Journal *of the* American Association
for the Advancement of Curriculum Studies

CURRICULUM SF (SPECULATIVE FICTION):
REFLECTIONS ON THE FUTURE PAST OF CURRICULUM STUDIES AND SCIENCE FICTION

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In this essay, I want to take a look at past attempts to incorporate science fiction (SF) into the discourses of curriculum studies, present attempts by a few scholars to revitalize and, more importantly, reshape SF within curriculum studies, and then finish with a look at why perhaps SF is no longer a possibility, but speculative fiction is a necessity, in forming our thinking about current and future issues and concerns facing curriculum scholars and societies in general. I will begin with the ground breaking work of Noel Gough followed by a collection Karen Anijar, Toby Daspit, and I edited at the turn of the millennium; then I want to look at the current work of Sarah Truman and Boni Wozolek, and finish with a challenge to Samuel Delany's proclamation that SF is not the same as speculative fiction, while relying on Katherine Hayles' latest work to suggest SF is a reality in everyday interactions in the economic, scientific, and technological non-fictional worlds.

When I was a Ph.D. student at the University of Pittsburgh in the early 1990s Esther Gottlieb was a visiting professor in the Department of Administrative and Policy Studies. She took me aside one day and told me that I should look up Peter Appelbaum since we have similar ideas about education. Soon after that, either at AERA or AESA, I went to one of Peter's sessions and introduced myself. Esther was right in her speculations about Peter and me. In 1996, AERA was in New York City and Peter invited me to go to the College of New Jersey where David Shutkin taught and where they were going to discuss Noel Gough's recent work *Laboratories in Fiction*. Toby Daspit, at the time a student at LSU with Bill Pinar, had already told me about this book, but I had not really discussed it at length with anyone. That Saturday in New Jersey began my close relationship with Gough's work and with science fiction.

Gough's work was important for curriculum scholars for at least two different reasons. First, his work is a unequivocal condemnation of science teaching, or what he calls textbook science, in the 1980s and early 1990s. Science teaching for Gough (1993, p. 20) encouraged the creation of "school laboratories … where students follow recipes, perform routine procedures,

rehearse technical skills … demonstrate the reliability of selected … scientific 'laws' or phenomena." No doubt a harsh criticism of how schools were numbing the scientific imagination of young people. Science classrooms throughout the world had less to do with students understanding the art of science or how scientists worked, and more with the indoctrination of students to uncritically glorify science and accept the fictional premises of what science was and how scientists worked their "magic" in the laboratories.

As important as this first premise is in Gough's book, the second reason *Laboratories in Fiction* is essential reading for curriculum scholars is more important. It was not enough for Gough to point out the stagnant approach to science found in science classrooms. Textbook science had little to do with science and more to do with an ideological fantasy. Gough (1993, p. 20) proposed that if curriculum scholars and teachers were interested in teaching science well, as it is enacted by scientists, then students need to partake in a "close analysis of 'cultural texts' of scientific production, including the primary sources of scientific reports, historical accounts of scientific work, the biographies and autobiographies of scientists, scientific journalism" and "representations of science in the fine arts." Gough proposed that students should learn about science, the way scientists conduct their "business", and how society through history, literature, and the fine arts imagines the implications of science for the world. Gough does not stop here though. The last item on his list of where to go to understand science is his most radical idea. If students wish to really appreciate what it is scientists do, textbook science is the last place they should look and "science fiction in its myriad forms" is the first (Gough, p. 20). Science fiction is essential for Gough (1993, p. 24) because "the science of science fiction is not the same as the fiction that is textbook science, but it may be more meaningful, more interesting and more central to the lives of learners." Gough's words still make my mind spin. Gough's work was the first I read that really enacted a postmodern philosophy and challenged the assumptions of modernity. Science as embodied in textbook science merely mouthed the words of science but did not live its reality while science fiction, marginalized by a modernist binary of fact and fiction, with the former representing truth and the latter falsehood/ delusion/fantasy, represented a more realistic understanding of science. The reliance on SF in all its forms embodies what Gough (1993, p. 23) refers to as a "radical science education."

It is not enough, however, in a radical science education to simply demonstrate through primary sources and SF pieces what it is scientists actually do and the societal implications emanating from the actions of scientists. SF embodies an important intellectual exercise that is important for all students. Countering a common argument that SF is not serious literature or serious learning, Gough suggests the reasons that SF is essential in any curriculum. "Even if SF was no more than 'a game for children' it would deserve a place in schooling—an adventure playground that exercises children's minds … SF does much more: it gives 'imaginative form' to 'the limits of our own constructed knowledge.' SF also gives imaginative form to what might lie *beyond* these limits" (Gough, 1993, p. 31). Again Gough's words disrupt

the cemented mind and introduce cracks in the seemingly impenetrable. Not only does Gough question the idea that the school classroom is where students learn the importance of cutting-edge science, he suggests that the cutting-edge will not be found in the sciences, but in our fictions where limits are probed and possibilities beyond the accepted norms of truth are explored. SF is not then just where children play when they are not doing serious adult studies. SF is where impossibilities are envisioned as possible and future adult studies emerge. SF then is an origin story—the origins of a healthy imagination, a speculative mind, and a well-read student in the cultures of science and the realities of fiction.

Gough ends his short excursion into the importance of SF in education with a small, prescient section on climate change. "An educative response to climate change," Gough (1993, p. 68) wrote, "requires us to understand how expected climate change influences the ways in which people think, behave and live their lives." To stress that perhaps humans should be paying more attention to how climate change will affect how we live, Gough quotes at length from George Turner's 1987 novel *The Sea of Summer* in which the protagonist nostalgically reminisces that as a child she hated to see the summer days morph into Fall and Winter. But as an adult she realized that the disappearance of summer is not the problem anymore: "'it was winter that faded imperceptibly from the round of the planet's seasons while magical summer grew humid and threatening and tropically wet.'" (Gough, 1993, p. 70). While Turner wrote his novel and Gough wrote his curriculum treatise, the adults, filled with not an ideology of science but instead a delusional Protestant fundamentalism, ignored the warning signs of a waning winter and merely assumed the problems of reality could be wished away by these magical words: "I do not believe climate change is man-made." When will the delusional adults join the (near)futuristic fictional writers in accepting the harshness of a reality that is all around us? This is the current challenge SF writers present to us and the gift Gough has laid at the feet of current curriculum scholars. What shall we do with it?

I think if someone looked at my own work dealing with science studies, they would see with only a little effort Noel Gough's intellectual fingerprints all over my ideas. This is no less true of my co-edited work dealing with SF. Like Gough, my co-editors and I were interested in the reality of SF and the importance of turning to SF in order to move beyond the cutting edge of current thought. We too felt or predicted the sting of narrowmindedness and comfortable binary boundaries that defined science as real and SF as fantasy. "*Science Fiction Curriculum*, then," Anijar, Daspit, and I wrote in 2004, "is a series of departures for us from what exists at the moment. We recognize … there are those who may see our endeavors as a project which retreats from 'reality.' However, what is accepted as real is deplorably deranged." Did we underestimate the insanity of today!? Deranged is too mild a word. Suicidal and genocidal are more appropriate. Need we look no further than climate change?

Not only is it delusional to think one can wish away the realities of a dangerous climate shift with magical proclamations of what one believes or does not believe, it is also criminal to

willfully refer to contemporary climate changes as merely god's will ushering in the end times. In the USA, a majority of people are either gripped with a religious fundamentalism that welcomes planetary destruction or paralyzed by a feeling that nothing can be done to change human-caused climate change. Now is not the time to be taken in by religious demagogues and charlatans or to accept a fatalism that proclaims humans cannot do anything to reverse their destructive course. True, it is not enough just to recycle and conclude, well I did my part to save the earth, as you drive out of the recycling center in your Hummer which you rationalize as perfectly acceptable mode of transportation because you can afford the gas. However, it is equally true that to proclaim that we are now in the era of human geological change is still a proclamation that humans are the center of the universe and there is nothing we can do to change that. There is. We can do what will become a common theme in this essay. We can follow Donna Haraway's lead, not in a blind hagiographical manner by anointing Haraway new queen of the universe; remember she does not want to be a goddess but a cyborg, whose words should be canonized by the Vatican. We should follow in the sense of recognize that what she has written provides a good starting point to rethink the human in the universe.

Gough did this in his work when he discussed Haraway's first major work, *Primate Visions,* and how patriarchal thinkers partook in a form of violence and superimposed their version of male-dominance onto the world of other primate groups, anthropomorphically imposing a human male reality on all species thereby erasing any other possibilities for alternative realities to emerge. In my chapter in *Science Fiction Curriculum*, I call out those who attempt to camouflage their voice as the "modest witness" as they proclaim to speak for all of reality and define truth, while denying they are speaking at all. Modest witnesses foolishly proclaim the "facts" just are. Pretty tricky move by those who specialize in power plays to co-opt science and truth in order to silence any critiques that wish to see a more democratic use of science emerge. Sarah Truman and Boni Wozolek also start, in part, with Haraway's words in order to create their own vision.

Speculative Fabulations and Odd Kinships with "Oddkin"

Sarah Truman relies upon Haraway's most recent work, *Staying with the Trouble: Making Kin in the Chthulucent* (2016), to make her case for what she calls speculative fabulations, with which to envision a different reality that moves "beyond the white space of mainstream speculative worlding" (Truman, 2018, p.7). Truman, I think, outlines in her work exactly what Haraway has in mind when she writes about staying with the trouble and forming relationships with "oddkin." Before I discuss this part in Truman's work it is important to discuss Haraway's ideas in *Staying with the Trouble*.

Sticking with the theme, climate change, discussed above, Haraway's work offers an alternative way to think about what is to be done with such a daunting task of changing the

earth's environmental course. As previously noted, the use of the term Anthropocene implies that humans are indeed influencing geological changes in the environment, but it also implies that humans are still the center of the universe; it is therefore another effort at anthropocentrism. An alternative to anthropocentrism would be to see current climate change events as part of what Haraway calls the Chthulucene. The Chthulucene "requires making oddkin … We become-with each other or not at all" (Haraway, 2016, p. 4). To do this, she suggests we put futurism aside and "stay with the trouble." This may seem troublesome for an article that discusses the importance of SF and futurism but it is not troublesome at all. It is a very healthy challenge by Haraway for us to think differently. Haraway is rejecting a futurism that concludes that it is impossible to change the anthropocentric Anthropocene and the world as we know it is gone. This is not after all a futurism but a fatalism. Instead we should stay where we are, accept the mess that reality is, and find our allies in the world, be they polar bears and icebergs or Amazon rainforests and books from Amazon.com. To find our allies is to recognize humans are not the center of the universe and that our species' salvation is found with our odd kinship with "oddkin." Haraway's Chthulene is, in this sense, very much like Latour's (2004) parliament of things in which humans are not the only players shaping the meaning of science and truth. There are other species and objects always playing roles in defining reality. How firm we are with staying with the trouble and the degree to which our kinships become the broadest and weirdest possible will determine how successful we are in (re)creating a livable planet. To imagine the impossible and move beyond what scientists say is the edge of the cutting edge should be our goal, and Haraway's Chthulucene is one way to achieve that goal.

Truman's work marks a shift in curriculum studies and SF thinking, as is also the case with Wozolek's work. Whereas with Gough's work and the essays in *Science Fiction Curriculum*, Truman is not necessarily interested in epistemological concerns such as what legitimate knowledge is and how teachers should instruct students in the classroom. Her interests seem to be with the onto-epistemic. She literally seems to be interested in forming the kinships Haraway urges. Drawing on another of Haraway's key concepts, situated knowledge, Truman is interested in "intersectional markers such as race, gender, sexuality, class, ability etc"… in order to "conjure [a] more just future" (Truman, 2018, p. 2). Truman conducts her study with grade 9 students in Wales, U.K. and explores "the intersectionality of race-gender-power and youth cultural productions" (Truman, 2018, p. 5). In this study Truman (2018, p. 6) suggests: "The city is a common leitmotif in speculative fiction. Much speculative fiction extrapolates already existent tendencies of our culture to extremes using city spaces as a backdrop." For these students the backdrop city is Cardiff, and they were asked to speculate on its future. Truman (2018, p.7) concludes these students' writings are "speculative-ontologies" in which they placed themselves in an alternative Cardiff. "Once the students presented their speculative cities to each other, and discussed their own writing practices, they posted their writings on telephone poles. This was a way of 'publishing' their writings and answering back to the 'real city'… as probes for further thought" (Truman, 2018, p. 7).

This exercise in speculative fiction marks, in my mind, a shift in thinking about SF in curriculum studies. While both Gough and Truman recognize the importance of allowing students to make curricula decisions, Truman does this differently than Gough. For Gough, SF was a means to change science curriculum, while for Truman students' probings into SF changed SF, just as say Ursula LeGuin, Octavia Butler or Samuel Delany did. Instead of letting SF shape their visions of the present and future, these students asserted themselves into SF, thereby shaping not only the present and future of their city but also their education and perhaps the visioning of SF itself. These student offerings of alternative futures "demonstrate how queer, trans, Black, Indigenous, and People of Color (QTBIPOC) speculative fiction diverges from white space of mainstream speculative worlding." They embody a "crucial mode of activating a different future" (Truman, 2018, p.7). This is an example of Haraway's oddkin. These students walked through their city, turned telephone poles into publishing houses, envisioned a future in which they were active participants, and shaped how they wished to learn about who they are and how they might interact with other beings in order to shape how they might share this place called Earth with other species.

Whereas Truman shows how the "white space of mainstream speculative worlding" changes when that space is broadened to include other non-white human and non-human groups, Wozolek's (2018, p. 3) work represents a "focus on the African diaspora as it intersects with technology across the arts in popular culture—to argue for representations of blackness that have been historically whitewashed from educational spaces." This whitewashing is part of what she refers to as a "framework of assemblages of violence … a capital of shame" used "to marginalize youth of color" (Wozolek, 2018, p. 13). These assemblages in schools continue the long history of the "dehumanization of students of color through what we learn and how we learn it" (Wozolek, 2018, p. 15). Wozolek wishes to create an alternative history and future that can serve as a foundation to challenge the assemblages of violence and capital of shame against people of color.

For Wozolek this begins with a clear understanding of how Anna Julia Cooper, W.E.B. DuBois, and Carter G. Woodson argued "against the sociocultural preservation of these assemblages" that "serve to excuse racialized hostilities, and devalue female, black and brown ontologies of color." We see here, as with Truman, a shift again from epistemological questions to an onto-epistemic focus on the nature of being in the world for different groups of people. For Wozolek, there cannot be any revisualization of the present or the past without addressing the historical element of how the histories of women, queer, lesbian, transgendered, bisexual and people of color have been erased from history and how intellectuals like Cooper, DuBois, and Woodson tried to brighten up the whitewashed history with some realistic, historically grounded colors. From this history emerges an "Afrofuturism scholarship and art" that tends "to focus on connections to popular culture and, more specifically, to themes found in the realm of science fiction.[i] This emphasis on the nexus of science, technology, and the arts is significant because it reclaims the role of people of color in

historically grounded scientific achievements" (Wozolek, p. 16). The Life of Henrietta Lacks (Skloot, 2010) and the women of color working in the early days of NASA (Shetterly, 2016) serve as just two immediate examples of a historically grounded Afrofuturism functioning at the intersections of science, technology, and art. "Afrofuturism … expresses blackness as normal … and reclaims schooling as a site of possibilities born from diasporic histories and narratives" (Wozolek, 2018, p. 16).

This normal that Wozolek describes, however, cannot be confused as a normalization or a new normal in which other narratives and other possibilities are erased. To stress this point, Wozolek calls upon Donna Haraway and Jasbir Puar and their notions of the cyborg. The image of the cyborg for both of these scholars is to serve as a metaphor "that reimagines the possibilities of being through human and non-human parts," and presciently articulates "a moment where the complexities of being call for a multiplicity of intersections and assemblages" (Wozolek, 2018, p. 17). These intersections and assemblages can counter the assemblages of violence Wozolek identifies circulating in schools and, more importantly, these intersections and assemblages are examples of "oddkin" in which humans join with objects and other species to create funky alliances that challenge any attempts to erase species or certain groups within a species, threatening not only the vitalities of these species but the planet as well. Truman's and Wozolek's work are examples of odd kinship and the becoming-with that Haraway envisions in the Chthulucene era. What would a curriculum of "oddkins" look like? How many "oddballs" (that is, literally objects) would we allow into our kinship curriculum? Would it look just like us, human? Would it just be a repeating of a white history in which only certain human groups would be allowed to inhabit our genealogical lines, or would a new line emerge in which humans of all sorts, with all kinds of divergent histories would merge with other species and non-sentient objects to create new assemblages and trajectories for the future? I think there is great potential in speculative fiction, speculative fabulations, and Afrofuturism for the creation of new assemblages of oddkin.

Is there a Future for SF?[ii]

I purposively left SF out of my declaration in my last sentence because I would like to entertain, in this last section, the proposal that science fiction is a less viable alternative to think about the future than speculative fiction because reality is moving too fast for new visions of possible science fiction futures to keep up with the present. In other words, no sooner do science fiction writers envision a futuristic possibility, the present catches up to it. Before I register my argument, I first want to establish a foundation for my reasoning using the latest work by Katherine Hayles (2017), *Unthought: The Power of the Cognitive Nonconscious*.

In *Unthought* Hayles (2017, p. 27) conceptualizes cognition as "a tripartite framework" in which the first level is "consciousness and unconsciousness, grouped together as modes of awareness." Simple enough, not true? This is classic Freudian psychology. From here it gets

more interesting. At the second level of a cognition framework is "nonconscious cognition … Unlike the unconscious, it is inherently inaccessible to consciousness, although its outputs may be forwarded to consciousness through reverberating circuits" (Hayles, 2017, p.27). The nonconscious level is inaccessible to the conscious, but what the nonconscious level does influences what sentient beings do consciously. In other words, the nonconscious level performs what we are unable to comprehend at the conscious level because the nonconscious "processes information too dense, subtle, and noisy for consciousness to comprehend" (Hayles, 2017, p. 28). As I type this in seemingly and hopefully coherent words and concepts to explain Hayles's theory, which in itself is based on a complex theory within cognitive psychology, my brain is processing information that I do not know I am processing, and the noncognitive is influencing my ability to conceptualize and explain it in order to make my argument about SF. There is more at play here than me, as an author, trying to write a convincing argument. Without my knowing it, my mind is nonconsciously influencing my ideas and my typing abilities before I even tap the keys. This level of nonconsciousness is important according to Hayles (2017, p. 28) because "it is closer to what is actually happening in the body and the outside world; in this sense, it is more in touch with reality than is consciousness." This is the stuff SF is made of, except it really is what cognition is made of and there is nothing fictional about it. Who needs SF when the non-fiction reads like SF? Then there is the third level which "comprises material processes. Although these processes are not in themselves cognitive, they are the dynamic actions through which all cognitive activities emerge" (Hayles, 2017, p. 28). This is the level where our decisions are made and where we exercise our will.

Connected to this tripartite framework are other key concepts: Flexibility, Adaptability, and Evolability. "Flexibility implies the ability of an organism or technical system to act in ways responsive to changing in its environment … Adaptibility denotes developing capacities in response to environmental condition", and "Evolability is the possibility to change the programming, genetic or technical, that determines the repertoire of responses. Genetic and evolutionary algorithms are examples of technical systems with these capabilities" (Hayles, 2017, pp. 29–30). Each of these principles allows the cognitive abilities of a sentient being or technological system to adjust to the environment in which it finds itself without debilitating it or forcing it to shut down to adapt to a changing environment. For instance, I have lived in the south, the land of little to no snow, since 2001 but all my family still live in Pennsylvania where snow is a reality. When I visit family in December, I do not have to take a crash course in counter steering or snow removal. My body and mind immediately trigger old experiences to help me adapt to a new environment. Furthermore, once I cross over into the snowbelt I do not have to pull over my vehicle and go through all the possible scenarios I might experience and play in my head all the possible counter-measures I might have to take. My mind is already doing it and I am prepared for the possibilities a change in environment present to me even before I experience them.

What makes this theory of unthought interesting is what applies to human cognitive abilities also applies to non-human cognitive abilities in some other species and in the cognitive abilities of technological systems such as driver-less cars, algorithmic systems such as Amazon Corporation, and computer networks. According to Hayles (2017, p. 33), "technologies develop within complex ecologies, and their trajectories follow paths that optimize their advantages within their ecological niches." For instance, in the ecology of Amazon, the multinational corporation, its ability to adapt to my interests, sometimes even before I know a book I might need or like exists, allows this on-line bookstore to thrive. The algorithms in Amazon are important because they are adapting and evolving to my intellectual interests and, in some cases, even shaping my interests. Amazon knows that I purchase any book that scholars such as Bruno Latour, Donna Haraway, or Katherine Hayles publish, but it also ventures out of any possibly set parameters and suggests I might also like other authors. This is how I became interested in Bernard Stiegler's works. When I came across his work it was not because other scholars I was reading were citing him. Amazon suggested I might like his works, and it was correct. It did turn out after Amazon had suggested I might like Stiegler's *Technics and Time 1* that I had already read his work with Jacques Derrida *Echographies of Television*. I had forgotten that I had read this book, but Amazon did not. This short anecdote is a way of writing that we, humans, have to realize two simple facts about nonconscious cognition: we are not the only entities that do it, and we are not the best at it. As Hayles (2017, p. 33) notes "[c]omputational media are distinct, however, because they have a *stronger evolutionary potential* than any other technology, [I would add any humans as well], and they have this potential because of their cognitive capabilities, which … enable them to simulate any other system." Why do we need Philip K. Dick and *Do Androids Dream of Electronic Sheep* when we have the algorithms of a multinational corporation such as Amazon? Of course, we need Dick because of his story telling abilities and his prescience in matters of human freedom and technological development, but my point is non-fiction is already writing these stories that SF use to tell.

Amazon.com is not the most convincing argument for nonconscious cognition and the superiority of technological systems in these matters. When the markets crashed in 2008, revealing yet again that capitalism is merely a parasitic, mafia-like ecological system of a privileged few, what also emerged was a better understanding of how computer networks, computer programmers, and mathematicians were gaming the system, and what the computer networks of algorithms were doing during every millisecond of the day that human beings could not keep up with nor control. Since the mid-1990s, day traders have emerged as a market trading force because they can simply go on their computers and buy and trade stocks and at the end of the day tally up their gains and losses; cutting out the physically present stockbroker on the trading floor. How quaint is this supposedly revolutionary way of bringing the average citizen into capitalism when compared to the nonconscious cognitive abilities of the computer networks of millisecond trading. Even before the day trader or the sophisticated, experienced, stockbroker can make a decision to buy or sell stocks based on

new information of the day, the computer algorithms already acted and altered the price of a stock. The algorithms are working at the nonconscious level, while the human brain cannot make decisions at this level. It is not a stretch to say that it is the computer networks and the nonconscious cognitive algorithms that control capitalism, not the robber barons of today. The robber barons are merely the beneficiaries of a rigged system that allows them to control more computers than, say, the day trader or the citizen who has no means to trade one share let alone millions in a millisecond. Again, I ask why do we need SF writers who create stories about computer networks that control human minds or control human societies when this is exactly what is happening in society as I write these words? Why would we need SF writers to create scenarios discussing the impact of cyberwarfare when the USA, China, and Russia are in the middle of a cyber war? It would be like buying last month's newspaper to see what is happening this week. Reality has caught up to SF.

When H.G. Wells published *The Time Machine* in 1895 and opened his story with a discussion of four dimensional space ten years before Einstein proposed his special theory of relativity, Wells' proposition of time travel seemed to be an impossibility. When William Gibson published *Neuromancer* in 1985, his description of an emerging virtual space as a "collective hallucination" did not seem as fanciful or fictional since, within fifteen years, what Gibson had described became a reality. When science fiction writers wrote in the early to mid-twentieth century, and even into the late twentieth century, about humans escaping a dying earth, the stories written were convincingly fictional. Any stories written today, a mere fifty to seventy-five years later, that discuss humans fleeing a dying planet do not ring as fictional as they do real and plausible. Just as when military SF writers create stories about space wars, those stories do not appear as fictional accounts and a future far away, they appear to me as real political debates and newspaper headlines. The same applies to any science fiction writer who fifty years ago discussed genetic manipulation or the use of data to preempt human action. These stories were convincing science fiction story lines, now they are real time events as the recent experiences of '23 and me' and Cambridge Analytica suggest. Again, fiction has become non-fiction. We should alter Donna Haraway's 1980s phrase SF to signify a shift in our thinking and label this type of storytelling as Sn-F (Science(non-)Fiction), and use the initials SF to refer more appropriately to speculative fiction. While Gough's groundbreaking work and my work with Anijar and Daspit are grounded in the older notion of SF, I think Truman and Wozolek's work is a transition by curriculum scholars toward Sn-F and a newer notion of SF.

In a 1999 interview, the science fiction writer Samuel R. Delany insisted that science fiction was important because it promoted "a polyvocalic politics through dialogue and an appreciation of multiple perspectives" He followed this up with a declaration in which he said "by science fiction I specifically do not mean 'speculative fiction,' which is, at least today, a monologic imposition by which one or another academic tries to privilege the particular science fiction he or she most prefers … at the expense of the overall genre's range and

richness" (Delany, 2005, p.303). I certainly do not take issue with Delany's argument against parsing details so much that SF writing becomes a subgenre with subgenres. My issue here is that his notion of speculative fiction seems to be overly limited to arcane academic debates. I would suggest that, for two reasons, SF is better referred to as speculative fiction. The first, I laid out above. Science fiction has been overtaken by reality and time. The second is that there can be no doubt that speculative fiction is polyvocal. Truman's and Wozolek's work proves this point. The purpose of their research is to re-envision what schools can teach and who shall count as living sentient beings. Truman and Wozolek did not impose their voices upon a discourse in order to proclaim their opinions were the truth and the only way to discuss certain matters. They created and found space in history, cities, academic disciplines, and curriculum so students of color, women, gays, lesbians, and Indigenous, transgendered, and bisexual peoples could find and create their own spaces to envision a future where they actually matter. Surely Delany would appreciate these types of efforts and accept that they are not exercises in monologics, but rather prime examples of the polyvocal possible futures wherein all sentient beings, human and non-human, matter. Perhaps this is where S(n-)F can rediscover its visions and voices and again speculate on futures that we mere humans cannot yet grasp but need to contemplate.

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[i] I have found at least three definitions of Afrofuturism. Mark Dery is credited with inventing the term in a 1994 interview he did with Samuel R. Delany, Tricia Rose, and Greg Tate. In his introduction to the interviews he wrote the following: "Speculative fiction that treats African-American themes and addresses African-American concerns in the context of twentieth-century technoculture—and, more generally, African-American signification that appropriates images of technology and a prosthetically enhanced future—might, for want of a better term, be called, 'Afrofuturism.'" (Dery, 1994, p. 180). Ytasha L. Womack (2013, p. 9) is a little more succinct: "Afrofuturism is an intersection of imagination, technology, the future, and liberation." And Walter Mosley (2003, p. 202) shares an even more succinct idea: "We make up, then make real." This is what Truman and Wozolek are doing in their research.

[ii] In this section I will consistently move back and forth between the words science fiction and SF. I use the former term to refer to science fiction writers who wrote or started writing before Donna Haraway used the term SF. I will use the term SF to signify not only Haraway's influence and academic thinking but also to be an all-inclusive term that incorporates speculative fiction as well as science fiction writing that comes after the 1980s.