Unfiltered, Candid, and Interdisciplinary: Reflections on the 'Human values

and global response in the Covid-19 pandemic' 2022 Tanner Lectures

Lauren Adams, Will Hanna, Luke Neill, Michael Nelson, Elina Oinas, Lundi-Anne Omam, Yoanna Skrobik for the Clare Hall Tanner Lecture Working Group

Lauren Adams is a PhD student at Clare Hall, University of Cambridge, working at the Disease Dynamics Unit in the Department of Veterinary Medicine. Will Hanna is an MPhil student in History at Clare Hall, University of Cambridge.

Luke Neill is an MPhil student in History at Clare Hall, University of Cambridge.

Michael Nelson is a Research Fellow at Clare Hall, University of Cambridge, working at the European Bioinformatics Institute and the Wellcome-MRC Cambridge Stem Cell Institute.

Elina Oinas is a Visiting Fellow at Clare Hall, University of Cambridge, and a Professor at the Swedish School of Social Science, University of Helsinki. Lundi-Anne Omam is a PhD student at Clare Hall, University of Cambridge, working in the Department of Public Health and Primary Care and the Department of Psychiatry.

Yoanna Skrobik is a Visiting Fellow at Clare Hall, University of Cambridge, an Adjunct Professor in the Department of Medicine at McGill University, and a Professor in the Department of Medicine at Queen's University.

he Tanner Lectures on Human Values are prestigious gatherings of globally renowned scholars across the humanities and the sciences. This year's lectures addressed the questions of Providing for a nation's health, in a global context, where philosophers, economists, a physician and a social psychologist offered their take on different aspects of the healthcare response to global pandemics. In this piece, students, research fellows, and visiting fellows currently at Clare Hall, Cambridge provide their individual and distinct reflections on the lectures. They highlight a continual need for openness and multi-disciplinary engagement surrounding complex, global, and often polarising issues. The reflections presented herein reflect the views and ideas of scientists, philosophers, sociologists, and healthcare professionals from diverse backgrounds and nationalities. Beyond sharing these different and complementary perspectives, we aim to promote diverse, informative and welcoming forums for scholarly engagement in the pressing global issues of our time.

Introduction

The Tanner Lectures on Human Values¹ were founded in July 1978 at Clare Hall, Cambridge, by the American scholar, industrialist, and philanthropist, Obert Clark Tanner. His hope was to foster a legacy of lectures which 'will contribute to the intellectual and moral life of mankind'. Tanner stated: 'I see them simply as a search for a better understanding of human behaviour and human values. This understanding may be pursued for its own intrinsic worth, but it may also eventually have practical consequences for the quality of personal and social life'. The Tanner Lectures are financed by an endowment, and other gifts, donated to the University of Utah exclusively for this purpose. Permanent lectureship has only been

^{1 &#}x27;The Tanner Lectures on Human Values' (*Clare Hall, Cambridge*) <https://www.clarehall.cam.ac.uk/tanner-lectures> accessed 10 April 2022.

granted to eight other universities outside Cambridge. Outstanding scholars or leaders in broadly defined fields of human values-which transcend ethnic, national, religious, or ideological distinctions-are recognized and honoured through the invitation. Their lectures are also published as a written version of their presentation.

This year's Tanner Clare Hall lectures² invited presenters to discuss broad philosophical, financial, political and artistic aspects of the Covid-19 pandemic. The two evenings featured six speakers from various disciplines. During the first evening, Professor Allen Buchanan, an American philosopher, was invited to speak on 'The relationship between national and global health'. His presentation covered several areas, including how one defines 'crisis', when it is ongoing, as was the case for the duration of the Covid-19 pandemic. Two responses to his presentation followed, and were delivered by Cécile Fabre, Oxford Professor of Political Philosophy and Senior Research Fellow in Politics, who addressed moral duty and how it might be sustained, and by Sir Paul Tucker, a Research Fellow at Harvard's Kennedy School, who commented on public health governance and its financing. For the second evening's topic, 'The consequences for healthcare practice, globally', the invited speakers preferred a less hierarchical order of presenters and shared equal 'rank'. Oxford's Professor Trish Greenhalgh pleaded for the prudence and prevention masks offered; Professor Ama de-Graft Aikins, the British Academy's Global Professor at University College, London, provided a compelling and colourful portrait of pandemic realities and resilience strategies in Ghana and other African countries; and Alexander Bird, Cambridge's Bertrand Russell Professor of Philosophy, contrasted and compared the costs approved and disbursed by the NHS in 'standard' cases with those associated with Covid-19 expenses in this pandemic.

Clare Hall students, research fellows, and two visiting fellows reflected on which of the Tanner 2022 messages proposed by this year's speakers were most salient. We considered the lecture content and the subsequent, animated, discussions held during the question periods and social interactions immediately following the presentations. We submit these independently written perspectives, inviting readers to consider commonalities and discrepancies between them. Beyond the narrative, we discuss and highlight the role, and importance, of multidisciplinary and diverse perspectives in global health issues.

Reflections

An Interdisciplinary Pandemic (Lauren Adams)

As someone whose academic work lies in modelling the spread of infectious diseases, and who has practical experience of working in healthcare during the on-going Covid-19 pandemic, I was interested to see how a lecture series focusing on human values would tackle this issue.

Though not necessitated by the title, it was unsurprising that every speaker mentioned Covid-19. The first speaker, Prof. Allen Buchanan, spoke about the nature of crisis. He proclaimed that crises are declared promptly, but argued that the same cannot be said for announcing when the crisis is over. This made me wonder: although I would argue the Covid-19 pandemic is on-going, would I still consider it a national crisis?

The second part of the talk was dedicated to distinguishing the differences between imperfect and perfect duties.³ In the discussion that followed, much attention was devoted to the speaker's proposed view on vaccinations. Buchanan suggested that 'endless booster vaccinations', in light of extreme vaccine supply issues across the globe, were unsustainable. This opinion led to an emotionally charged debate between the audience and the speakers.

This was my first experience of highly emotive arguments defending very different points of view from academics from a broad range of backgrounds. I realised how limited an individual's work can be if they only consider their own expertise. Although there are many factors that contribute to the spread and management of infectious diseases that I cannot model, I can consider them in future discussions of my findings. I hope taking this away from the event will lead to my work being better informed and more well-rounded.

Global health and the duty to help: some practical considerations (Luke Neill)

There were two broad questions that I thought were most salient in this year's Tanner lectures: how can we prevent extreme harm to people both in this pandemic and the next; and how can we institutionalise the duty to alleviate pandemic-related problems in other countries?

On the latter point, Prof. Allen Buchanan and Prof. Cécile Fabre set the groundwork. Using the Kantian distinction between perfect and imperfect duties⁴, they underlined the difficulty of the 'imperfect' duty to adopt a positive end, or, in the case made by Prof. Buchanan, to provide pandemic relief to less developed countries. Fabre explored these duties in relation to non-compliance: if, in contravention of an agreement, one country fails to provide any support, is there a duty for other countries to 'take up the slack'? And if so, how can that be enforced? As Prof. Ama de-Graft Aikins asserted the following evening, there was a notable failure to provide adequate vaccine supplies to Africa, showing that the duty remains unfulfilled by most Western nations.

One solution, offered by Sir Paul Tucker, was an economic one. Tucker asserted that countries must internalise their incentive to help others because it is in their self-interest (avoiding the reimportation of the pandemic, mass migrations, and creating allies, etc.). Moreover, he proposed that this could be furthered by adding a second 'player' to the currently existing world health organisation, headed by the West and China, respectively, which could then compete for greater provision of services in developing countries. Whether or not this is a viable structure, the idea that the existing WHO, beleaguered by universal veto rights and poor funding, was in many ways unable to provide comprehensive support to developing countries was a striking point. The lectures were effective in exploring how the WHO and national governments had to balance the demands of the scientific community with the competing economic, political, and social questions, complicating their approach to pandemic relief.⁵

² Available online at <https://www.youtube.com/watch?v=eOrxqw_ CdbA>.

³ Perfect duties are proscriptions of specific kinds of actions, where violation is morally blameworthy; imperfect duties are prescriptions of general ends, where fulfilling them is praiseworthy. Cf. Christopher Bennett, Joe Saunders, and Robert Stern (eds), Immanuel Kant. Groundwork for the Metaphysics of Morals (Oxford University Press 2019). 4 ibid.

Eyal Benvenisti, 'The WHO - Destined to Fail? Political Cooperation 5 and the COVID-19 Pandemic', American Journal of International Law (2020) 114(4) 588-597.

The discussion was sometimes waylaid by Buchanan's comments about the low efficacy of 'endless booster vaccinations' and the need for implementing gene testing instead, which provoked tense scrutiny from health professionals in the audience. Nevertheless, the bleak diagnosis as to the state of our existing global health institutions, and the difficulties of enforcing the duty to aid poorer nations, was a question that ought to weigh heavily on those interested in responding to the next pandemic.

Creatively responding to Covid-19 in Africa (Lundi-Anne Omam)

One of the presentations that marked me most during the lectures was that of Prof. Ama de-Graft Aikins who, in her response to the presentation given by Prof. Allen Buchanan, talked about how creative arts in Ghana helped shape the response to Covid-19. I am familiar with how different forms of arts can communicate key prevention messages to communities. However, it was interesting to listen to Prof. de-Graft Aikins speak of artists in Ghana creatively communicating about Covid-19 in their bid to demystify beliefs surrounding this new virus which was largely considered to be a 'colonial virus'.

Coming from an African country, I easily related to Prof. de-Graft Aikins' presentation as communities in Africa relate very well to communications in local languages and dialects they speak. What's more, means of communication using forms like textile designs and murals speak to the recognition of African cultures and traditions as important aspects of disease prevention.⁶ The Covid-19 outbreak affected many parts of Africa with total deaths recorded being 250,948 as of the 29th March 2022.7 Public health containment measures, especially the introduction of vaccines, have seen resistance in Africa.8 A holistic approach that acknowledges the impact of tradition and culture is thus particularly important in measures aiming to contain the spread of Covid-19 in Africa, as was the case in Ghana. Previous academics have published on the role tradition and culture play in the spread of pandemics.⁹ Thus, the use of different forms of arts, including music, textile designs and murals that encompass many forms of expression, are creative mediums through which stories are told. These creative means of communication could, and should, be used to further strengthen the Covid-19 response in Africa.

The Buchanan compromise meets (needs!) scientific inference (Michael Nelson)

- 6 Ama de-Graft Aikins and Bernard Akoi-Jackson, 'Colonial virus? Creative arts and public understanding of COVID-19 in Ghana' (2020) 54(Suppl. 4) 86-96; Bronwen Evans, 'African Patterns' (*Contemporary African Art*, 2020) < https://www.contemporary-african-art.com/ african-patterns.html> accessed 10 April 2022; Chris Spring, 'Social Fabric: African Textiles Today' (*Google Arts & Culture*, 2015) < https:// artsandculture.google.com/story/social-fabric-african-textiles-todaythe-british-museum/twWxNsyPc0L4Iw?hl=en> accessed 10 April 2022.
- 7 'Coronavirus Disease 2019 (COVID-19)' (Africa Center for Disease Control, 2022) https://africacdc.org/covid-19/> accessed 10 April 2022.
- 8 Polydor Ngor Mutombo et al, 'COVID-19 vaccine hesitancy in Africa: a call to action' (2022) 10(3) Lancet Glob Health 320-321.

As a scientist working in computational analysis, my instinct in the face of data and inference is to consider the modelling, prior knowledge, and uncertainty one can ascribe to that data. The model is a typically parametric representation of the system under study and how that system might change when other parameters (e.g. time) are varied.¹⁰ Initially assumptions about those parameters are captured by the *prior knowledge*.¹¹ The output of such a model will be some predicted central value of the system, and an associated level of confidence in that value. Variations in this value due to external and systematic factors are absorbed into the model uncertainty. For me the significance of models, priors, and uncertainties is particularly prescient for the on-going Covid-19 pandemic, where government policy, law enforcement, and everyday life have been affected by the outputs of epidemiological data science models (the model *inference*). Given the significant variability in measures by which government response is considered successful, including mortality, infection rates and economic outcomes, and the immutable role of uncertainty and prior assumptions in these models, it is necessary to look beyond the pure data science approach in dealing with such crises. Which other features require careful consideration in any government's response?

In this year's Tanner lectures, Prof. Allen Buchanan emphasised the influence of nationalism and cosmopolitanism in Covid-19 responses, and how dealing with Covid-19 would have been more optimal if the approach had been positioned between these two extremes. Buchanan proposed that purely nationalistic and purely cosmopolitan responses were suboptimal for dealing with the problem. I found this compromise sensible and well-motivated, but questioned the lack of pragmatic, scientific treatment in Buchanan's argument, a viewpoint that seemed common among the scientifically aligned attendees. That said, there are important considerations to take home from Buchanan's pragmatic compromise, particularly the role of spending and economic efficiency in responses to the pandemic. This point was further emphasised by the economic arguments set forth by Sir Paul Tucker and Prof Alexander Bird on how a Buchanan compromise could be realised in the realm of international banking and by international agencies. This pragmatic response would be well served if integrated with the results of scientific modelling and healthcare analysis.

My feeling is that much could be gained by combining the economic practicalities of the Buchanan argument with the necessary scientific models of the impact and development of the pandemic. One approach can be seen to triage elements of the other, and it will become increasingly important for scientific, economic, and philosophical camps to actively discuss and debate these issues, strengthening the Buchanan compromise and improving upon it.

Public health crises and trust in government (Will Hanna)

Professor Allan Buchanan's 2022 Clare Hall Tanner lectures offered important critical reflections on the normative desirability of prolonged emergency measures and widespread restrictions on conduct as response measures to public health crises. Such reflections involved confronting difficult questions about how public institutions ought to balance rights and responsibilities in

⁹ Angellar Manguvo and Benford Mafuvadze, 'The impact of traditional and religious practices on the spread of Ebola in West Africa: time for a strategic shift' (2015) 22(Suppl. 1) The Pan African Medical Journal 9; Philip Baba Adongo et al, 'Cultural factors constraining the introduction of family planning among the Kassena-Nankana of Northern Ghana' (1997) 45(12) Social Science & Medicine 1789-1804.

¹⁰ Trevor Hastie, Robert Tibshirani, and Jerome Friedman, *The Elements* of Statistical Learning: Data Mining, Inference, and Prediction (2nd edn, Springer 2001).

¹¹ Andrew Gelman et al, *Bayesian Data Analysis* (Chapman and Hall/CRC 2004).

the face of significant resource constraints. One constraint which was tactfully considered by Buchanan, and which had received less consideration in my own thinking prior to attending the lecture, was the importance of designing institutional responses to public health crises with an eye to preserving the public's belief in the authority of government-what Buchanan called 'sociological legitimacy'. Building on the typology of legitimacy crises first developed by German sociologist and philosopher, Jürgen Habermas, Buchanan explored how public health crises could put strain on the people's trust in their governing institutions.¹² The consequences of a deficit of trust became all too apparent over the duration of the pandemic in the many examples of widespread non-compliance with government policy and the initiation of protests movements in response to public institutions' perceived mishandling of the pandemic response. Buchanan pointed out how important the governments' task of clear communication under conditions of uncertainty is in preserving the sociological legitimacy of institutions. Any public health response must take measures to preserve trust in government lest it undermine its own ability to steer individuals' choices in the direction of the common good.

In the question period following the lecture, some members of the audience challenged Buchanan's framework for its lack of scientific rigour. His framework was, they claimed, an exercise in abstraction which often glossed over details which might be considered vitally important in other forms of scholarly inquiry. Indeed, the assumption built into Buchanan's model which struck me as most obviously problematic was the delimitation of the concept of 'relevant harm' to that which individuals suffer directly because of contracting a disease (i.e. without including, for example, knock-on harms resulting from a dysfunctional healthcare system). However, Buchanan's framework does not stand or fall on its ability to 'get everything right'. In the spirit of the founding goal of the Tanner Lectures, I think that it ought to be evaluated on its ability to render the conversation on these vital matters more articulate. It certainly had this effect on my own thinking.

Dialogue, debate, and imperfect freedoms (Yoanna Skrobik)

Intensive care units were my professional home. They provide front row seats during pandemics, with gritty, up-close observation of illness and death. Being there convinces 'front-liners' that our emotional perspective is the most real. Is this why the 2022 Tanner Lectures triggered such strong and discordant reactions? On one hand, these erudite moments in the Tanner Lecture 'birthplace', Cambridge, are the epitome of the wondrous luxury of celebrating intellectual debate. On the other, the inherent detachment from my Covid-19 reality and that experienced by many colleagues worldwide made this distancing from the grit seem surreal.

I most enjoyed the knowledge, grace, humour, and deep irony with which Prof. de-Graft Aikins described 'the colonial virus'. The (contentious) previous evening's speaker's tenets, particularly those addressing what privilege, versus relative disadvantage, mean, were deconstructed with quiet dignity. The lecture contained interesting, grounded, and well-researched facts, along with good stories. Examples of the humour with which Ghanaians deal with irrational or harmful attitudes and actions among the egregiously misinformed and/or misguided 'privileged', was inspiring. Finally, how much art, from cartoon humour to woven cloth patterns to public spaces covered in paint and imagery, serves as a public information-conveying vessel, in addition to its role in fostering hope, was both useful and entertaining. Such artistic expression allows Ghanaians to own the narrative. I thought how much there is to learn from such tangible wisdom and perspective.

The amalgam of Sir Paul Tucker's response with Prof. Alexander Bird's analysis of Covid-19's costs, weaving national and international politics, crisis management optics and general mayhem through financial and public health consideration issues, were eye-openers. Their lively debate at the end added a lighter humour to two lectures that would have otherwise been very serious indeed.

One discomfort remains: intellectual conflict of interest necessarily plagues experts.¹³ Prestigious lecture invitations highlight, and heighten, academic and perceived hierarchical ranking, anchor professional identity, and may help promotions within universities. Are these 'experts' therefore more likely to keep a narrower view as it helps maintain 'expert' status and control? Does this preclude a broader and perhaps more accurate view on more high-stake 'what should be done¹⁴ in a pandemic' questions?

Thoughtful scholars, like Hans-Jörg Rheinberger, contend that only multifaceted and multidisciplinary approaches can procure any semblance of credible substance. Such transparency, stemming from parameters grounded in what is known and understood, should be procured by considering multiple data sources, followed by sharing knowledge and discussing its meaning. A priori, any field's academics would consider results obtained using multiple research methods within their area. Once experts from each relevant discipline have shared the information garnered in this way, dialogue between them would then bring a broader perspective. This is arguably the only rational approach to complex topics, whether the Covid pandemic or related to other equally multifaceted subjects. If approaches to public health, which can be perceived to override individual choices, are to be implemented, the exercise described above must precede their implementation. Instead, we witnessed pandemic-related information laced with 'false news'. Few rigorous journalists clarified information beyond reporting on health care system capacity limits and governmental imposition of health care measures. Clare Hall's 2022 Tanner lecturers diverged radically in both content and opinions, and some steadfastly held on to narrower interpretations during the discussion periods following their lecture. What could be considered credible, and desirable, was received differently still by the audience, adding layers to the high-stakes moral quagmires, elegantly invoked in Prof. Cécile Fabre's response to the first lecturer.

Should we screen, and thus censor, lecture content accuracy or bias if the event's intent is to 'contribute to the intellectual and moral life of mankind'? Or do we acknowledge that here, as in democracy, expressing views where context adds to their credibility is not perfect but the best we've got? The frustration at not finding a solution to how alternative, accountable, and transparent ways to minimise the harm imprecision or misinformation can create—a feeling I experienced often throughout the pandemic—remains.

Global health institutions and disciplinary pessimism (Elina Oinas)

As a sociologist whose work focuses on global health and illness, the key argument of the opening lecture by Prof. Allen Buchanan was

¹² Jürgen Habermas, Legitimation Crisis (Heinemann 1976).

^{13 &#}x27;Personal and intellectual conflicts' (*Office of Research Integrity*) https://ori.hhs.gov/content/Chapter-5-Conflicts-of-Interest-Personal-and-intellectual-conflicts> accessed 10 April 2022...

¹⁴ What should be done strategically, morally, financially, in public health terms, etc.

the observation that health is a societal issue seen to be totally held in the hands of nation states. This contrasts with how pandemics such as Covid-19 clearly show the need to have a global infrastructure for health emergencies, and possibly even for health care, especially in regions where states do not deliver or procure practical or helpful resources. The obviousness of this insight is astounding, particularly in the light of the lack of discussion on how the situation could be improved. Despite all talk of globalisation, in health the nation state seems to be the unit of analysis and practice. Institutions like the WHO are important but vulnerable, and do not address the key issues of actual implementation of policies.

Prof. Buchanan suggested that any new view on globalised health care cannot be based on an extreme nationalistic nor cosmopolitan view on duties and responsibilities for 'the distant stranger'. He was thus not challenging the nation state structure, but instead suggesting a global structure in addition to the existing national ones. The remainder of the discussion, however, confirmed the complexity and even impossibility of any such propositions being feasible. Thus, the Tanner talks in total underlined the different disciplinary contributions to how, on an abstract level, a global health agenda will *not* be achieved. The ambitious goal of the event, to create an interdisciplinary platform for discussing future objectives for global health, in my view fell on disciplinary narrowness, inability to communicate across fields, and general pessimism.

Sir Paul Tucker, the economist in the room, contended that while there are serious arguments of self-interest for the wealthy nation states to engage in a global health care structure, nation states will find such duties more voluntary than obliging. Prof. Cécile Fabre agreed that a binding global contract is a radical proposition and one that is very hard to achieve, as seen in wars.

The theoretical tenor of the first day's lectures took on a more concrete tone during the second day, when public health Professor Trish Greenhalgh applied a pragmatist's view on Covid-19 policymaking, urging to trust sufficient, partial, and contingent knowledge instead of demanding absolute certainty. Prof. Ama de-Graft Aikins pointed out that African health systems have always dealt with complexities and been able to diversify policies depending on different domestic and international pressures. She addressed phenomenological violence when moral failures to distribute vaccines to 'distant strangers' occur, and how the denial of equal status as global citizens affects trust in biomedical health messages. Her talk was also the only one directly addressing lay people and their ability to deal with multiple messages. Prof. Alexander Bird brought the discussion back to the economy by asking if not the focus on Covid-19 only leads to an economic disaster and neglect of other diseases, further advocating for a consideration of a complex policy landscape beyond Covid-19.

A notable absence in the panel discussion was the microbe itself, claimed the audience question by a medical historian. The panel was no doubt highly human-centred and held little epidemiological and virological expertise. In the comments section the diverse scales of the talks spurred provocative questions and comments from the audience, especially those working more strictly in healthcare, arguing that the philosophers, economists and public policy experts missed important aspects of the knowledge required to even grasp the real issues. The heated debate brought me one insight above anything else: while the Covid-19 really has opened our eyes to the necessity of an interdisciplinary health policy dialogue, as academics we are still not up to the challenge. The pandemic is inevitably a societal phenomenon that neither medicine, pharmacology, vaccine industry, philosophy, economy, public administration or social psychology can solve alone. Even with a 100% protective vaccine, the challenges of cost, manufacturing, distribution, and incentive for lay people to take it, would remain.

The Tanner lectures highlighted challenges inherent to interdisciplinary discussion, especially in the face of a public crisis. The speakers were astonishingly unwilling to listen and respect the expertise of another's field of knowledge. The philosophers seemed unable to examine their own biases and narrow conviction, yet willing to integrate hard scientific arguments involving efficacy and viral contagion into their discourse. Thus, my own take home message was that practices for developing interdisciplinary negotiation are urgently needed. Not to force everyone to share one framework of ontological, epistemic, not moral or ethical standpoints, but to better negotiate what Prof. Greenhalgh called sufficient reliability for action.

There is a strong tradition of discussions on interdisciplinarity from Thomas Kuhn¹⁵ to Donna Haraway¹⁶, but our current crisis thinking does not seem to take lessons from them. Interdisciplinarity is often celebrated as the future of science yet it is hard to practise.¹⁷ This, of course, is also built in the competitive nature of contemporary academia, where winning, and presenting the prevalent truth, dominates approaches that are open for negotiation, uncertainty and partial, contingent truths. Alternative traditions, however, flourish alongside mechanistic positivism, with multiple roots in both Bayesian probability theories,¹⁸ game theories,¹⁹ as well as anthropology and multi-species post-human feminist traditions.²⁰ What is new is that those are urgently needed for health policy making, complementing the more mechanistic evidence-based traditions.²¹ The Tanner lectures were a case study on both the difficulty of and need for interdisciplinary, negotiative approaches.

Discussion

The different perceptions described by the Tanner lecture attendees reflect the diversity in their identity and in what most captured their interest or attention. The multidisciplinary diversity of presenters added to the range of topics and points of view. In addition, the commonality of the pandemic's impact on each participant's experience added a unique dimension of engagement. The threat it brought to quotidian aspects of our lives may have heightened emotion in receiving and interpreting presenters' opinions. Beyond this, the heated debates surrounding some of the more polarising features proposed by the lecturers added a dimension of controversy that may have been considered unexpected in a highly prestigious lecture series with invited expert speakers.

¹⁵ Thomas Kuhn, The Structure of Scientific Revolutions (University of Chicago Press 1962).

¹⁶ Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Duke University Press 2016).

¹⁷ Andrew Abbott, *Chaos of Disciplines* (University of Chicago Press 2001). 18 Gelman et al (n 11).

¹⁸ Geiman et al (n 11).

Alejandro Caparrós and Michael Finus, 'The Corona-Pandemic: A Game-Theoretic Perspective on Regional and Global Governance' (2020) 76(4) Environ Resour Econ (Dordr) 913–927.

²⁰ Margaret Lock, 'Mutable environments and permeable human bodies' Journal of the Royal Anthropological Institute (2018) 24(3) 449-474.

²¹ Caterina Marchionni and Samuli Reijula, 'What is mechanistic evidence, and why do we need it for evidence-based policy?' (2019) 73 Studies in History and Philosophy of Science 54-63.

In welcoming participants to the Tanner lectures, the President of Clare Hall, Professor Alan Short, expressed his hope that the event would provide a 'safe space to reflect more conceptually on the different models for healthcare available nationally and globally'. Theoretically, multidisciplinary environments increase the probability the setting will be perceived as 'safe' and thus promote overall creativity and performance.²² Were the disagreements stemming from different perspectives overcome through openminded dialogue in these Tanner lectures? This is less certain. Although different convictions among experts with heterogeneous backgrounds may hamper understanding of another's field, anchored beliefs and biases might be set aside if sharing understanding is clearly defined as desirable. Highly prestigious university environments, however, may encourage invited speakers to wish, or feel an expectation, to project authority. Staking academic territory holds disadvantages, as was shown with the incrementally entrenched position witnessed in some presenters. This can in turn oppose participants, and become confrontational, thus eschewing opportunities to listen, learn and converse. Beyond this event, the absence, and evident benefit, of any public forum in which to hold such dialogues was brought up by several speakers and later in the audience's comments and questions. One of the few rallying themes, beyond the challenges in creating such opportunities, was how significant such exchanges are for responding to a pandemic and beyond. Broader discourse in a variety of economic, political, philosophical, and scientific issues would surely benefit an ever more globalised world. The Tanner experience thus provided both a model for the challenges, while emphasizing the importance of, ensuring respectful and open-minded dialogue.

Diversity and multidisciplinarity add richness and depth in numerous ways when studies consider the perspectives of individuals from different disciplines, or whose ethnic, cultural, racial backgrounds, gender, or opinions, vary. From morale and workplace performance, to profitability, creativity, and even educational breadth and accomplishments, multidisciplinarity holds unequivocal advantages in comparison to any comparable metrics produced by more homogeneous groups. Each Clare Hall student or scholar took with them new outlooks and thoughts. As each author produced their individual summary of impressions before sharing its content with others, both what was considered salient and memorable, and the order of hierarchical importance it held for each person, reflected their personal and academic identity. The genuine engagement with which we read each other's Tanner reflections, and the interest it generated, led to further exchanges of ideas and knowledge. The lesson in opening horizons echoes publications describing how useful dialogue can be within intellectually respectful, multidisciplinary, and diverse groups. How being part of Clare Hall made this possible should be recognized, and indeed, celebrated.

Conclusion

Our experience leads to the following concluding thoughts. Lecture series, particularly those addressing complex topics, where the necessary knowledge to address it is broad, and necessarily incomplete for each expert, are most valuable to any audience when the invited speakers are themselves diverse and multidisciplinary. As with each of this piece's authors, we trust this would make their experience and perspectives richer. What elements would make participants value exchanging ideas on par with the value placed on expressing them? How can open exchanges be fostered? These questions triggered sobering reflections as to our own academic penchant for critical analysis, to which adding an openness for dialogue seems essential. It is in this spirit of openness that communities must address questions related to *human values*, and for which forums such as the Tanner Lectures provide a much-needed mouthpiece for more universal scholarly engagement.

²² Stephen Frenkel and David Weakliem, 'Morale and Workplace Performance' (2006) 33(3) Work and *Occupations* 335-361.