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What are Neurorhetorics?

Jordynn Jack

Imagine sitting down to watch a television documentary about a famous rhetorical persona, say, Martin Luther King or Abraham Lincoln. Instead of the usual commentary from a history professor, though, this special features a new kind of expert: a neurorhetorician named Dr. Aspasia Cranium. Pointing to dramatically colorful brain scans, the neurorhetorician explains how King's "I Have a Dream Speech" activated the brain's "emotion button," located in the nucleus accumbens, leading listeners to connect emotionally to King's message. During the commercial break, you see Dr. Cranium again, this time peddling her line of DVDs and video games, Silver Tongue™ (Unleash Your Rhetorical Power), guaranteed to help you increase your oratorical power through proven neurorhetorical techniques or your money back. By practicing using words to activate the "emotion button" in a simulated brain, you can also learn to activate it in others. If you order in the next thirty minutes, you can get a free, individualized brain map to frame and put up next to your BNr (Bachelor of Neurorhetoric) certificate from Cranium's Neurorhetoric Institute.

Sound farfetched? In the academy, as well as in popular culture, the prefix "neuro-" now occurs with startling frequency. Scholars now publish research in the fields of neuroeconomics, neurophilosophy, neuromarketing, neuropolitics, and neuroeducation.[1] All of these fields seek to draw from the explanatory power of neuroscience in order to bring new insights to old disciplinary questions. Neuroeconomics, for instance, seeks to use scientific techniques (often neuroscience imaging) to examine how individuals make economic decisions, while neuromarketing seeks to exploit neuroscience insights to trigger the brain's "buy button." Neuropolitics examines the mixing of cultural–political life and the processes of

[1]On neuroeconomics, see Glimcher et al., *Neuroeconomics;* Glimcher, *Decisions*; Politser. On neurophilosophy, see Patricia Smith Churchland's *Neurophilosophy* and *Brain-Wise.* On neuropolitics, see Connolly. On neuromarketing, see Renvoise and Morin; Pradeep. On neuroeducation, see Rich and Goldberg.

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bodies and brains (Connolly xii). Neuroeducation seeks to apply insights from neuroscience to generate a better understanding of how students learn. All of these fields have attractive commercial applications. A search of "brain training" books listed on Amazon.com turns up 396 books, with titles such as *Brainfit: 10 Minutes a Day for a Sharper Mind and Memory* (Gediman and Crinella), *Keep Your Brain Alive: 83 Neurobic Exercises* (Katz and Rubin), and *Train Your Brain: 60 Days to a Better Brain* (Kawashima). Websites peddle free brain-based training exercises, and babies are kept on a strict regimen of (doubtfully effective) brain music, brain videos, and brain games. Clearly, the 1980s and 1990s–era cultural obsession with physical fitness and body sculpting is being applied, metaphorically, to a new site, the brain, which requires its own set of calisthenics for peak performance. While Michel Foucault defined "technologies of the self" as including operations on "bodies and souls" so as to attain "a certain state of happiness, purity, wisdom, perfection, or immortality" (18), we can now safely add "brains" to the list of targets.

As the parodic opening to this piece suggests, it might be tempting for rhetoric scholars to hop on the neuro-bandwagon. This special issue might seem to take a similar approach to rhetorical study, an approach that would investigate the "neural correlates" of rhetorical concepts such as pathos, presence, identification, or persuasion. Such an approach might be attractive to rhetoric scholars seeking to draw on the cultural capital of neuroscience, and to those seeking to answer that elusive question about how to study audience response. Collectively, though, the articles in this issue argue for an expanded definition of neurorhetorics that acknowledges these impulses, but also upholds the importance of critical and rhetorical perspectives on discourses involving the brain. As we see it, the goal of neurorhetorics—if such a term can be used—would be to investigate the rhetorical appeal, effects, and implications of this prefix, neuro-, as well as to carefully consider collaborative work between rhetoricians and neuroscientists. Drawing on the increasingly interdisciplinary nature of rhetorical study, neurorhetorics would question how discourses about the brain construct neurological difference, how to operationalize rhetorical inquiry into neuroscience in meaningful ways, and what those constructions imply for contemporary public discourse.

In the introduction to their edited book, *Sexualized Brains,* philosophers of science Nicole C. Karafyllis and Gotlind Ulshöfer argue that "neurorhetorics," in practice, often naturalize or construct social classifications, especially along lines of sex and gender (8). Given the human tendency toward both perfection and hierarchy, famously noted in Kenneth Burke's "Definition of Human" (17), these classifications tend to be drawn along traditional lines of social differentiation, demarcating the normal from the abnormal, the heterosexual from the homosexual, the criminal from the law-abiding brain. New classifications have also emerged, such as the depressed brain (Irwin) or the "extreme male" brain (Baron-Cohen) or the "fit," aerobicized brain. Detangling the rhetorical practices that contribute to these brain-based differences might be one task for rhetoric

scholars. As rhetorical scholars, we can account for the production, dissemination, and appeal of these social classifications, which draw on scientific as well as popular, cultural, visual, and historical lines of argument. The authors featured in this special issue offer four critical perspectives that may prove particularly useful.

First, the insights of rhetoric of science draw attention to how neurological differences are produced in cognitive neuroscience. In their article, Jordynn Jack and L. Gregory Appelbaum draw attention to the methodological considerations that shape one particularly prominent scientific approach, functional magnetic resonance imaging, or fMRI. Given the fact that these methodologies are highly contested within cognitive neuroscience, and given the disparities in scientific techniques used to study such concepts as "emotion" or "empathy," Jack and Appelbaum argue that "neurorhetorics" should entail a two-sided approach: the *rhetoric of neuroscience* and the *neuroscience of rhetoric*. In other words, rhetoric scholars should pay careful attention to how cognitive neuroscience is shaped and circulated, rhetorically, in order to make more careful discriminations about what neuroscience might add to our understanding of traditional rhetorical concepts. Jack, a rhetoric scholar, and Appelbaum, a neuroscientist, argue that truly interdisciplinary, collaborative research offers one promising approach for studying neurorhetorics responsibly.

An historical perspective shows that, while the prefix neuro- has recently proliferated in usage, there's nothing particularly new about arguments that construct differences based on brain biology. In his article, John P. Jackson, Jr. shows that controversies over how human brains can be classified persisted over the course of the twentieth century, often by drawing on physical measurements such as the "cephalic index" in order to rank humans by race. Jackson argues that rhetorical concepts drawn from jurisprudence, such as "burden of proof," can illuminate how such arguments are carried out. Anthropologist Franz Boas, arguing against the racial hierarchies constructed via such brain measurements, successfully shifted the burden of proof onto those who wished to uphold those hierarchies. Yet, Jackson shows, those wishing to revive racist theories of intelligence and brain capacity often argue by attempting to shift the burden of proof back onto those who would disprove their theories, demonstrating the volatility and fluidity of who bears the burden in scientific controversies about just what we can surmise from brain-based studies.

The next two articles in this issue examine in detail one particular type of neurological difference, mental illness. Jenell Johnson draws on insights of disability studies to examine how stigmatization functions rhetorically to demarcate individuals with mental illness. Her case study examines Thomas Eagleton's brief stint as Democratic vice-presidential nominee, which ended when his history of depression, shock therapy, and hospitalization was made public. Notably, discourse about Eagleton's illness focused not only on his history, but on his public performance, with commentators scrutinizing Eagleton's physical appearance and gestures for signs of depression. Johnson concludes that the process of

stigmatization is a rhetorical one, one that has important consequences for agency, representation, and power.

Katie Rose Guest Pryal's article draws on narrative theory to show how neurorhetorics tend to construct disabilities, and individuals' experiences thereof, along certain storylines and tropes, in this case in ways that may shape experience of disability as well as available lines of authority. From such a perspective, the *genres* of neurorhetoric become an important site of inquiry. Pryal presents a case study of the genre she calls "mood memoirs," which offers rhetorical space for individuals with mood disorders to claim authority, argue against medicalized interpretations, and construct new narratives of mental disability. Narrative theory offers an additional avenue to understand, especially, how people with neurological differences speak back to the dominant, medicalized narratives that often limit their rhetorical authority.

Of course, a number of additional approaches to neurorhetorics might be mentioned. Not included here, but important for this area of research, would be studies of visual rhetorics, of popularization, and approaches drawing on feminist theory, critical theory, and other interdisciplinary investigations. Briefly, visual rhetorics might help to account for the persuasive appeal of neuroscience images, as well as for visual representations of disability (upon which Jack and Appelbaum and Johnson both touch). Studies of popularization would help to account for the diffusion of neurorhetorics in popular magazines and newspapers, and in commercial applications. Feminist and gender studies might account for the continuing trend of constructing neurological difference along the lines of sex/gender (see Condit). For instance, what accounts for the appeal of the "extreme male brain," posited as a new social classification explaining autism and Asperger's disorder? The production or exclusion of lesbian, gay, bisexual, and transgendered brains should also be of interest to neurorhetoricians. Critical theories might examine the rhetorical production of "technologies of the self" (Foucault 18) in, for example, brain-training computer games, self-help books, and the like. Keeping in mind Foucault's assertion that technologies of the self rarely function without technologies of production and power (18), rhetoric scholars might question how constructions of neurorhetorics serve the interests of late-capitalism, which values feminized emotional skills (as in Daniel Goleman's notion of Emotional Intelligence) if not feminized bodies, even as they valorize the "extreme male brain" as a metonym for the knowledge economy. These discourses may result not in a greater proportion of women in the knowledge economy, but new constructions of masculinity that stress geek prowess alongside communication and teamwork skills.[2] We might pay attention to how arguments from neuroscience legitimate juridical and political power, in technologies such as lie detection (Littlefield), especially in a post-9/11 context. (Perhaps the obsession with the criminal brain

[2]See Cooper.

of the early twentieth century continues, now in the guise of the "terrorist brain"?) The growth of animal studies might prompt researchers to question how the animal brain is argued into place as, on the one hand, a model for human brains and, on the other hand, as a limit case against which uniquely human capabilities can be posited. In short, neurorhetorics should prove to be a diverse, interdisciplinary field, one that offers up a range of critical questions and approaches.

Fundamentally, though, what unifies this field should be a prudential approach in our understanding and use of the term neurorhetoric. As Jack and Appelbaum point out, such studies can easily fall into traps of neuro-realism, neuro-essentialism, and neuro-policy, all of which can tend toward uncritical fetishization of the brain as a scientific object divorced from its historical and rhetorical context. The work of neurorhetorics should, therefore, be a cautious and disciplined one, working through the tangle of discourses, claims, and arguments that often seek to reinstate or exaggerate brain differences, limit some individuals from rhetorical participation, or offer new technologies for the human tendency toward perfection and domination.

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