Understanding Self-Ethnography as a Pedagogical Tool to Combat Whiteness in Science Education

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Abstract: Believing, like Lensmire et al. (2013), that white privilege pedagogy hinders antiracism, especially for white people, we developed a tool to support preservice teachers to unpack their identity and understand society to move white preservice teachers beyond confessions of their privilege. A "self-ethnography" asks preservice teachers to engage with emotions, be confused, and "play" with race, three features not always afforded by white privilege focused forms of pedagogy.

Whiteness is a white people problem, and when learning about whiteness, preservice teachers (PST) are often taught about white privilege. A focus on privilege can result in resistance from white PST, a trend, along with their race-evasiveness, that is well documented in the literature (Jupp, Leckie, Cabrera, & Utt, 2019). Additionally, PST of Color can become frustrated or their learning around social justice stymied by focusing on the privilege of their white peers. Recognizing this, scholars moved beyond white privilege to complicate white identity and theorize around whiteness in what is referred to as *second wave critical whiteness studies*.

Second wave critical whiteness studies are concerned with understanding how whiteness operates in specific contexts, how context affects white people, understanding the intricacies of whiteness that includes double-binds and affect, as well as removing the assumptions of a static connection between white bodies and whiteness. While white privilege is recognized as important, it is too simplistic and by focusing on white privilege, white peoples' antiracist action can be reduced to confessing our privilege (Lensmire et al., 2013). Thus, white privilege can stop white people from engaging in antiracist action (Lensmire et al., 2013; Matias & Mackey, 2016). Second wave scholars treat whiteness not as an identity, but as a discourse and ideology.

In science education, whiteness has been minimally explored. As a result, Le and Matias (2018) argue "because we do not address and combat whiteness, we reproduce the system of white supremacy that continually dehumanizes students of Color" (p. 10). Mensah & Jackson (2018) address whiteness in science education by highlighting the concept of "science as white property" and how this prevents access to people of Color. Pedagogically, they detail how they supported PST of Color in (re)claiming science. However, their pedagogy is only one example of working with PST around whiteness, and addressing this missing element of whiteness in science teacher education is what inspired our "self-ethnography."

Critical whiteness pedagogy and the "self-ethnography"

The "self-ethnography" is a reflective writing assignment where our secondary science PST engage in thinking about their own identity. Having PST, especially white PST, write reflectively about their identity in order to help them more substantively understand themselves and society is not new (Matias & Mackey, 2016). However, as Philip and Benin (2014) point out, teacher education programs determine the possible identities white PST can take on with regard to social justice because of how "ideology and program culture" (p. 18) shape interactions within the program itself. Therefore, in this work, the goal is to produce an understanding of how the self-ethnography helps white preservice teachers understand their own racial identity specifically with the hopes of expanding the "available teacher racial identities" and producing more equitable "instantiated teacher racial identities" (Philip & Benin, 2014, p. 17).

We targeted the "self-ethnography" to engage our white secondary-science PST in thinking about race, gender, and ability. Although we borrowed methods from autoethnography, we renamed it because the tool has a pedagogical, not research purpose. The self-ethnography was designed using three design features: (a) focusing on emotionality of whiteness (Matias & Mackey, 2016), (b) creating space to be confused (Tanner, 2017), and (c) allowing PST to "play" with ideas about race (Tanner, 2018).

Learning in the self-ethnography

We analyzed the writing of the PST starting with their first draft and noting the changes in their ideas in each revision, which led to preliminary findings suggesting PST began to understand their identities in relation to society and whiteness. However, this learning often separated society and science. For instance, a PST stated,

> Some students were willing to teach and pass their knowledge along while others were not. Some students outwardly prided themselves on their abilities to understand while others were humble. Some students came from a family with backgrounds in the STEM field or with a culture that largely emphasized education helping them thrive in the science or math classes.

To which Jonathan highlighted the section and stated, "This is an interesting detail to share. Thanks for that. I wonder if there is a memory that can be unpacked and analyzed there?" In a later draft, this same paragraph included the details below,

> When thinking back to my high school years, people often went to those who identified as Asian or Indian for help and expected them to be the smarter ones. This action may not have been intentional, but these actions were still taken by many white students. This shows that those who identify as white felt privileged enough to ask and expected help from those viewed as "smart."

They went on to describe how they wondered if "white people determined their success." They then described how, as an educator, they wanted to find ways to "reposition" who is seen as "helpers" and "successful" in science. Their desired practice is grounded in their experience above.

This example highlights the potential of the self-ethnography to produce valuable learning for white PSTs. In the first excerpt, the writing is devoid of race, however, when prompted to tell a specific narrative, the actors in the general example are rendered visible. Once the actors are visible, there is an opportunity for the white PST to "theorize" about their narrative and allow it to change their espoused practices towards more equitable ends. In the excerpt, the PST is speaking about how they and their white peers were acting upon the stereotype that Asian students excel in STEM, and in their analysis, is beginning to wonder how their actions impacted their Asian peers. They move from this recognition towards wanting to work against oppressive dynamics in their classroom regarding how students are positioned within science because of their race, gender, and ability. These new understandings arose from asking one question that was intended to "create space" for their narrative and invite the them to "play" with their own ideas regarding that narrative.

With the promise of this pedagogical tool, questions still remain. Certainly, being two white men influenced the outcomes of the self-ethnographies. Our whiteness influences how we responded to racist and other problematic statements, the assumptions we made when engaging with our students, and how we analyzed the learning within the assignment itself. Whiteness still exists within the excerpts above and needs to be untangled pedagogically and analytically. However, given whiteness was and is created by white people, we must engage meaningfully with it as a white community. This assignment is one step in that direction and provides evidence that by supporting white PST to more fully understand their racialized identity and create space for multiple teacher racial identities, white PST can begin to think in nuanced ways about themselves in relation to whiteness and science.

References

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