

## **Continuum unto Transformation: Distinctions used in diversity work**

Perhaps it is just me, but I have been on a journey when it comes to diversity work. Of course, as an engineer, I started at quite a deficit. But as an engineering educator, grounded in both research and practice, I began dabbling in equity work 30 years ago. It wasn't until I began collaborating with colleagues in Ethnic Studies, Women and Gender Studies, and those at Hispanic Serving Institutions (HSI) that I realize I am not exact in my use of language. I say things like "diversity, inclusion, equity, and social justice" as if they all meant the same thing. It wasn't until I read the works of Fortney, et al<sup>1</sup> and Ridgeway<sup>2</sup> that I saw, not only did the words have different meanings, but using them interchangeability revealed my ignorance. Before I move on, I must reveal that I identify as a tall white woman from much generational privilege. I am also a queer woman in engineer. I am currently attempting to create ecosystems that recognize the value of each human and working to decenter white privilege in all that I do. I reveal these things so that my point of view is clear, and I recognize it is only one of many points of view (this is decentering whiteness). It is my belief that the language we use is a window into our mental models. This is also true in diversity work. Given all of this, I am working to develop a continuum that guides our journey as we aspire for lasting change (or towards unconditional love). At each iteration of this continuum, I have gathered input from many of my colleagues. I also look forward to speaking to people at ASEE PSW about this work. The whole of the continuum is moving from "fear of other" to "unconditional love." In its current form there are seven steps: Separate but equal, Assimilation, Diversity, Inclusion, Equity, Social justice, and Reparations. This paper will describe the theory and scholars I use in the continuum. I also include descriptions of the steps with commentary on who benefits from a specific orientation. There are many questions I have about this and would very much appreciate input and discussion: Is this continuum helpful for conversations or interventions? Are the categories described in a way that creates a defense (is that bad)? Are these categories, steps, or orientations (I currently use all of these labels interchangeably)? Do I have the necessary disciplinary background to develop this (who should help me)? How does this relate to engineering and engineering education? This paper is a work in progress, and I plan to have open discussion in the presentation sessions.

### **Introduction**

So many of us are working in the area of diversity, especially over the last several years. My academic home, California Polytechnic State University, San Luis Obispo (Cal Poly), is at a predominately white state university. The caring and "woke" individuals at the university are spending increasingly more time and resources on initiatives that will make the university more welcoming. This is especially true in the college of engineering. Since the great majority of faculty, especially in engineering, are white or foreign born from privileged backgrounds, we are a bit clumsy in our discussions especially when we first begin this work. It is not because we don't care, but it is because we have individual mental models of diversity and implicit bias that are unexamined and hidden. The more we attend to these issues, the more we see our own lack of knowledge. This is all true for me and because of this I decided to spend an academic year at California State University, Los Angeles, which is urban and Hispanic Servicing (HSI). 95% of my students at this university come from under-resourced schools and are either LatinX or Asian. Being here has taught me something about my own ignorance which I will write about in

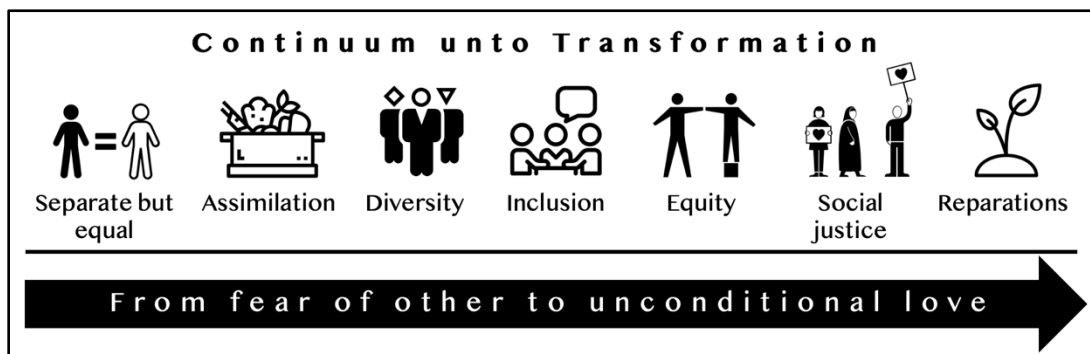
future papers, but it has also taught me the intricacies of this work. It is my hope that in making the words we use more meaningful we can understand the work more deeply.

Although much of this paper applies to all of education, it is particularly important to Engineering Education because of the persistence of a white male dominated culture. People of color and women have been under-represented in engineering in spite of the herculean efforts over the last 40 years to intervene. With a background in systems thinking<sup>3</sup>, it is my belief that until we can deconstruct and reconstruct the hidden thought processes in engineering (our mental models), we will continue business as usual and produce the same outcomes. This paper introduces a way of communicating about diversity and inclusion that can help distinguish our models and methods so we might examine and reconstruct a culture that is more aware and more loving.

There are linguistic theories that indicate the structure of language influences cognition<sup>4,5</sup>. The distinctions we are able to identify help to communicate our complex thoughts. As an engineering educator, I often think I am attempting to provide framework and distinctions that help students to diagnosis and understand reality. This is exactly the aim of this current work.

There are multiple critical thinkers that have influenced me over the years, but some that have directly influenced this current work include Lackoff<sup>4,5</sup> as he describes the way that metaphors and language influence our mental model and thus actions in the world. I have been greatly informed by Paulo Freire's<sup>6</sup> work on the relationship between the oppressor and the oppressed. Habermas<sup>7,8</sup> has helped me see the greatest goal in education as the emancipation of all through critical inquiry. Robin DeAngelo<sup>9</sup> and Ibram Kendi<sup>10</sup> have allowed me to look at my own privilege and become more aware how to decenter whiteness in this culture. Tuck and Yang's<sup>11</sup> volume allowed me to think through right abolition and decolonization. I was influenced by Joseph and Haynes<sup>12</sup> and their bold naming of white supremacy in the STEM classroom. In addition, Stewart's<sup>13</sup> article in Inside Higher Ed illustrates quite well how we need to be careful about our words as it reveals our intent. Perhaps the greatest influence for this work is Fortney, et al<sup>1</sup> in that it challenged me to think through the words we use and the way we are in the classroom. Finally, Monica Ridgeway's<sup>2</sup> ideas allowed me to see that there is still much work to be done before we live in a world that not only accepts, but values differences.

From these amazing scholars I started to develop a kind of continuum that might allow me and others to have more distinctions and thus capacity to think and move in this area. I discussed this with many of my colleagues and revised it several times. The current form can be seen in the image below.




In some ways this continuum is historical and aspirational. It is also moving from the fear of another (Separate but Equal) to a revelation of unconditional love and connectedness (Reparations). I invite others to think about this continuum as a way to help us move ahead in this work. I also would like input and conversation around the usefulness and helpfulness of the continuum. I believe this can be developed further and become increasingly useful as more individuals help me to think through this. Below I will describe the distinctions and reveal some of the implications of the orientation. By no means is this complete and I hope to have many conversations about this in the future.

**Are there other categories or steps to consider in this continuum?**

I have delineated seven steps in this continuum, but there may be others both before Separate by Equal and after Reparations.

**Separate by Equal**

Plessy v. Ferguson<sup>14</sup>, an 1896 U.S. Supreme Court decision that upheld the constitutionality of racial segregation under the “separate but equal” justification, reinforced a long-held belief that it is morally acceptable to keep the “other” separate as long as the situations are equal. Of course, in this context separate was never equal, and this decision was overturned in Brown v the Board of Education<sup>15</sup> in 1954. However, we have a long legacy of segregation in many areas such as housing, school systems, criminal justice, friendships, and other institutions. The benevolent expression of separate but equal is in the proliferation of affinity groups, where we believe




**Separate but equal**

People feel more comfortable with others from the same background.

that individuals are more comfortable with people who are like them. Although there is a place for affinity groups, we must be careful of ways that this thinking benefits the majority groups. Lack of transparency and direct comparison of systems that are primarily inequitable is invisible and thus those in power can maintain their advantage.

**Perhaps owning of enslaved people should be considered part of this continuum?**

**Assimilation**



**Assimilation**

We are all people. The best way to get along is to adjust and change to create shared norms and processes. This will decrease conflict and increase productivity

The melting pot that described the first several centuries of the United States was based on the idea that immigrants should assimilate into the American ethos. It was expected that everyone uses the English language. Newcomers to the country were required to abide by the American ideals and Christian morals. There were individuals who could “pass” for Anglo and thus this assimilation worked for them, except it sadly required a relinquishing of heritage and culture. Irish and Italian Americans assimilated, but others with visible differences (like dark skinned individuals or women) have always had difficulty with this, and those who understand the value of generational connections have resisted this. In this system, the dominant culture is the one that all individuals must acquire. This causes diverse ways of knowing

and being to be abandoned. “Color blindness” and “all lives matter” are memes used when referring to assimilation.


## Diversity

Diversity and Inclusion are the words used most often in current references to these issues. One way that people describe diversity as opposed to inclusion is that diversity cares who is at the table, and inclusion cares who speaks. The focus in diversity is on percentage representation and counting those from under-represented minority groups. A profit motive is often espoused when advocating for diversity. The reasoning is that better decisions are made, and better solutions occur, when there are many points of view involved in the processes. The profit motive is compelling for many in engineering, but it is the participants in a capitalist system (perhaps corporations) that benefit. The current power structure, white patriarchy, benefits.



**Diversity**

Diverse groups of people make better decisions. Teams with people from differing points of view create better solutions.



**Inclusion**


Individuals from minority groups have a voice. Their points of view are included in discussions. There is respect for different ways of knowing and being

## Inclusion

One reason I have thought of this as a continuum is that inclusion is widely held to be a better state than diversity, but inclusion can’t happen unless there is diversity. Inclusion means that all points of views are welcomed and even solicited. Even minority voices are valued. In the best case, there is deep respect for different ways of knowing and being. However, there is still a normalizing of the white patriarchy in the power position. Corporations benefit. The current power structure benefits. Individuals have a chance to be seen as valid participants. However, it is still the white patriarchy that gives permission to be heard.

## Equity

The word equity is also used often in this work. It is the recognition that the world is inherently unequal, not equitable. Some of us have benefited from generational privilege or from assumptions and biases about power and intelligence while others have suffered. Because of these systemic and historical inequities that are often implicit, there needs to be attention to processes and decision making so that these inequities aren’t perpetuated. Affirmative action is an example of an explicit equity process. There are other processes that are less controversial like blind job application review<sup>16</sup> and implicit bias training. Individuals from minority groups benefit from these opportunities, but the unintended consequences sometimes reinforce the inequities.



**Equity**

It is recognized that there are systemic and generational disadvantages that create implicit bias that favor the dominant culture. There is a need to create equitable processes that correct for these biases.



## Social Justice

Social Justice often refers to a right relationship between individuals and larger social system. In this conceptualization, it includes working to change institutions such that the policies crucial in equity work are no longer necessary. Unfortunately, current systems work to preserve those in power and thus deep systemic changes are needed. In addition, when social systems are flipped, the oppressed often enter into a power position which is a mirror image of the previous system of oppression<sup>5</sup>. The actors changed, but the system does not. Social justice work is difficult and complex.

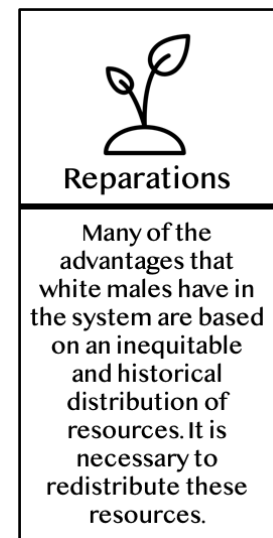
## Reparations

Reparations aim to redistribute resources that were historically consolidated unfairly. Politicians have been discussing reparations for descendants of enslaved people, but in this conceptualization, it would not only be monetary payments, but would require a deep transformation of social systems that recognize past inequities and future aspirations of unconditional love.

## Next Steps

I believe this continuum may be of use for those of us who work in this area although I have many questions and I would love to have conversations with others about this.

- Is this continuum helpful for conversations or interventions?
- Are the categories described in a way that creates a defense (is that bad)?
- Are these categories, steps, or orientations (I have used these interchangeably)?
- Do I have the necessary disciplinary background to develop this (who should help me)?
- How does this relate to engineering and engineering education?



## References

- [1] Fortney, B.S., Morrison, D., Rodriguez, A.J. Upadhvav, B. (2019) "Equity in science teacher education: toward an expanded definition" *Cultural Studies of Science Education* 14: 259. <https://doi.org/10.1007/s11422-019-09943-w>
- [2] Ridgeway, M. L., (2019) "Against the grain: science education researchers and social justice agendas," *Cultural Studies of Science Education* 14:283–292 <https://doi.org/10.1007/s11422-019-09939-6>
- [3] Meadows, D. H., & In Wright, D. (2008). *Thinking in systems: A primer*.
- [4] G. Lakoff, "Explaining embodied cognition results," *Topics in Cognitive Science*, vol. 4, no. 4, pp. 773–785, 2012.
- [5] G. Lakoff. *Moral politics: How liberals and conservatives think*. Chicago, IL: The University of Chicago Press, 1996.
- [6] Freire, Paulo, 1921-1997. (2000). *Pedagogy of the oppressed*. New York :Continuum
- [7] Ewert, G.D., (1991) Habermas and Education: A Comprehensive Overview of the Influence of Habermas in *Review of Educational Research*, Vol. 61, No. 3 (Autumn, 1991), pp. 345-378 Published by: American Educational Research Association
- [8] J. Habermas, (1971) *Knowledge and Human Interests*, London: Heineman.
- [9] DiAngelo, R. J. (2018). *White fragility: Why it's so hard for White people to talk about racism*.
- [10] Kendi, I. X. (2019). *How to be an antiracist*.
- [11] Tuck E. & Yang, K.W., (Ed.), (2018). *Toward what justice?: Describing diverse dreams of justice in education*.
- [12] Joseph, N.M., and Haynes, C. (2015) *Interrogating Whiteness and Relinquishing Power: White Faculty's Commitment to Racial Consciousness in STEM Classrooms (Social Justice Across Contexts in Education)*, International Academic Publishers.
- [13] Stewart, Dafina-Lazarus (2017) "The Language of Appeasement," *Inside higher Ed.*, March 30, 2017. [14] *Plessy v. Ferguson*, 163 U.S. 537 (1896)
- [15] *Brown v. Board of Education of Topeka*, 347 U.S. 483 (1954)
- [16] Goldin, Claudia and Cecilia Rouse (2000). "Orchestrating Impartiality: The Impact Of 'Blind' Auditions On Female Musicians," *American Economic Review*, v90(4,Sep), 715-741.