

Wednesday 4th March, 2020

Regarding: The Why and What of Transdisciplinarity

Dear Friend,

I am sorry I have not written sooner, but as you may know, I am working on my doctorate. I am studying for a Ph.D. in transformative studies; this semester, we are taking a course in transdisciplinarity. Let me tell you about it. As a scholar, it is a way of thinking about a topic that can be contrasted with the traditional scientific methodologies and forms of considering problems and or issues. I want to share with you about why it can be such a useful way to frame and respect academic study, what transdisciplinarity is, and a description of some of the characteristics of transdisciplinary scholarship.

The world is ever becoming tangled and full of information. Increasingly the work that we do seems to be around our ability to understand, process, and make the details actionable. Newport (2016) delves into the importance of being able to take time to consider the world and do what he calls deep work. The practice of transdisciplinarity fits well in the confines of doing this type of deep work. Transdisciplinarity stands in the background for how we think about problems. It allows us to have a structure to use in our consideration of this ever-increasing stream of information flowing towards us. It is useful to understand what transdisciplinarity is in gaining insight into how it can support us in our academic work.

While the notion of transdisciplinarity is more than 50 years old now and has gained significant attraction by many scholars, it is not considered a mainstream mode of thinking. Martin (2017) describes Leonardo da Vinci as a transdisciplinary thinker as an engineer, inventor, anatomist, and artist. In their writing, Bacon, Descartes, Leibniz, Kant, Hegel, and Comte all discuss the fragmentation of scientific knowledge just as a practitioner of transdisciplinarity would. As an articulated concept, transdisciplinarity goes back to the 70s, where Piaget, Lichnerowicz, and Jantsch all provided some conceptualization of transdisciplinarity and a thinking process that goes beyond interdisciplinary concepts (Klein, 2013; Klein, 2014; Martin, 2017).

Martin (2017) describes that there is not a singular definition that is agreed on to represent transdisciplinarity. After reviewing many of the working definitions that other scholars have used, she goes on to offer an overall explanation that builds on many other scholars' work. She defines "transdisciplinarity is a new way of conducting research, in which multiple contributors and stakeholders, both from within and from outside academia, are collaboratively working on identifying specific societal problems and on finding solutions to these problems" (p. 7).

To further define transdisciplinarity, it is useful to describe what are some of its characteristics and how those are different than the traditional approach to research. One aspect of transdisciplinarity that challenges the conventional model is as an integrative inquiry-driven exercise versus a siloed disciplinary-specific process. The more established method for understanding a given topic is to use methodologies and conceptualizations from within a specific discipline. Research for a given topic would look for other scholars within the same discipline and would build the concept leaning on their field of study and within its constrained setting. Transdisciplinarity seeks to integrate knowledge and understanding from various areas of practice and research into a more comprehensive understanding of the topic itself. The question becomes expanded beyond just one discipline and their particular methods, and that allows for the integration of other areas (Martin, 2017).

Along with transdisciplinarity being focused on inquiry-specific approach, Montuori (2012) describes four other dimensions that assist in understanding transdisciplinarity. A transdisciplinary approach can be contrasted with a disciplinary approach in how it understands paradigms. The

difference between looking at intra-paradigmatic versus trans-paradigmatic gives transdisciplinarity the ability to transcend individual paradigms. In my academic practice, I am very grounded in social work. Social work has a set of models and ways that it sees and understands the world. In taking a transdisciplinary approach, I have to appreciate my framing and understanding. To examine a topic, such as resilience, I might have to understand other disciplines and their approaches additionally. With my interest in the group aspect of resilience and how individual's resilience interacts and connects with the group or organization, I can start to also explore paradigms within organizational management or education to integrate a complete understanding of resilience, and its interplay.

The third dimension of transdisciplinarity, as described by Montuori (2012), is related to thinking processes. A transdisciplinary approach will use complex thinking and move away from disjunctive or reductive thinking. Adding in paradigms from other branches of study adds a much higher level of complexity to evaluating a topic. The additive understandings from multiple disciplines provide context for connections and agreements that would not be considered within the discipline-specific model. All the latest information generates layers of contextual relationships. To draw out the interplay of individual group members' resilient qualities and how that impacts the group starts to look at and understand the world from a more ecological perspective. Not only does one have to follow what resilience is, what types of qualities that increase resilience, and the individual factors related to that individual. I will also have to examine group dynamics and how interactions are understood. Each step forward in understanding more about a topic becomes layers that get dissected and analyzed.

Another dimension that Montuori (2012) describes is related to the inquiry being creative versus reproductive. Transdisciplinarity is about pushing multiple fields of study towards a greater understanding of a particular topic. It becomes a generative activity that integrates knowledge from many traditional viewpoints through a collaborative process. Considering using a program evaluation as a method for understanding resilience provides a metric for this. Program evaluation is, by its nature, a complicated task with many variables to address and understand. Being able to develop a method for evaluating programs to determine resilience will require a great deal of creative problem-solving.

Finally, the last dimension of transdisciplinarity is related to the inclusion of the inquirer in the inquiry. Many long-established methodologies try to pull the researcher out of the research. From a more extreme positivist approach, they might pontificate that they can be completely objective or that researchers ought to have total objectivity. That there is no reason to engage or interact with who or why they are studying. Transdisciplinarity looks to have the researcher understand themselves and how they relate to the system they are studying. This inclusion of the researcher in the research also calls for characteristics, virtues, and skills that a transdisciplinary researcher needs.

In her description of the characteristics, virtues, and skills, a transdisciplinary research must-have, Augsburg (2014), helps us understand the collaborative nature of transdisciplinarity. It requires being able to have not just included diverse schools of thought to work together, but also to have individuals be able to work collaboratively towards the understanding of a subject of inquiry. The process of transdisciplinary research is collaborative. I find myself most interested in transformative and participatory methodologies. It has been invaluable to have the opportunity to participate in multidisciplinary teams both in school and community settings. These teams are cooperative and have helped me connected with others.

The complexity of transdisciplinarity both at the individual level and through collaborative inquiry is challenging. Not only are there traits that the participants benefit from having, the process for understanding the area of investigation can also be comprehensive. As a process for understanding our field of inquiry, it requires a tangled and intricate kind of thinking that contextualizes information from separate disciplines and connects and brings them together. The very nature of this research's inclusion of so much interrelated details makes for a complicated literature review (Montuori, 2013).

I hope this discussion around transdisciplinarity has been as motivating for you as it is for me. When we can work in these collaborative processes and understand our area of inquiry from a transdisciplinary approach, we will find new ways of understanding our subject matter.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jacob Campbell', with a stylized, cursive script.

Jacob Campbell

Reference

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