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Asking More of Our Metaphors:

Narrative Strategies to End the ‘War on Alzheimer’s’ and humanize cognitive aging

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In all facets of our lives, humans construct meaning to understand their place in the world and their relationships to one another and to broader environments. Within this semantic web, words, stories, and metaphors play a key role in the meaning-making process, with the latter serving as a particularly important means of fluidly integrating thoughts, values, and actions across cognitive domains. Derived from the Greek roots “meta” (over/across) and “phor” (to carry) and literally meaning “carrying across”, metaphor guides an understanding of one thing in terms of another. It is such a pervasive tendency in human speech and thought that researchers have established we utter one metaphor for every ten to twenty-five words, or about six metaphors a minute.¹ This holds true in medicine and public health, wherein our prevalent, ever-evolving metaphors of disease have the social power to literally position people and resources within a culture.

For centuries, it has been noted that war metaphors are deeply embedded in the rhetorical patterns of both Western and Eastern cultures.² Scholars have identified how biomedical knowledge is particularly rife with war-related idioms that mediate public understanding of such dread conditions as HIV/AIDS, tuberculosis, cancer, and mental illness.³

Understanding diseases through the primal frame of warfare certainly concentrates efforts to intervene in human suffering, but can have the unintended effect of conjuring fear and stigma, dehumanizing those affected, and precluding “higher” thought processes that

¹ Geary, J. 2011. *I Is an Other: The Secret Life of Metaphor and How It Shapes the Way We See the World* New York, Harper Perennial.

² Jobst, K.A., Shostak, D., & Whitehouse, P.J. 2000. Diseases of meaning, manifestations of health, and metaphor. *Journal of Alternative and Complementary Medicine* 6(2):125-6.

³ See: Sontag, S. 1978. *Illness as Metaphor*. New York, Farrar, Straus and Giroux.

Sontag, S. 1989. *AIDS and Its Metaphors*. New York, Farrar, Straus and Giroux.

allow for a wiser individual and social response.⁴ For decades, efforts to counter the bellicose metaphors that guided our initial understanding of the HIV “epidemic” have been largely successful, and the article by Nie et al.⁵ joins a broader literature in advancing a more humane vernacular. So too can the authors’ critical analysis serve as a jumping off point for thinking about military metaphors that have seeped into our understanding of *chronic diseases*, where, in the absence of specific pathogens, they are perhaps even more deleterious than in the realm of infectious disease.

Alzheimer’s disease (AD) provides an interesting point of comparison. While the phenomenology of “senility” was documented thousands of years ago in ancient Egyptian texts, it is only within the last 100-years that we have come to understand the condition as a “conquerable” illness called “Alzheimer’s”. First noted in 1910 by the German psychiatrist Dr. Alois Alzheimer, who, ironically, doubted he had discovered a condition separate from “senile dementia”, AD was a seldom-used diagnosis for much of the 20th Century. However, in the 1970s, in response to a rapidly aging population, the newly-created National Institute on Aging (NIA) decided to strategically phase out the word “senility” and diminish the use of the more general term “dementia” in favor of language framing rising prevalence of cognitive decline as a “disease epidemic” called “Alzheimer’s” on par with polio. By blending the domains of an infectious (polio) and chronic (brain aging-related) disease through the war metaphor, the NIA and other advocacy organizations propagated a new idea – that cognitive frailty was the result of a

⁴ George, D.R., Whitehouse, P.J. 2014). The War (On Terror) on Alzheimer’s. *Dementia* 13(1): 120-130.

⁵ Nie et al. 2016. Healing without Waging War: Beyond Military Metaphors in Medicine and HIV Cure Research. *American Journal of Bioethics*.

single disease process called “Alzheimer’s” that existed outside the spectrum of normal age-related changes and could be specifically attacked. To generate political support and research dollars, the NIA promoted a strategy its leaders termed the “politics of anguish” to emphasize the tragic aspects of Alzheimer’s—that it causes a “loss of self” in its victims and imposes a “burden” on family members and society at large.⁶

In recent decades, the “War on Alzheimer’s” has gained momentum, with funding largely marshaled to remove or preempt the formation of beta amyloid, a molecular compound first noted by Dr. Alzheimer that has been hypothesized as allegedly “toxic” to neurons. Researchers have thusly “battled” amyloid as if it were a pathogen despite the fact that it appears to have a complex, highly-regulated role in normal brain function. Indeed, unlike the HIV virus, amyloid pathology does not correlate with clinical symptoms and has repeatedly been found to be present in the brains of about one-third of “normal” elderly persons, blurring the line between the normal and pathological. Further, AD is highly heterogeneous, encompassing not only the two classic hallmarks of amyloid plaques and neurofibrillary tangles, but also other overlapping pathologies such as vascular insults and Lewy bodies, as well as other markers of brain aging.⁷ In turn, drugs targeting one aspect of this apparent diffuse syndrome (amyloid) have failed to provide clinical benefit. We now find ourselves in the uncomfortable position where the “War on Alzheimer’s” has fixed public understanding around the untenable notion that AD is a singular “disease” separate from aging and thus amenable to a cure. As with HIV, the idioms of

⁶ Ballenger, J. 2006. *Self, Senility, and Alzheimer's Disease in Modern America: a history*. Baltimore, Johns Hopkins Press: 122-3.

⁷ Whitehouse, P.J., George, D.R. 2008. *The Myth of Alzheimer's: What You Aren't Being Told About Today's Most Dreaded Diagnosis*. New York, St. Martin's Press.

warfare so prevalent in the Alzheimer's field have emphasized fear and anxiety while channeling resources away from prevention, care, and other approaches not premised on amyloid "toxicity."

We agree with Nie et al that, as regards chronic diseases like AD, we should seek greater humanity in our metaphors. Instead of prosecuting a "war" that many if not most experts regard as fundamentally unwinnable we might shift expectations from an absolute "cure" or "prevention" to the more realistic "postponement" of the more debilitating effects of brain aging that can be achieved by modifying known biological, psychosocial, and environmental risk factors. Opting for a concept like "postponement" can shift us away from warring idioms like "end," "halt," "reverse," "fight," "arrest", and "cure" that promise more than science can deliver and metaphorically render the brain a seat of violence and those with memory challenges as "victims".⁸

Scrubbing Alzheimer's of language appropriated from an infectious disease paradigm can also inform more prudent expenditure of research dollars. By abandoning current notions that we are at "war" against a few specific proteins, research can be broadened to more fundamentally understand brain aging processes within the context of the lifespan, and study the intricate multi-systemic and environmental interactions that affect cognitive health. While not as profitable as drug development, public health initiatives that reduce vascular risk factors, modulate oxidative stress and inflammation, guard against traumatic brain injuries, promote social engagement and lifelong learning, reduce exposure to

⁸ George, D.R. 2010. Overcoming the social death of dementia through language. *The Lancet* 376: 586-587.

neurotoxins, and other common-sense actions should be an explicit component of our societal response. War metaphors are not particularly effective at capturing these social determinants of health and social inequalities that contribute to disease; consequently, new ones are needed to narrate the contribution of social and environmental factors that contribute to the acceleration of cognitive decline. One useful concept that can contribute to this narrative is “cognitive reserve,” which refers to the brain’s ability to maintain function in the face of neuropathological damage. “Building reserve” can take place at the personal level—through individual actions supporting brain health—but importantly also at the community level—by implementing policies and practices that address social and ecological determinants of health affecting many brains. An increased focus on enhancing reserve replaces narratives of “war” with narratives of “resilience”, while making clear that social policies that ameliorate poverty, disparities in wealth, lack of healthcare, limited access to higher education, food insecurity and the promotion and marketing of fast food, exposure to environmental toxins and the consequences of climate change, and stress brought on by flattened wages and rising cost of living can support brain health at the population level.⁹

Beyond the specific examples of HIV and Alzheimer’s, there is a larger point at play. Military metaphors in biomedicine are principally about dominating nature and are consistent with conventional thinking in Western culture. As Nie et al point out, other cultures, including many in Africa, more commonly invoke idioms of peaceful coexistence with nature and unity at the community-level, and it seems there would be

⁹ Lock M. 2013. *The Alzheimer’s Conundrum*. Princeton NJ, Princeton University Press.

much benefit from embracing ecological metaphors in Western medicine.¹⁰ Even at a biological level, we live in relationship to other living creatures and organisms, and health is most fundamentally reliant on promoting diversity and resilience. Ecologic metaphors also invite a robust evolutionary perspective that can consider the interaction of genes and environment at many levels (e.g. epigenetics, evolutionary medicine, and population health).

That said, ecological and evolutionary metaphors are admittedly nuanced and abstract, and our challenge is to manifest them in peoples' lives in meaningful ways. Trees are intensely metaphorical.¹² In Africa there is a saying that “Wisdom is like a baobab tree; no one individual can embrace it.” The trunk of a baobab tree spans up to 36-feet in circumference; it is impossible to fully embrace its entirety. Similarly, achieving healthy living, including healthy brain aging, requires complex solutions and re-framing the metaphors and narratives that we use to tell the story of health and guide wiser collective actions that, together, contribute to increased quality of life. Indeed, it is in our diversity, shared humanity, and ability to humbly understand and manage complex systems that we can collectively gain greater wisdom to better address the challenges of cognitive aging and, in fact, the long-term health of our species.

¹⁰ Annas, G.J. 1995. Reforming the Debate on Health Care Reform by Replacing our Metaphors, *New England Journal of Medicine* 332: 744-747.

¹² Whitehouse, P.J. 2016. The music of trees: the intergenerative tie between primary care and public health, *London Journal of Primary Care* 8: 26-29.