

**Metaphors in Medicine: The Body Speaks**

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*Submission*

Date:1/16/2022

The language of the body is so precise and individualized, it resists the ability to communicate experience at every turn. Early in our medical education, we are taught formulaic questions to home in on the experience of another, carefully needling subjective experience into a language that resonates with a diagnosis. However, there are moments where this approach falls short. I see it particularly in translation, where an adjective lacks a synonym in the native tongue. At other times, patients become frustrated with the multiple-choice options they are given to describe their lived experience: Is it sharp? Dull? Does it radiate? As healthcare providers and patients, what do we do with an experience that is inside a body, a skin with four walls?

In this paper, I will examine the utility of metaphors, specifically as they relate to physiology, and their relevance in patient-physician communication. When exercised appropriately, metaphors for human emotions and physiology can bridge translational gaps between layperson and healthcare provider. Figurative language is a vehicle for conceptualization and categorization. Metaphors play a crucial role in imbuing our quotidian conversations with a unique depth of communication. To understand the role of metaphor in medicine, we will first appreciate its role in the everyday.

We will start with a basic universal concept of metaphor. To put it most objectively, studies on the use of metaphor in the clinical setting have suggested that it be defined "...as figurative language in which one concept is described as being equivalent to another, often imbuing the first with qualities that are difficult to describe in other ways (Think of A as if A were B)."<sup>1</sup> To consider it more abstractly, Aristotle wrote in *Poetics* that "Metaphor consists in giving the thing a name that belongs to something else."<sup>2</sup>

Communication is what builds and sustains a culture, a body of individuals held together by shared beliefs, thoughts, and experiences. Our language reflects our cultural values. Cultures that value self-restraint and discourage open displays of emotion tend to have metaphors of anger relating to the concept of *keeping the emotion contained*. Conversely, cultures more comfortable with emotional displays, perhaps even perceiving them as cathartic, have anger metaphors that convey and encourage *letting it all out*. The cultural influence on language thus shapes the individual perception and physical experience of emotion.

While emotions have intrinsic meanings, and those meanings are interpreted based on an array of contextual and cultural contingencies, changes in physiology associated with emotions are relatively universal. As Zoltán Kövecses discusses in *Metaphor and Emotion*, "...I would propose that, as linguistic usage suggests, English-speaking, Hungarian, Japanese, Chinese, etcetera, people appear to have very similar ideas about their bodies and seem to see themselves as undergoing the same physiological processes...."<sup>3</sup> Our language communicates our physical reality; indeed, Lakoff and Johnson posit in their book *Metaphors We Live By* that "no metaphor can ever be comprehended or even adequately represented independently of its experiential basis."<sup>4</sup>

The words we choose to describe a given emotion have physiological relevance. What subjective experiences once inspired in language has been borne out in numerous research studies. In a study on social exclusion, participants who experienced experimentally-constructed exclusion had colder skin temperatures, and a warm cup of tea could improve their subjective negativity.<sup>5</sup> Metaphors we choose to communicate emotions are not merely arbitrary, but rather, derived from a very real, physiological state. The physical becomes the psychological. When we

say that a woman is “cold-blooded” or our teacher is “warm-hearted,” more than communicating an individual’s personality, we may be tapping into another element of physical perception.

Metaphors for fear have also alluded to changes in perceived temperature. A common metaphor used in the English language is the figurative expression “to have cold feet.” (I often associate it with a lover who is contemplating leaving his or her significant other waiting at the altar.) Zoltán Kövecses notes, “...one part or element of the domain of fear is an assumed drop in body temperature.”<sup>3</sup> In this instance, the linguistic expression “to have cold feet” is an example of the “conceptual metonymy ‘drop in body temperature stands for fear.’” That is, a drop in body temperature becomes an element of the emotion that is fear. The use of physiology also creates a range of experience for an individual to communicate, since a decline in body temperature works on a continuous spectrum. Fussell and Moss suggest in their study of figurative language and communication that “Emotional reactions also differ in their intensity, and metaphorical language may provide a way of communicating the level of intensity of an emotional experience.”<sup>6</sup> Consequently, one might consider “having cold feet” to be a less extreme experience than “her blood ran cold,” a metaphor that suggests the entire body, rather than just the feet, is undergoing a drop in temperature.

Social exclusion is one of the most painful psychological experiences a primate can suffer. Exclusion threatens the organism’s well-being in myriad ways, ranging from psychological stress, which incurs an array of undesirable physiological shifts, to external factors of diminished protection against predators. In their paper on physical pain and social exclusion, Macdonald and Leary posit that “The aversive emotional state of social pain is the same unpleasantness that is experienced in response to physical pain.”<sup>7</sup> Much of the figurative language we use today suggests such a link between emotional and physical experience.

Consider metaphors that link the physical pain to the emotional, such as “broken-hearted,” “cut to the core,” or “deeply hurt/wounded.”<sup>7</sup> The physical becomes, in Lakoff and Johnson’s words, a “concrete source domain” for the abstract sensation of social exclusion or loneliness.<sup>4</sup>

The perception of one’s orientation in space also inspires orientational metaphors. Lakoff and Johnson provide a likely answer for how our emotions become linked to our physical orientations. They suggest, “since there are systematic correlates between our emotions (like happiness) and our sensory-motor experiences (like erect posture), these form the basis of orientational metaphorical concepts (such as ‘happy is up’).”<sup>4</sup> Just as happy is *up*, sad is considered *down*, as in, “I am feeling down.” Consider that the root of the mental disorder, depression, is “depress,” which is defined as “to press (something) down” or “to cause to sink to a lower position.”<sup>8</sup> Lakoff and Johnson continue to posit potential physical bases for several of our orientational metaphors, such as consciousness, health, and social status. For example, we might consider the orientation concept of “health and life are up,” as in, “he’s at the *peak* of health” and “he came *down* with the flu.”<sup>4</sup> Lakoff and Johnson suggest that the association between figurative language for emotions and physical posture is created through body language: “Dropping posture typically goes along with sadness and depression, erect posture with a positive emotional state.”<sup>4</sup> Thus, body language and orientational metaphors work congruently to communicate the physical experience of an emotion. When conveying the ineffable, corporeal metaphors become a mechanism for grounding our language.

Why use metaphors in medicine? As Periyakoil speculates in “Using Metaphors in Medicine,” metaphors provide a palatable introduction to unfamiliar material and break pre-existing mindsets for more familiar material by “making the familiar strange.” Periyakoil observes that metaphors in medicine routinely rely on themes of war, sports, and machines.<sup>9</sup>

Oncology, as a specialty, is uniquely rife with metaphors. It is worth considering that the field's relative abundance of metaphorical speech may stem from the sheer amount of mystery and unknowingness surrounding cancer in concert with a reckoning with mortality and a seemingly arbitrary fate.

I spent a month rotating on the colorectal service during my surgical clerkship. Many patients on the service were so sick they needed sections of their large bowel removed to prevent the cancer from metastasizing. When sections of the bowel are removed, a colostomy bag is often required, either temporarily or permanently. The inner workings of the colon become exposed: a colostomy bag filling with apple-sauce consistency waste. To be rid of cancer, the body must become a foreign land. My surgical team cared for one patient whose cancer had progressed so far as to become obstructive, preventing the possibility of any food passing through the large intestine. He had all but stopped eating. I remember the tepid sips of water he took before throwing up into the pink plastic basin his wife proffered. Operating on a cancer that has already metastasized is palliative, not curative. In my naivety, I had once believed that every surgery was curative, but now I know the lengths we traverse to provide comfort. The surgeon sat on the edge of his bed, explaining the impossibility of a surgical cure: "It is like a starry sky, and maybe one star went out, but there are so many of those stars left." In the operating room, his insides are a galaxy, the peritoneum speckled with throngs of those tiny stars.

Perhaps because oncologic conversations of treatment often become larger conversations about quality of life, and life itself, medical providers increasingly rely on figurative language to build rapport and reassure. One study investigating figurative language and oncologic patients' perceptions of their physician's ability to communicate effectively found that the benefits are bi-directional: physicians who used more metaphors elicited statistically significant better patient

ratings of communication. Patients also reported less trouble understanding their physicians and were more likely to report their physician made sure they understood their health problems.<sup>10</sup>

Arroliga et al. conducted a similar study surveying pulmonary and critical care providers on their use of metaphors in patient interactions. A total of 19 metaphors were offered, addressing eight separate topics in pulmonary disease. Researchers found that particular diseases tended to lend themselves to metaphors over others: more metaphors were provided for emphysema and chronic obstructive pulmonary disease (COPD) than pulmonary hypertension and vascular disease. As a student, I recognized some of these metaphors: “In order to explain the abnormal elastic recoil, I tell the patients that the normal lungs are like balloons; they get inflated and deflated by themselves. However, emphysematous lungs are like a big paper bag, you inflate it, but it is floppy and does not deflate itself.”<sup>11</sup> These metaphors are how I first conceptualized the diseases myself, how my professors described them to me. It is unlikely that many of these providers are the original authors of their metaphors. Thoughtful depictions of medical constructs are passed down like stories from teacher to student and from physician to patient. To understand and conceptualize a disease is to reclaim some of the power an illness denies when it thwarts knowledge and words.

Some of the most effective uses of metaphor I have seen to convey experience was during my psychiatric rotation. Patients sought words to describe the painful inner workings of their minds that stubbornly evaded our formulaic lexicon. One patient illustrated his experience, saying, “I feel like a ghost, like spirits [are] traveling through me. It feels like I'm transparent.” Adding, “I'm like a live wire, a raw nerve.” His use of metaphor successfully depicts his experience of alienation and departure from the known realm of experience. While I may never feel like a ghost or appreciate a sense of transparency, I can imagine them, and, in doing so,

appreciate a fraction of his discomfort that would have otherwise remained unknowable and unnamed. Metaphors are grounded in our experience, and, as such, may present a way to convey emotional experiences that transcend typical communicational barriers. A study examining the metaphoric expressions used by practitioners and patients makes a notable observation that “On 13 occasions patients introduce a metaphor by apologizing for their inability to describe or explain their sensations.”<sup>11</sup>

While the use of metaphors in medicine can often prove useful, certain themes of metaphors, particularly those that allude to war, have sparked significant discourse. Part of the appeal of framing cancer as a battle or war is the clear binary between the good (think: patient, physician) and the bad (cancer). In the opening paragraphs of Susan Sontag’s *AIDS and Its Metaphors*, she writes: “Of course, one cannot think without metaphors. But that does not mean there aren’t some metaphors we might as well abstain from or try to retire.” She argues 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.”<sup>12</sup> Metaphors influence thoughts, attitudes, and actions—this is their power and, in some instances, their shortcoming. How might a patient, faced with a terminal diagnosis, choose hospice over aggressive treatment galvanized by the depiction of a battle, a fight? If one dies of cancer, have they succumbed? Have they lost? Metaphors are only as good as the images and conclusions they inspire.

The English journalist John Diamond said it best in his 1999 book *Because Cowards Get Cancer Too*: “My antipathy to the language of battles and fights has . . . everything to do with a hatred of the sort of morality which says that only those who fight hard against their cancer survive it or deserve to survive it—the corollary being that those who lose the fight deserve to do so.”<sup>13</sup> Susan Sontag has similar notions: “The body is not a battlefield. The ill are neither



unavoidable casualties nor the enemy. We—medicine, society—are not authorized to fight back by any means whatever...” adding, “War-making is one of the few activities that people are not supposed to view ‘realistically’; that is, with an eye to expenses and practical outcome.”<sup>12</sup>

Sontag, who was diagnosed with metastatic breast cancer in her early forties, urged patients to consider cancer “Not a curse, not a punishment, not an embarrassment. Without ‘meaning.’”<sup>12</sup> Just as the practice of medicine requires judicious deployment of medicine, tests, information, it demands thoughtful use of language. Having examined the use of metaphors in illness and contemporary media, the authors M Hanne and S J Hawkin conclude that some metaphors

served a real educational function (e.g., the slot machine image for the randomness of virus mutation). We also noted some metaphor clusters that communicated medical and social information with great clarity (e.g., the transport imagery around HIV/AIDS). However, we also noted major instances of discrepancies between the message that writers sought to convey and the emotive connotations of the metaphor clusters... We were left with a strong sense of the need for medical professionals, educators and journalists to display greater self awareness in their choice of metaphors...<sup>14</sup>

In his 1950 acceptance speech for The Nobel Prize for Literature, Faulkner noted, "It is a privilege to help man endure by lifting his heart. The poet's voice need not merely be the record of man, it can be one of the props, the pillars to help him endure and prevail."<sup>15</sup> By using figurative language grounded in the physical experience, we can comprehend others' emotions on both a psychological and physiological level. The use of physiological metaphors reminds us

of the multi-faceted experience of emotion with universally grounded elements. To this end, metaphors enhance our ability to communicate, empathize, and respond to one another. They are as imperfect as humanity itself, and yet, as writer Anatole Broyard said, “Metaphors may be as necessary to illness as they are to literature, as comforting to the patient as his own bathrobe and slippers.”<sup>16</sup>

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