Work In Progress: Racialized Experiences of Black Engineers

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WIP: Racialized Experiences of Black Engineers

Abstract
This Work in Progress paper examines the experiences of Black engineers working in the technology industry. Although technology companies are publically supporting increased diversity among their employees, simply hiring more underrepresented minorities does not ensure an inclusive workplace. Our study examines the question, how do Black engineers navigate issues of power and privilege in their work experiences? We have interviewed Black engineers working in technology companies about their experiences and analyzed those interviews using narrative analysis. The results show that these engineers have experienced instances of overt, covert, and structural racism. Their approaches to dealing with this racism vary, but all involve a distancing of themselves from full inclusion in their companies. As a result their full talent is not being realized and their companies are losing out on the skills and ways of thinking of an entire population of engineers.

Introduction
This Work in Progress paper examines the experiences of Black engineers working in the technology industry. Current data shows that technology companies (e.g. Google, Apple, Cisco, etc.) have low numbers of Black engineers, and there is increasing pressure on them to diversify their workforces (Fussell, 2016; McCandless, 2016; Wiener, 2016). Diversity has been argued from a number of perspectives: changing workforce demographics leading to a shortage of engineers if diversity is not embraced; increased creativity stemming from more diverse teams; and utilizing social justice to provide opportunities for all (Chubin, May, & Babco, 2005; Smith & Lucena, 2016; Tienda, 2013). Diversity, that is increasing the numbers of people of color, is not sufficient. It has been demonstrated in a number of settings that creating a culture of inclusion is needed to realize the full benefits of diversity. For example, studies of the experiences of faculty, post-docs, and PhD students show that even when efforts are made to hire women or underrepresented minorities to the professoriate there are cultural barriers for them to be promoted or even remain within the faculty ranks (Callister, 2006; Maranto & Griffin, 2011; McGee, Robinson, Bentley, & Houston II, 2015; McGee et al., 2016; Patitu & Hnton, 2003; Robinson, McGee, Bentley, Houston II, & Botchway, 2016; Settles, Cortina, Malley, & Stewart, 2006).

Our project is using a critical narrative perspective to understand the racialized experiences of Black engineers in technology companies. Narrative analysis takes people’s experiences and accounts of those experiences as being storied. Meaning is made through the stories one tells and how those stories are interpreted. Critical narrative examines these stories through an understanding of what they reveal regarding normative expectations and power. Stories are used to both explain and navigate issues of power in ways that allow people to make sense of and live in cultures of dominance. Our research question is: How do Black engineers navigate issues of power and privilege in their work experiences?

Methodology
This study aims to understand the experiences of Black engineers working in industry. For the study male and female Black engineers at technology companies were identified based
on personal contacts of the third author followed by snowball sampling. Interviews were conducted by the third author, and all interviewees signed an informed consent form approved by the lead author's IRB. These interviews were typically held at the interviewee's home in order to make them feel more comfortable. Six interviews have been conducted to date. The interviews were based on an interview guide that contained thirteen general questions regarding the participants' past and present experiences at work. The questions were structured in a manner that encouraged the participants to provide narratives concerning their experiences. The interview guide included questions such as, “Tell me about your experience when you entered your first job. What was the climate like for you?”; and “Did those feelings change for you over the first year or two?”. The interviewer supplemented the interview guide with follow up questions to clarify and gain insight into the challenges that many of the participants faced at work.

The interviews were recorded and then transcribed verbatim. Details regarding participants, such as demographic information, work function, and products developed were deliberately obscured in the transcriptions due to the sensitive nature of the interviews. Participants are referred to as Px, where x is a number indicating the order in which the interviews occurred, to further obscure their identities. The narratives in the interview transcriptions were structurally analyzed in accordance with Labov's structural analysis (Riessman, 2008). The information within the narratives was coded as being abstract, orientation, conflicting action, evaluation, resolution, or coda. The structural analyses were discussed between the first two authors and coding improvements were made until agreement was reached. Once each interview transcription was structurally analyzed it was sorted and smoothed into a coherent narrative in the order listed above.

Findings

The experiences described by the participants covered the range from overt racism to microaggressions and structural bias to welcoming and inclusive environments. Some of the participants changed jobs as a direct result of the climate they faced, while others have stayed in the same companies for their entire careers.

P1 was the only participant who described experiencing overt instances of racism. In one case a coworker commented about the nearby city P1 lived in, indicating that it was a largely Black and violent city. P1 was shocked by this statement, and as a result avoided talking to that coworker even though they still have desks near each other. Another time P1 was with a group of coworkers and one told a joke which included the word “nigger”. Even though the word was used in the context of describing what someone had said, for P1 it was a racialized experience. As P1 put it, “I’d listened to all these coded conversations this guy’s been having with this other guy I figured they’re both on the same page, both mid-westerners.”

P5 also described a racist incident that occurred at his company, an email sent by one of his coworkers who was in charge of the product line P5 was working on.

I think I had done something really good the week before. And then this email chain got forwarded to me and here’s this black guy, this deformed black guy with a superman shirt on. I started laughing when I saw it cause I thought it was funny, but then I was like wait, hold-up, I’m the only black guy in this entire building, you know. So, I knew what it was.
Interviewees talked about covert or structural racism they experienced. P0 described attending a large technology company’s Black network meetings, and finding it attended mostly by people from nontechnical divisions such as Human Resources. This engineer stated, “I could kind of see the trends of what was going on. Diversity was all focused on recruiting people from HBCUs to work in HR.” More generally P0 described an overall feeling of not fitting in because there were so few Black engineers present. P0 had a sense of incredulity that more Black engineers were not being hired.

To me, there was no explanation for why there weren’t more black engineers around….coming from [University] engineering I don’t ever remember [company] coming to recruit undergrads really seriously… I knew tons of black engineers, I was a part [organization], my [spouse] is an engineer, like I knew lots of people. Not a lot of people came out to the valley, cause they just didn’t get recruited. To me it was very odd that there was just no one was around. I can remember being in some meetings about what are you going to do about this. Oh we’re just going to hire…focus our attention on HBCU’s. I just had the sense that that’s not good enough. There’s better engineering schools, I wasn’t really aware if HBCU’s had great engineering programs. It just kind of seemed like a cop out, I couldn’t understand it really, I couldn’t really understand.

In some cases interviewees felt that the climate at their companies was positive. P2 saw his company as being diverse and inclusive.

One of the things I appreciated about the environment was the diversity and not just with those with that that looked like myself. So, I felt that in terms of the climate that I entered into was more diverse. I felt that that helped foster a lot of varied opinions and feedback, technically. We had a lot of people coming from different areas, different parts of the country, outside of the country, different colleges, some from some HBCUs… I did see people who looked like me that were at different stages and levels of their profession, so I think it did make me feel more comfortable to express my ideas. And I felt that the environment encouraged it.

The company also found P2 a Black mentor who P2 was able to talk to about concerns. However, this climate changed as the company dealt with financial difficulties. Many of the diversity activities no longer exist, and as a result P2 said, “I became more isolated as the company began to change in culture, I became more isolated and it was just a narrow path, in terms of me just about producing work.”

Another welcoming climate was described by P0. P0 is currently working at a start-up and perceives the climate to be much more positive than P0’s previous employer (a large company). P0 attributes this difference to the fact that it is a smaller company, and thus people are more apt to rely on and get to know each other.

The interviewees used a variety of approaches to deal with their situations. P0 “never felt connected with the Black [company employees]” and eventually left that company for a small start-up. P1 did not expect to feel connected when first hired. Instead, P1’s approach was to focus on the technical aspects of the job and “when I want to see Black folks I just drive home.” P5 has decided,

that I’m not pushing the envelope, I’m just sitting there collecting my paycheck... The less I do the more likely I won’t piss someone off. The more I do that’s when people are still going to
start getting into their feelings. Yeah it’s the same environment, but I just handle it differently now, I’m not really doing anything to piss anybody off.

Discussion

As a Work in Progress this paper provides only an initial exploration of the issues facing Black engineers. Although the participants described a range of experiences, all talked about racism that they encountered. Many of these experiences align with what has been found previously for Black PhD engineering students considering faculty positions and Black engineering faculty (McGee et al., 2015; McGee et al., 2016; Robinson et al., 2016). In those studies students and faculty reported both overt and covert instances of racism, which discouraged them from seeking out or continuing in faculty positions. These studies also support the importance of mentoring, which P2 in our study identified as an important support that was made available.

The personal racism experienced by our participants is underpinned by structural racism inherent in the companies where they work. The most striking example was provided in P0’s description of the Black networking event and hiring practices at P0’s company. While the company has a publically expressed desire to increase diversity among its employees, the way it is being done allows the dominant white culture to retain its power. P0 noted that hiring of minorities was focused on human resource and other support positions. Hiring into the peripheral (non-engineering) functions of the company allows it to increase the number of underrepresented employees while maintaining white hegemony over the core (engineering) functions.

Conclusion

This Work in Progress paper provides an initial glimpse into the experiences of Black engineers working in the technology industry. Participants in our study utilized several different techniques to deal with the overt, covert, and structural racism they encountered, including leaving the company, creating a division between work and social life, and avoiding confrontation. None of these approaches allow these employees to feel connected to their employer and coworkers, and the result is that their talents, skills, and diverse ways of thinking are not being fully utilized.

The data collection and analysis described in this paper is preliminary. We are continuing to conduct interviews. Analysis is being extended to examine the themes contained in the narratives in order to compare the types of complicating actions and resolutions both across narratives from a single participant and across participants. We are also seeking to connect our work to appropriate theoretical frameworks in order to understand more deeply the implications of these experiences for our participants and the broader engineering enterprise.

References


