Amber Petra Graham, *Incurable Journey*, 2003, mixed media.
Courtesy of the artist

The Binocular Vision Project: An Introduction

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Grand claims were made around thirty years ago for the fundamental role of narrative, on the one hand, and of metaphor, on the other, as instruments by which human beings make sense of experience. Hayden White, Jerome Bruner, Roger Schank, Alasdair MacIntyre, and a host of others asserted that narrative is the principal faculty by which human beings interpret the world ("Storytelling and understanding are functionally the same thing" [Schank 1990, 24]), while another team of scholars, under the captaincy of George Lakoff and Mark Johnson, and including Andrew Ortony, Raymond W. Gibbs, and others, made similar claims for metaphor, insisting that human beings are primarily metaphor-making animals ("Our ordinary conceptual system in terms of which we both think and act is fundamentally metaphorical in nature" [Lakoff and Johnson 1980, 3]).

Over the last three decades, the tools forged in the workshops of narrative studies and metaphor studies have been taken up by scholars in a wide range of disciplines, from economics, to law, to medicine, to investigate the role of either narrative or metaphor—rarely both together—in the conceptual framing and everyday practice of these disciplines (Hanne 1999).

In the case of medicine, it is the narrative perspective that has predominated. The crucial role of narrative in the field of health, sickness, and medical treatment has been amply demonstrated by scholars and practitioners in the narrative medicine movement. Major discussion threads in this movement include patient narratives about the experience of sickness; doctor-patient communication as consisting primarily of an exchange of narratives; acquisition of "narrative competence" in the training of medical professionals; the place of narrative in medical ethics; the narratives by which medical professionals process their personal expe-

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riences of ministering to the sick; and literary narratives dealing with sickness, medicine, and death. The value of a narrative perspective has been institutionally acknowledged with the establishment of centers such as the Program in Narrative Medicine at Columbia University (www.narrativemedicine.org/index.html) and journals such as *Literature and Medicine*. (An overview of the field, with comprehensive bibliography, is to be found in Rita Charon's *Narrative Medicine: Honoring the Stories of Illness* [2006].)

Work on the extent to which we depend on metaphor to make sense of our experience of health and sickness, while just as prolific as work on narrative, has lacked the systematic character of studies on the role of narrative, and its relevance to narrative medicine has, consequently, not been fully acknowledged. Certainly, exponents of narrative medicine often employ metaphor in vivid and revealing ways. For instance, they cite experiential metaphors used by patients to convey the shock and distress of becoming seriously ill, such as: "The destination and map I had used to navigate before were no longer useful" (Frank 1997, 1). Nevertheless, the explicit references to metaphor by narrative medicine scholars (as opposed to instances of the intuitive use of metaphor) are few and mostly treat metaphor as subordinate to narrative. Among the very few scholars working on the discourse associated with medicine to have employed the narrative perspective and the metaphor perspective is Phil Barker, professor of psychiatric nursing, who declares that "life is a story best understood as an evolving *narrative*," to which he adds: "It is impossible to relate any aspect of my life experience directly. I need to use a foreign word or phrase to evoke its near-inexpressibility. Life is so real I can meaningfully represent it only in *metaphor*" (Barker 2000, 97; my italics). Another is Lynne Angus, one of the contributors to this project, whose early work was on metaphor in psychotherapy, but who has more recently become a key practitioner and theorist of narrative psychotherapy (Angus 1996; Angus and McLeod 2004).

The present project has brought together medical practitioners and scholars from disciplines as diverse as anthropology, law, linguistics, literary studies, medical humanities, philosophy, and psychology willing to employ the narrative lens in conjunction with the metaphor lens in a medical context to achieve what I have termed "binocular vision." (With binocular vision, it is suggested, we have the advantage of seeing stereoscopically, in 3-D.) The papers published here are the fruits of a symposium hosted by the Program for the Medical Humanities

at the University of California, Berkeley, which I convened in October 2010 to examine the use of narrative and metaphor in the medical field on a number of different levels. The papers have been thoroughly revised and developed in the light of the receptive and supportive interactions among speakers at the symposium.

On the first level, contributors explore the use of narrative and metaphor by patients in making sense of the experience of illness. As Jerome Bruner and Alasdair MacIntyre have long asserted, we all constantly tell and retell stories about our life to make (and remake) sense of it (Bruner 2002a; MacIntyre 1985). Illness, especially acute or chronic illness, disrupts our sense of self. We ask: "Where did this illness come from?" Many patients seek (sometimes rationally, but often not) to blame themselves (or others) for their illness. (See, for instance, Jerome Groopman 2005, chapter 3, for a discussion of the case of a woman who interpreted her cancer as punishment for marital infidelity.) Then we ask: "How will this condition develop?" "Can I get control over it?" "How might medical practitioners intervene in my case?" "How will this story end?" Those who are sick or living with disability have a special and ongoing need to "tell their lives" (Charon and Zoloth 2002). They need to reconstruct and revise their self-narrative in the light of their experience of illness and of the diagnosis and prognosis they have been given. Patient narratives deal with the unexpected, including the prospect, and the reality, of the end of life. The ability to tell a story around one's sickness gives the patient a degree, at least, of control, and patients need assistance with rethinking and repairing their self-narrative (Brody 1994).

Metaphor plays an equally crucial role in our attempts to make sense of the experience of illness. We make particular use of metaphor when we are struggling to understand or communicate some personal experience. We use metaphor (or simile) to convey the nature of the physical sensations or psychological unease we are experiencing: the nausea "comes in waves," an ill-defined collection of symptoms "hangs over me like a cloud," and so on. Experience of pain offers some of the most vivid examples (Schott 2004). While D. B. Morris states that language "runs dry" and "crumbles" under the influence of pain (1991, 73), others suggest that people in pain search for analogies and metaphors that will convey something of the quality of their experience of, say, the pain of childbirth or of angina. Martha Stoddard Holmes, a contributor to this project, has referred vividly to the prolonged pain she experienced as a side effect of chemotherapy as "an unseen visitor" who became "a whole summer's house guest, one whose

appearance I dreaded and whose patterns I traced and came to predict" (Holmes and Chambers 2005).

We make use of metaphor not only to describe a sensation or emotion that goes beyond the everyday but also to conceptualize what is happening to us. "People are incorrigible users of metaphor in thinking about sickness and health and the workings of the body," declare William P. Banks and Suzanne C. Thompson (1996, 99). Except in the case of a wound caused by injury, the nature of most illnesses is not self-evident, and one of the most important functions of metaphor is to offer a concrete image for abstract, or not easily understandable, phenomena (Beck 1978). With the invention of X-rays and other forms of scanning and the increasing use of laboratory testing, the gulf between the patient's experience of being ill and the doctor's diagnosis of disease is becoming ever greater. S. Frederiksen makes the point that the introduction of X-ray and other imaging technology in medicine resulted in diseases being regarded as increasingly "concealed" both from the patient's own experience and from external observation by the medical practitioner: "We can no longer trust our senses concerning the health status of our body" (2002, 71). As Susan M. DiGiacomo says: "No-one ever experiences cancer as the uncontrolled proliferation of abnormal cells" (1992, 117).

There are four papers in this issue dealing with narrative and metaphor in the experience of illness. Catherine Belling examines the ways in which we rely on metaphor and narrative to visualize entities and events concealed within the human body. Martha Stoddard Holmes contrasts the reductive force of some metaphors (for instance, of invasion and battle) to describe the experience of illness with the illuminating power of other metaphors, and especially similes, and the positive narratives they generate. Marilyn McEntyre considers the value of poetry that combines narrative extension with metaphoric compression for assisting us to imagine the experience of illness and the approach to death. Shirley Brice Heath examines narrative forms and types of metaphor that relate to the middle of our lives, that part which is neither start nor finish.

Exponents of narrative medicine claim that communications between patients and doctors consist largely of narrative exchanges. Yet the gulf between the domain *illness*—the patient's own experience of being unwell—and the domain *disease*—"the theory constructed [by the physician] to explain the illness, its presumed cause, and its target" (Duffin 1999, 67–68)—ensures that many of the interactions between sick people and medical professionals also involve exchanges of metaphor, that is, imaginative leaps between the two domains.

Doctors with a background in narrative medicine should be keen to attend to the specific, personal nature of the metaphors their patients use, to develop "metaphor competence" alongside their "narrative competence." Each of us, say the narrative scholars, lives our life in terms of a personal library of stories to which we constantly refer (Bruner 2002b, 7). Similarly, the metaphor scholars tell us, each of us possesses a metaphor library, supplied in part by the culture into which we are born and in part by our personal interests and experience. "Stories," write Rita Charon and Laurie Zoloth, "call for response" (2002, 26). "Metaphors," writes philosopher Ted Cohen, are "an invitation [. . .] to intimacy" (1979, 6).

Practitioners may make systematic use of the patient's need to describe the experience of illness in terms of metaphor for diagnostic purposes. The McGill Pain Questionnaire offers a comprehensive array of metaphors, from "quivering," to "pinching," to "burning," among which the patient selects those instances that correspond most closely to his or her experience of pain (Melzack 1975). Metaphor may also be used by patients to communicate their fears or wishes. A patient with a terminal illness may employ a metaphor that indicates how he or she wishes the illness to be managed; in such cases, the metaphor is packed with clear narrative implications. Richard Gwyn recalls a patient with a terminal illness who loved sailing telling her doctor that she wanted to be "captain of my own ship" in the months to come (1999). It behooves the doctor to work out just which features from the source domain (sea transport) should be drawn on to interpret those wishes. It is not enough to understand the patient as meaning that "she wants to be in control." More specifically, I suggest, her use of this metaphor acknowledges that there will be "stormy seas ahead" and "gales which will blow the ship off course," and indicates that she wants to be accepted as "the principal member of the crew running the ship," and, indeed, that she would like her death to occur "in a safe harbor," rather than just being "lost at sea." This is an instance of a metaphor that may be seen as either generating a detailed narrative (Schön 1979) or standing (in condensed form) for an already established narrative.

Most people enter the consulting room with fragmentary metaphors for their *conception* of what might be wrong, in addition to metaphors that communicate their *experience* of sickness. "Each patient forms his own opinion of his illness, independent of clinical data or any objective judgment of the circumstances," notes Arnold H. Hutschnecker (1959, 237). Certainly, the medical knowledge (what Banks and Thompson call "folk concepts" [1996, 101]) of laypeople generally mingles often archaic popular traditions with up-to-the-minute information

(which may or may not be relevant) of recent research in fields such as genetics, gained from television and print media, and propaganda dispensed by commercial interests. People generally store this information not in any systematic and comprehensive way, but as metaphor and narrative fragments. Doctors need to listen for, and elicit, metaphors that reveal not only how patients experience an illness but also how they conceptualize it. If a doctor and a patient are to develop a management plan for a patient's condition, there must be at least a minimal congruence between the conceptual models each employs.

Medical professionals need to craft appropriate metaphors to express empathy, to convey medical information in a comprehensible fashion, and to facilitate management of the patient's condition. Exponents of narrative medicine refer to the "joint-authoring" of the narrative of treatment and management; I suggest the importance of extending this term to the metaphors of understanding and management. Pac-Man video game imagery has become a predominant metaphor for cancer and its treatment in the minds of many people living with the disease and is frequently used by doctors in explaining both how cancers metastasize and how they may be treated (www.webmd.com/video/targeting-cancer-tumors). But care needs to be taken to ensure that such metaphors fit the experience, interests, and emotional state of the individual patient. Jerome Groopman tells of using a series of military metaphors to convey the value of an "aggressive" treatment option to a cancer patient who, he knew, had fought in the Vietnam War. "Think of it like a battle where you go in with air support and heavy artillery," he told him. "If that works, then there is mopping up afterward, capturing or eliminating any hidden pockets of resistance." However, he began to realize that the patient's wartime experience had been highly traumatic and that this metaphorical strategy was in fact counterproductive; he eventually switched to an alternative set of metaphors, which included a train journey, where the patient was to be "in the driver's seat all the way," able to stop treatment at any point. The change in strategy allowed him to persuade the patient to start the therapy that he (rightly) believed would offer very positive results (2005, 105–6). Catherine A. Czechmeister refers to the use of metaphor in a medical context as "a two-edged sword": one capable of informing patients and lightening the load of their illness, but also capable of communicating "myth, fear and stigma" (1994).

We are quite familiar with the claims of doctors and psychotherapists about the value of assisting clients to recast unproductive life-narratives in a more positive manner (Angus and McLeod 2004). Less familiar is the notion that

it may be helpful to assist individuals to recast their life-metaphors when these are perceived as adding to their distress (but see Barker 1985; Combs and Freedman 1990).

Physicians need a repertoire of metaphors relating to the management of sickness from which they can choose the most appropriate one for each patient, as well as the confidence to suggest new metaphors. G. Lorimer Mosely has generated a swarm of metaphors to communicate to his patients aspects of the biology of pain (2007). Cynthia M. Troiano has recounted how she used a cake-baking metaphor when discussing with an elderly woman patient the mix of medications being prescribed, whereas she used a metaphor about the negative effects of always driving a car in second gear when discussing with a male patient the dangers of uncontrolled hypertension (2005).

A number of papers in this issue relate specifically to the use of narrative and metaphor in doctor-patient communication. Abraham Fuks, Martin Kreiswirth, Donald Boudreau, and Tabitha Sparks offer an overview of the clinical relationship, as well as a discussion of the need for medical professionals to participate sensitively and creatively in the exchange of narratives and metaphors with their patients. New Zealand doctor-poet Glenn Colquhoun demonstrates that narrative and metaphor play important roles in the creative moment, which he sees as lying at the heart of both making a poem and working with a distressed patient; indeed, most of the poems he quotes grew out of encounters with individual patients. Ronald Schleifer and Jerry Vannatta propose the introduction of the category of "chief concern," in which doctors would record narrative (and some metaphor) features of patients' accounts of their reasons for seeking medical care. Lynne Angus and Jeffery Scott Mio's paper underlines the need for psychotherapists to attend closely to, and work actively with, the emotion-focused metaphors that patients employ in their illness narratives. Cheryl Mattingly observes the way in which the canonical metaphor of the body-as-machine is contested, refuted, and even "poached" by a family in a battle with clinicians over the resuscitation of their very sick baby.

While medical professionals in the West willingly accept that stories and metaphors play a large part in the thinking of laypeople, and consequently in communications between themselves and their patients, there is some reluctance to acknowledge that biomedical science itself is largely organized in narrative and, especially, metaphorical terms. Western medicine, they assume, must surely have moved beyond the fanciful stories and metaphorical thinking of earlier peri-

ods and "primitive" cultures. Yet, as Nobel laureate Peter B. Medawar observes, the scientist "is always *telling stories* in a sense not so very far removed from that of the nursery euphemism — stories which might be about real life but which have to be tested very scrupulously to find out if they are indeed so" (1967, 127; my italics). Scott L. Montgomery, a contributor to this project, has noted elsewhere that modern biomedicine is crucially dependent on three interlocking sets of metaphors: the biomechanical, the biomilitary, and the bioinformationist (1996). As Donald Schön (1979), Montgomery, and others have pointed out, the problem about such key metaphors is that, while they are capable of generating extraordinarily productive research narratives, overreliance on them may occlude other research directions or misdirect public expectations.

Emily Martin has proposed that the entrenched image of the body "that belongs to the late-industrial machine age . . . dominated by orderly assembly-line production on a rigid time schedule, run by machinery divided into parts, each with a separate function" be replaced by a set of metaphors derived from chaos theory, which would highlight the irregular complexity and self-organizing character of the body as system (1997, 18–19). She may, however, be neglecting the relatively long history of the metaphor of the body-as-machine and its extraordinary adaptability over time: from Descartes's "body as clock"; through the eighteenth century, with its recognition of the heart as a pump and blood vessels as a hydraulic system with valves; to the nineteenth century, with its notion of the nervous system as telegraphic system for sending messages and recognition that breathing and digestion involve processes akin to the working of the internal combustion engine; to the twentieth century, with the idea of the brain as computer. I would suggest that there is, in fact, an interdependence between the two conceptual and practical domains (physiology and mechanics) that runs very deep. The recent invention of, and reliance on, machines to take over from failing organs (dialysis, pacemakers, and so on) is possible due to the parallel development of these domains.

Bioinformationist metaphors (especially in the field of genetics) pose questions that invite answers in broadly narrative terms. There is the crucial question of the nature of the message that the genetic makeup with which we are born sends about how we will develop into adults. The extent to which an individual's health, as well as other major features of one's life, is predetermined by, and directly "readable" from, one's genetic inheritance is currently very much under debate. The answer has major implications in relation to preventive health mea-

sures, stem-cell research, health insurance, and medical ethics in the broadest sense. (See the recent work of another contributor to this issue, George J. Annas [2010].)

Epidemiology is another professional medical field in which metaphor use has considerable practical impact. Nancy Krieger has explored the implications of metaphors employed in epidemiology, including the "web of causation," which is used to convey the notion of multifactorial risk. In her view, such a metaphor begs the question of what (or who) the spider creating the web of risks is, as well as the value of breaking any particular strand of the web. The metaphor is ultimately inadequate, to the degree that it implies that each strand is of equal significance and of similar type, whereas some factors are much more significant and some groups of factors (e.g., economic and social conditions) are much more significant. The web metaphor also equates individual risk factors and collective risk factors. She proposes instead a series of related branching images, where the relations between the different types of factors can be identified (1994).

Anthropologists are well aware that the traditional medical thinking and practice of different cultures often depends on strongly contrasting sets of metaphors and narratives. (For an overview of metaphors reflecting the significance of illness in different cultures, see Byron J. Good [1994].) In traditional Chinese medicine (TCM), for instance, the principal metaphor for human physiology is that of a network of channels through which vital energy (qi) flows, animating all parts of the body, mind, and spirit (a metaphor whose earliest origins most likely lie in an analogy between a healthy body and an effective irrigation system for the cultivation of rice). Ill health occurs when energy is blocked, and treatment involves removal of the blockage. While the primary source domain for this metaphor is a system of pipes, the body is also referred to as a kind of internal weather system, in which heat and cold, dryness and dampness, movement and stagnation are the forces to be reckoned with (see Stibbe 1996; Pritzker 2003). The predominance of analogies between body and agricultural landscape was entirely appropriate for a culture where traditionally "the body belongs not to the individual but to society and bodily illness therefore reflects disharmony in the social order" (Kirmayer 1988, 78).

Consultations between Western-trained medical practitioners and patients who have been raised in other cultural traditions are notoriously susceptible to miscommunication. Apart from simply linguistic issues, it is often the case that the two parties are thinking about health and sickness within different conceptual

frameworks, which are embodied in different sets of metaphors and narratives. Such a discrepancy is likely to affect, first, the patient's reporting of symptoms. Patients of Chinese origin suffering from depression, for instance, will more often report their experience in physical terms (lack of energy, etc.) than in psychological terms (Pritzker 2003). Second, there are issues around how a patient whose understanding of health and sickness relies, for instance, on metaphors of physiological balance and imbalance or, more radically, of living in harmony or not with the spirit world (Jones 2000, 25–26), will interpret and respond to diagnoses and treatments stemming from Western biomedicine.

In part as a consequence of the mingling of populations through mass migration and tourism, many people acquire a superficial acquaintance in largely metaphorical form of the medical knowledge systems of other cultures. In particular, many Westerners dip into traditional Chinese medical thinking and entrust their medical care to practitioners of TCM. While there can be little doubt about the effectiveness of a number of traditional Chinese methods (e.g., certain herbal remedies and acupuncture) for treating specific conditions, many laypeople assume this confirms the validity of the grand metaphors of TCM, which, I suggest, have no more scientifically proven basis than the theory, long discarded in the West, of the humors (hot, cold, wet, dry)—which they, in fact, closely resemble.

To the degree that the term *holistic medicine* refers to a medical philosophy and treatment system that is concerned with the whole person—with physical and mental well-being equally—it is an irrefutably valid approach. Indeed, it is precisely this conception of medicine that most exponents of narrative medicine (and of patient-centered medical care, in general) advocate (Stewart 2001). However, to the degree that *holistic medicine* refers to a simplified, mystical image of how body and mind interact, of what different kinds of sickness are, and of what forms of treatment are appropriate, it is dangerous.

In much of what is called complementary medicine, there is a strong sense that the sick person is suffering from a "deficiency"—the deficit being understood partly in a chemical sense and partly in a moral sense. When such notions are manipulated by commercial interests, there is often an implication that both kinds of deficit can be made up by taking "supplements" (whether herbal or synthetic). The following quotation from an article in a magazine I found at my local gym is typical: "With the increase of illness caused from smoking . . . processed and fast foods . . . and lack of exercise—supplements have become essential for good health" (Grindrod 2005). In other words, we can atone for our lifestyle

sins by the purchase of supplements. One of the most problematic features of excessive reliance on metaphors is that they allow us to slip and slide unwittingly between, for instance, technical narratives and narratives with a moral, or religious, dimension. As Scott Montgomery has demonstrated vividly, alternative medical discourse in the West tends to mix metaphors deriving from archaic Western and traditional Eastern medical beliefs (to do with balance, wholeness, moral deficit, and pollution) with metaphors deriving from Western biomedicine (notably metaphors of warfare and criminality) in ways that imply that they represent a radically different body of knowledge, when they are often almost entirely vacuous. Much alternative medicine implies that using different language (and metaphor, in particular) in itself constitutes a different treatment. For his contribution to the Binocular Vision project, Montgomery has taken up the use of narrative and metaphor, which he finds frequently to be naive and self-contradictory, in the emerging field of Darwinian psychiatry.

The last essays in this issue relate to the part played by narrative and metaphor in public health policy, ethics, and education. Whereas metaphors are primarily employed for key concepts in discussions of public health (see Hanne and Hawken 2007), narratives are employed in such discussions to convey scenarios that the speaker regards as factual, whether desirable or undesirable.

Recent discussion of the need for reform of the American health care system has made use of competing metaphors. George Annas has previously highlighted the way in which discussion about the American health care system has switched from the use of military metaphors (medical professionals "fight invading agents with an increasingly sophisticated and expensive armamentarium"), to market metaphors (for example, patients are referred to as consumers, medical care is referred to as a business, medical practitioners are replaced by health care corporations). As the inadequacies of that model have become evident — "the reality is that American markets are highly regulated, major industries enjoy large public subsidies, industrial organizations tend towards oligopoly" — Annas has proposed an "ecologic metaphor" where the key terms would be "community," "limited resources," "quality of life," "renewable," and "responsibility for future generations" (1995). Throughout the world, different metaphors have been adopted by different groups to characterize various aspects of the health care (and other public welfare) systems — for example: safety net, parasites, right to health care, at-risk and target groups, and so on (see O'Brien 2009).

In his contribution to this project, Annas focuses initially on the competing

narratives and metaphors employed by Barack Obama and his opponents in the debate over his health care reforms. He then more specifically focuses on the way in which the adoption of the "quest" metaphor and its associated narratives in the health field in the United States has tended to favor medical research over sound everyday medical practice and care.

In addition to the place held by metaphor and narrative in public policy on the grand scale (e.g., how the health care system is to be run) and in medical ethics, both are also significant to public policy and public education as they relate to specific conditions. It is incumbent on medical professionals, public health administrators, and those working in the media to be both critical and creative in their use of narratives and metaphors to communicate messages around health and sickness. It is highly desirable for metaphorical models and narrative scenarios to be developed and employed in the mass media that will improve the validity of folk wisdom, have a positive effect on people's understanding and behavior before they get sick, and allow them to bring with them better mental models whenever they come to a doctor with health concerns.

The final paper of the issue, by Janine Talley, reports on the way in which metaphor and narrative have been widely used in public health promotion campaigns in the UK. Talley finds that, despite the fact that both metaphor and narrative have positive and negative actual and potential outcomes, their presence and utility have gone largely unacknowledged and unexamined.

The last two papers, by Annas and Talley, highlight two major challenges currently facing governments and health care professionals around the world. First, there is the need to ensure that nations' health care systems are made to operate so that all citizens, rich or poor, are able to obtain effective and affordable treatment for serious health conditions. At least as important, yet easily forgotten in the United States because the issue of funding for treatment continues to be so bitterly contested, is the need for health promotion and education programs that, if successful, would not only greatly reduce the incidence of preventable sickness and accidents requiring treatment, but also reduce the budget currently required to fund such treatment.

Although the final pair of papers tackles the broadest public issues, each of the preceding papers, I believe, illuminates a significant area of the theory and practice of medicine.

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