

Approaching epistemic norms, especially those that govern epistemic assertion, while also aiming at keeping their application 'real world' is certainly an intense undertaking. I am interested in discussions concerning key issues in the current debates in epistemology: knowledge and justification; knowledge-that and knowledge-how; knowledge-first epistemology; contextualism and relativism in epistemology, and how this may offer diverse perspectives on my current epistemic-normative, collaborative PhD project.

Historically, most PhD projects are mono-disciplinary and provide limited training in cross-disciplinary communication and collaboration. By contrast, interdisciplinary working is deeply embedded in the Action on Natural Disasters (AND) program, which I am part of. With Philosophy as the lead department, I work closely with other students and staff members from Durham's Institute of Hazard, Risk and Resilience (IHRR), the Department of Geography, and the Centre for Humanities Engaging Science and Society (CHESS). I am part of a cohort of students from all three Faculties (Arts & Humanities; Science; Social Sciences and Health) who work on projects related to landslide hazard in Nepal.

I was chosen for the multidisciplinary project based on my training in epistemology and analytic philosophy. My previous post graduate research questioned what the epistemic norm of assertion was, and I defended the idea that several norms govern assertion in a context-sensitive manner. Initially, I discussed arguments in favour of some of the most popular norms that claim to govern assertion, with focus on Timothy Williamson's (2001) account, and also on Chris Kelp's (forthcoming) defence of the knowledge norm (KNA) in the context of what he calls a function-first view. I thereafter focused on contextualism and assertion. Perhaps the knowledge norm is a top contender for the default norm of assertion, but how does it fare in varied context-sensitive situations? Keith DeRose (2002) suggests that the knowledge norm would simply be untenable without contextualism. I thus explored the link between the norms of assertion and contextualism. Thereafter, I worked on the proposal that several norms govern assertion, which comprises a wide and encompassing framework, without the need for exceptions to the otherwise stringent and un-bending norms, especially if no default norm is favoured. I argued that the application of particular norms of assertion will vary from context to context, making my proposal fully contextualist. How would one then ascertain which norm to apply? I favoured the view that considers assertion's purported goal first and foremost.

My current project aims to develop 'simple rules' to protect communities in Nepal which continue to face landslide hazards. These rules are intended to be easily taught to those without much formal education and who often have to use them under extreme duress in precarious environments. Complex problems such as hazard analysis and mitigation require decision rules that are adequate to the task in a twofold sense: they work for the environment within which the decision is taken; and they work for the decision maker who, very often, operates under conditions of great uncertainty, computational limitation and

temporal pressure. Standard decision models such as expected-utility theory are inadequate under these conditions.

In the paper I discuss the main objectives, which are:

(O1) To develop and test a set of simple rules for communities facing landslide hazards in two contexts:

(O1a) Preparation. Using knowledge on the spatial variation of landslide hazard developed in Durham and elsewhere, and based on recent large earthquakes (Northridge, Chi-Chi, Wenchuan, Nepal), these rules might enable communities to consider landslide hazard when siting key infrastructure.

(O1b) Action in an earthquake. Using data on earthquake-triggered landslide behaviour from camera phone footage, oral and written testimony, the project will establish: how people in rural Nepali communities behave during an earthquake; the types of hazard that they face; and how these hazards threaten life and infrastructure.

(O2) To defend these rules as 'ecologically rational'; that is, to show that the rules developed in (O1) are adapted to the structure of the environment in which they are used and lead to optimal outcomes (i.e., minimum hazard from landslides).

The project will provide theoretical insights into the value of, and potential pitfalls to, 'simple rules' for landslide occurrence that will aid conceptualisation and communication of landslide risk. This is directly relevant to communication of risk related to landslide dams. However this theoretical insight will also add value to related projects developing rapid radar-based landslide mapping in a disaster and applying novel modelling approaches to reduce landslide risk associated with roads, by informing the structure of their outputs. As a member of CHESS I am to show relevant case study examples of how the humanities engage the sciences and society to promote knowledge for use. What kinds of academic knowledge - 'science' in the German sense - can best inform policy and practice, what methods will produce this knowledge and how should this knowledge be put to use? According to Horizon 2020 'Research is an investment in our future', this may hold true only if we know what to do with the results of our research: knowing how to use research to build better social policies that are more fair and more reliable, and how to deliberate about them. The approach is broadly Popperian: the proof of an idea is in what it says about real cases.