

Goals:

If effective public deliberation in democratic societies demands epistemic norms of truthfulness and accuracy, and epistemic infrastructures seek to foster such virtues and regulate their corresponding vices, then public epistemic infrastructures need reform. In 2010, Linda Martín Alcoff identified “an encroachment of advertising culture – a culture that is structurally incapable of being sincere, accurate, or truthful – in the public sphere.”¹ Indeed, from politics to organizational administration to social media, such epistemic vices seem increasingly normative across swaths of public life, which impedes the abilities of publics to face and address urgent problems such as social inequity and climate change.

One response would be to redouble efforts in critical thinking education to teach students regardless of their backgrounds to be intellectually virtuous citizens. A goal of the proposed project is to contribute to this endeavor. But alone, such steps are insufficient. Longer-term trends² continue to destabilize frameworks that appear to “generate shared meaning or frames of reference,”³ and “first-order” efforts that aim for “small, behavioral adjustments” cannot correct structural epistemic problems.⁴

To complement investments in critical thinking education, epistemic innovations are needed to minimize what Miranda Fricker calls “bad epistemic luck”⁵ and to regulate what Kristie Dotson calls “contributory injustice.”⁶ Both are structural rather than first-order epistemic weaknesses.⁷ Hence, they require structural responses. A second goal of the project is to develop a prototype of a critical thinking

¹ Alcoff, Linda Martín. (2010). “Epistemic Identities.” *Episteme* 7(2), 132. <https://doi:10.3366/E1742360010000869>.

² E.g., innovations in social media technology, increasing cultural diversity, etc.

³ Bartunek, J. M., & Moch, M. K. (1987). “First-Order, Second-Order, and Third-Order Change and Organization Development Interventions: A Cognitive Approach.” *The Journal of Applied Behavioral Science*, 23(4), 487. <https://doi.org/10.1177/002188638702300404>.

⁴ Kristie Dotson. (2012). A Cautionary Tale: On Limiting Epistemic Oppression. *Frontiers: A Journal of Women Studies*, 33(1), 28. <https://doi:10.5250/fronjwomestud.33.1.0024>.

⁵ Fricker, M. (2010). *Epistemic injustice: Power and the ethics of knowing*. New York, N.Y: Oxford University Press.

⁶ Dotson (2012).

⁷ The first, bad epistemic luck, arises from the fact that knowers are situated and are therefore capable, except perhaps only in exceptional cases, of making judgment calls only through the background concepts and beliefs that circulate within their social locations. Fricker argues that persons cannot be faulted for bad judgment arising from unfortunate failures to access epistemic resources that rarely circulate, if at all, within their communities, even when these bad judgments harm others. The second, contributory injustice, occurs when one willfully refuses to recognize or acquire alternative epistemic resources and instead adheres to epistemic frameworks that are structurally prejudiced against others.

software application capable of *coordinating* claims and sources arising from multifarious traditions and perspectives without predetermining which warrant consideration, and allowing these to *correct* each other and *calibrate* themselves through ongoing mutual engagement.

The immediate aims of the requested funds are as follows: 1) to develop a functional yet rudimentary prototype of an application utilizing Indo-Tibetan traditions of truth-directed debate (*vāda*), and epistemology and logic (*nyāya*); 2) to prepare an article accessible to generalist instructors and undergraduates on the practical mechanics of *nyāya-vāda* that is suited for publication in a philosophy education journal; 3) to teach philosophy students at KSU to conduct debates using the application; and 4) to prepare an article for publication in a journal such as *Social Epistemology* arguing that use of *nyāya-vāda* can minimize bad epistemic luck and regulate contributory injustice. Following completion of these goals, I would use this publication record and data gathered from use of the prototype to apply for more substantial grants to scale the software for use by larger numbers of participants.

Following its initial systematization (6th-3rd centuries BCE), *nyāya-vāda* was formalized and adapted by each Sanskritic philosophical tradition before they, and *nyāya-vāda*, were eventually displaced by British colonialism.⁸ It provided myriad schools, sometimes including also Mughal intellectuals, a means of engaging in rigorous, truth-directed conversation while contending with and recognizing differences. Yet critical thinking courses typically overlook this tradition, even as our societies become more culturally diverse, and as extant epistemological infrastructures struggle to curtail epistemic vices that arise from failures to contend with and recognize differences. The project aims tangibly to show that *nyāya-vāda* can be used today as a constructive epistemic resource and pedagogical tool.

Significance:

As well as addressing a problem that is of broad interdisciplinary and social interest, the project is significant to three audiences in academic philosophy: scholars in Indian philosophy, scholars in the field of cross-cultural critical thinking pedagogy, and social epistemologists. It is also very significant for my

⁸ *C.f.*, Ganeri, Jonardon (2011), *The Lost Age of Reason: Philosophy in Early Modern India, 1450-1700*, Oxford, UK: Oxford University Press, and Doniger, Wendy (2009), *The Hindus: An Alternative History*, New York: Penguin Press.

ongoing research. I have dedicated myself over the past two years to figuring out exactly how *nyāya-vāda* can be used on a digital platform to facilitate constructive public deliberations about contentious subjects. I have constructed a wireframe for the application and have completed an initial proof of concept by populating the wireframe with pro- and anti- arguments focused on a contemporary subject. I have presented this work at multiple international conferences and at KSU. For the project to progress, the wireframe must be converted into a functioning prototype. For this, I require institutional support.

The project is also of central significance to the field of Indian philosophy. Specialists have sought since the 1970s to dislodge orientalist depictions of the subject as exclusively religious by drawing attention to India's robust traditions of logic and epistemology.⁹ These areas are central to the field. However, the scholarship is highly technical and inaccessible to generalists, and still today, there is only one introduction to *nyāya-vāda* that accurately represents the specifics of the concepts while remaining suitable for undergraduates.¹⁰ Because nearly all primary sources in Indian philosophy since the Upanishads employ *nyāya-vāda*, this lack of pedagogical resources impedes the entrance of scholars to the field. A software application that uses and explains this methodology and logic would be a useful pedagogical device at KSU and elsewhere. Further, because there is by no means only one way of representing or understanding the diverse mechanisms of *nyāya-vāda*,¹¹ the platform will provide specialists with a new, hopefully more accessible way of discussing and debating the intricacies of the logic.

The application, supplemented by an article introducing *nyāya-vāda* and explaining how it can be taught in undergraduate critical thinking courses, would also contribute to the emerging cross-cultural critical thinking movement. Our societies are culturally diverse, yet critical thinking curricula are largely

⁹ See, in particular, the scholarship of Bimal Krishna Matilal (Oxford), Arindam Chakrabarti (SUNY Stonybrook) and Jonardon Ganeri (NYU).

¹⁰ Dasti, M. and Phillips, S. (2017). *The Nyāya-Sūtra: Selections with early commentaries*. Indianapolis, IN: Hackett Publishing.

¹¹ The proposed platform is principally based on Ratnakīrti's 11th century Buddhist systematization of *nyāya-vāda*. *C.f.*, Patil, Parimal G. (2009), *Against a Hindu God: Buddhist Philosophy of Religion in India*, New York: Columbia University Press, and Ratnakīrti, and A. Charlene Senape Mcdermott, (1969), *An Eleventh-Century Buddhist Logic of 'Exists': Ratnakīrti's Ksanabhangasiddhih Vyatirekatmika*. Holland: D. Reidel.

restricted to methods and theories of critical thought stemming from one cultural tradition. Students leaving universities depart with needlessly restricted and culturally narrow sets of critical thinking tools.

Finally, the project is significant to the mainstream field of social epistemology, and particularly to the work of feminist and critical race philosophers who theorize epistemic injustice and epistemic oppression, such as Fricker, Dotson and Charles Mills. *Nyāya-vāda* offers solutions to the problems they identify but is not addressed in current social epistemology scholarship. A specialized scholarly article explaining the potential contributions of Indian philosophy to this field would be significant, and could help to attract generalist attention to Indian philosophy and the software platform.

Outcomes:

The first outcome of the project will be the construction of a functioning prototype of the *vāda* application from the completed wireframe. While supervising this work, I will draft an article suited for use in generalist undergraduate critical thinking and Indian philosophy courses explaining the method and history of *vāda* and the specific mechanisms of *nyāya* that the prototype employs. The article will not require access to the prototype and will be submitted for peer review to a philosophy education journal. My spring 2020 section of PHIL 4200: Indian Philosophy will introduce a module that includes the drafted article along with other sources and ask students 1) to enter arguments from a classical Indian philosophical debate into the prototype, and 2) to use the prototype to represent extent arguments on a contemporary topic of their choice, showing how these arguments challenge or undermine each other, and considering how undermined claims might be recalibrated to correct logical defects. The prototype will be revised and debugged during and after this process. In spring and summer 2020, I will prepare an article suited for publication in a journal such as *Social Epistemology* arguing that *nyāya-vāda* provides a means of mitigating bad epistemic luck and regulating contributory injustice. These outcomes can be expected to provide a significant educational experience for KSU undergraduates and to draw attention to KSU within the fields of Indian philosophy, cross-cultural critical thinking pedagogy, and social epistemology.

Methods/Plan:

The majority of the requested funds will be used to hire a research assistant with software development expertise who will work 15 hours per week in fall 2019 and spring 2020. I will advertise the

position, interview candidates, hire the RA through the university's Handshake system, and work closely with the student employee. In fall 2019, we will focus on converting the wireframe into a functional prototype. I will simultaneously complete a draft of the introductory article on *nyāya-vāda*. In spring 2020, I will teach students in PHIL 4200 to use the prototype. To assess the prototype's functionality and initiate revisions, I will evaluate a) students' grasp of the method and logic gained through the prototype, b) students' comfort translating classical and contemporary arguments into the prototype, c) the accuracy and depth of student representations of extant debates, and d) qualitative student feedback. In spring and summer 2020, I will draft the article on *nyāya-vāda* and bad epistemic luck and contributory injustice.

Qualifications:

My Ph.D. focused on *nyāya-vāda* and I have conducted sustained research in this area over the past several years, including presentations at national and international conferences. I have also taught multiple upper-division courses on the subject at KSU. Though I lack computer programming and software development expertise, I teach symbolic logic and am not computer illiterate; I will be able to supervise a research assistant's work in this area.

Assessment:

I will assess the success of the project in relation to the outcomes, methods and goals specified above.

Dissemination:

I will seek to publish the introductory pedagogical article in the *Journal of Philosophy of Education*, and the article on *nyāya-vāda* and bad epistemic luck and contributory injustice in *Social Epistemology*.

Dissemination of the prototype will occur in stages, with revisions made and data collected at each step. First, I will seek to work with philosophy majors and students in the Philosophy Student Association to conduct debates through the platform in collaboration with campus student groups. I will then look to extend these activities to student groups at neighboring universities such as UT-Chattanooga, Wofford and UNF where colleagues teach Indian philosophy. To scale the prototype for greater numbers, I will apply for a grant from the [Infinity Foundation](#). As these activities continue and the need for scaling grows, I will apply for a larger [NEH Digital Humanities Advancement Grant](#). I will also introduce the application and discuss its significance at international and national conferences such as the 2020 [SACP](#).

Timetable

	Summer 2019	Fall 2019	Spring 2020	Summer 2020	2020-21	2021-22	2022-23	2023-24	2024-25
Research Assistant		Advertise position, hire RA, and complete prototype.	Test prototype in PHIL 4200. Make revisions and improve functionality.						
Publish Pedagogy Article	Draft introductory article to <i>nyāya-vāda</i> suited for use in critical thinking courses.		Include draft in PHIL 4200. Revise article and submit to <i>Journal of Philosophy of Education</i> for peer-review.		Make revisions and/or copy edits. If necessary, submit to <i>Comparative Philosophy</i> for peer-review.				
Publish Social Epistemology Article			Draft article arguing that <i>nyāya-vāda</i> can mitigate bad epistemic luck and regulate contributory injustice.		Revise article and submit to <i>Social Epistemology</i> for peer-review.	Make revisions and/or copy edits. If necessary, submit to <i>Hypatia</i> for peer-review.			
Use Software With Student Groups			Use and evaluate prototype in PHIL 4200.		Collaborate with KSU Philosophy Student Association to organize debates on the platform with KSU community organizations.		Organize debates on the platform in collaboration with KSU PSA and students and colleagues at neighboring universities.		
Infinity Foundation Grant						Apply for Infinity Foundation Grant.	Use Infinity Foundation Grant to revise and scale software application, and to sponsor collaborations with neighboring universities.		
NEH Digital Humanities Advancement Grant									Apply for NEH Digital Humanities Grant.