

An Integration of Fruits and Disciplines

Tristan Woodard

Old Dominion University

IDS 300W

Dr. Jeanie Kline

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Interdisciplinarity is an important concept that suffers from being hard to define, while also carrying an urgency and importance that is begging for a proper definition. The concept is in part difficult, as there are sub-concepts within the broader concept that each have their own difficulties with being easily definable. For instance, the idea of what a discipline is in the first place would need to be defined before one could truly define what it means to be interdisciplinary. To complicate further, more advanced concepts can surround, subsume, or compliment interdisciplinarity, such as transdisciplinarity. This entire exercise of thought is important, as interdisciplinary practices and studies are not only fruitful but pivotal to understanding the world, and especially for furthering the knowledge about it. The work by Moti Nissani, *Fruits, Salads, and Smoothies: A Working Definition of Interdisciplinarity* attempts to tackle this important conundrum (Nissani 1995). After engaging with the work, one should hopefully be able to answer a number of important questions including what interdisciplinarity is, and the advantages, challenges, and potential options available to those using an interdisciplinary approach. In the following, those questions will be answered, along with general thoughts on the text, and a raising of any new questions that one may want an answer for upon a full reflection of the text.

Firstly, what is interdisciplinarity according to the text? After much framing and justification, the text eventually answers with as simple of a definition as could be provided: “bringing together in some fashion distinctive components of two or more disciplines.” (Nissani 1995). An important part of understanding this definition, is also having the concept of discipline being defined as well. According to the text, a discipline is simply any self-contained facet of the human experience that has associated with it its own set of skills, common wisdom and beliefs, aesthetic judgements, facts, tenets, among other common characteristics. Now one should be able to understand what interdisciplinarity is quite clearly.

An important insight brought up by the text that creates a new wrinkle of depth with understanding the concept, however, is that these are quite subjective, and are cultural and time dependent observations. Centuries down the line, there are likely to be numerous things considered disciplines that are not considered so presently. Likewise, in the past, there were likely disciplines people studied and practiced that today society does not consider to be a discipline. In one area of the world, in one culture or region, there may be different definitions and ideas of what a discipline is or isn't than in another region or in another culture. In this way, it may be helpful to envision the idea of disciplinarity as a formula, and less like a rigid edict. If in some way two things are considered a discipline, even if it is not considered so in the future, or by all, and those disciplines are brought together in some way, that would be an interdisciplinary action. In contrast, if one only employs a single discipline for their studies or actions, that would simply be a disciplinary approach. To add nuance, you could even begin to compare the concepts with a potentially broader concept such as multidisciplinary. Multidisciplinary approaches then could be thought of as using multiple disciplines, but perhaps not in a way that brings them together necessarily (Choi & Pac 2006). Multiple disciplines may be used to reach the goal, but they may not be integrated in a true interdisciplinary manner. Nissani's text does a good job of providing you with a great understanding of the base concept, which in turn you can easily apply to a wider concept like multidisciplinary (Nissani 1995).

With an understanding of what it is, one is invited to better understand the benefits of an interdisciplinary approach by the text. One such advantage that is clear within the text is that it provides space for innovation with study and practice. Mendel's work is a prime example cited, as he took an interdisciplinary approach so successful that it pioneered not only important breakthroughs for science, but seemingly invited new disciplines out of thin air. Another important advantage from the text is that it promotes a better learning

environment and understanding. Not only could perhaps the educators themselves be taught how to educate through an interdisciplinary approach, but those being educated may very well learn best when taught through an interdisciplinary lens. There could however be challenges to employing an interdisciplinary approach. One hinted at in the text, is that possibly due to the proliferation of knowledge about the world, a true fully interdisciplinary approach may be more difficult to attain. The text points to previous polymaths and erudite scholars such as Aristotle and Descartes as examples of previous interdisciplinary masters, whose capability may be more difficult to reach in today's world. Of course, just because such a thing may be challenging, does not mean it necessarily shouldn't be aimed for. So then when would an interdisciplinary approach be most effective? The text gives points to such an approach being the most effective within education, and within groundbreaking and innovative work and studies. Many examples in the text, such as Carlson's chromosome theory of inheritance or Kepler's first law of planetary motion, show that an interdisciplinary approach can be employed exceptionally well when taking an innovative leap into a new branch of knowledge or research. Perhaps when one is pushing new ground on a breakthrough, that interdisciplinary approach allows the individual to use all the combined knowledge available to push into the unknown the best they can.

Nissani's Article was helpful in a variety of ways. The most illuminating was certainly the fruit salad metaphor used to illustrate the complexities inherent in discussing interdisciplinary richness. The least helpful section was likely the discussion on the four interdisciplinary realms. If one were to understand interdisciplinarity, as the rest of the passage would help one to do so, this section will likely not provide any added benefit. If one already understands what an interdisciplinary approach could entail, knowing what interdisciplinary theory, knowledge, research and education would respectively entail would not be difficult to surmise. With the helpful insight provided by the text, one could hopefully

use that knowledge to delve further into interdisciplinary understanding. For example, Bates' passage *Muddling Toward a Functional Definition of Interdisciplinarity*, provides a slightly more thorough look into interdisciplinarity, with a little more food for thought and nuance (Bates 2002). The definition for interdisciplinarity directly from said passage is "In intellectual conduct, coherent, rigorous and skeptical inquiry, without necessary regard to the assumptions or procedures of, or claims to domain or phenomena by, any discipline." This definition stands in contrast to the one provided by Nissani, just as the overall passages also contrast each other. Nissani's attempts to simplify and condense the definitions, combined with the powerful simile of the fruit salad, allows the reader a solid base level understanding of the concepts (Nissani 1995). The definition provided by Bates' passage, and perhaps even the passage as a whole, may be difficult or complex for first time readers, or even those unfamiliar with interdisciplinarity. So in this way, Nissani's text provides a fantastic base, with which one can use to broaden their understanding and engage with the further nuances available within the conceptual field surrounding interdisciplinarity.

With the passage being a short yet useful overview of the ground level of interdisciplinary concepts, the only questions one would likely have, would be in an effort to understand further. For instance, one may wish to know about how these concepts are applied in a real world environment in terms of education and research. In this way, the text can be seen to be quite successful at achieving what are likely its aims. The text defines interdisciplinarity, and introduces more advanced concepts like multidisciplinary. From there it helps readers understand the advantages and disadvantages associated with interdisciplinarity, and through its text it provides the reader with tools with which they can better grasp interdisciplinarity, and use those tools to further their knowledge and enhance their learning.

References

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