



## The need for a transdisciplinary approach to South Africa's COVID-19 crisis

*Webinar Synthesis Report*

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### **Abstract**

*This report synthesises the discussions of a webinar hosted by MISTRA on the 2<sup>nd</sup> of July 2020. The webinar took place when the country was under alert level three of the five levels of the lockdown imposed through the declaration of state of disaster.<sup>i</sup> However, this report was compiled in October, at a point when, due to the decline in the rate of infections, the president had moved the country to alert level one. The objective of the discussion was to explore the value proposition of transdisciplinary approaches in the fight against the effects of COVID-19. Dr Hester du Plessis was the main speaker, and Dr Jeffrey Sehume and Professor Tally Palmer acted as discussants (see speakers' affiliations below). This report, in the main, captures their views and ideas,<sup>ii</sup>. The main argument the presenters advanced was that the notion of disciplinary separation is unsuitable for resolving 21<sup>st</sup> century challenges (COVID-19 included), because such challenges require resolution in holistic terms rather than in silos. Transdisciplinarity approaches, being transgressive in nature, provide an opportunity to transcend retrogressive cultures that government responses to the pandemic, up to the end of June 2020, seem to have been inculcating. Some of these retrogressive cultures include that of fear, which emerged through decisions made under a state of disaster, and the culture of silence, which developed from the entrenchment of fear. The major recommendation is that a culture of fear entrenched by government's narrow response to the pandemic (which privileged clinical science over other disciplines) should be replaced by a culture of values-based care, where decisions on COVID-19 must be predicated on the intersection of knowledges and the sharing of information.*

## Introduction

In the COVID-19 moment, strategic reflection has become necessary in order to assess how transdisciplinarity, understood as a research approach rather than a methodology, can play a mitigating role in fighting the effects of the COVID-19 pandemic. The shape-shifting<sup>iii</sup> characteristics of this virus clearly indicate that medical sciences, on their own, are inadequate in understanding its effect on global populations. We need a more holistic understanding of the pandemic. To this end, transdisciplinarity, which brings together academic disciplines ranging from the natural and health sciences, to the social sciences, arts and humanities – and their associated methodologies – affords humanity an opportunity to understand the pandemic from a point of intersection of these disciplines.

As a follow-up to MISTRA's 2014 publication on the value proposition of transdisciplinarity, titled *The Concept and Application of Transdisciplinarity in Intellectual Discourse and Research*, and a 2020 Working Paper titled, *Linking Transdisciplinary Practice to South African Science, Technology and Innovation Policy*, MISTRA convened a webinar on 2 July 2020 specifically to explore the relevance of transdisciplinary approaches in responding to the COVID-19 pandemic. The speakers spoke on *the need for a transdisciplinary approach to South Africa's Covid-19 crisis*. Dr Hester du Plessis was the main speaker. Dr Jeffrey Sehume and Prof Tally Palmer were the discussants.

## Webinar presenter and discussants

### Dr Hester du Plessis (main speaker)

Associate Researcher in the Office of the Dean of Humanities at the University of Pretoria, South Africa. Dr du Plessis developed the recent MISTRA working paper, *Linking Transdisciplinary Practice to South African Science, Technology, and Innovation Policy*, available at: <https://mistra.org.za/wp-content/uploads/2020/05/Working-Paper-Linking-Transdisciplinarity-Practice-to-South-African-Science-Technology-and-Innovation-Policy-Final-Final-280420.pdf>

### Dr Jeffrey Sehume (discussant)

Former Senior Researcher at MISTRA, and co-author of MISTRA's 2014 publication, *The Concept and Application of Transdisciplinarity in Intellectual Discourse and Research*. Dr Sehume is a researcher and speech writer in the Office of the Vice President of South Africa.

### Prof Tally Palmer (discussant)

Head of the Institute for Water Research (IWR) at Rhodes University. Prof Palmer is a pioneer of

what has become known as engaged research: research that is practice-based, draws on knowledge across usual academic domains and from practitioners and communities, and is used to affect behavioural change towards achieving social and ecological justice.

### **Methodology and structure of the report**

This report synthesises the discussions that took place at the webinar, incorporating the main presentation by Dr du Plessis and the responses of the two discussants. Additional resources used by the author to compile the report and provide additional or background information have also been used.

The report begins by outlining the meaning and advantages of transdisciplinarity, as set out by the presenter and discussants. This is followed by Du Plessis' main arguments regarding transdisciplinarity and COVID-19, relating specifically to how decisions have been made by decision-makers during the pandemic, and how this has impacted on broader society. Thereafter, the section on collective responses and rebuilding trust between broader society and government follows, in which ideas about how to respond to the pandemic are shared. The last section provides a discussion on the efficacy of transdisciplinary approaches in responding to the pandemic.

### **Understanding transdisciplinarity**

Palmer's (2020) input contextualised what should be understood by the concept of transdisciplinarity. She emphasised that transdisciplinarity respects, and allows the entrance of, all forms of knowledge into the knowledge production matrix. Furthermore, transdisciplinarity encourages respect for different people, cultures and societies in order for one to learn from the other. Such a theoretical consensus, argued Sehume (2020), is useful to transgress and transcend the growing disciplinary compartmentalisation and hyper-specialisation that seem to be emerging in the management of the pandemic worldwide. Transdisciplinarity promotes, after all, mutual learning between science and practice, and also provides space for resolution of the problems that arise between science, culture, democracy, and the market economy (Du Plessis, 2020; Sehume, 2020).

It is in this context that a timely reflection on transdisciplinarity can play a crucial role in developing innovative processes of mitigating the effects of the COVID-19 pandemic.

## **Decision-making and communication during a pandemic**

As the main speaker of the day, Dr du Plessis framed her input around the importance of effective communication, and the urgent need to develop a broad *science culture* and *science literacy* as pre-requisites for developing abilities and capabilities in innovation – whether this be social innovation or product based innovation. This argument, strongly advanced in her working paper (Du Plessis, 2020a), gives attention to the importance of *citizen science*<sup>iv</sup> and *grassroots innovation* in taking up the challenge associated with adopting a transdisciplinary approach to resolving societal challenges.

Du Plessis's presentation started by discussing the way in which South Africa managed the pandemic to date. She argued that the lockdown measures instituted by the government were mainly informed by clinical science and health data, which eschewed the social aspects of the pandemic's impact. This 'hard science informed' approach, according to Du Plessis, was clearly not transdisciplinary, and it engendered a 'culture of fear' due to the one-way communication channel from government to citizens, adopted due to the urgency of the decisions that had to be made. As a result of the persistence of this culture of fear, another retrogressive 'culture of silence' began to assert itself, at the time, since many decisions were taken under conditions of the state of disaster, declared by President Cyril Ramaphosa on 15 March 2020 in terms of the Disaster Management Act of 2002. The institutionalisation of this culture of fear, as argued by Du Plessis, needs contextualisation, not least because it is a new phenomenon in the post-apartheid democratic dispensation.

Flowing from the declaration of a state of national disaster, a National Coronavirus Command Council (NCCC) was created and put in charge of managing the 'draconian nation-wide lockdown of the country as from the 26 March 2020' (Du Plessis, 2020b). Du Plessis (2020b) further opined:

As Commander-in Chief of the army, and dressed in military gear, President Ramaphosa deployed the military amongst civil society to enforce civil adherence to the NCCC's autocratic 'lockdown rules'. Following global practice, military war terms were used in speaking about the pandemic, and the emergency regulations effectively enforced a military-like curfew. The pandemic soon became, as Giorgio Agamben proposed, 'a civil war against an invisible enemy that may be present in every other human being – an indication of the most absurd of wars'.

To buttress the argument about the unfairness of most of the decisions taken by government during the initial COVID-19 moment, the state and its various departments have faced over 90 court cases based on perceived unfairness (and illegality) of lockdown rules with the gist of the general feeling expressed by one such litigant as follows: 'We bring this application in order for this court to

vindicate the constitutional vision of a free and dignified citizenry and a government that is caring and respectful rather than controlling and authoritarian' (Merten, 2020).

One of the unintended consequences of this toxic state of disaster is that the public suddenly and unexpectedly experienced a spectacle of panopticism (Du Plessis, 2020b). Panopticism is a kind of internal surveillance where the watcher ceases to be external to the watched and is used as a modern form of governance that illustrates an unequal relationship between power and knowledge (Foucault, cited in Du Plessis, 2020b). Michel Foucault previously indicated that such *panoptic* lockdown measures, introduced first during the 17<sup>th</sup> century, allowed for public spaces to be occupied by the militia, sentinels, guards and inspectors to enforce 'the penetration of regulation into even the smallest details of everyday life' (Du Plessis, 2020b).

Du Plessis further argued that the South African government, 'innocently' and completely uncontested, announced, at the start of the lockdown in March 2020, that all communication about the COVID-19 pandemic would be exclusively managed and controlled by the NCCC. Scientists were not to speak to the public. Thus, when Prof Glenda Grey from Wits University 'broke' this rule, she received invectives from some government quarters (Africa News Agency, 2020; Wits, 2020). Du Plessis (2020b) also argued that 'NCCC communication was vague, non-informative and quickly deteriorated into the announcement of statistics and more regulatory and unsubstantiated "lockdown rules"', leading to a number of court cases. All sensible and informative information regarding the virus came from international sources, according to Du Plessis (2020b).

The main point here, emphasised by Du Plessis (2020b) is that centralised, state-controlled communication paved the way for the reproduction of unsavoury principles of biopolitics and biopower to be enforced within the context of constant surveillance (panopticism), and the direct control by the state over the physical existence of its people. Biopolitics describes the mechanisms and tactics of power focused on life (that is to say, individual bodies and populations), distinguishing such mechanisms from those that exert their influence within the legal and political sphere of sovereign power (Du Plessis, 2020b). Biopolitics functions within sectors of judicial power by, for example, enforcing compulsory vaccinations and a ban on selling cigarettes and alcohol, which could restrict all individual freedoms (Du Plessis, 2020b). Biopolitics mainly serves as a political, hierarchical, disciplinary technique of control. It does not act on behalf of the individual, but acts on behalf of the population, mostly in a so-called preventative fashion, and its 'legitimacy' claim lies in its preoccupation with optimising (human) life chances (Du Plessis, 2020).

The danger of biopolitics could be that the suspension of laws within a state of disaster/emergency or crisis can become a prolonged state of being and deprive individuals of their rights as citizens.

This, according to Du Plessis (2020b), leads to a culture of silence. Such a culture of silence indicates a void in the communication of adequate information and relies on sharing frightening statistics gathered through hard science, and propaganda without a human face.

Biopower, on the other hand, comes with the development of a 'technology of power' (data and statistics) applied through 'numerous and diverse techniques for achieving the subjugation of bodies and the control of populations' in order to maximize state control over society's life processes (Du Plessis, 2020). Biopower, just like biopolitics, functions best through a 'culture of fear'. According to Du Plessis, the words of political philosopher, Giorgio Agamben (2020, cited in Du Plessis, 2020b), in commenting about life in Italy during the COVID-moment, capture this culture of fear holistically:

Fear is a bad counsellor, but it makes us see many things we pretended not to see. The first thing the wave of panic that's paralysed the country has clearly shown is that our society no longer believes in anything but naked life. It is evident that we (Italians) are prepared to sacrifice practically everything – normal living conditions, social relations, work, even friendships and religious or political beliefs – to avoid the danger of falling ill. The naked life, and the fear of losing it, is not something that brings men and women together, but something that blinds and separates them. Other human beings are now seen only as potential contaminators to be avoided at all costs or at least to keep at a distance of at least one meter... We effectively live in a society that has sacrificed freedom to so-called 'security reasons' and as a consequence has condemned itself to living in a permanent state of fear and insecurity.

The cultures of fear and silence, according to Du Plessis (2020b), became asserted as a result of the kind of politics that the state followed during the state of disaster and, if not interrupted, these cultures may end up being engrained as permanent features in the country's polity. Thus, in order to negate the further entrenchment of these cultures, a sense of trust between society and government needs to be rebuilt.

### **Collective responses and rebuilding trust**

The pandemic effectively pushed the world into a global recession, causing a precarious life for millions of people (Sehume, 2020). Due to the initial severe lockdown regulations, the economy in South Africa was brought to a complete standstill, necessitating a societal dilemma, albeit expressed in muted voices, of whether to save lives or to save livelihoods. Transdisciplinary thinking becomes handy in thinking around this dilemma. Thus, the court processes alluded to earlier, as well as other

forms of social dissent such as those seen in social media and social movements, should not be viewed as an irritation, but as welcome processes of trying to entrench socio-economic renewal, and to force co-decision making between those who govern and the governed. This, as Du Plessis argued at the webinar, helps to regulate power disjunctions in order to curtail the autocratic tendencies engendered by a one-way communication process.

It is through this approach that we see the possibility for *social and grassroots innovation* to address the increase in collective expressions of anger, frustration, despair, anomie and anxiety due to chronic job insecurity and health concerns within a growing feeling of alienation from the state and from all fellow human beings (Du Plessis, 2020b). It is also through a transdisciplinary approach to the 'wicked problems' we face, that social innovation could bring about change including large-scale behaviour modifications, without a panoptic expansion of forms of coercion and surveillance (Du Plessis, 2020b). One can only hope, added Du Plessis (2020b), that the multi-sectorial Ministerial Advisory Committee on Social Behavioural Change<sup>v</sup>, with its aim of bringing about 'fundamental reform at grassroots level for the sake of saving lives', will adhere to such a transdisciplinary approach, and help to rebuild mutual trust. There is, however, and unfortunately, no further information shared about this committee besides the announcement of its institution by the ministers of health and social development. The rampant corruption, endemic to government, might also be an obstacle in the realisation of the ideals possible through such a committee (Du Plessis, 2020b).

As a society, there is a need to acknowledge that there is now, more than ever, a need to combine and emphasise values such as those of individual and collective care, living carefully, care as action, care as attention and care as concern (Du Plessis, 2020b). Du Plessis further argued that the basic idea of care is embedded in the details of ordinary human life and based on certain obligations and the courage to tell the truth, in non-coercive ways, to politicians and policy makers. Decisions for the reduction of movement, for social distancing in times of epidemics, for not smoking in closed public spaces, or for avoiding individual and collective practices that harm the environment, should be the result of democratically discussed collective decisions based on knowledges available, generated through transdisciplinary ways, and as part of a collective effort to care for others and ourselves. In this way, trust in state processes will be reconstructed (Du Plessis, 2020b).

This means that, from simple autocratically imposed decisions and discipline, citizens move to *responsibility* in regard to others and then themselves, and from *suspending sociality* to consciously transforming it into transparent social transformation (Du Plessis, 2020b). In such a condition, instead of maintaining permanent individualised fear, which can break down any sense of social

cohesion, society will be able to move towards the idea of collective effort, coordination and solidarity within a common struggle – leading to co-thinking, co-learning and co-reflecting, which is what should be viewed as a culture of care (Du Plessis, 2020b; Palmer, 2020).

This is easier said than done, since, according to Du Plessis (2020b), the current South African government has broken its social contract with the people, leading to a lack of trust. The notion of a social contract is a Lockean idea to characterise the relationship of trust between the governed and those who govern. ‘Trust makes things easier for the state, makes collaboration possible, and ensures a unity of effort. The less, however, that people think the state cares about them, the less likely they are to abide by its rules. Government operates on the trust of its citizens’ (Hartley and Mills, 2020). As Claire McLoughlin and David Hudson (2020, cited in Du Plessis, 2020b) have also warned, ‘(w)hether authorities succeed or fail in enforcing potentially life-saving rules could hinge, ultimately, on whether people perceive those rules as legitimate’. McLoughlin and Hudson (2020) further note:

A lockdown relies on people complying with rules that are challenging and counter to their personal interests. In the early stages of the pandemic, under a prevailing climate of fear, it was not hard for leaders to argue that following the rules was in everybody’s immediate interests. Now we are heading into new terrain: the future sustainability of policies will depend more and more on convincing people to do things they do not want to do, and which therefore needs a deeper, moral justification. That is what legitimacy does.

Given that enforcement is not a sustainable answer, McLoughlin and Hudson (2020) discuss theoretical components of attaining legitimate authority. The theories (from various disciplines) can be distilled into three simple questions that citizens are likely to ask themselves in order to evaluate whether they feel morally obliged to comply or not with authoritative decisions. These questions, reproduced by Du Plessis (2020b) are:

- How will it affect me?
- How was it decided?
- Why is it the right thing to do?

Compliance with COVID-19 public health messages will depend on how individuals answer these questions. In addition, the question ‘who made these decisions?’ will be asked, bringing into focus the mistrust in the competency of those in government making these decisions (Du Plessis, 2020b).

## **The efficacy of transdisciplinary approaches in responding to COVID-19**

The two discussants, Sehume and Palmer, agreed with Du Plessis on the indispensability of transdisciplinarity if a successful and holistic response to COVID-19 is to be achieved. Academic compartmentalisation, disciplinary isolation, governmental secrecy and mistrust of government by society, are rife, as evidenced by the number of court cases related to government's management of the pandemic. The speakers also argued that the notion of disciplinary separation is unsuitable to resolving 21<sup>st</sup> century challenges because such challenges require integration rather than separation. As Sehume (2020) argued, citizen science is crucial in confronting existential challenges that contemporary society faces, and, more often than not, it breaks down ivory towers of decision making.

He argued that COVID-19, being a zoonotic disease, should be seen as a problem that humanity brought upon itself through disrespecting the environment and disrupting the ecological systems that have sustained humanity for a very long time (Sehume, 2020). People, by nature, are embedded in a political, social-ecological system/relationship with the environment, and therefore, foregrounding the values and characteristics of transdisciplinarity – such as respecting all forms of knowledge, and recognising that no single academic discipline is superior to another – becomes important (Palmer, 2020).

Palmer also argued that the value of transdisciplinary approaches is that they are transgressive, in that they allow for the transgression or transcendence of retrogressive cultures brought about by the pandemic, such as the cultures of fear and silence discussed earlier. Transdisciplinary thinking also transgresses over-reliance on numbers by bringing into focus other narratives (of practice) which help humanity to understand complex systems. This promotes the value of working together – to co-think, co-reflect and co-build knowledge systems. Through transdisciplinarity, scholars and policy makers are also encouraged to transcend the space of *thinking about*, to the realm of *praxis*. Thus, according to Palmer, scholarship, knowledge and practice should not be mutually exclusive activities.

### **Major Recommendation**

The major recommendation that emerged from the webinar was the need to replace the 'culture of fear' that seems to have entrenched itself, with a values-based culture of care for others. This can be achieved by enduring representativeness in decision-making, where different sectors and disciplines partake. That way, decisions on how to respond to the pandemic, would be predicated on the intersection of different knowledges and the sharing of information, rather than basing decision-

making on privileging one academic discipline over others. The effects of the 'lives versus livelihoods' dilemma could be mitigated by inclusive decision-making.

It became clear during the webinar discussions that transdisciplinarity, in itself, demands of us nothing more than what the African philosophy of *Ubuntu* expects from all of us. This includes the responsibility to care for others and to treat everyone with dignity. Consultative and collective decision-making should therefore be prioritised.

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<sup>i</sup> For a description of the different alert levels, see <https://mybroadband.co.za/news/telecoms/349065-coronavirus-alert-system-with-5-levels-of-restriction-proposed-for-south-africa.html>

<sup>ii</sup> Where applicable, the relevant speaker is acknowledged accordingly.

<sup>iii</sup> The concept shape-shifting is used here to emphasise the fact that not much is understood and agreed about this disease, and that scientists do not really agree on many aspects of its transmission, including its effects on different population groups, leading to continuous changes in information available about the disease

<sup>iv</sup> Citizen Science refers to the general public engagement in scientific research activities when citizens actively contribute to science either with their intellectual effort or surrounding knowledge or with their tools and resources. Participants provide experimental data and facilities for researchers, raise new questions and co-create a new scientific culture (Du Plessis, 2020a: 17). For more on this, see MISTRA's Working Paper on Transdisciplinarity at <https://mistra.org.za/wp-content/uploads/2020/05/Working-Paper-Linking-Transdisciplinarity-Practice-to-South-African-Science-Technology-and-Innovation-Policy-Final-Final-280420.pdf>

<sup>v</sup> The Ministerial Advisory Committee on Social Behavioural Change was set up on the 16<sup>th</sup> of June 2020. It is a committee made up of civil society organisations, NGOs, religious and traditional leaders. It was jointly set up by the ministers of health and social development.