used in many cultures, particularly when the diagnosis is “bad,”⁸ American doctors, Johnson and Murray report, claim to avoid euphemisms with their patients.⁹ Johnson and Murray offer several possible explanations for this change in communicative practice. On the one hand, there is a sense in which “the real, solemn, Latin [or Greek!] name of something (put there by doctors) confers upon a disease, or on its sufferer, an importance which may be a kind of comfort” (1985: 151). This is the name, at any rate, that the sufferer will repeat to friends, telling them that she or he has *pityriasis rosea* (a harmless rash), *lymphadenopathy* (swollen glands), or *pernicious anemia* (a low red blood count, easily treated). Another rationale for scientific names is obviously pragmatic. Johnson and Murray (1985: 156–7) report that US physicians prefer “a clear and carefully worded scientific explanation of a patient’s condition” as a precaution against lawsuits (cf. Gordon 1996). But in patients’ experience “scientific explanations” are frequently anything but “clear” (cf. West 1984; Hirschberg 1985;

Bourhis et al. 1989; Hadlow and Pitts 1991; Platt 1992). Scientific nomenclature has thus, paradoxically, come to carry out the original function of euphemism.

2.2.3 *Technical language and ordinary language*

Some attention has been paid to the linguistic “gray area” in which the occupational register of medicine overlaps with ordinary language (Hadlow and Pitts 1991; Fleischman 1999; sporadically in the literature on doctor–patient communication). Occupational registers provide an efficient code for the transfer of information among specialists. Within knowledge communities, they provide a practical and convenient shorthand for talking about complex matters specific to a field. They are largely opaque outside the esoteric circle. A particularly slippery situation arises when technical language passes for ordinary language, i.e. when words have meanings – different meanings – in both dialects. Looking at psychological disorders the names of which have entered common parlance (e.g. depression, hysteria, eating disorder, obsession, “psychomatic” disorders generally), Hadlow and Pitts (1991) and Kirkmayer (1988) find that patients and medical professionals have different understandings of these terms. And in my own initial forays into medical literature, as a naive patient, I was unaware, for example, that the euphemism “supportive care” was a technical term (an umbrella term for a variety of actual therapies); it did not mean, as I had imagined, that patients were to be treated with empathy and respect. Nor did I realize that an “indolent” clinical course was a desirable thing to have. This latter expression, like a nurse’s reference to Oliver Sacks’s “lazy muscle” that prompted a mini-diatribes on descriptors (Sacks 1984: 46), illustrates medical language’s potential for “guilt by association” (metonymic contamination), subtle slippages through which characteristics of a disease or affected body part transfer to the sufferer as an individual (see also Donnelly 1986 and section 4.3 below). One of the most striking examples of the ambiguous gray area in which the esoteric dialect confronts the exoteric dialect is the term “morbidity” – coin of the realm in medical discourse, the affective charge of which is clearly more noxious in ordinary language.

2.2.4 *“Illness language” and “disease language”*

Medical language, as various observers have pointed out (McCullough 1989; Mintz 1992), is an abstract discourse about disease and organs; it is not about patients and their experience of illness. In principle, McCullough argues, only patients can employ illness language; physicians *qua* physicians have no other language at their disposal than the abstract (because it is not *about* patients) language of disease (1989: 124). Those who urge changes in physicians’ communicative practices, however, are less inclined to accept that physicians’ “hands are tied” by the traditional orientation of medical language (see Donnelly 1986, forthcoming, and section 2.3.2 below on case histories). One wonders too whether physicians’ language changes when they “cross over” and become patients? The “polyphonic” passages of Oliver Sacks’s (1984) narrative of his experience of a severe leg injury shed interesting light on this question (see also Hahn 1985).

Mintz (1992) emphasizes the *distancing* function of medical language, an artifact of its commitment to objectivity. The distance, he argues, develops not only out of poor communication between physician and patient but also, and more importantly, *as the*

language physicians use comes to modulate their experience of patients (1992: 223).¹⁰ Shades of Sapir-Whorf.¹¹ (What Mintz describes using the word “distance” is perhaps better characterized as language’s imperfect representation of the extralinguistic world – a paradoxical view for a Whorfian!) In particular, he dislikes the spatial metaphors and reification of diseases intrinsic to western discourse on medicine (the latter an artifact of our tendency to lexicalize diseases as nouns; see section 5 below). This discourse also tends to cast the sufferer in the role of a passive substrate, or medium, on which the more interesting player in the game, the disease, operates. Translating this into functional linguistic terms, we might say that the sufferer is assigned the “dative/experiencer” role and the disease the “agent” role (see Fleischman 1999);¹² or, in terms of “grounding” relationships, that the disease is foregrounded, the sufferer backgrounded. My own reading of a fairly large body of medical literature – research papers, even case reports – confirms this distribution of roles. In the highly competitive “scientific” world of medical research, illness sufferers risk being eclipsed in biomedicine’s crusade against disease – a state of affairs that is both reflected in and furthered by its language. Intrinsic to the “medicine as war” metaphor (section 4.2), for example, is biomedicine’s emphasis on *fighting disease* rather than caring for sick patients. Which, in turn, licenses a rhetoric of blame that casts the patient as the agent responsible when things do not work out as hoped or expected: “she failed chemo” rather than “chemotherapy failed in/with her” (cf. Kirkmayer 1988).

2.3 *The genres of medical writing*

Among the genres of medical writing that have attracted discourse analysts’ attention are the research article (Pettinari 1983; Salager-Meyer et al. 1989; Nwogu 1990), its abstract (Salager-Meyer 1990a, 1991; Nwogu 1990), popularizations of medical research in the news media or popular science magazines (Dubois 1986; Salager-Meyer et al. 1989; Nwogu 1990), textbooks of medicine and home medical books (Kahn 1983), and – by the lion’s share of the literature – hospital patients’ medical records or case histories (I use these terms synonymously; references in section 2.3.2 below), including those of bioethics cases (Brock and Ratzan 1988; Chambers 1996a, 1996b).

2.3.1 *Comparative genre analysis*

Several studies have undertaken to compare the discourse of different medical genres from the standpoint of rhetoric or surface-structure variables. Yanoff (1989) analyzes the “rhetorical features” (syntax, semantics, pragmatics, discourse function and organization, logic of argumentation, style) of “the six major genres” of medical discourse (as determined by a survey of medical schools),¹³ with attention to cultural and situational contexts. Nwogu (1990) compares research articles, abstracts, and popularizations (parallel texts dealing with the same subject matter) in terms of three aspects of discourse organization: schematic units or “moves” (segments of a text identified by a distinctive rhetoric and/or function within the text as a whole), types of thematic progression, and textual cohesion. The studies by Salager(-Meyer) and colleagues likewise compare (through quantitative analysis) the constituent “moves” of the research paper, abstract, case report, and editorial, with attention to

the communicative functions of particular variables (tense, active vs. passive voice, exponents of modality, hedging devices, connectives, negatives, interrogatives) within each one. A secondary agenda of the research by this group is pedagogical/ESL-oriented, i.e. to help nonnative medical students to recognize the discursive conventions of genres of medical English and to write well-structured texts. Also ESL-oriented are Van Naerssen's study on the lexicon, syntax, and discourse organization of the medical record (1985) and Pettinari (1983) on the use in surgical reports of distinct constructions for introducing "thematic" and "non-thematic" information (defined in terms of relevance, from the surgeon's perspective, to the goal of the surgical event).

2.3.2 Case histories

Among written genres of medical discourse, the case history has garnered the most attention, by far, and elicited the loudest call for reform – of its language as well the approach to medical practice that it reflects.¹⁴

The case history follows a ritualized format involving the frequent use of certain words, phrases, and syntactic forms, and a characteristic discourse organization. It includes information on how the patient's condition was noticed and diagnosed, how the condition has been treated, and how the patient responded to treatment. Psychosocial aspects of the case are presented (if at all) only after the medical problems have been discussed. The "problem-oriented medical record" favored by most teaching hospitals today (Weed 1970) organizes this information into four macro-categories, hygienically abbreviated SOAP: Subjective (the patient's statement of his or her condition), Objective (the physician's observations of the patient's condition), Assessment, and Plan.

Significant in this model is the fact that patients' accounts are set apart and relegated to the domain of the "subjective" – a negatively valued category in the world of science (see below) – and their observations are typically introduced using nonfactive predicators. Patients "state," "report," "claim," "complain of," "admit," or "deny" (see the excerpt below);¹⁵ physicians "note," "observe," or "find" (Anspach 1988: 368) – factive predicators that put a stamp of truth/objectivity on the information that follows. Writers of case histories tend to present information obtained from physicians (themselves or others) as factual, while treating information from patients as "an account" (Anspach 1988: 369; cf. n. 31 below). This is presumably done unconsciously; the "evidential"¹⁶ skewing is an artifact of the linguistic conventions of the genre. The example below is the history portion of the hospital admission summary (written by a resident) of a patient admitted for obstetrical care (from Anspach 1988: 373–4, my emphasis):

E. HISTORY (OB)

DATE OF ADMISSION:
11/07/84

The patient is a 21 year old Gravida III, Para I, Ab I black female at 32 weeks gestation, *by her dates*. *She states* that she has been having uterine contractions every thirty minutes, beginning two days prior to admission. *The patient* has a history of vaginal bleeding on 10/23, at which time *she reports* she was seen in the _____ Emergency Room and sent home. Additionally, *she does state* that there is fetal movement. *She denies* any rupture of membranes. *She states* that she has a known history of sickle-cell trait.

PAST MEDICAL HISTORY: Positive only for spontaneous abortion in 1980, at 12 weeks gestation. *She* has had no other surgeries. *She denies* any trauma. *She denies* any allergies.

REVIEW OF SYSTEMS: *Remarkable only* for headaches in the morning. *She denies* any dysuria, frequency, or urgency. *She denies* any vaginal discharge or significant breast tenderness. HABITS: *She denies* tobacco, alcohol, coffee, or tea. MEDICATIONS: *She* takes pre-natal vitamins daily.

FAMILY HISTORY: *Positive for* a mother with sickle-cell anemia. It is unknown whether she is still living. *The patient* also has a male child with sickle-cell trait. Family history is otherwise non-contributory.

Medical records are, conventionally, highly condensed summaries of large amounts of information. The example above is more fleshed out, less elliptical, than many. Hunter (1991: 91) sees the minimalism as “a goal of medical storytelling and an emblem of the efficiency that is an ideal of scientific medicine.”

Most analysts of this genre focus on (1) how case histories are written – and how they might be improved – and (2) the “translation process” through which patients’ *stories of illness* find their way into the medical record, transformed into *instances of disease* by the terse, objectifying, formulaic code that is the norm for this genre (cf. Mishler 1984; Kleinman 1988; Anspach 1988; Donnelly 1988, 1997; Hunter 1991: ch. 5; Charon 1992; Poirier et al. 1992; Smith 1996). Case in point: an individual tells the interviewing physician in training about his puzzled shock and dismay after noting passage of a black or “tarry” stool. This gets translated in the student’s written account as “melena.” Donnelly comments: “In one stroke, substituting ‘melena’ strips the event of the patient’s wonder, shock, and dismay and consigns it to a universe of anonymous stools blackened by the presence of digested blood. Not only has the patient’s subjective experience been objectified, but its particularity has been transcended by an abstraction” (1988: 824).

Among “questionable language practices” of the conventional case history, Donnelly (1997) includes:

Categorizing what the patient says as “subjective” and what the physician learns from physical examination and laboratory studies as “objective.” It is true that these terms . . . can be used *ontologically*, as I believe Weed intended when he made the[m] . . . part of the problem-oriented medical record . . . (*subjective* mental states and processes versus *objective* physical and biological phenomena). Unfortunately, the distinction is more commonly understood, especially in a science-using activity, *epistemically*, marking “different degrees of independence of claims from the vagaries of special values, personal prejudices, points of view, and emotions” [Searle 1992: 19]. Inevitably, then, categorizing what the patient says as “subjective” stigmatizes the patient’s testimony as untrustworthy. On the other hand, calling physical findings and laboratory studies “objective data” gives an air of infallibility to the quite fallible *observations* of doctor and laboratory.

This statement expresses one facet of a broader *cri de guerre* against the widely perceived “loss of humaneness or humanity in medicine” (Fein 1982: 863). It is representative of an increasing body of literature, produced largely within the enclave known as humanistic medicine, calling for reforms in medical education, with a

specific focus on language. The broader goal of these reforms is to restore to medicine the “personhood” of patients, who have been banished from a discursive stage on which organ systems essentially play out their dramas. (On the absent voice of the patient from medical case histories, see Poirier et al. 1992; for a nuanced analysis of how the *language* of case histories objectifies patients and devalues their subjective experience, see Anspach 1988). In an unorthodox attempt to remedy this situation, Charon (1986, 1989) asks second-year medical students to write stories about illness and disability *from the patient’s point of view* in addition to conventional histories of present illness.¹⁷

Discourse analysis of the medical case history ranges from highly quantitative (Van Naerssen 1985) to highly interpretive (Anspach 1988). From the various studies on this genre (see n. 14 above), two will be singled out for discussion: Anspach (1988) and Francis and Kramer-Dahl (1992).

Anspach looks at the rhetorical features through which claims to knowledge are made and conveyed and at the epistemological assumptions underlying them. She focuses on four aspects of case histories:

- 1 *Depersonalization*, i.e. the separation of biological processes from the individual. See the opening sentence of the excerpt above; throughout this excerpt the woman is referred to as “the patient” or “she,” no name, and ellipited altogether from statements of the physician’s observations (“positive for . . .,” “remarkable (only) for . . .”).
- 2 *Omission of agents*, e.g. through existential “there was . . .” constructions and agentless passives. These have the effect of emphasizing *what* was done rather than *who* did it let alone *why* a decision was made to engage in a given course of action.¹⁸
- 3 *Treating medical technology as the agent* (“The CT scan revealed . . .,” “Angiography showed . . .”). These formulations carry the process of objectification a step further than the passive voice: not only do the writers fail to mention the person(s) who performed the diagnostic procedures, but they also omit mention of the often complex processes by which angiograms and CT scans are interpreted. In treating medical technology as if it were the agent, such formulations support a view of knowledge in which instruments rather than people create the “data.”
- 4 *The use of non-factive predicators* such as “states,” “reports,” and “denies” (Anspach calls these “account markers”), which emphasize the subjectivity of the patient’s accounts.

What distinguishes this study from many others is not only its lucid and insightful analysis of the style of this genre of medical discourse, but also the author’s attempt to ferret out the (unconscious) epistemological assumptions informing this style (1988: 369–72). Language, as Dr. Freud reminds us, is never innocent.

Another illuminating study of the medical case history is Francis and Kramer-Dahl’s comparison (1992) of the title essay of Oliver Sacks’s collection *The Man Who Mistook His Wife for a Hat* (Sacks 1985) with a “standard” case report of a patient with the same neuropsychological disorder. Through a nuanced analysis of lexicogrammatical patterns (using Halliday’s transitivity model), the authors show how Sacks’s linguistic choices reflect his beliefs about neurologically afflicted human beings, their

conditions, and their relationships with their physicians, beliefs that tend to be erased by the language and text-structure of conventional case reports. The authors also emphasize the intertextual dialogue Sacks's "clinical tale" (his term, cf. Sacks 1986) engages in with "standard" case histories, questioning the ideology they encode. Sacks's view of professional case reports is that "their rigor and exactness may be useful in the construction of hypotheses about neurological conditions, but they can never convey the 'experience of the person, as he faces, and struggles to survive, his disease'" (Francis and Kramer-Dahl 1992: 81). As we have seen, this is a "chief complaint" of humanistic medicine, which often looks to language for remedies. Sacks's clinical tales spin out a heteroglossic discourse in which two "languages" illuminate one another: on the one hand, the scientific community's rigorous mode of observation and discovery, and on the other, the traditional storytelling mode.¹⁹

3 What Does Literature Have To Do with Medicine?

In recent years a number of medical discourse analysts (notably those trained in English departments) have turned to the field of literature for methodologies, models, and concepts for text analysis/interpretation.²⁰ Among the more productive analogies, to my mind, is the notion that doctors can learn to "read" patients using the interpretive strategies readers apply to literary texts (Charon 1986, 1989; King and Stanford 1992). Certain of the phenomena on which attention has been focused, however, are not specific to literature: repetition and parallelism, formulaicity, narrative "voice," point of view, description of participants ("character development" in fiction), "reading for the plot." But perhaps because they have been studied initially or primarily with respect to literary discourse, or because of the analysts' literary background, they are thought of as "literary" devices. In particular, research into narrative's role in medicine is often informed by an (unstated) assumption that literary narrative is the unmarked form of narrative (e.g. Poirier and Ayres 1997), an assumption many nonliterary narratologists might dispute.

This section will focus on three topics relevant to the literature–medicine interface: the role of narrative in medical discourse and medical thinking (section 3.1), narrative "voice" and point of view (section 3.2), and "pathographies," personal narratives about an experience of illness (section 3.3).

3.1 *Narrative in medicine*

Narratologists who have studied (nonfictional) narrative are keenly aware that what storytellers provide is not a verbal icon of a pre-existing structure of real-world experience. Rather, they cull from, and configure, the experiential database from which the story is constructed, notably in ways that support "the point" they wish to make in telling the story (see, e.g. Labov 1972; Fleischman 1990: section 4.1). This commonplace of narratology comes as "news" to at least some researchers who have undertaken to analyze medical case histories from a narrative point of view.

Observing that bioethicists have generally paid little attention to the rhetorical features of case presentations (but see Brock and Ratzan 1988), Chambers (1996a) compares four presentations of one of the best-known bioethics cases in the history of the field, the story of burn victim Donald "Dax" Cowart, who was not allowed to die. By comparing the different redactions of Cowart's story, with particular attention to features such as character development, narrative voice, and point of view, Chambers demonstrates how case writers suppress elements of the case that would challenge the premises of their theories. His broader agenda is to demonstrate the "constructed" nature of ethics cases and the extent to which the constructions are driven by particular ethical theories (see also Chambers 1996b). As stated above, this conclusion comes as no surprise to investigators of narrative in other settings (conversation, ritual performance, the courtroom, etc.). But apparently in the field of medicine (including medical ethics), which joins with "scientific" disciplines²¹ in its ideological investment in objectivity, the case must still be made that narrative accounts are subjective, "constructed," and shaped by the point the teller wishes to make.

The terms "narrative" and "story" (here used synonymously) have different meanings in different disciplines. In the literature on the medical encounter and the documents it generates, notably the patient's chart and case history, the phrases "doctors' stories" and "patients' stories" come up frequently. The latter is fairly straightforward, inasmuch as patients typically "tell a story" that explains their presence in the physician's office, and that story is a constituent element of the medical interview "frame." The phrase "doctors' stories," however, seems to have a greater range of meanings. In some studies it seems to be synonymous simply with "explanation" or "prognosis" (Boyd 1996), whereas in others it refers to more prototypical narratives.

The phrase "doctors' stories" provides the title for Kathryn Hunter's book (1991), the main agenda of which is to call attention – particularly within the medical community – to the crucial importance of narrative to the institution and practice of medicine. Narrative, Hunter argues, is integral to the medical encounter, to communications by and about the patient, and to the structure and transmission of medical knowledge (cf. also Hunter 1996; Epstein 1995). The patient's story is told to and interpreted by the physician, who then tells another story about the patient, in case format, to other physicians, and records that story in a formulaic chart entry. Hunter observes that most of the rituals and traditions of medicine and medical training are narrative in structure – the "medicine is a detective story" metaphor rests on the notion that "diagnostic reasoning [i]s a fundamentally narrative enterprise" (Epstein 1995: 43) – and explains why narratives such as cautionary tales, anecdotes, case reports, and clinical-pathological conferences must be seen as central, not peripheral, to medicine. This thesis is further developed as a "take-home message" to physicians: that if they will recognize the narrative structure of medicine, they will attend better to their patients, in part by acknowledging the details and importance of their patients' life stories.

Hunter is not alone in advocating that physicians accord greater importance to patients' stories than has traditionally been the case in biomedicine. There is a strong impetus in this direction, particularly among advocates of the "biopsychosocial model" of health and illness (Engel 1977; cf. Charon 1986, 1989; Donnelly 1988, 1997; Poirier et al. 1992; Smith 1996; and references provided in Ainsworth-Vaughn, this volume).

Chapter 7 of Hunter's book is devoted to the "narrative incommensurability" of doctors' and patients' stories. Doctors differ from patients in the ways in which they use language and the purposes to which they put words. Doctors use words to contain, to control, to enclose (Charon 1992 and Epstein 1995 express a similar view). One of the central assertions of Epstein's book is that medical narratives are produced, in part, to "contain human beings, . . . to hold their anarchic potential in check" or "to rein in the threatening aberrational potential of the human body" (1995: 4, 20).²² Patients, on the other hand, use language to express the sensations of things being amiss. Rather than categorizing and reducing, patients enlarge and embroider. Doctors simplify, patients complicate (Charon 1992: 116).

3.2 *Narrative "voice" and point of view*

Literary narratology insists on a distinction between "narrative voice" (who is speaking?) and "point of view" (whose perception orients the report of information?).²³ Since narrators commonly undertake to tell what other individuals have seen or experienced (this is standard in the medical chart or case history, where the patient's words and experiences are entered into the record using the physician's language), it is necessary to keep these two notions distinct at the theoretical level. In the literature on medical discourse the two notions are often conflated and the terms used interchangeably. Poirier et al.'s discussion of "the absent voice of the patient" (1992: 7–9) is really about the absence from the chart of the patient's *point of view* (they mention, in fact, that the Subjective entry in SOAP notes (see section 2.3.2) typically begins with a direct quote from the patient). This use of the term "patient's voice" is also encountered in regard to pathographies (section 3.3). King and Stanford (1992) implicitly address the issue of point of view in arguing for a "dialogic" (patient and physician) rather than the traditional "monologic" (physician only) storying of patients. In the studies surveyed in this connection, the collapsing of the theoretical distinction between voice and point of view is not problematic, though it could be, a fortiori since in "medically plotted" stories, the observing, narrating speaker is conventionally effaced and the story written as if "the medical facts" speak for themselves.

Bioethics cases in particular can be "evidentially" problematic as a result of the case writer's failure to properly identify participants' distinct points of view, all reported through the narrator's voice. Chambers (1996b) discusses a case that revolves around what to do about a psychiatric patient who refuses to complete a course of electroshock therapy but has become violent and suicidal. What Chambers finds problematic about the ethicists' write-up of this case in their textbook, which claims to present "accurate accounts of actual cases," is that although there are three points of view in this story – the physician's, the patient's, and the ethicists' – the story told reflects only the point of view of the physician (as determined by identifying linguistic features).

3.3 *Pathography*

Narratives about an experience of illness have proliferated in America over the past several decades, notably in the form of biographies and autobiographies often referred

to as “pathographies.” Hawkins (1984, 1993) surveys this burgeoning body of literature, tracing the metaphors and patterns of myth-making at work, and examining the ways in which writers of pathographies borrow from the metaphorical archetypes – the journey, war/battle, death and rebirth, the body/soul analogy – to describe and come to terms with the experience of serious illness. Whereas Hunter (1991) sees pathography as a genre of protest literature against the medical reification of patients (see n. 10 on the “metonymic imperialism” through which “patients” are transformed into “cases”), Hawkins views it as complementary to the medical case report. Using a striking visual metaphor, she observes: “Case reports and pathography function as mirrors set at an oblique angle to experience: each one distorts, each one tells the truth” (1993: 13).

A comparison of two reviews of Hawkins 1993 (= H.), from the journals *Theoretical Medicine (TM)* and *Literature and Medicine (LM)*, sheds illuminating light on the ideological divide alluded to above (section 1) between a traditional biomedical approach and a humanistic approach to illness. The reviewer for *TM*, a psychiatrist, fails to engage H.’s study on its own terms, opting instead to elaborate his “dislike [of] the genre to which Hawkins gives the name of *pathography*” (the term is in fact from Freud). Too often, he opines, “pathographies represent an attempt to impose the patient’s subjective interpretation as an objective fact, . . . a kind of power trip.” H. makes clear that she reads pathography *not for reportorial accuracy* but to understand the prevalent metaphors used by illness sufferers to “formulate” their experiences.²⁴ In her view pathography “restores the person ignored or cancelled out in the medical enterprise, . . . [and] gives that person a voice” (1993: 12). Is it a bias of psychiatry (or of the particular reviewer) or is it endemic to biomedicine that “effective therapy may depend on convincing the patient that his voice is wrong, or at least unhelpful” (*TM*)? By contrast, the reviewer for *LM* credits H. with giving these narratives of illness experiences “the status they deserve as a major resource for clinical teaching and reflection.” As an occasional reader of pathographies, I share the *TM* reviewer’s dismay at the tabloid quality of many of these accounts, those in the *New Yorker* and Sacks’s *A Leg to Stand on* (1984) being notable exceptions.²⁵ However, I recognize their value as cultural documents, of particular interest for their use of metaphors. Which brings us to the topic of the next section.

4 Metaphors in Medicine

Since the publication in 1980 of Lakoff and Johnson’s *Metaphors We Live By*, which argues for the pervasiveness of metaphor in everyday life and thought, researchers have undertaken to explore the metaphorical substrate of a wide range of domains of experience and fields of inquiry. Medicine is no exception. The topics one might discuss under the rubric of “metaphors in medicine” are many and the studies too numerous to survey in depth. I will of necessity be selective. After a brief introduction (section 4.1), I will look primarily at the use of metaphors within medicine – western medicine’s predominant conceptual metaphors (section 4.2) and the metaphors generated by body parts and their afflictions (section 4.3) – and secondarily at metaphors medicine has “exported” (section 4.4). I conclude this section with

a “balance sheet” assessing the advantages and disadvantages of metaphorical language/thinking in medicine (section 4.5).

4.1 Introduction

In 1989 the interdisciplinary journal *Soundings* devoted a special section to “Metaphors, Language, and Medicine” (Carter and McCullough 1989), offering a spectrum of essays on topics that include the metaphoric language of pain (Landon 1989); metaphors in doctor–patient communication (McCullough 1989; Donnelly (repr. of Donnelly 1988); Carter 1989); the familiar metaphors of “Medicine is war” (Ross 1989; Diekema 1989) and “The body is a machine” (Osherson and AmaraSingham 1981; Kirkmayer 1988; Diekema 1989), and metaphors of destruction and purgation (Maher 1989); as well as the moral and cultural implications of medicine’s metaphors (Kirkmayer 1988; Diekema 1989). The other major study of metaphor in medicine, van Rijn-van Tongeren (1997), looks at metaphors in medical texts (specifically in cancer research, but with broader implications). Following Lakoff and Johnson, van Rijn-van Tongeren (= V.) starts from the position that metaphors should be seen as surface representations of an underlying conceptual system, then proceeds to identify (1) the kinds of metaphors used to structure medical concepts and (2) the functions of metaphorical expressions in medical texts. Analysis of how the “recipient,” or target, field of a metaphor is structured by the “donor,”²⁶ or source, field is used to reveal which aspects of a phenomenon are “highlighted” and which are “obscured” (see section 4.5) by the metaphor applied to it.

V. sees metaphorical expressions in medical texts as serving three functions: catachretic, didactic, and theory-constitutive. The first two are applied to objects or phenomena that are already known: *catachretic* metaphors fill gaps in a vocabulary, e.g. the initial “blood vessels as rivers” metaphors, instantiating the conceptual metaphor “Anatomy is a landscape”, while *didactic* metaphors explain new concepts by means of familiar concepts, e.g. the *transcription machinery* of m[essenger]RNA (itself a metaphor), instantiating both “The body is a machine” (specifically “Cells contain machinery”) and “A genome is a text.” *Theory-constitutive* metaphors, on the other hand, are applied to phenomena that are not yet known in order to structure them and discover what they are “like”; they cannot, therefore, be replaced by “literal” terms. V. emphasizes that the function of a metaphor is *context dependent and may change* in the course of investigation. Especially theory-constitutive metaphors may change their function and acquire a didactic function, when discoveries are made on the basis of the theory metaphor.

Though conceived with regard to texts in medical research, V.’s typology of metaphors has applications elsewhere in medicine. Didactic metaphors in particular are “coin of the realm” in doctor–patient communication, as physicians are called upon to explain complex pathophysiological phenomena to their patients (cf. Carter 1989; Fleischman 1999). Some of the most profound aspects of the physician–patient relationship are not easily talked about – cf. Dixon’s (1983) article on the language of family practice, aptly subtitled “at a loss for words” – and thus lend themselves to catachretic metaphors. These metaphors can reveal dimensions of an ailing individual not accessible through medical models (Marston 1986), and thereby tap into healing

resources within the patient (Carter 1989). The challenge, of course, is to discover which metaphors best serve the individual patient's healing (Fleischman 1999).

4.2 *Biomedicine's conceptual metaphors*

As Diekema (1989: 19) points out, there is a dialectic between the metaphors of a culture and the medicine that evolves within that culture. In American culture and among American physicians there is a prevailing view that disease is an *outrage*, a violation of the true nature of life rather than a natural part of it (cf. section 5.1). Viewing disease as an outrage, Ross (1989: 40) argues, lays the groundwork for what is undoubtedly the dominant conceptual metaphor of biomedicine: "Medicine is war."

"Medicine is war" has long informed the thinking/discourse about infectious disease (Sontag 1978; Burnside 1983), and more recently about cancer, AIDS, and other epidemic diseases (Sontag 1978, 1989;²⁷ Brandt 1988; Ross 1988, 1989; Norton et al. 1990 van Rijn-van Tongeren 1997; among many). It constitutes a major piece of the ideological underlay of the biomedical model (cf. Hawkins 1984; Hodgkin 1985; Diekema 1989; Mintz 1992). It is this metaphor, for example, that underwrites biomedicine's emphasis on *fighting disease* rather than caring for sick patients.

The rising expectations for cure on the part of illness sufferers in western industrialized societies are due in no small part to the prominence in these cultures of the "Medicine as war" metaphor, which government and the media have seized upon – how better to unite a fractured society than through opposition to a universally acknowledged "enemy"? – but which certain cultural critics (Sontag, Ross) find inappropriate, if not covertly insidious. Ironically, as Sontag points out in her "deconstruction" of this metaphor that informs the discourse around cancer and a fortiori around AIDS, the patient emerges as both victim and responsible agent (1978: 57; cf. also Kirkmayer 1988).

Like all metaphors, "Medicine is war" has advantages and drawbacks (see section 4.5). While the imagery of fighting provides many patients with motivation, optimism, and comradeship, whence its prominence in pathographies, it can also contribute to despondency if the disease becomes terminal (Stibbe 1997) or to a sense of personal failure. And Hodgkin (1985) points out that certain entailments of this metaphor – action is a virtue, doctors are fighters, technologies are weapons, disease is the enemy – only further the view that patients are not the "real" focus of medicine but merely the clinical stage on which the main protagonists of the drama do battle. Finally, to the extent that war is still a largely male enterprise, this metaphor subtly reinforces medicine's traditional gender bias.

As noted above, the language of medicine assigns physicians an active role and patients, by default, a passive role (cf. Burton 1982). This "transitivity" relationship is supported by both the war metaphor and the other major conceptual metaphor of biomedicine: "The body is a machine" (see Hodgkin 1985; Diekema 1989; Mintz 1992; van Rijn-van Tongeren 1997). This metaphor has a long tradition, from Descartes through nineteenth-century positivism. According to this view, the individual is seen as the sum of the body's parts, many of which have their own individual mechanical analogues: "The heart is a pump," "The digestive system is plumbing," "The brain is a computer,"²⁸ "A cell is a machine," and "Cells contain machinery."

The conceptual macrometaphor suggests that we place our bodies in a custodial relationship to the medical establishment analogous to the relationship of our vehicles, for example, to the confraternity of auto mechanics to whom we turn for repairs or replacement parts (on the “fix-it” metaphor, see Kirkmayer 1988; Carter 1989). Doctors and patients alike may find objectionable, because dehumanizing, the image of physicians who work as mechanics or technicians and of illness sufferers metonymically reduced to a malfunctioning body part (see section 4.3). Warner (1976) goes so far as to suggest that the power of this metaphor might contribute to an overuse of surgical procedures.

Another prominent set of metaphors in medicine are those of “marketplace economics.” These metaphors inform our language about diseases (TB, cancer, and now AIDS), and with the current emphasis in America on “managed care,” health care itself. Sontag (1978) points out that the fantasies about TB that arose in the nineteenth century (and continued into the twentieth) echo the attitudes of early capitalist accumulation: one has a limited amount of energy, which must be properly spent. Energy, like savings, can be depleted, run out, or be used up through reckless expenditure. The body will start “consuming” itself, the patient will “waste away” (1990: 62; see also Rothman 1994). *Mutatis mutandis*, this network of metaphors has migrated into the thinking/discourse about AIDS. And if TB was conceptualized via images that sum the negative economic behavior of nineteenth-century *Homo economicus* – consumption, wasting, squandering of vitality – then cancer is conceptualized through images that sum up the negative behavior of twentieth-century *Homo economicus* – unregulated, abnormal growth, repression of energy (refusal to consume or spend) (Sontag 1990: 63).

Health care in America today is more than ever before a matter of economics. Discussions of treatment, procedures, drugs, and hospitalization are suffused with marketplace concepts and vocabulary, which have clearly influenced our thinking about the treatment of illness. Particularly since the rise of the carefully controlled biomedical economy referred to as “managed care,” commodification has become a reality and not simply a way of thinking and speaking. “Health care is a commodity”: treatments are “sold” by physicians and hospitals and “bought” by patients (the euphemism “health-care consumers” proliferates in policy statements and media discourse), and physicians are employees of medical “businesses.” Optimal “delivery” of health care is “calculated” according to a balance sheet, notably by the “bottom line” (cf. Fein 1982; Diekema 1989). Medical education, too, is increasingly subject to the “law of supply and demand,” notably as regards the training of physicians in subspecialties.

Other conceptual metaphors of medicine have been or will be dealt with in other sections of this chapter: “the patient as text” (section 3), “disease as an object” and its corollary “the patient as container” (section 5.1), and spatial metaphors, notably “causation (etiology) as a line” (section 4.5). A leitmotif running throughout Hunter’s *Doctors’ Stories* (1991) is the metaphor of “medicine as a detective story” (cf. also Hodgkin 1985).

4.3 *The body and its metaphors*

As linguists, anthropologists, and cultural investigators of the body have long recognized, in virtually every language and every culture *body parts serve as metaphors*.

They come to stand for perceived physical or mental states, and as such, take on “a new life” in language. One need only think of expressions such as *eat your heart out!*, *he hasn't a leg to stand on*, *it makes my blood boil*, *she gets under my skin*, *a gut reaction*, *get off my back!*, or *in your face* – all based on associative meanings that attach to the respective body parts in English. Some of these associations extend across languages and across cultures.

The symbolic and metaphorical meanings that attach to body parts naturally carry over to illnesses affecting those body parts, and may have as profound an impact on the sufferer, consciously or unconsciously, as the bodily distress occasioned by the symptoms of the pathology. A disease of the *heart*, for example, calls up a potent symbolic universe in virtually every culture of the world (see Good 1997; Matisoff 1978), confronting us directly and unavoidably with our mortality. (The recent redefinition of death in terms of the *brain* and not the *heart* is bound to yield some interesting metaphorical shifts.) The metaphoric potential of a disease of the *eyes* is likewise far-reaching, given the primacy of vision among our perceptual senses and its quasi-universal link to cognition (“I see” means “I understand”). Since *blood* is universally viewed as the transmitter of lineage, the taint of a blood disorder may extend symbolically (if not also in actuality) down through the entire vertical line of the sufferer’s “blood relations.” And especially in recent times, blood has also become the organ of contagion par excellence. And a disease that affects the *bone marrow* is symbolically one that touches the deepest cellular recesses, the core of one’s being (Fleischman 1999).

When a person suffers from an illness, the affected organ or body part is never *just* a body part. Illnesses typically evoke the symbolic meanings that body parts acquire in the context of a culture, which are frequently metaphorical (on the ways in which signs of health and illness serve as metaphors and metonyms generally, see Staiano 1986). Staiano also observes a tendency to express diffuse, ill-defined, unstated, or unstatable social or personal concerns (fears, anxieties) in concrete, physiological terms. In this metaphoric process of somaticizing the social and personal, reference is often made to body parts (“my blood is stagnating,” “there must be something wrong with my liver,” “I have heart distress,” “my guts are in a knot,” etc.).

Health-care professionals too commonly engage in linguistic (and conceptual) troping. The trope most frequently commented on involves reducing patients to an afflicted body part. Just as a waiter in a restaurant might say, metonymically, “the ham sandwich wants his check” (Lakoff and Johnson 1980), the physician or nurse may come to regard body parts as synecdoches standing in place of the patient as a whole: “the gall bladder in 312 needs his IV changed.” On consequence of such troping, which apparently occurs not only in biomedicine but also in traditional forms of medical therapy (Staiano 1986: 27), is the exclusion of the patient from the ensuing treatment, which becomes directed toward the synecdochic sign.

But if from the healer’s perspective the sufferer becomes the affected body part, from the sufferer’s perspective the synecdochic process may work in the other direction: the ailing body part becomes you. Oliver Sacks articulates this feeling of the body part’s takeover of the self when he writes: “What seemed, at first, to be no more than a local, peripheral breakage and breakdown now showed itself in a different, and quite terrible, light – as a breakdown of memory, of thinking, of will – *not just a lesion in my muscle, but a lesion in me*” (1984: 46).

4.4 *Medicine's metaphorical "exports"*

In any culture the body provides a powerful set of metaphors for talking about society and the "body politic" (Benthall and Polhemus 1975; Staiano 1986), about social institutions, and about the character of individuals (on the influence of the medieval doctrine of the humors/temperaments on our contemporary vocabulary, see Geeraerts and Grondelaers 1995). It follows, then, that the body's ills will become metaphors for "the ills of society" (see n. 29). The illness/disease metaphors that medicine has "exported" are too numerous to list. Some that come readily to mind are being *blind* to reality, *deaf* to all entreaties; having a *lame* excuse, an *anemic* economy, or your style *cramped*. Public transit systems become *paralyzed*, traffic arteries *blocked*, college majors *impacted*. The terms *pathology/pathological* have extended their domain of reference from "the branch of medicine that studies diseased tissues" to groups, individuals, or behavior "deviating from a sound or proper condition" (the relationships in that family are *pathological*, standard languages are *pathological* in their lack of diversity).

As various investigators have pointed out, Sontag in particular, epidemic diseases offer wide possibilities for metaphorization to the social body or body politic (the term *epidemic* itself has become a metaphor, as in an *epidemic* of house selling). The discourse of social complaint is rife with allusions to *poxes on*, *plagues to*, and *cancers of* society, often expressed using *inflammatory* rhetoric. Sontag notes (1990: 14–15) that the earliest figurative uses of cancer are as a metaphor for "idleness" and "sloth." But as cancer biology became better understood, these were replaced by uses privileging the notions of "abnormal proliferation" and "unregulated spread or growth." Albeit one of the most thoughtful commentators on medicine's metaphorical legacy, Sontag is strongly of the opinion that "illness is *not* a metaphor, and that the most truthful way of regarding illness – and the healthiest way of being ill – is one most purified of, most resistant to, metaphoric thinking" (1990: 3).

4.5 *Highlighting and obscuring*

Like others who have looked at metaphor, van Rijn-van Tongeren (1997) emphasizes that metaphors can limit as well as advance our thinking. Because they always structure partially, metaphors foreground certain aspects of a phenomenon, while others remain backgrounded, or obscured altogether (Lakoff and Johnson's 1980 "highlighting and hiding"). For example, what is highlighted when a "body as machine" metaphor is used is that the process is controllable by humans. Machine metaphors suggest that the "mechanism" of a phenomenon is understood (by some at least), since machines are made by people. Applied to natural phenomena, these metaphors hide the fact that many of the "secrets" and "laws" of nature – including many aspects of bodily functioning – are still poorly understood. Likewise, the metaphor "(Tumor) cells are human beings acting independently and autonomously," used in descriptions of cancer at the cellular level, may obscure other factors, both external (chemicals, radiation, dietary fat) and internal to the body (hormones, the enzyme "telomerase," thought to be responsible for cellular *immortality*), that have been implicated in carcinogenesis.

Similarly, the pervasiveness of certain metaphors may exclude other equally valid ways of viewing health and illness. Warner (1976) suggests that European languages' extensive use of spatial metaphors to express abstract concepts (e.g. "Causation is a line") may encourage a rigid categorization of disease and inhibit our ability to conceive of diseases as having more than one cause. Van Rijn-van Tongeren (1997: 93) makes a similar claim for "agent" metaphors.²⁹

Moreover, therapies are linked with theories, as van Rijn-van Tongeren points out (1997: 96), and metaphors constituting medical theories thus determine the therapeutic possibilities. When therapies are deemed inadequate, alternative theory-constitutive metaphors have to be found. The issue of "highlighting and hiding" is important in connection with medical theories, since valuable therapeutic possibilities may be obscured by the metaphors constituting those theories. For example, the development of new cancer therapies based on regulating "apoptosis" (a mechanism for cellular *suicide*, or *programmed cell death*) or inhibiting the expression of telomerase in malignant cells (see above) supports but also challenges the metaphor "(Tumor) cells are human beings acting independently and autonomously." Research in these areas is consistent with the view of tumor cells as human beings; it challenges the view that cells act independently. As van Rijn-van Tongeren suggests (1997: 96), analysis of the way in which the target field of a metaphor is structured by the source field may reveal which aspects of a phenomenon are highlighted and which hidden, and thus contribute to finding alternative metaphors to establish new theories.

As possibilities for alternative metaphors that medicine might draw on, Hodgkin (1985) suggests: "Medicine is collaborative exploration," "The body is an enduring pattern," "The body is a biochemical dance," commenting on the kinds of thinking each implies. While these all point toward a "kinder, gentler" model of medicine, desirable from just about everyone's point of view, they seem excessively complex and sophisticated for basic conceptual metaphors and, thus, unlikely to capture the ordinary metaphorical imagination.

5 Language in Relation to the "Real" World of Sickness and Health

Warner (1976) offers a brief but penetrating cross-cultural exploration, Whorfian in inspiration, of language's role in shaping our conceptions of health and illness. Changes in biomedical practice and orientation since the mid 1970s render certain of his observations now inaccurate (though nonetheless insightful). Still, the study stands as one of the few in the linguistic literature to address the issue of how the lexicogrammatical resources of a language influence speakers' conceptions of illness and disease (this issue looms larger for medical anthropologists and semioticians than for linguists).

5.1 *The nominalization of disease*

Warner's most interesting remarks concern lexical categorization and grammar. The use of nouns instead of verbs to express the idea of illness (he *has cancer/hypertension*

vs., e.g. *he is *cancering/hypertenses*) has interesting implications. It may, he argues, lead to a view of diseases as static entities rather than dynamic processes; and if there is anything disease is *not*, it is not static (cf. also Hodgkin 1985; on what gets expressed as a noun and what as a verb across languages, see Hopper and Thompson 1984, 1985). In addition, the nominalization of diseases serves to segregate illnesses as distinct entities rather than defining them as aspects of bodily functioning. Warner quotes Lambo (1964) as stating that “the concepts of health and disease in African culture can be regarded as constituting a continuum with almost imperceptible gradations” – this in contrast to our notion of “the sick” and “the well” constituting discrete communities (Sontag 1990).

An entailment of the “Diseases are objects” metaphor – and consistent with the biomedical view of health – is that “Illness sufferers are containers” for those objects: he’s *full of cancer*, let’s *get in there* and control the bleeding (Hodgkin 1985). This conceptualization is useful in that one can physically put pills, injections, IVs into patients and take gall bladders and appendixes out of them. Yet to the extent that patients are thought of as mere vessels of disease, their importance in the arena of medical care diminishes.

Various investigators have commented on the lexicalization of diseases as *things* (Crookshank 1923; Cassell 1976; Fleischman 1999). Fleischman introduces this topic as part of a broader argument that disease entities are ultimately *constructs* – of medical diagnostics in the first instance and ultimately of language. The examples involve blood disorders that commonly evolve into one another – supporting the notion of disease as dynamic process – but are thought of as discrete entities (especially in the exoteric circle) *because of* the different names given to them. The other side of this coin is where a single diagnostic label, e.g. *schizophrenia* (Warner 1976) or the less familiar *myelodysplastic syndrome(s)* (Fleischman 1999), is applied to a heterogeneity of pathology. Such situations can have significant repercussions for recipients of these diagnoses, in that potentially important differences regarding treatment and prognosis may be obscured by the common signifier.³⁰ Both situations come into play in the fascinating history Crookshank details (1923: 347–55) of medicine’s attempts to disentangle the “diseases” named influenza, poliomyelitis, poliomyelitis, and encephalitis lethargica. Generalizing, he states:

disease concepts, or, more simply, *diseases*, . . . are symbolized by *Names* which are, of course, the *Names of Diseases*. But, as time goes on, and the range and complexity of our experience (or *referents* [afflicted individuals]) extend, we find it necessary to revise our *references* [disease-concepts] and rearrange our groups of *referents*. Our symbolization is then necessarily involved and we have sometimes to devise a new symbol [name] for a revised reference, while sometimes we retain an old symbol for what is really a new reference.

These processes are usually described as the discovery of a new disease, or the elucidation of the true nature of an old one. . . . But when, as so often happens, a *name* is illegitimately transferred from the *reference* it symbolizes to particular *referents*, confusion in thought and perhaps in practice is unavoidable. (Crookshank 1923: 341, bolding mine)

5.2 Naming across languages

Kay (1979) studies the lexicon of illness terms used by bilingual Mexican-American women. This is a paradigm study on issues raised by bilingualism and “medical biculturalism” (the coexistence of different health systems), with implications for medical anthropology (e.g. though the vocabulary of disease terms reflects linguistic and cultural interference, the different names do not represent compartmentalized participation in different health systems; cognitions of illness seem to be situated within a single unified theory) as well as for linguistics (new disease names emerge, and changes are observed in the meanings of established disease names). Among linguistic changes, Kay shows that in some instances an English term is simply borrowed (*virúses* “viruses” and *microbios* “microbes” replacing *animalitos* “little animals”), in others a cognate is coined from an English disease name (*fiebre de heno*, literally “hay fever”); terms no longer useful may be dropped (*mal ojo* “evil eye” and metonymic *daño* “witchcraft,” lit. “harm” caused by witchcraft), while some Spanish disease names lacking equivalents in English, or in modern biomedicine generally, may be retained, but with a shift in the meaning (*bilis* “bile” is now the term for “gallbladder disease”; *mollera caída*, lit. “fallen soft spot,” is coming to mean “dehydration”). The direction of these shifts, not surprisingly, is toward semantic correspondence with the concepts of biomedicine.

The model of lexical change and semantic shift that Kay demonstrates for Mexican-American Spanish can be applied to monolingual disease nomenclature too. The English category “arthritis,” she notes (1979: 90), has undergone changes: *gout* has narrowed in meaning from subsuming all arthritis to one specific type; *lumbago* as a type of arthritis is now known only to elderly people; and *rheumatism* has gone from being a technical to a lay term.

5.3 The grammar of illness and disease

Staiano (1986) draws an illuminating contrast between the construction “I am,” e.g. a diabetic, and “I have” or “I suffer from” diabetes. Elaborating on this distinction, I point out (Fleischman 1999) that the existential statement (“I am”) posits an identification with the pathology, an incorporation of it as part of the self, while the genitive construction (“I have”) casts the pathology as an external object in one’s possession (Warner 1976 characterizes it as “a separate entity, *illness*, [that] is added to, or inflicted upon, the individual”), and the dative construction (“I suffer from”) construes the affected individual as the experiencer of a particular state of ill health. Both the genitive and the dative constructions reflect the western “ontological” view of diseases as *objects* (section 5.1). As medical anthropologists have shown, cultures differ in how they construe the relationship between disease states and affected individuals. In certain cultures disease is never incorporated into the self; in the languages of such cultures we do not find the “I am” construction. In cultures where disease is construed as simply as change in the individual’s processes, we expect different grammar, as Warner (1976) and Cassell (1976) suggest.

Even within “disease-incorporating” cultures, some diseases lend themselves to construal as part of the self while others do not, remaining linguistically outside the individual. In English, for example, it seems normal to say: *He’s a diabetic/manic-depressive/hemophiliac*, but most speakers would not say (in ordinary parlance, at least – these examples might occur in speech between clinicians): **She’s a pneumoniac/lymphomic/sickle-celler*. Warner links acceptability of the existential construction to conditions that are *chronic*, hence intimately entwined with the patient’s way of life, in contrast to *acute* conditions, which are often transitory. But as the above examples show, not all chronic conditions accept the existential construction. One can, however, go even further than the genitive and dative constructions in putting distance between the patient and the pathology.

For a time following diagnosis with a serious but little-known illness, I would respond to the question “What do you have?” by saying: *I’ve been diagnosed with _____*. This construction combines the passive voice with a verb that licenses the interpretation that I may not in fact *have* the disease in question, I have just been *diagnosed with it*. It took some time before I found myself moving toward “I have.”

Distancing is also achieved by use of a definite article or neuter pronoun “it” with diseases and afflicted body parts (*the leg doesn’t feel right* (see n. 25); *make it* [a tumor in the patient’s breast] *go away!*) rather than the personal “my” or “I.” Cassell (1976) notes, however, that some diseases (hypertension, diabetes) seem not to be objectified and are not referred to impersonally; the more frequent usage is “my diabetes” or “my irritable bowel syndrome.” Here again, a chronic vs. acute condition may be the distinctive feature, with the personal pronoun signaling acceptance of a chronic condition.

I conclude this section, and this chapter, with a citation from Warner that sums up the relationship between the resources of a language and how we think about sickness and health:

Standard Average European language binds us to a Standard Average European conception of illness. Although we know a disease to consist of multifactorial changes in biological processes, we continue to think of it as a rigidly defined, unchanging, uncausal object, inflicted upon an individual and distinct from him. In other words, a *thing*. Our conception of disease is only a little less concrete than that of the Eskimos who brush and blow disease away. (1976: 66)

Lest his statement be interpreted too strongly, he clarifies that:

[he] does not wish to give the impression that our language is the direct *cause* of our objectification of illness: it is at least as likely that our disease concepts have shaped some of the linguistic forms we use to describe them. It does appear, however, that our language holds us back from a view of disease process which matches our current knowledge of how illness happens.

Given the advances biomedicine has made in understanding the pathogenesis of many diseases in the years since Warner’s article was written, and the changes that have occurred in medical models and in our thinking about the mind–body relationship

(cf. Osherson and AmaraSingham 1981; Kirkmayer 1988),³¹ his statement is a fortiori apt. The pathology of language – as distinct from the language of pathology – is when it inhibits changes in concepts and interferes with new ways of understanding disease and treating illness.

NOTES

- 1 This is not to deny the existence of literature on this topic prior to 1980. Studies on the medical interview and guides for teaching the conventions of certain medical genres began to appear in the 1960s. And among studies on the relationship of language to the “real world” of medicine, two of the most illuminating date from the 1970s (Warner 1976; Cassell 1976). The epigraph for this chapter, it will be noted, is drawn from an essay dated 1923; its thesis remains valid three-quarters of a century later.
- 2 In this chapter I follow the distinction, introduced by Eisenberg (1977) and elaborated by Kleinman (1988), between illness and disease. “Illness” incorporates our *human perception and experience* of states of bodily or mental dysfunction, while in “disease” the patient is abstracted out of the pathology. In the western biomedical tradition, doctors are trained to treat disease. They do not necessarily treat illness.
- 3 The task is rendered easier than a comparable survey of the DA/EST literature by virtue of the fact that medical articles are always accompanied by an abstract that “tells all.” One need not read the article to extract the “bottom line.” The abstracts from language-oriented fields, on the other hand, are often crafted so as to draw the reader into the article through a seductive advertisement of topics to be addressed and broader implications of the study (this is an impression based on extensive reading of the literature; a quantitative comparison has not been carried out.) Also, books and monographs (which do not have abstracts) are rare from the medical camp, save for practical guides to medical interviewing (Cassell 1985: vol. 2; Platt 1992, 1995; Smith 1996).
- 4 Medical professionals who enter the debate about medicine’s language all tend to cite the same three “language authorities”: Susan Sontag, Lakoff and Johnson, and Benjamin Lee Whorf (Sapir is occasionally thrown in for good measure – or through guilt by association; see n. 11).
- 5 The *performative* dimension of case presentations and their formulaic language prompt Ratzan’s (1992) comparison of this genre to orally composed song-poetry of the type analyzed by Parry and Lord (see Lord 1960). While the process through which medical students learn the formulae of medicine’s tribal language (see Klass 1984) may bear similarities to oral poets’ apprenticeship in the art of formulaic composition, the comparison falters on the level of the *functions* of the respective texts – poetic entertainment vs. imparting clinically relevant information about hospital patients – which necessarily influence their construction. Ethnographic approaches to discourse, in particular, emphasize the crucial role of *situation*

- context in interpreting language behavior, while speech act theory stresses the importance of illocutionary acts. Moreover, in drawing the comparison Ratzan seems to underestimate the extent to which *all* discourse is formulaic (i.e. displays genre- or frame-specific conventions).
- 6 *Gomers* (an acronym for “get out of my emergency room”), like the earlier term *crocks* (of uncertain origin), refers to the decrepit patients who do not get better but do not die (Donnelly 1986: 82). A *brainstem preparation*, as used in neurological research, is an animal whose higher brain functions have been destroyed so that only the most primitive reflexes remain (Klass 1984).
 - 7 Mishler (1984) distinguishes two “voices” in medical discourse: the (dominant) voice of medicine and the voice of the “lifeworld” that serves to communicate the beliefs and attitudes of people in everyday life. He sees these voices as discrete (nonoverlapping) and asymmetrical in terms of the power and authority they carry.
 - 8 Holland et al. (1987) conducted a cross-cultural study on the communication of cancer diagnoses. They found that use of the word “cancer” – unparalleled among disease names for its metaphoric power (cf. Sontag 1978) – was often avoided in discussions with patients in favor of substitutes implying a swelling (“tumor,” “growth,” “lump”), inflammation, or pathophysiologic change (“blood disease,” “precancerous” or “unclean” tissue), or, alternatively, of technical terms unlikely to be understood by the patient (“neoplasm,” “mitotic figure”).
 - 9 Studies coming out of biomedicine (which are based largely on survey data) seem inclined to accept without question physicians’ assessments of their own language behavior; linguists, from experience, prefer to listen for themselves.
 - 10 Donnelly (1986: 84) states that “decades of absent-minded substitution of ‘case’ for ‘patient’ have resulted in dictionary recognition of usage that blurs this distinction between the patient and his disease.” Undiagnosed metonymies proliferate in the discourse of medicine.
 - 11 A scattering of writers from within biomedicine (Warner 1976; Fein 1982; Dixon 1983; Donnelly 1986) invoke the Sapir–Whorf hypothesis (explicitly or unknowingly) in acknowledging that the vocabulary and grammatical/discourse structures of the medical dialect play a role in shaping physicians’ attitudes about, and behavior toward, patients. Citing Sapir (1949), Donnelly observes that “the world . . . of trainees in teaching hospitals, like all ‘real worlds’, is to a great extent unconsciously built upon the language habits of the group” (1986: 93).
 - 12 Alternatively, the physician assumes the agent role, the disease the object or “patient” role, with the real-world patient assuming third place in the line-up.
 - 13 Her “top six” include (the conventional author of each is given in parentheses): the case write-up (medical student), discharge summary (house officer), consultation letter and case report (private practitioner), research article and grant proposal (academic physician). This roster – like most of the literature on medical genres – shows a bias toward academic medicine as well as an EST agenda (teaching medical writing).
 - 14 Cf. Van Naerssen (1985); Anspach (1988); Poirier and Brauner (1988); Poirier et al. (1992); Donnelly (1988, 1997); Hunter (1991: ch. 5, 1992);

- Charon (1986, 1989, 1992); Ratzan (1992); Francis and Kramer-Dahl (1992); Trautmann and Hawkins (1992); Epstein (1995); and "Case stories," a regular feature of the journal *Second Opinion*. For a historiography of the medical case history, see Hunter (1992: 165–8).
- 15 Case histories show a curious usage of "admit" and "deny," both of which impose a negative judgment on the proposition of the complement clause and/or imply an accusation. Often, however, these verbs are used simply to report a patient's "yes" or "no" response, respectively, to a physician's question. "Do you smoke, or drink alcohol, coffee, or tea? No" gets translated into the medical record as "Patient denies tobacco, alcohol, . . ." Is having an allergy something one must "admit to" or "deny" (see the excerpt that follows in the chapter)? "Deny," in particular, casts doubt on the truthfulness of the patient's account and his or her credibility as an historian (see below).
- 16 Jakobson (1957) introduced the term "evidential" as a tentative label for a verbal category that indicates the source of the information on which a speaker's statement is based. As currently understood, evidentiality covers a range of distinctions involved in the identification of the *source of a speaker's knowledge* or the *speaker's willingness to vouch for the propositional content of an utterance*. In English, evidentiality is generally expressed lexically (*allegedly, he claims that . . . , reports confirm that . . .*); other languages have "dedicated" evidential morphology.
- 17 A parallel to Charon's exercise for medical students is Burton's analysis (1982) of a passage from Sylvia Plath's *The Bell Jar* in which the protagonist undergoes electroshock therapy. Using Halliday's transitivity model (Halliday 1973, 1978), Burton asks her English composition students to rewrite the passage from the patient's point of view, with the comparison intended to reveal the extent to which language is ideological.
- 18 As Anspach points out (1988: 367), to delete mention of the person who made an observation ("The baby was noted to have congestive heart failure") suggests that the observer is irrelevant to what is being observed or "noted," or that anyone would have "noted" the same "thing." In other words, in this type of discourse the agentless passive takes on an evidential function (see n. 16) of imbuing what is being observed with an unequivocal, authoritative factual status.
- 19 Notwithstanding their enthusiasm for Sack's particular brand of case histories, Francis and Kramer-Dahl caution about the limits of comparing his clinical tales to hard-core case reports, notably in view of the different ways the two text-types function within the knowledge community of biomedicine. The case history, as Charon (1992) observes, is meant to be read only within the esoteric circle, i.e. by professional readers with competence in the medical tradition. It is a purely utilitarian document that does not aspire to the "display" function that is always a metafunction of the well-told tale. Moreover, Sacks – like Freud and the Russian neuropsychologist A. R. Luria (cf. Hawkins 1986) – writes in a medical specialty that still relies for diagnosis almost entirely on the subjectively reported details of the patient's experience. For neurologists and psychiatrists and their patients, disease and personal identity are often inextricably linked.

- Consequently, their case histories may be qualitatively and discursively different from those in clinical fields "in which phenomenological studies have less warrant, where both patient and narrator are ghostly presences in the case" (Hunter 1992: 173).
- 20 The founding of the journal *Literature and Medicine* (1982–) testifies to this new hybridization. See in particular the special issues guest edited by Trautmann and Pollard (1982) and Trautmann Banks (1986).
- 21 Though most physicians today accept the idea that medicine is not a science but a "science-using activity," the rhetorical power of language (together with wishful thinking) so sways the intellect that the phrase "medical science" strongly colors popular thinking about medicine.
- 22 Apropos, Hodgkin (1985) comments on the "Emotions are fluids" metaphor (to be *swamped with* feeling, *boiling over* with rage, to *channel* one's grief into productive activities) that supplies "a network of . . . subconscious plumbing" for the containment effort expected of medical and especially surgical professionals.
- 23 The latter concept is alternatively referred to as "angle of vision," "focalization," "reflector (character)," or "filter."
- 24 "Formulation," as H. uses this concept from Robert J. Lifton (1967), "involves the discovery of patterns in experience, the imposition of order, [and] the creating of meaning – all with the purpose of mastering a traumatic experience and thereby re-establishing a sense of connectedness with objective reality and with other people" (Hawkins 1993: 24).
- 25 A salient linguistic feature of Sacks's account is his alienation of the injured body part, which appears more often accompanied by a definite article (*the* leg, *the* knee, *the* quadriceps) or "distal" demonstrative (*that* leg of mine) than by a personal pronoun (*my* good leg).
- 26 The "donor–recipient" pair is conceivably a metaphor drawn from medicine, specifically from the field of (organ/bone-marrow) transplantation.
- 27 Sontag's essays (1978, 1989, repr. together in Sontag 1990) stimulate a careful re-evaluation of the place of metaphor in our thinking about illness. While she touches on metaphors intrinsic to medicine, and acknowledges that thinking about illness without recourse to metaphor is probably neither desirable nor possible, her main agenda – and focus of her discontent – is the use of *illness as metaphor* (see section 4.4).
- 28 Computer "viruses" and other metaphors of cyber-contamination offer an interesting reversal of this conceptual metaphor. Once we have mentally constructed a basic conceptual metaphor, it lends itself to proliferation. In fact, the basic conceptual metaphor (here "Computers are bodies") is rarely used as such; we must mentally reconstruct it on the basis of actually occurring metaphorical expressions (computers get *viruses*) before creating further extensions of it ("Sharing software is unsafe sex").
- 29 Presenting the other side of the coin, Sontag (1978: 61) argues that *multiple causation* is considered only in cases of diseases whose causation is *not* understood. And it is these "mysterious" diseases, she notes, "that have the widest possibilities as metaphors for what is felt to be

- socially or morally wrong." For an opposing view, see Brandt (1988).
- 30 Crookshank (1923: 343), in his quaint idiom, states: "In modern Medicine this tyranny of names is no less pernicious than is the modern form of scholastic realism [the view that diseases are "morbid entities" of the phenomenal world]. Diagnosis, which, as Mr Bernard Shaw has somewhere declared, should mean the finding out of all there is wrong
- with a particular patient and why, too often means in practice that formal and unctuous pronunciation of a Name that is deemed appropriate and absolves from the necessity of further investigation."
- 31 For a history of this epistemological dualism that subordinates subjective awareness (the patient's) to direct observation (the physician's), see Sullivan (1986).

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