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Final Master's Portfolio

Marisa Mount
mmount@bgsu.edu

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FINAL MASTER'S PORTFOLIO

Marisa Mount
mmount@bgsu.edu

A Final Portfolio

Submitted to the English Department of Bowling Green
State University in partial fulfillment of
the requirements for the degree of

Master of Arts in the field of English,
Individualized Track

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Dr. Susan Cruea, First Reader
Ms. Kimberly Spallinger, Second Reader

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Analytical Narrative

I began pursuing my master's degree at Bowling Green State University with the idealistic (and perhaps naïve) belief that I would be an English teacher for the rest of my days. I did not anticipate the COVID-19 pandemic and the fractures in public education it would expose, nor did I anticipate the changes in my professional interests and goals that my post-graduate studies would help me uncover. While these unforeseen circumstances contributed to my decision to leave the classroom, with only three years of teaching experience under my belt, I firmly believe that I am still at heart an educator—one who is passionate about the transformative, didactic power of writing and, at large, the study of English. The four bodies of work selected for inclusion in my portfolio reflect this belief.

My first piece, “Off the Boat from Mono- to Multilingualism: Reframing Language Education in the Chinese American Community,” is a pedagogy-based essay incorporating current, substantive research on language education. I wrote this paper in the spring of 2021, in Dr. Cheryl Hoy's class on the intersection of race and the teaching of writing. Written in the wake of the pandemic as well as the murder of George Floyd and the subsequent Black Lives Matter movement, this piece indicates the issues that weighed on me then and now: violence against minority communities, particularly Asian Americans. As a Chinese teacher of English/Language Arts, I wanted to explore the ways in which language education could be improved to better serve students from my speech community; thus, I adapted the antiracist pedagogical framework developed by April Baker-Bell, which we studied and discussed in class.

In her work *Linguistic Justice: Black Language, Literacy, Identity, and Pedagogy*, Baker-Bell details seven key artifacts, or modules, each with a different focus and list of recommended activities, to teach Black students about linguistic racism. The ultimate goal of this instructional

philosophy is to equip students with the tools to recognize and resist standard language ideology, an ideology originating from white supremacy. In my original essay submitted to Dr. Hoy, I adapted only two of Baker-Bell's artifacts in my implementation of an antiracist language pedagogy for Chinese Americans. At the time of submission, I knew that I wanted to return to this piece, not only because I enjoyed researching the subject and because it is my strongest piece of writing produced throughout my coursework, but also because I wanted to continue developing my reimagination of Baker-Bell's framework. So in my seminar revisions, I have done just that: I expanded and reorganized my adaptation, providing research-based practical applications for all seven artifacts. I also incorporated headings and subheadings to improve my paper's organization and usability, chunking information into more accessible components for readers. Returning to this essay, and the body of work from which it originated, reminds me of the invaluable role that teachers play in raising students' critical consciousness, of the potential to improve and transform the world around us through education—particularly in the English/Language Arts classroom.

My second piece of writing featured in the portfolio explores similar themes. "A Framework for Supporting English Language Learners through Grammar-in-Context Pedagogy and Culturally Competent Teaching" was written in the fall semester of 2020, in another class taught by Dr. Hoy. Unlike Dr. Hoy's other course in which I produced my first portfolio essay, discussions of race and culture were not central to the class taken in 2020, although it did explore another approach to the teaching of writing—using grammar in context. Again, my personal interests and my identity as an educator, as well as ongoing sociopolitical events, led me to pursue research on how to better support minority students in the writing classroom.

While my original essay was more theoretical in nature, I revised the second piece to include more practical, realistic strategies for classroom use. Further, I sought to engage more with the opposing viewpoint to prove that my research-based recommendations are achievable. Lastly, I provided more specific classroom context and actively sought to clarify the type of learning environment in which these recommendations could be used—i.e., the general writing classroom, not an ESOL (English to Speakers of Other Languages) class. As I revised this second portfolio essay, I was reminded of the importance of affirming students' various experiences and identities, of how critical this positive affirmation is to determining success not only in the writing classroom but in other communicative contexts. It is imperative that educators actively support the experimental linguistic practices of non-native English speakers so that they may achieve fluency; similarly, educators should strive to validate and honor students' knowledge of their first language.

My third portfolio piece is titled “Racial Economics: Corporate Capitalism and the Destruction of Black and Brown Communities in *Days of Destruction, Days of Revolt*.” While also research-based, this essay widely differs from my first two central works in genre and purpose; rather than incorporating pedagogical groundwork to provide strategies for antiracist writing instruction, my third essay incorporates critical theory—specifically post-colonialism and Marxism—in a literary analysis. The primary texts examined are two chapters from *Days of Destruction, Days of Revolt*, an illustrated journalistic narration in which the authors, Chris Hedges and Joe Sacco, expose the devastating impact of corporate capitalism in American cities.

While Hedges and Sacco's book was not the main focus of the class, it certainly complemented my burgeoning passion for issues of racial and social justice, and so too did reading key works in critical theory. Taken in the summer of 2020 with Dr. Khani Begum,

during my very first semester of graduate school, it was this class that informed the remainder of my coursework, leading to my later research on race and writing. Ultimately, I see my third essay as the bridge between my undergraduate and graduate English studies: during the former, I primarily wrote textual analysis essays, applying methodologies and theoretical concepts from literary scholars, while for the latter, I expanded my genre skillset by producing argumentative, research-based writing. During my brief time in the classroom, amidst the demands of state standards, lesson plans, and benchmark assessments, I unfortunately lost sight of what drew me originally to the English major, both at the undergraduate and graduate level: my love for literary analysis and critical theory. Returning to this third essay, then, was therapeutic in nature—like visiting an old friend, or trying on a once-beloved but forgotten piece of clothing. In my revisions, I sought to expand my analysis by incorporating more theory and interpretation. I also added headings and subheadings to help readers transition between the theoretical concepts discussed.

My final essay selected for inclusion in this portfolio marks a drastic shift in, or rather expansion of, my academic and professional interests. “Scholar and Practitioner Perspectives on Interactive/Responsive Data Visualization: A Literature Review” was produced during a professionally tumultuous moment in the spring of 2022: the semester I decided to end my teaching career. At the beginning of the semester, I knew I still loved writing, and so I embarked on a mission that spring to learn about the applicability of writing skills outside the classroom context. Instead of enrolling in a teaching course, I chose to take a class on professional and technical writing, which led to my discovery of its subfield—user experience (UX) design. While I was enrolled in the professional/technical writing class at BGSU, I simultaneously participated in a UX design bootcamp, an eight-week long course that introduced me to the field

and helped me develop a portfolio to submit to potential employers. Although I finished the bootcamp before the end of BGSU's spring semester, I wanted to continue learning about issues related to UX design, so for my final paper I decided to pursue research on data visualization. This literature review was the first of its kind that I have written. My previous graduate coursework had prepared me for the rigors of academic research, but I encountered challenges nonetheless in drafting this piece because I lacked experience in the genre and because it was so different in structure and purpose. To revise this essay, I added subheadings to help organize my lengthy introduction, corrected my APA citations, and expanded my conclusion. Its placement at the end of my portfolio is symbolic, representing the optimism I feel going forward as I transition out of my role as a teacher and enter the professional/technical writing workspace.

The coursework I have completed throughout my time at Bowling Green has been essential to my development as a professional. It allowed me to pursue unique areas of interest and become a better teacher, one who was equipped with concrete strategies to meet the needs of diverse learners. It raised my awareness of the social and political injustices that occur in the classroom context and beyond, challenging me to consider the ways in which these acts of violence can be addressed. Most importantly, it resuscitated my passion for reading and writing at a time in my career when I had become disillusioned with English studies. As I end my time as both a BGSU student and a professional teacher, I am hopeful, not only about the possibility of applying my knowledge of the discipline to new contexts, but also about encountering future opportunities where I can expand upon the professional skillset acquired at BGSU.

Piece 1: Revised Version

Off the Boat from Mono- to Multilingualism: Reframing Language Education in the Chinese
American Community

Introduction

The Center for the Study of Hate and Extremism at California State University in San Bernardino reports that, in sixteen of America's largest cities, hate crimes against Asian Americans spiked 149% during 2020. The CSHE's analysis of police data further shows that the first surge occurred as COVID cases increased during March and April. This increase in hate crimes ties directly to xenophobic and racist attitudes surfaced by the pandemic, whereas Asians across the globe were vilified, demonized, and blamed for the origins of the coronavirus. Unfortunately, the CSHE's findings do not reflect the countless other cities and countries in which anti-Asian violence undoubtedly arose, nor do they account for the insidious microaggressions Asians in America and elsewhere encounter on a day-to-day basis.

Such microaggressions can take many forms, but the ones with which I am most concerned as a Chinese-born English teacher in America are those that center around language, language usage, and language education. Serving as a case in point is the experience of Zhikai Liu, a Chinese national student who struggled with mental health issues stemming from feelings of insecurity and self-doubt about his English proficiency; so intense were his feelings of inadequacy that he committed suicide in 2018 (Dovchin 1). Two years later, in the context of this particular sociopolitical moment, with heightened attention on the Asian-American community as well as increased efforts towards antiracism, it is critical to consider, then challenge, the ways that educational institutions enact or enable systemic violence against Asians through language

policy. Drawing on April Baker-Bell's existing work on linguistics and language education, I argue that we need a methodology for teaching Asian American students, specifically of Chinese descent, about linguistic racism specific to their speech community.

Classic Language Education Approaches: Monolingualism and Assimilation

In America

The antithesis to this antiracist linguistic pedagogical framework would be a classic approach to language education, one that advocates for monolingualism and assimilation, as reflected by the language policies put into place in American and Chinese schools alike. In American schools, such policies are reflected in writing rubrics from the Department of Education in Georgia (the state where I teach). Used for assessing the quality of student writing on state-mandated testing, these rubrics offer the following guidelines:

The student's response is *flawed* for various reasons and will receive a condition code:

- Code A: Blank
- Code B: Copied
- Code C: Too Limited to Score/Illegible/Incomprehensible
- Code D: Non-English/Foreign Language
- Code E: Off Topic/Off Task/Offensive. (69-73, emphasis added)

Should a student's written response receive one of these condition codes, it will likewise receive the lowest score possible: a 0 on a scale of 0-4. According to the GaDOE, to use a foreign language or dialect other than standard English is a "flaw" on par with producing offensive or

plagiarized writing. Though the particular rubrics in question are used to assess the writing of eleventh graders taking American Literature, the descriptor and condition codes above remain the same for all grade levels, spanning across genres. The purpose of this uniformity is clear: regardless of whether a student is in third, eighth, or eleventh grade, or whether a student drafts a creative narrative or an expository essay, English is the preferred language of communication while any other language holds no merit.

The GaDOE rubrics also indicate that a student's response written in a foreign language/dialect is not worthy of authentic assessment. Instead, a scorer who encounters such a response may merely glance at the student's writing, observe it as non-English, label it a "0," and move on to the next piece of writing—like a worker on a factory line. Approaching assessment in this way is deeply problematic for a number of reasons, but most importantly because it perpetuates racist language ideologies that enact "linguistic privilege" for some students and "linguistic invisibility" for others (Dobinson and Mercieca qtd. in De Costa 3). It is no coincidence that the students afforded linguistic privilege are typically white while those made linguistically invisible are non-white. As April Baker-Bell asserts, "Much of the language education that students receive in their K-12 and postsecondary education is based on white supremacist values" (19). In this way American public schools codify not only monolingualism but also linguistic racism under government sanction, compelling racially and linguistically minoritized students to assimilate to standard language ideology. When these students experience difficulty and/or failure in their attempts to conform, they receive euphemistic labels such as *underperforming* or *struggling* to easily communicate to others what the schools have identified as "linguistic inferiority" or "deficiency," as proven by the students' test scores. Similarly, their English may be labelled as "broken" or "fractured," "as if it were damaged and needed to be

fixed, as if it lacked a certain wholeness and soundness” (Tan 2). Clearly, America’s fixation on standardizing language usage requires change before it further alienates, denigrates, and oppresses linguistically minoritized students.

In China

China likewise enacts a monolingual, assimilationist approach to language education that stands in need of change. Venus Wu reports that in 2018, two students at a Hong Kong university spoke out against what they saw as an excessively strict test assessing their fluency in Mandarin, the language spoken in mainland China. However, in Hong Kong, where citizens are granted freedom of speech unlike those living in the mainland, Cantonese is the dominant language. The two students were suspended for challenging their teachers and the test, sparking an eight-hour protest as well as generating mass media attention. Wu details that critics viewed the test and the students’ suspension as an attempt by the Chinese government to not only limit the unique freedoms of Hong Kong but also “homogenise society” by “replac[ing] Cantonese, and other regional Chinese dialects, with Mandarin.” In a fashion similar to the U.S., China uses schools and testing to reify the position of the dominant language as well as suppress variations in language usage.

The sentiments of some native Chinese speakers in addition to the research of language purists further show the pervasiveness of monolingualism. For instance, when observing Chinglish (a combination of Chinese and English) signs displayed in China, “the native Chinese response . . . is usually that of embarrassment, followed by prompt correction wherever possible” (Chow 118). Xiang Xu, a professor from the Qingdao University of Science and Technology, even describes English’s influence on the Chinese language as one of violent coercion: in his view, a nucleus country’s “penetration” into an undeveloped country alters its language and

culture, which “makes these nations’ language become stranger and more complex” while producing “dependence” on the nucleus countries (121). Xu warns that if mainland Chinese speakers continue to imitate Hong Kong and English syntax, “the rules of Chinese grammar may be destroyed and the Chinese character’s authority may also be doubted,” concluding that effective language policy should be put into place to defend the purity of the Chinese language from English influence (123). Indeed, Xu’s anxieties, and native speakers’ emotional response to Chinglish, are certainly valid from a postcolonial standpoint, especially considering the brutality of imperialism documented in neighboring India. However, the mixing of languages is a natural consequence of ever-increasing globalization that can neither be avoided nor curtailed. To deny diversity and development in language(s) is to deny diversity and development in language speakers. Moreover, Xu’s push for monolingualism and linguistic purity is a form of erasure that perpetuates harmful misrepresentations of Asian countries as a singular monolithic other.

Linguistic Discrimination and the Reinforcing of a Racial Hierarchy

Xu’s purist argument echoes that of subtractive approaches to language education “in which language-minoritized students are expected to replace their home language varieties with the standardized national language” (Flores and Rosa 150). The suspension of the two Hong Kong students attests to the discriminatory realities of this subtractive method. As does the unsolicited advice from Duke University professor Megan Neely, who sent out a mass email in 2019 targeting Chinese and other international students. Neely wrote that it was “impolite” to use a foreign language in private conversation in a public space; furthermore, she urged students to “commit to using English 100% of the time when you are in . . . any other professional setting” (@siruihua). Neely’s views typify a larger language diversity discourse that makes *some* room for language variation but ultimately reinforces a hierarchy in which whiteness and English

dominate. In other words, according to this discourse, foreign languages or dialects are allowed, but in certain contexts only.

The idea that English and professionalism are synonymous, as reflected in Neely's email, is central to "appropriateness-based models of language education" (Flores and Rosa 154), or "respectability language pedagogies" that teach students to code-switch (Baker-Bell 28). Although the appropriateness/respectability approach seeks to affirm students' home languages, the students are nonetheless required to meet a racist linguistic standard that forces nonmainstream-language-speaking students to deny their linguistic heritage and culture (Flores and Rosa; Baker-Bell). This self-denial is particularly troubling for Asian Americans who have a unique position in the racial hierarchy, suffering macro- and microaggressions while simultaneously being venerated as the model minority to dispel acknowledgement of racial inequities. This rhetoric insists that if Asians can succeed in America, then other racial minorities should, too, thus pitting people of color against each other to maintain white supremacy.

A Way Forward: Antiracist Language Pedagogy

When teachers tell Chinese students to "commit to using English 100% of the time" in professional settings (@siruihua), they force the students to participate in a racist system that caters to and further privileges the "white listening subject" (Flores and Rosa 151). To borrow April Baker-Bell's conception of an Antiracist Black Language Pedagogy, teachers therefore need an antiracist language pedagogy specifically for Chinese American students—a methodology that extends beyond simply teaching code-switching to accommodate standard language ideology but one that rejects altogether the myth of a standard; that acknowledges the diversity of experience for the Asian American community and challenges students to interrogate discriminatory linguistic practices in both America and China; and that supports the students in

moving away from monolingualism towards multilingualism. By drawing on Baker-Bell's Antiracist Black Language Pedagogy, it is not my intention to compare linguistic oppression between minority groups, nor is it my goal to shift focus away from the realities of antiblack racism and thereby create division between Asian and Black Americans (a white-supremacist endeavor already initiated through the model minority myth). Rather, I seek to highlight the fact that more can be done to better teach and serve Chinese American students.

A total of seven artifacts, or learning experiences, comprise Baker-Bell's Antiracist Black Language Pedagogy. Here I will build on previous coursework, where I focused on only the first two artifacts, by adapting all seven in constructing a framework for supporting Chinese American students in their language education. Baker-Bell names these artifacts as follows:

Black Language Artifact 1: Black Language & Identity

Black Language Artifact 2: Language, History, & Culture

Black Language Artifact 3: Study of the Grammatical and Rhetorical Features of Black Language

Black Language Artifact 4: Language & Power

Black Language Artifact 5: Language & Racial Positioning in Society

Black Language Artifact 6: Language, Agency, & Action

Black Language Artifact 7: Imagining a Language of Solidarity (35)

In the remaining sections of this paper, I explore the implications of each artifact for Chinese Americans. Additionally, I provide activities and recommendations for implementing each in an antiracist language pedagogy.

Artifact 1

As the name indicates, Artifact 1 challenges students to consider the relationship between language and identity. Baker-Bell specifically defines Artifact 1 as “students examine the intersection of language, culture, and identity within the Black community” (35). Although she does not make this distinction, examinations of identity can include constructions of the self as well as a collective, cultural identity. When teaching or discussing the concept of race, it is imperative to make this distinction to avoid making overgeneralizations about a minority group based on individuals, which would ultimately uphold stereotypes and counter antiracist efforts. The distinction between an individual’s identity versus a collective identity based on shared experience is especially critical for Chinese Americans, who oftentimes are grouped automatically into the monolithic category of “Asian.” Such simplistic categorization equates the identities of Chinese Americans with Asians from different countries, such as Malaysia or Taiwan, which ultimately glosses over the richness of diversity between Asian countries. Conversations about language, culture, and identity, then, are nuanced for Chinese American students who may identify to various extents as Chinese, American, and—at large—Asian.

Taking into consideration variations in language usage and linguistic identity further complicates an intersectional analysis of language, culture, and identity. As the research of Li Wei proves, the linguistic practices and identities of multi-language speakers are dynamic; to capture this constant change, he coins the term *translanguaging space*. In “Moment Analysis and Translanguaging Space: Discursive Construction of Identities by Multilingual Chinese Youth in Britain,” Wei writes that translanguaging space “is not a space where different identities, values and practices simply co-exist, but combine together to generate new identities, values and

practices” as multilingual speakers innovatively draw on the linguistic resources around them (1223). Lawson, one of the participants in Wei’s research, speaks to this generation of identities:

Our parents think we speak too much English. My friends and teachers think we only speak Chinese, because we look Chinese. Nobody seems to understand who we are. We speak both Chinese and English. That’s a fact. It’s easy to understand, isn’t it? Why don’t people just leave us alone and let us speak whatever we can speak! You told us we are bilinguals. I like that. I really want to be bilingual and I want to be treated like a bilingual. I don’t speak Chinese only; I don’t speak English only; I speak both! That’s who I am. That’s who we are. (Wei 1228)

Lawson’s frustrations here clearly highlight the intersections of language and identity—that to misunderstand the way an individual uses a language is to misunderstand the individual himself. Likewise, an attempt to control or judge *how* someone uses a language is an affront that leaves them feeling not only pigeonholed but also isolated. However, discussions about linguistic identity with Chinese American students should extend beyond simply spotlighting linguistic racism. Wei concludes his study by asserting that multilingual speakers should be regarded as “active agents” (1225), who are themselves the source of generating new identities, values, and practices he earlier describes. For Wei, the linguist’s purpose is to recognize and affirm the ingenuity of multilanguage speakers. So too is the teacher’s purpose.

Artifact 1: Practical Applications

To introduce Chinese American students to the concept of racial and cultural identity, and to generate student-reflection on their own identities, educators may consider teaching Gene

Luen Yang's *American Born Chinese*. Yang's graphic novel explores anti-Asian, specifically anti-Chinese, sentiment in America through its critique of racist stereotypes. In addition, Yang's work examines the dangers of assimilation and internalized racism while advocating for self-acceptance. Yang addresses these themes through the story of Jin Wang, who – after moving to a predominately white school (aptly named “Mayflower Elementary”) – becomes increasingly ashamed of his Chinese heritage. So much so that he even begins to adapt the racist attitudes of those around him: “You’re in America. Speak English,” Jin says to another Asian student (Yang 37). Jin eventually abandons his Chinese identity altogether by transforming into Danny, a white alter-ego, yet by the end of the novel he learns to embrace his heritage and culture, returning to his original self.

Using Yang's graphic novel in an antiracist language pedagogy for Chinese Americans would enable teachers to help students make connections between the concepts of assimilating identity and assimilating linguistic practices. After engaging in conversations about identity, transformation, and assimilation in Yang's text, teachers might then have students read and respond to Lawson's comment from Wei's research (Wei 1228). Lawson's powerful statement on the intersections of language, culture, and identity, reframed as a reading response or journal prompt, would spark discussion about the differences between mono-, bi-, and multilingualism, and students could then reflect on which of these linguistic identities they claim. Defining these key terms might then lead to a study of Wei's publication on translanguaging space and multilingualism. Depending on the class and the needs of the students, the teacher could pull excerpts or read Wei's publication in its entirety. Having conversations about transformation and assimilation, using *ABC* first and Lawson's statement second, would prove a successful approach to scaffolding Wei's scholarly, jargon-heavy writing, which touches on the similar theme of

adapting one's linguistic patterns/choices based on audience and context—just as Yang's protagonist Jin altered his identity in order to fit in with those around him. By participating in this sequence of activities, a Chinese American student can begin to articulate the connections between language, culture, and identity.

Artifact 2

For Baker-Bell's second language artifact, students engage in a study of the historical, political, and cultural context behind Black Language (35). For Chinese Americans, such a study necessitates an understanding of said context in both America and China; more specifically, it would examine the reciprocity between the two countries' languages, as well as the development of Chinglish. Of course, not every Chinese American child speaks Chinese fluently or even at all. The goal of engaging in this second language artifact is not to teach English or Chinese itself but to help students recognize the interaction between the languages despite each country's tendencies toward monolingualism and, further, to encourage students to interrogate those tendencies. In this way Language Artifact 2 “combin[es] a heteroglossic perspective with critical language awareness” which “opens up space for unmasking the racism inherent in dominant approaches to language education” (Flores and Rosa 154). From a heteroglossic perspective, “languages are seen as interacting in complex ways in the linguistic practices and social relations of multilingual people” (García qtd. in Flores and Rosa 154). Artifact 2 would then build on Artifact 1, where students previously discussed multilingualism as part of reading Wei's research.

Artifact 2: Practical Applications

Teaching Chinese American students about the cultural context behind Chinese and English means teaching about the culture of monolingualism. As mentioned previously, both countries uphold this discriminatory ideology in their approaches to language education. The teacher's goal in implementing Language Artifact 2 should be to guide students in scrutinizing such approaches. For example, teachers may bring to the students' attention Chinese complementary schools, which are voluntary schools for students that seek to raise religious, cultural, and/or linguistic knowledge unique to students' communities. While this approach to schooling is more common in the United Kingdom, it is nonetheless relevant to building students' critical awareness of monolingual ideology, as attendees "overwhelmingly see the purpose of these schools as perpetuating the mother tongue" (Francis et al.). In his critique of the monolingual approach used in Chinese complementary schools, Wei observes the following:

[They] tend to use very traditional folk tales and other old stories in their teaching. The pupils not only feel bored by the teaching method, but also associate the languages that are being taught with the distant past . . . In their insistence on Chinese only, or on no mixing between Chinese and English, the Chinese schools risk disempowering and even alienating the very people they intend to care for. (1227-1228)

To generate discussion, teachers might present students with this quote, then ask them to reflect on their own experience in a Chinese complementary school if they attended one, considering in particular whether they thought the learning was positive, meaningful, or enjoyable. Students may also spend time critiquing the success of these schools in their aims to build literacy and fluency in Chinese. As the teacher facilitates discussion with students, he or she may guide them

toward focusing specifically on Wei's idea that monolingualism can disempower and alienate, asking how or in what ways this process occurs.

The examination of monolingualism in complementary schools can easily segue into a conversation about monolingualism in American public schools, both in the regular and ELL curriculum. Unlike Chinese complementary schools, American schools do not use folk tales to ease students into language acquisition. Instead, from the moment a student walks into an American classroom, they are bombarded with English only, from the teachers to the lessons to the learning materials and activities. For a linguistically minoritized learner, this sink-or-swim approach forces them to abandon regular usage of their home language to assimilate quickly. If they are lucky, these students receive support in ELL classes that promote bilingualism, yet these classes are nonetheless steeped in monolingual ideology. As Flores and Rosa argue, these classes “interpret the linguistic practices of bilinguals through a monolingual framework that marginalizes the fluid linguistic practices of these communities” (153). The fluid linguistic practices Flores and Rosa here describe manifest in the mixing of the two languages in question, yet neither Chinese nor American schools allow for such blending. Similarly, the schools refuse to acknowledge and affirm the validity of this blending. Thus, while Chinese schools insist on one language only, so too do American schools. By challenging students to compare and contrast language education between these institutions, ultimately to critique how both uphold monolingualism, teachers provide critical frontloading for discussing the mixing of Chinese and English that occurs in spite of the schools' efforts to extinguish it.

Artifact 3

Baker-Bell's third artifact within an antiracist language pedagogy challenges learners to “examine the structural and discourse features of Black Language” (35). Because classic

approaches to language education in both the United States and China already legitimize the dominant language in each nation, a study of Chinglish – a lesser-validated combination of the two – would be most appropriate for grammatical and rhetorical study. Not only does Chinglish go unrecognized as an official means of communication, but also it is regarded as a “popular source of humor” (Chow 117), a collection of laughable grammatical errors to those who do not speak Chinese: “the foreign observers’ more lenient reactions rather objectivize the signs as quaint native curios” which are “deemed fascinating on account of [their] peculiarly homespun, that is, unrefined, quality” (Chow 120). Conversely, for native Chinese speakers, responses to Chinglish typically involve “injured cultural pride” and “embarrassment, followed by prompt correction wherever possible” (Chow 118). This prompt correction occurs even at the government level: to prepare the city of Beijing for its hosting of the 2008 Olympics, the Chinese government attempted to eradicate Chinglish signs in order to convey a positive image to visitors (Chow 118-119).

The purpose of engaging in Artifact 3, then, would be to undo native speakers’ attitudes of shame and embarrassment concerning Chinglish usage. Artifact 3 would instead teach students to recognize and affirm Chinglish as a “valid, rule-based linguistic system . . . a linguistic resource that is necessary for their language and literacy development, to maintain relationships with family and community, to feel assured in their sense of self, or to express their identity” (Baker-Bell 72).

Artifact 3: Practical Applications

To help students recognize the validity of Chinglish, teachers can devote class time to studying the frequency of its usage, exploring already existing collections of Chinglish writing (such as Ming Xia’s Flickr album). As an alternative activity, the teacher could task students

with identifying and collecting their own examples of Chinglish usage to share with the class, whether public or personal. In both instances, students can then analyze the rhetorical purposes behind Chinglish usage in the examples they gathered. Cultural critic Rey Chow categorizes Chinglish signage into two main categories: *naming* (as in the case of restaurant menus or the labelling of public places) and *instructions-giving* (offering directions to the general public) (123). While Chinglish signs differ in purpose, the speaker, Chow recognizes, remains the same: both types of signs suggest “the presence of an authoritative figure” with “schoolmasterly or maternal-sounding tones” (123). The challenge to students would be to find Chinglish usage occurring outside of Chow’s rhetorical categories in terms of purpose and speaker.

Further, teachers may guide students in examining how each constituent language influences the other, thereby shaping Chinglish development. To study the influence of English on Chinese, teachers may provide students with Xu’s research in which he cites several examples of this phenomenon. He lists the appearance of English initial-letter abbreviation (i.e., IBM, DNA, etc.); the combination of English and Chinese (i.e., GRE kao shi and TOFEL kao shi, meaning test); imitated translation (i.e., re gou, meaning hot dog); the direct usage of English words (i.e., tuo kou xiu, meaning talk show); and the usage of English affixes and suffixes (i.e., wei—micro or -zhu yi—ism) (Xu 121). To advance discussion of the influence English has on Chinese, students who speak the latter may be able to offer other examples in addition to the ones Xu identifies. That being said, a major talking point in studying Xu’s work should include addressing the fact that Xu supports monolingualism, that he views English as a threat to the purity of Chinese language and culture—a perspective that detracts from the aims of an Antiracist Language Pedagogy.

To counter Xu's monolingual ideology, the teacher should then seek to establish with the students that language influence is not a one-way street, that Chinese likewise shapes English. A useful resource that elaborates on this relationship is Ai Zhong's *Chinese Influence on the English Lexicon*. To help students uncover firsthand the influence of Chinese on English, the teacher might have students engage in an investigative research project in which they choose a word from Section 2.2 of Zhong's publication, titled "Studies on Chinese borrowings" (30-35). Other relevant sections from Zhong's publication, such as "Test case 2: Top 100 most recognized Chinese borrowings in English" (66-70) or "Table 4.1. Chinese borrowings in publications between 1750 and 2000" (74-75), also provide extensive lists of Chinese words used in English. Once students have selected their borrowed word from one of these sections, students might trace its transition from Chinese to English, exploring the history and development of the word, then presenting their findings to the class through a final product such as a presentation, a paper, etc. By completing this investigative research project, as well as the other activities comprising Artifact 3, students will not only be able to "pinpoint and name the features of their own linguistic system," but also recognize that, when they or others use Chinglish, "they are communicating in a valid linguistic system" (Baker-Bell 72).

Artifacts 4 and 5

For Artifacts 4 and 5, respectively, Baker-Bell outlines that students will "investigate the intersection of language and power" and "examine the intersections between language and race" (35). Both were designed in tandem "to get the students . . . to critically interrogate how language, race, and power are interconnected" (Baker-Bell 82). In other words, in the development of her Antiracist Language Pedagogy, Baker-Bell combines the two artifacts to effectively teach the concept of linguistic racism, and I follow that same grouping here.

The ultimate aim of engaging with Artifacts 4 and 5 is challenging students “to make sense of how an ideology of standardization empowers certain individuals and institutions to make arbitrary decisions about which language is considered standard and impose them on others” (Lippi-Green qtd. in Baker-Bell 82). This empowering of certain groups, and the subsequent disempowering of others, speaks to the racism inherent to monolingual tendencies in both America and China, where the standard language and its dominant position are determined by the racial majority. While this process occurs in both countries, my adaptation will focus exclusively on linguistic racism in America to maintain the integrity of Baker-Bell’s pedagogy.

Artifacts 4 and 5: Practical Applications

To preface Artifacts 4 and 5 and help students build on Artifact 3’s rhetorical examination of Chinglish, the teacher might ask students to consider how they use this combination of English and Chinese in their own lives, with whom and in what contexts. To transition into a more concentrated discussion about race – and by extension, power – students might then engage in a compare-and-contrast discussion where they consider native Chinese speakers’ reactions to Chinglish versus that of non-native speakers, ones who are Americans/Europeans. For instance, Chinglish signs displayed in China are regarded by native speakers as an indicator of a “lack of proficiency in English . . . treated with heightened self-consciousness, anxiety, and often shame” (Chow 119). For native speakers, then, Chinglish is a painful reminder of an historical failure to conform to Western ideals:

This native response is underwritten with the memory of national humiliation, experienced for a century and a half by China, since the Opium War of 1839–42, in relation to Euro-America. Since then, as in most of the non-Western and postcolonized world, the necessity to know English has been accepted as an

injunction for cosmopolitan lingual normativity. . . For those who know something about the history of the non-Western world of the past few centuries, such emotional reactions to English, which far exceed the ordinary experience of acquiring a foreign language, are nothing new. Such reactions are characteristic of what might be called a post-imperialist and postcolonial predicament, which is typically borne by those on the non-Western side of the divide. (Chow 119)

By contrast, for Americans and Europeans, Chinglish is trivialized, even regarded with humor as an “exotic artifact . . . deemed fascinating” precisely because it is uncouth (Chow 120). Such is the nature of linguistic racism, which reifies the position of power for the white listening subject (Flores and Rosa). For the white subject, Chinglish serves as a comical reminder of the linguistic deficiency of the Chinese speaker, who—try as he might—will never fully master fluency in English. The Chinese speaker then internalizes this deficit perspective, feeling anxiety and shame even in his native country, where English is not the dominant language. And yet if a white speaker in America were to use Chinglish, they would not be mocked but applauded and celebrated for demonstrating knowledge of both parent languages. Bringing this double standard to Chinese American students’ attention would again highlight the intersections of language and race as they begin to understand the power dynamics undergirding language usage.

An ideal text to further illustrate for students the relationship between language, race, and power is Amy Tan’s “Mother Tongue,” a personal essay in which Tan reflects on these same themes. Tan discusses her language usage – “all the Englishes I grew up with” (Tan 1) – and compares her command of standard English to that of her mother’s, who (as a nonnative speaker) was discriminated against due to her less-developed fluency:

Lately, I've been giving more thought to the kind of English my mother speaks. Like others, I have described it to people as 'broken' or 'fractured' English. But I wince when I say that. It has always bothered me that I can think of no way to describe it other than 'broken,' as if it were damaged and needed to be fixed, as if it lacked a certain wholeness and soundness. I've heard other terms used, 'limited English,' for example. But they seem just as bad, as if everything is limited, including people's perceptions of the limited English speaker.

I know this for a fact, because when I was growing up, my mother's 'limited' English limited my perception of her. I was ashamed of her English. I believed that her English reflected the quality of what she had to say. That is, because she expressed them imperfectly her thoughts were imperfect. And I had plenty of empirical evidence to support me: the fact that people in department stores, at banks, and at restaurants did not take her seriously, did not give her good service, pretended not to understand her, or even acted as if they did not hear her. (Tan 2)

After studying and discussing Tan's piece with students, emphasizing in particular Tan's mother's experience as a nonnative speaker, the teacher could then assign a personal essay in which students reflect on the intersections between language, race, and power in their own lives. They might discuss their own Englishes, comparing the language they use in professional settings or with friends versus the intimacy of family talk, critically examining how perceptions of those languages differ. If the students are native English speakers, they might otherwise discuss the experiences of their friends or family, who may have encountered linguistic racism in a fashion similar to Tan's mother.

In keeping with Baker-Bell's framework, as a follow-up activity to the personal essay, the teacher could next lead the class towards an interrogation of the notion of standard English – with a specific emphasis on “examining beliefs that underpin code-switching and language appropriateness” (Baker-Bell 82). Returning to Tan's essay, the teacher might use her notion of “all the Englishes I grew up with” as a way to introduce students to the concept of code-switching (Tan 1): how all language speakers adjust their speech depending on context, on what is considered “appropriate” for the setting. To begin, students might share examples from their personal essays where they compared language used at home versus language used in public. In so doing, the teacher could successfully scaffold student learning about how standard, mainstream English is preferred, even expected, in certain spaces while variations of the mainstream, including Chinglish, are used in more intimate or casual settings – which ultimately empowers white speakers and disempowers non-white speakers.

To extend study in Artifacts 4 and 5, the teacher might lead students towards observing that race influences audience perceptions of a speaker, regardless of how adept a speaker may be in code-switching. Tan addresses this point in “Mother Tongue” when describing how, as a student, she was encouraged to pursue fields of study besides English:

But I have noticed in surveys -- in fact, just last week -- that Asian students, as a whole, always do significantly better on math achievement tests than in English. And this makes me think that there are other Asian-American students whose English spoken in the home might also be described as "broken" or "limited." And perhaps they also have teachers who are steering them away from writing and into math and science, which is what happened to me. (3)

Despite the fact that Tan spoke English at school and performed “moderately well” in her English courses (Tan 2), it seems that Tan’s teachers were influenced by the perceived deficiency of Tan’s home language and, by extension, her race. Rather than encouraging Tan to pursue English studies as a way to improve her fluency, teachers instead steered her towards math and science, typecasting her into the stereotypical Asian student role.

Such is the nature of linguistic profiling, yet another concept worth discussing as part of teaching Artifacts 4 and 5. A useful resource to help students understand this concept is John Baugh’s TED Talk, “The Significance of Linguistic Profiling,” in which Baugh describes the relationship between language and housing discrimination. In his discussion, Baugh shows a video clip of a white man assuming linguistic guises, or accents, to inquire about available rental properties. Because the man conducts his inquiries via phone call, the only measure the rental company has to assess the caller’s qualifications is the sound of his voice; conveniently, the only accent that receives a positive response about apartment availability is that of the white accent. Interestingly enough, each linguistic guise, no matter the accent, adheres to standard English conventions – a point that should be emphasized with students. Acknowledging this point would reinforce the idea that race shapes audience perceptions of a speaker, regardless of code-switching tactics, thereby calling into question the effectiveness of this communication method.

Artifact 6

Baker-Bell writes that, for Artifact 6, “students will develop agency, take a critical stance, and make political choices that support them in employing Black Language for the purposes of various sorts of freedom, including dismantling Anti-Black Linguistic Racism” (35). At the heart of Artifact 6 is community activism – encouraging students to not only call out linguistic discrimination but also to help others do the same. Students achieve this political

engagement by “provid[ing] resources for community members for members to engage in the transformation of their neighborhoods” (Alim and Smitherman qtd. in Baker-Bell 86). As outlined by Bloom’s revised Taxonomy of Educational Objectives, the acts of creating and applying such community activism campaigns are more complex, challenging activities which require higher-level thinking skills (Armstrong). By participating in the recommended activities for Artifact 6 and practicing these skills, students implement as well as deepen their understanding of linguistic racism developed from previous artifacts.

Artifact 6: Practical Applications

Social media is a powerful tool for students to use as part of enacting Artifact 6. In fact, one of Baker-Bell’s own recommended activities is for students to “create a social media campaign using Facebook, Twitter, Snapchat, Instagram that promotes linguistic justice by exposing Anti-Black Linguistic Racism and Black linguistic appropriation” (87). To adapt Baker-Bell’s recommendation as well as modernize it, students could instead create a TikTok account (or Instagram or Twitter, other currently popular social media platforms) in which they make separate posts devoted to recognizing anti-Chinese linguistic racism and/or Chinese linguistic appropriation. Each post should seek to educate other users on the platform by explaining how the language usage is problematic, unpacking the power dynamics of the communicational context which privilege standard English and, by extension, whiteness. For instance, a student could create a post unpacking racist comments on an image of Chinglish signage. Or maybe they could duet a TikTok post of a non-Asian user imitating Asian accents. Using social media in this way – with the purpose of informing others – enables students to approach Baker-Bell’s intention of ultimately “dismantling . . . Linguistic Racism” (35).

Another recommended activity proposed by Baker-Bell is the creation of educational resources for younger audiences, such as children's books or graphic novels (87). While they do not focus specifically on linguistic racism, mentor texts that center Asian characters and are worth studying with students include Joanna Ho's *Eyes That Kiss in the Corners* and *Eyes That Speak to the Stars*, Kat Zhang's *Amy Wu and the Perfect Bao*, or even Gene Luen Yang's *American Born Chinese*, a text with which students should already be familiar since they encountered it earlier in Artifact 1. Providing students with these mentor texts prior to the development and drafting of their selected educational resource will allow students to familiarize themselves with genre norms. Furthermore, the mentor texts can serve as examples of how to tackle complex issues, like race and racism, with younger audiences.

Artifact 7

For Artifact 7, students “will develop a critical linguistic awareness and interrogate how other linguistically and racially diverse communities experience racial and linguistic violence and are impacted and are affected by linguistic racism” (Baker-Bell 35). Baker-Bell argues that the raising of such awareness – what she deems “language solidarity work” (88) – is critical to uniting communities of color continually marginalized and disempowered by white supremacist ideology. Article 7 thus builds on Article 6 by working towards the achievement of “various sorts of freedom” for all linguistically-minoritized communities (Baker-Bell 35): by acknowledging and raising awareness of linguistic racism at large, we can make more concentrated efforts towards encouraging and welcoming languages outside of standard, mainstream English.

Artifact 7: Practical Applications

As part of the seventh, final artifact, the teacher might adapt a more exploratory pedagogical approach, allowing students to pursue study as they see fit. In other words, the teacher challenges students to identify and examine occurrences of linguistic racism in speech communities of the students' own choosing. After studying other examples of linguistic racism, a student might share her findings with the class by preparing a presentation with supporting media and learning materials. This approach is most appropriate at the conclusion of an Antiracist Linguistic Framework because, by engaging in the previous six artifacts, students have developed a firm grasp of linguistic racism within their own speech community; Artifact 7 would then serve as a culminating research effort demonstrating the students' overall knowledge and critical awareness of linguistic racism by applying it in a different context.

The role of the teacher in enacting Artifact 7 would be to provide support and resources as needed. To help the students begin generating ideas for possible research avenues, the teacher could provide a list of linguistically-minoritized groups, such as Spanish speakers, African-American Vernacular speakers, etc. Depending on the size of the class, the needs of the students, and/or the pacing of the curriculum, the teacher might have students pursue study and offer presentations individually, in pairs, or in small groups. As the students begin researching and preparing their final projects, it is imperative that the teacher establish research criteria for students to help give focus to their exploratory process; these criteria might require the students to include in their research the same information examined in Artifacts 1-6, such as the relationship between language and identity (Artifact 1); language, history, and culture (Artifact 2); grammatical and rhetorical features (Artifact 3); and so forth.

Once students have completed the research process as well as offered their class presentations, the teacher should facilitate another discussion to solidify student learning. As part of this concluding conversation, students might reflect and identify overall takeaways gained by learning about linguistic racism in other contexts, those outside of Chinese-speakers' experiences. Ultimately, students should recognize that "antiracist social transformation cannot be based solely on supporting language-minoritized students in engaging in the linguistic practices of the white speaking subject but must also work actively to dismantle the hierarchies that produce the white listening subject" (Flores and Rosa 167).

Conclusion

As indicated by the tragic suicide of Chinese national student Zhikai Liu, mentioned at the beginning of this paper, in addition to the many other examples of anti-Chinese racism documented here as well as those undocumented, it is clear that Chinese Americans need a framework for challenging the linguistic racism unique to their speech community. April Baker-Bell's conceptualization of an Antiracist Black Language Pedagogy provides useful strategies and recommendations that can be easily adapted to suit the needs of Chinese Americans. Moreover, her work pushes back against problematic ideologies maintained by current approaches to language education, including monolingualism, assimilation, and respectability politics. By teaching students to recognize and resist the ways in which educational institutions enact violence against Chinese Americans and other minorities through language policy, educators can disrupt monolingual tendencies and begin to dismantle the white supremacist values such tendencies uphold. I have begun to lay the groundwork here by adapting Baker-Bell's seven artifacts, exploring their implications for Chinese American students and offering potential activities and relevant resources. Of course, in order to extend antiracist language

efforts, further work must be done, not only through the application of Baker-Bell's existing methodology to other speech communities but also through the continual interrogation of linguistic practices that privilege whiteness.

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Piece 2: Revised Version

A Framework for Supporting English Language Learners through Grammar-in-Context
Pedagogy and Culturally Competent Teaching

Introduction

Imagine that you are thirteen. Because your father got a new job, you and your family have recently moved to Russia. Naturally, you are anxious: You have had to say goodbye to your friends, home, school, and everything else once familiar to you. Not only have you had to adjust to the typical changes that accompany moving, but you've also had to acclimate to a new country, culture, and language. You've struggled with this last adjustment especially. You do not speak Russian. In fact, you have never uttered a word of it a day in your life, and your parents' knowledge of the language—although slightly more extensive than yours—is still limited in comparison to native speakers. Thus, you find yourself an outsider in a foreign land, estranged from those around you by both language and background.

As such, thoughts of the first day at your new school fill you with dread. How will you communicate with the new people around you? How will you complete your assignments and keep up with your peers? These questions race through your mind as the secretary hands over your schedule. Unfortunately, you do not understand what it says because it is written in the language you cannot read, let alone speak. You are then directed to your first class, where the teacher speaks and teaches in Russian. She seems to be asking the class a question, but you cannot tell for certain, and your new classmates respond to her in kind—speaking the language that you do not. You feel confused, frustrated even, as you observe and copy what your peers are doing since you cannot follow the teacher's directions.

You proceed in this way class after class, year after year, acquiring a little bit of the dominant language here and there. Still, you have yet to achieve fluency. Doing so seems impossible given the fact that your teachers hold low expectations of you and continue to take off points on your papers for “poor grammar.” You have been labeled an inferior student and a bad writer. Consequently, you are discouraged as well as reluctant to participate in any activity that requires you to put your thoughts into words.

In the American writing classroom, such is the plight of English language learners.

There is much work to be done if teachers are to better serve these students, as the above anecdote demonstrates. Classrooms of today are increasingly diverse, and the traditional method of teaching—a one-size-fits-all approach—is no longer viable, especially when those in the class possess varying levels of English fluency. In fact, the National Center for Education Statistics reports, “Forty-one percent of the nation’s classrooms have at least one English language learner”, or ELL (qtd. in Trumbull and Pacheco 1). It would be remiss to assume that effective instruction for a native speaker would look the same for a student still acquiring the language, argue Elise Trumbull and Maria Pacheco of The Education Alliance (20). For ELLs, the teacher must adjust her pedagogy accordingly to encourage language development as well as the acquisition of content knowledge. In the context of the writing classroom, such an adjustment necessitates targeted instruction that equips students with concrete strategies they can use in their writing. Because ELLs oftentimes belong to minority groups, writing instruction further requires a heightened sensitivity to students’ cultural and racial/ethnic backgrounds, maintaining awareness of how said backgrounds might influence language usage. Thus, a combination of grammar-in-context pedagogy and culturally competent teaching provides a useful framework for teaching English language learners how to write. By adopting such a framework in an

English classroom, educators provide a supportive learning environment in which all learners can thrive.

Grammar, Writing, and the Acquisition of Language

Any discussion of teaching grammar in context warrants a discussion of grammar itself, the mention of which oftentimes engenders negative reactions, for most people associate “grammar” with rules and hypercorrection. Weaver and Bush, however, define grammar as more than the *dos* and *don'ts* of a language; rather, grammar is a language’s syntax or *structure*, “how words combine to make meaning” (1, emphasis added). By contrast, Youssif Zaghwani Omar assumes a prescriptive definition, claiming that grammar connects style to content “through the use of grammatical rules or punctuation . . . These finite rules, of course, help users of language use several styles and structures for one form and help them reveal their own voice through diversity of syntactic structures and grammatical rules” (216). Omar’s understanding of grammar is indicative of a deeper learning for ELLs, for he suggests that a skilled language user demonstrates fluency not only in the language itself but also in rhetoric and style. In Omar’s view, then, the duty of the writing teacher includes making explicit for ELLs the connection between grammar and other elements of writing, such as tone, purpose, and the like.

This connection between grammar and writing lies at the heart of grammar-in-context pedagogy. Such pedagogy treats grammar not as a subject separate from reading and writing but “as both an integrated component of language arts skills . . . as well as an important aspect of students’ day-to-day language experiences” (Crovitz and Devereaux 3). Put another way, grammar-in-context pedagogy rejects traditional, isolated grammar instruction—i.e., drills, sentence diagramming, worksheets, etc.—and instead advocates a holistic approach that views grammar as a thread in the tapestry of communication.

For ELLs, teaching grammar in context aligns closely with whole language learning, an effective approach to teaching literacy and language recommended by The National Clearinghouse for Bilingual Education (Anstrom 6-7). As the name suggests, whole language philosophy views language as a whole, which means that the different ways of using and engaging with language, in its oral as well as written forms, “should be integrated when learned” (Patzelt 3). This integration in the classroom calls for the synchronous practice of speaking, listening, reading, and writing, the goal of such practice being the provision of meaningful experience with a language, the kind of experience that mimics real-world communicative contexts. As Karen Patzelt describes, “When language is broken down into separate skills, the learner can neither appreciate nor comprehend it fully” (4). The same argument can be made for teaching grammar through writing: ELLs do not acquire language by labelling gerunds in a grammar workbook; rather, they achieve fluency by practicing the language, by learning then using various grammatical elements to enhance communication.

Beyond Grammar-In-Context: Linguistic Pluralism and Native-Language Affirmation as Culturally Competent Teaching

Though a grammar-in-context approach seems most appropriate for English language learners, this pedagogy alone is insufficient. As Trumbull and Pacheco observe, still more can be done to better “meet the learning needs of those students for whom disparities in achievement still persist” (1). To help close the achievement gap, Trumbull and Pacheco propose the implementation of culturally competent teaching. More specifically, when providing instruction to ELLs, teachers must maintain sensitivity to students’ cultures and racial/ethnic backgrounds, taking into consideration how said backgrounds might impact learners’ experience in the

classroom as well as with language. In so doing, Trumbull and Pacheco argue, teachers will provide a higher quality of education to minority students who schools systemically underserve.

For the writing teacher, one aspect of culturally competent pedagogy includes an awareness of the politics of his discipline. In his discussion of bilingual education, James D. Williams describes the conflict between monolingualism and linguistic pluralism. Advocates of the former claim that “assimilation is necessary if non-English-speaking children are to have any hope of enjoying the socioeconomic benefits available to those who have access to higher education and professional jobs, for which fluency and literacy in English are fundamental requirements” (Williams 216). On the other hand, those who support the latter notion of pluralism view assimilation as self-denial, pointing out that “to ask children to assimilate into the English-speaking mainstream is to ask them to lose their identity and their cultural heritage” (Williams 216). This dichotomy between mono- and multilingualism poses an ethical dilemma for the writing teacher: Should he ask students to sacrifice their native language and, in effect, their identities? Isn’t teaching English to non-native speakers imposing a “hidden curriculum” that advocates the superiority of the dominant language over students’ native language (Trumbull and Pacheco 14), and is this not inherently racist? But what about the writing teacher’s responsibility to those in his class—to prepare them for communicative contexts beyond the classroom? When serving ELLs, which philosophy then is the best to adopt: monolingualism or linguistic pluralism?

Research on culturally competent teaching favors pluralism. Trumbull and Pacheco, when defining tenants of culturally competent teaching, elaborate that the teacher “values and fosters first-language use and development” and also “supports ELL students’ ongoing English language acquisition” (29). Instead of providing a monolingual learning context, one that forces

multilingual students to choose between their first and second language (L₁ and L₂, respectively), the writing teacher should communicate clearly the value of both, encouraging usage as well as fluency in each. By doing so, teachers affirm their students' competency in L₁ while also acknowledging their potential for competency in L₂. Such affirmation is critical to fostering classroom community, building individual student-teacher relationships, and motivating students to engage in their learning, all of which are key components of a successful writing course.

Grammar-in-Context, Culturally Competent Teaching: Recommendations for Application

As mentioned above, the context of a diverse, multilingual writing classroom necessitates the usage of a grammar-in-context, culturally competent pedagogical framework. While the need for such an approach is clear, some educators may be dismissive, viewing this proposition as idealistic. Further, they may argue that this teaching approach is neither sustainable nor viable given the demands of an already-challenging task: teaching writing. That being said, the application of a grammar-in-context, culturally competent pedagogy is not intended as another complex, seemingly impossible educational initiative; it is not one that piles additional work on top of a teacher's already extensive to-do list. Rather, instructors can effectively carry out this educational approach by implementing a variety of simple, low-preparation strategies in the classroom. In the following sections, I outline six such recommendations for implementing a culturally competent grammar-in-context pedagogy: through discussion, response to student writing, cognate study, invented spelling, mentor text study, and workshopping.

i. Discussion

In the multilingual classroom, affirmation of students' first language is possible even when the instructor does not speak that language. The less-structured, conversational setting of

small-group discussion, for instance, can be used to achieve this end. This practice is beneficial to students for two reasons: first, small-group discussion provides “a low-stakes way of ensuring that all students have the opportunity to actively engage with course material and their peers” (Harvard Graduate School of Education). Second, the small group setting provides a safe space for multilingual students to converse using their first language, as well as practice acquisition of English, if paired with students from the same speech community. Learning in small groups also allows for increased content learning, skill development, and retention (Simonson qtd. in Harvard Graduate School of Education). For ELLs, the benefits of small-group discussion are clear: the students are able to practice not only content mastery but also language and grammar mastery.

To extend the benefits of small-group learning, students can also participate in a whole-class discussion. In this larger group setting, students could again share, repeating insights gained from small-group discussion, while the instructor facilitates the conversation and synthesizes student findings. In the whole class setting, multilingual students should feel welcome to use their first language (if they feel comfortable), translating for the class as they speak. This language-sharing practice is beneficial to both native and non-native English speakers because it provides valuable cultural insights. As Rogoff points out, “Understanding how aspects of culture can vary sheds light on variation in how students learn” (qtd. in Trumbull and Pacheco 5). When the teacher better understands these variations in students’ learning styles, she can design instruction that more effectively targets their needs. Additionally, exchanging cultural knowledge through language enables teachers to “find common ground” and better connect with students and families, as well as ensure that curriculum content engages students and connects with their interests (Trumbull and Pacheco 5). However, prior to implementing this language-sharing

practice, the instructor should make clear that the act of translation should not be viewed as a burden, an additional responsibility, for ELLs; instead, the sharing of a student's first language is intended as a learning opportunity for students to engage with the material in a way most comfortable to them.

ii. Responding to Student Writing

In relation to grammar-in-context pedagogy, culturally competent teaching additionally requires a shift in how instructors respond to errors in ELL writing. Composition studies' research from the past sixty years has consistently shown that the corrective, or "red pen," approach makes little to no improvement in students' papers, regardless as to whether they are native or non-native speakers. In his study of eleventh graders' responses to teacher comments, Thomas Gee concluded, "Negative criticism and no feedback caused students to write less than students who were praised" (42). His research findings indicate that a focus on error marking/correction cripples a novice writer's development, destroying not only their confidence but their motivation to write. Particularly for English language learners, corrective methods are detrimental: "From the outset, ELLs experience corrections or ridicule which, to different degrees, discourages participation in English and inhibits their progress" (Ballantyne et al. 29). Thus, the writing teacher who focuses on the errors in an ELL's paper stunts the growth of the student not only as a writer but as an English speaker. By contrast, the teacher who praises a student's attempts to use the second language, however indicative of struggle these attempts may be, encourages the student to continue practicing writing.

When teaching grammar through writing to non-native speakers, the culturally competent teacher should emphasize, perhaps even embrace, the role error plays in the learning process. Jason Roche and Yadira Gonzales assert, "English language learners will naturally exhibit

interlanguage features—features that differ from, or do not exist in, a ‘standard’ variety of English but that instead reflect the process of acquiring English as a second language” (264). Thus, the “errors” in ELL writing are not actually mistakes; rather, they are evidence of students’ attempts to either transfer knowledge of L₁ to L₂ or to practice applying the grammar of L₂. According to Roche and Gonzales, such risk-taking, and the mistakes that will naturally accompany it, should be validated—not denigrated. If teachers fail to rethink error in this way and continue to emphasize an ELL’s weaknesses, the child will come to resent writing and, eventually, school. As William Dusel eloquently puts it, “Consciously or subconsciously the pupil seeks to avoid those situations which undermine his self-respect or which remind him of his immaturity. He should not be made to fear to express himself in his native language” (215-16). Though Dusel speaks of writers at large, not necessarily ELLs, his remarks regarding a student’s “native language” emphasize the fact that interlanguage in its various forms should be treated as a natural and necessary step towards achieving fluency. Furthermore, Dusel draws attention to the gravity of positive teacher response to student error, especially for English language learners who may be tentative to express themselves in a language they have not yet fully mastered.

Rather than correcting students’ attempts to use the grammar of L₂, teachers who implement culturally competent, grammar-in-context pedagogy should focus instead on fostering communicative competence. A report from The National Clearinghouse for English Language Acquisition defines communicative competence as an approach to teaching writing that values “communication and production rather than the correction of every mistake” (Ballantyne et al. 29). Similarly, in his suggestions for responding to student writing, Dusel recommends that teachers highlight “the importance of purpose and idea in written composition” (218). Only when

a student knows what she wants to say can she become invested in how to effectively say it.

Again, though a seemingly antithetical methodology, students learn the structure and patterns of a language not through isolated grammar practice but through a holistic approach, one that supports language acquisition by treating meaning and grammar as complementary.

As previously mentioned, teacher response to student writing plays an important role in an ELL's language development; when giving feedback, teachers should primarily praise and affirm non-native speakers in their writing so as to encourage continuous L₂ usage and acquisition. Richard Straub, however, argues that teacher feedback to student writing should be more than positive—it should be conversational. In his view, the ideal conversational response imparts an “informality” through the “minimal use of technical language and teacher talk,” using instead “common, everyday language” (Straub 340). The usage of casual, everyday language has major implications for teaching non-native speakers. If the student cannot understand the teacher's jargon-crowded comments, the feedback then becomes pointless. Yet when the teacher uses accessible language in her feedback, the act of reading and processing such comments will help ELLs learn about the course content of writing as well as the language itself. Put another way, the teacher's response to the student's writing, whether in the form of marginal comments or an end note, can itself serve as a model for grammar used in context.

Straub further describes the ideal conversational response as one that “talk[s] *with* the student rather than talk[s] to him or speak[s] down at him” (340). In other words, Straub sees conversation as an exchange between two equals, a belief critical when serving ELLs who may differ from the teacher in language as well as cultural and racial background. Again, this awareness of the politics of the classroom—specifically an acknowledgement of the dynamics between culture, race, and education—comprises tenets of culturally competent pedagogy.

Instead of prescribing specific revisions, the culturally competent teacher would make suggestions while also asking questions, inviting the student into “a give-and-take-discussion . . . that defines both parties as investigators” (Straub 343). In this way the teacher keeps the focus of writing on the student’s communicative competence, or on purpose and meaning, rather than error identification and correction (Ballantyne et al. 29), promoting therefore a holistic view of language that supports grammar acquisition as part of language development. Additionally, and perhaps most importantly, conversational response enables the teacher to decenter herself as an authoritative figure while keeping ownership and control over the writing process in the hands of the student. When the student feels respected as an expert in her own right, when she feels trusted to make her own decisions about her writing, authentic learning occurs as she begins experimenting with her second language.

iii. Cognate Study

Writing teachers can further support English language learners in their development of several subtopics related to the broad notion of “grammar.” These subtopics include morphology (word formation and vocabulary development), orthography (spelling), and syntax (sentence structure) (Freeman and Freeman 18). To aid ELLs in the first subtopic, L₂ morphology development, research suggests that teachers guide students to recognize and study cognates (Freeman and Freeman 18, Ballantyne et al. 31). In a diverse classroom setting, with multilingual speakers from a variety of backgrounds, this examination of cognates should be embedded into text study/read-aloud activities in order to be most effective. Ballantyne et al. recommends the following:

In order for vocabulary instruction to be effective, words should be taught in context with sufficient time for rehearsal. A student is much less likely to

remember a list of arbitrary vocabulary words than words that are taken from a chapter that they are reading, writing about and discussing in class. In learning a new word, a student must hear it, say it, be able to use it in a sentence, and notice something about it (i.e., prefix, cognate, part of speech, etc.). Repetition is essential, but always should be contextualized in meaningful ways. Because these words are pulled from the current unit, they will tend to be recycled and repeated naturally. (34)

As Ballantyne recognizes, context is essential to cognate study. Because the teaching of cognates builds on ELLs' prior knowledge, this strategy leads to more meaningful learning, as it challenges students to make the connection between a word they already know in L_1 and its cognate that may have a similar or related meaning in L_2 . Additionally, cognate study helps non-native speakers to “quickly . . . augment their vocabularies” (Ballantyne et al. 31). When ELLs have a large store of words from which they can draw, they can make more careful decisions regarding semantic choice, defined by the World-Class Instructional Design and Assessment Consortium (WIDA) as “the selection of words to convey meaning” (47). Such attention to diction will help ELLs become more advanced writers as they learn to experiment with word choice for stylistic and rhetorical purposes.

The embedded teaching of cognates likewise contributes to development in the other subtopics related to grammar. For instance, cognate study can lead to a discussion about prefixes, suffixes, stems, and root words, elements of word analysis that aid in orthography, or spelling (“Part III” 31). Though not necessarily related to grammar, word identification, decoding, and ultimately reading comprehension are also products of cognate study. For instance, when a native Spanish-speaking student recognizes the connection between the Spanish *sol* and the

English *sun*, she can then begin to grasp the meanings of words like solarium, solstice, and parasol. This understanding, combined with consistent word exposure, can eventually lead to usage as the student adds more words to her vocabulary. Moreover, if this same student, while studying the cognates *familias* and *families*, realizes that both words end in the morpheme -s, she has identified a grammatical pattern present in both her native and acquired language: that an -s is added to the end of a word to indicate plurality. In this way the teaching of cognates and, in effect, grammar-in-context pedagogy helps non-native speakers progress as writers as well as readers.

As the above example illustrates, this embedded cognate study would be most easily achieved in the multilingual classroom where non-native English speakers all share the same first language. By extension, cognate study can also be easily implemented in a classroom containing students who speak languages from the same family – like Italian, French, and Spanish. But even in circumstances where the language demographics are more diverse, cognate study is nonetheless possible—so long as the instructor raises students’ awareness of cognates, challenging them to identify these words as they read, study, and discuss in class.

iv. Invented Spelling

In addition to providing cognate study, teachers can help ELLs develop orthography skills by encouraging the usage of invented spelling. In the context of teaching writing, the aim of invented spelling, or spelling based on letter sounds, is not to correct language usage but to encourage it. By coaching non-native speakers to use invented spelling, teachers challenge them to engage in a “complex developmental skill” (Ouellette 92) whereby students apply their working phonetic knowledge of the acquired language in new writing contexts. Non-native

speakers need this consistent practice of transcribing sounds to letters to achieve fluency in the written language of L₂.

Some educators may hesitate to use this strategy in their teaching out of concern for the students, worrying that the usage of inventive spelling perpetuates what they see as ELLs' weaknesses. Such concern is certainly valid: Why would teachers purposefully tell their students to do something incorrectly? Again, being "right" or "wrong" is not the point – the goal of invented spelling is to practice, and it is this continual practice that leads to language mastery. Furthermore, regardless as to whether writing instructors promote inventive spelling in their classrooms, it will manifest nonetheless in ELL writing. The WIDA describes inventive spelling as a feature "common" to language development which "demonstrates that students are learning certain rules and are closer to approaching actual spelling" (Ballantyne et al. 29). Only when teachers respond positively to a student's attempts to spell a word will the student be motivated to learn the word's true spelling, thereby acquiring a language's grammar in manageable increments.

The research findings of Ouellette confirm the value of this affirmative approach. In the latter half of his two-part study, Ouellette examined the progress of 69 non-reading kindergarteners divided into three separate groups: an invented-spelling group, a phonemic awareness group, and a control group who, instead of writing words, drew what those words represented. Each group received a total of nine interventions spanning a three-week period; after receiving instruction, students were assessed using a post-testing method in which they completed a series of tasks. Not only did those in the first group use more advanced invented spelling and demonstrate higher levels of phonemic awareness, but also they outperformed the other two groups on a word-learning task. From these results, Ouellette concludes that invented

spelling “benefited phonemic awareness, orthographic awareness, and reading of words used in the training protocol” and therefore “offer[s] a powerful context in which children learn valuable phonemic awareness skills” (87). Further, the “exploratory nature of invented spelling also encourages children to use an analytical approach and integration of knowledge (and representations) in the areas of phonology and orthography. This in turn, may benefit children when it comes to learning how to read” (91).

Thus, the usage of invented spelling in the writing classroom, and the reciprocal relationship between writing and reading such usage represents, is aligned with the goals of a grammar-in-context, culturally competent teaching approach, for it treats grammar as an “integrated component of language arts skills” (Crovitz and Devereaux 3).

v. Improving Mentor Text Study: Careful Curation, Reader Response, and Instructional Conversation

To help ELL students develop command of both syntax and semantic choice, other indicators of language fluency, English teachers should also provide mentor texts and/or sentences as models for students to study as well as emulate. Prior to asking students to produce a creative piece about their names, Roche and Gonzales for instance have their classes read writing that centers around themes of identity, featuring professional authors such as George Ella Lyon, Maya Angelou, Tupac Shakur, and others. Roche and Gonzales scaffold class discussion and study with their ELLs by initially responding to a given text post-reading to generate student interest and to draw text-to-self and text-to-world connections. After engaging in reader-response, they reread the piece as a class, homing in on the author’s craft and style as well as these choices’ rhetorical effects, asking “*What do we notice?*” (Roche and Gonzales 268). The class, with teacher support, discusses then documents their observations (i.e., in a T-chart),

making students' learning concrete by providing them with a physical document to which they can refer while writing. After students have engaged in this process of reading, studying, and discussing models, they are free to begin drafting.

While the Roche and Gonzales methodology is designed specifically for the ELL classroom, their approach is also applicable to a general writing classroom containing multilingual students. Further, their methodology illustrates several key points regarding writing instruction designed to support ELLs in this general class setting. First, the texts used for model study/imitation should be carefully curated: They must be appropriate for the students, meaning that the texts should be not only relevant and interesting but also accessible, depending on students' L₂ fluency. For a number of reasons, it would not be best practice to use an excerpt written in Middle English from Chaucer's *The Canterbury Tales*, just as it would not be appropriate to study Margaret Wise Brown's *Goodnight Moon* with high school juniors in their third year of receiving ESL services. For example, when working with a group of Hispanic ELL students in the general writing classroom, the culturally competent teacher might instead use a text written by an author of color, one with a background similar to the students, such as Sandra Cisneros. This is not to say that all selected model texts should be written by an author from the same race/ethnicity as the multilingual students, but that the teacher should be attentive to representing as well as affirming students' backgrounds, striving to provide a diversified body of literature to minorities not normally featured in the canon.

Furthermore, the teacher should carefully select a model text that aligns with, or is at a level slightly above, their ELLs' current stage of language acquisition. Doing so will help the teacher ensure that she provides developmentally appropriate, sound instruction, which is not always the case. In her study of basal readers used to teach fourth and fifth-grade ELLs, Sandra

Stotsky found a “serious decline in the number of complex words taught . . . and an overall limitation of vocabulary” (qtd. in Williams 221). Such oversimplification is insulting, for it underestimates the students’ potential to achieve fluency. When the design of a teacher’s curriculum holds low expectations for students, especially non-native speakers, that teacher ultimately perpetuates educational inequities and disadvantages her already-underserved students.

Second, Roche and Gonzales’s approach indicates that the placement of the reader-response step is crucial to the success of any attempt at grammar study. Such emphasis on reader-response confirms the findings of Harbour et al., who list “providing opportunities to respond to curricular content” as an evidence-based practice for maximizing student engagement and success (5). In other words, a student cannot begin to study an author’s usage of either sentence variety or word choice if he does not understand initially what the author is trying to say and how that message holds meaning in the context of the student’s life. An effective writing teacher should then strive to foster student investment in a text (via reader-response) before pursuing an examination of the text’s grammar, and it is this attention to building investment, or context, that distinguishes teaching grammar in the construct of writing as an effective framework for non-native speakers. In their research on supporting English acquisition, the Rochester Institute of Technology suggests the usage of “before-reading” activities as an effective method for building context and motivating students to read. Specific RTI-recommended strategies include activating schema (prior knowledge) through free-writes and discussion, challenging students to make text predictions, and asking students to develop questions prior to reading. In the same way these before-reading activities build student

investment in reading, Roche and Gonzales's strategic reader-response placement builds student investment in writing.

Central to Roche and Gonzales's methodology is instructional conversation, the third key point about ELL writing instruction. The Center for Research on Education, Diversity, and Excellence (CREDE) lists the emphasis of dialogue over lectures as an ideal for effective teaching (qtd. in Trumbull and Pacheco 16). This teacher-student and student-student conversation provides a number of benefits, including meaningful L₂ language practice and the fostering of a positive, collaborative learning environment, one in which every person—even the teacher—engages in the practice of sharing, interpreting, and discussing. In the same way that reading response builds context for grammar study, so too does instructional conversation. ELLs need this context if they are to learn how to carefully select a word or structure a sentence to advance their purposes in writing. If a teacher does not provide opportunities for instructional conversation, thereby failing to scaffold model study, students will struggle to understand what specifically about the model they should imitate in their own writing, rendering model study ultimately useless.

vi. Classroom Workshop

To further support ELLs' language acquisition, teachers can incorporate a classroom workshop approach as another way of merging dialogue and a grammar-in-context pedagogy. Williams describes the effectiveness of this model of ELL writing instruction as follows:

If nonmainstream writers are to learn to negotiate with a text successfully, they need instruction that encourages risk taking. They need a methodology that promotes a high degree of interaction with the teacher and with peers, that allows them to write multiple

drafts, to receive feedback as each draft is being developed, and to revise. The only environment that currently incorporates all these features is the classroom workshop.

(255)

The classroom workshop is conducive to teaching grammar in context because it encompasses all elements of effective ELL writing instruction previously outlined: teacher response to student writing, the establishment of a positive learning environment where students feel safe to take risks, and the consistent incorporation of instructional conversation. The classroom workshop approach is further effective in that it allows the teacher flexibility not afforded in typical instruction methods. Due to the complex and fluid nature of language acquisition, ELLs in a multilingual class will possess varying levels of L₂ fluency; no two students will be the same in terms of usage and interlanguage patterns. As such, the teacher cannot expect whole-class instruction about one grammatical element to consistently benefit all students: Some may have already mastered subject-verb agreement yet struggle with proper pronoun usage, while others may have a firm understanding of pronouns but struggle with subject-verb agreement. And still there may be a third group who lacks knowledge in both of these areas. The classroom workshop approach addresses this complexity by enabling the teacher to provide more targeted, relevant support in grammar and writing. She can group ELLs based on their needs or their strengths and then rotate between each group, helping where needed. For those students not working currently with the teacher, they receive support and interaction in their groups from their peers who, in the process of collaborating, may come to a deeper understanding about writing. In the classroom workshop, the teacher might even pull students individually from their groups to conduct writing conferences, informal conversations about the students' work. These conferences provide

another opportunity for teaching grammar in context, one that is more intimate, memorable, and relevant to the individual student.

In terms of culturally competent teaching, the classroom workshop seems the most appropriate method of instruction. For it decenters the role of the teacher from dictator to facilitator or coach which, in turn, empowers ELLs to become actively involved in their learning. The classroom workshop regards these students not as deficient speakers of a language but as novice writers with potential, each of whom holds expertise they can impart to their peers. In this environment, grammar instruction is reinvented from a dull subject separate from reading and writing to one that is interactive and essential to language usage.

Conclusion

While teaching grammar in context certainly helps ELLs become stronger writers, it also helps them become more fluent language speakers. However, a grammar-in-context pedagogy alone is insufficient to serve these systemically disadvantaged students. Teachers also need to be culturally competent, maintaining awareness of non-native speakers' cultural and racial/ethnic backgrounds while considering how such backgrounds factor into the politics of teaching writing. Teachers can adopt a grammar-in-context, culturally competent framework not only by changing how they respond to student error but also by rethinking the concept of error itself, treating it as a component necessary to language acquisition. Specifically, teachers should seek to affirm non-native speakers' attempts to use their second language and encourage them to take risks, focusing on building students' communicative competence rather than marking their mistakes. Research-based recommendations for teaching grammar in context include teaching cognates, encouraging invented spelling, providing models, and incorporating instructional conversation. Furthermore, a classroom workshop best aligns with the ideals of grammar-in-

context, culturally competent teaching. It is imperative that teachers implement this framework so as to provide non-native speakers with the communicative tools they need to succeed beyond the classroom. When teachers fail to provide culturally competent grammar instruction, they further marginalize their minority students by denying them access to spaces where fluency in the dominant language is expected.

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Piece 3: Revised Version

Racial Economics: Corporate Capitalism and the Destruction of Black and Brown Communities
in *Days of Destruction, Days of Revolt*

Introduction

“The only wheels which political economy sets in motion are *avarice* and the *war amongst the avaricious - competition*,” notes Karl Marx in “The Philosophic and Economic Manuscripts of 1844” (718). Such is the reality of the world captured by Chris Hedges and Joe Sacco’s *Days of Destruction, Days of Revolt*, an incisive critique of corporate capitalism in a post-industrial, profit-thirsting America. With a focus on racial/ethnic minorities, Hedges’s journalistic narration combined with Sacco’s illustrations expose the poverty, destruction, and exploitation occurring in various cities across the nation. The sections “Days of Siege” and “Days of Slavery” are of particular note here, as they command attention to America’s ongoing economic paradox: outsourcing labor overseas while simultaneously exploiting migrant workers, all in the interest of maximizing profit. Conveniently for those in power, the casualties of this paradox—of the very war Marx acknowledges—are Black and Hispanic communities. Indeed, the systems of oppression governing race relations and the distribution of wealth are not mutually exclusive, as evidenced by the anecdotes and data constituting Hedges and Sacco’s work. “Days of Siege” and “Days of Slavery” therefore serve as a testament to systemic racism, revealing the process by which the complex interactions between race and economics uphold white dominance while furthering the subjection of minorities.

“Days of Siege”

The Outsourcing of Labor: Diaspora and Displacement

Reflecting on cultural identity and diaspora, Hall observes, “[W]hat we share is precisely the experience of a profound discontinuity: the peoples dragged into slavery, transportation, colonisation, migration, came predominantly from Africa—and when that supply ended, it was temporarily refreshed by indentured labour from the Asian subcontinent” (227). In “Days of Siege,” Hedges and Sacco show this same process modernized in Camden, New Jersey. Even though there was no shortage of local labor, or “supply,” major businesses abandoned the city (and others across the country), relocating to factories overseas and hiring employees there who could be underpaid, overworked, and exploited. In the pursuit of maximizing profit, these corporations not only deny Camden residents economic opportunity but also enact a system of indentured labor in other countries. Upon initial consideration, the decision to outsource labor seems antithetical to slave-trade efforts: Why dislocate jobs to Bangladesh, for instance, when an abundant workforce already subsists in the United States? The answer can be found in the intersections of economics and race.

Such corporations significantly contribute to American systemic racism as evidenced by the outsourcing of labor. By moving production and labor to other countries, Black individuals in Camden and other post-industrial cities experience a double displacement of sorts. Returning to Hall’s notion of “discontinuity,” a Black Camden native may suffer this twofold displacement as a descendant of the African American diaspora first and a member of the American workforce second. Not only must the city’s Black citizens navigate their racial identity in an anti-Black country, whose success is founded in part on the enslavement and blood of African peoples stolen from their homeland, but also they suffer the insult of being knowingly overlooked by potential employers—those who value cheap labor over supporting American workers. It is interesting to note that the same anti-Black racism governing the plantation economy persists in

the modern manufacturing industry, in spite of the supposed advancements made by the Civil Rights Movement. As Hedges observes, “Economic segregation is the new, acceptable form of segregation” (76). Though the American economy and its industries have significantly adapted from the eighteenth to twenty-first century, the desire to deny Black people economic opportunity remains central to the nation’s commercial priorities.

Poverty, Systemic Racism, and the Colonial Experience

Camden’s Transitional Park, or homeless encampment, and the glaring poverty that it represents, typifies the displacement and othering of the city’s Black inhabitants. Hedges and Sacco report that although this gathering of tents technically breaks the law, Camden city officials allow the residents to stay—even adding to the current population by bringing in released inmates to the encampment if they have no home to which they can return. Hedges writes:

The violence of the state—brute force, internal colonies from which the poor can rarely escape, and massive incarceration—is countered with the street violence of the enraged. These internal colonies funnel the dispossessed into prisons and out again in a circular system that ensures they never escape from the visible and invisible walls that hem them in like sheep. Brutalized on the street, sometimes brutalized at home and brutalized in prison, they strike out with a self-destructive fury. Since most lack education and a huge proportion are branded by the state as convicted felons, there is no place for them to go other than where they came from. (64)

It is no coincidence that a disproportionate amount of African American males – one out of every three (Hedges and Sacco 64) – are sent to prison and, upon release, are condemned to dwell in a

tent in a city where drug dealing, violence, and gang activity run rampant. That Camden funnels most of its budget towards the police department further problematizes this schema (Hedges and Sacco 76), making it insurmountable to break free of this system. Thus, as “Days of Siege” highlights, the local government remains complicit in, as well as contributes to, the marginalization of its Black constituents, entrapping them in systems of oppression from which they cannot escape.

Such process of entrapment echoes Hall’s understanding of “the colonial experience”:

Not only, in Said's 'Orientalist' sense, were we constructed as different and other within the categories of knowledge of the West by those regimes. They had the power to make us see and experience *ourselves* as 'Other' . . . It is one thing to position a subject or set of peoples as the Other of a dominant discourse. It is quite another thing to subject them to that 'knowledge,' not only as a matter of imposed will and domination, by the power of inner compulsion and subjective con-formation to the norm. (225-226)

Even the physical layout of the city mimics the positioning of Camden’s Black citizens as the dominated “Other.” As Hedges reports, a multilane highway passes through Camden, and while this main road provides necessary shelter to those living below in the Transitional Park, it also conveniently conceals them—and the squalor in which they live—from passerby view. While the commuters above are free to drive in and out of the city, the homeless below remain stagnant and trapped, lacking in socioeconomic mobility. The fact that the park has a self-declared mayor, who imposes rental charges for tent usage and strictly enforces a set of “laws,” indicates that the time one spends in the homeless encampment is not as transitory as the camp’s name otherwise suggests.

Manufacturer Abandonment and the Destruction of Black Community

This lack of socioeconomic mobility, according to Hedges and Sacco, is in due part to the decades-long process of manufacturer abandonment that occurred in Camden during the twentieth century. By withdrawing from the city and, consequently, leaving it an impoverished wasteland, businesses first initiated and then perpetuated the destruction of Black community. Observing the paradox of similarity and difference that frames black Caribbean identities, Hall writes, “[I]t was the uprooting of slavery and transportation and the insertion into the plantation economy (as well as the symbolic economy) of the Western world that ‘unified’ these peoples across their differences, in the same moment as it cut them off from direct access to their past” (227). For the Black natives of Camden, this sense of “unity” no longer exists and cannot be realized. Thus emerges another effect of corporate capitalism: Rather than experiencing empowerment through a sense of collectivity, these individuals feel defeat at the “disjuncture and difference” from their own people (Appadurai 1180). Although the outlawing of slavery did indeed free slaves at the end of the Civil War, the implementation of other divisive means ensured that these individuals and their descendants would never achieve equality with their white counterparts (i.e., Jim Crow, redlining, school-to-prison pipeline, etc.).

For Camden, such means come in the form of debilitating poverty. Poverty leads to violence, and violence leads to division. In the words of Arjun Appadurai, “One man’s imagined community. . .is another man’s political prison” (1181). The establishment of community for the Black residents of Camden would indeed function as a kind of imprisonment for white supremacy, whereby this racist ideology would no longer reign free. However, the “violence of poverty” forestalls the establishment of any unification, leading instead to intragroup alienation (Hedges and Sacco 65). With no sense of community to rely upon, one must fend for themselves,

sometimes finding “community” not with others of the same racial background but with self-serving gangs, who have no interest in establishing a cultural identity or engaging in a collective revolt against institutionalized oppression. Instead, these gangs concern themselves with warring amongst each other in the hopes of asserting power. The capture, brutal beating, and eventual murder (by gunshot and choking, respectively) of Michael Hawkins and Muriah Huff, at the hands of the Lueders Park Piru Bloods, serves as a case in point; Hawkins’s supposed involvement with a rival gang served as justification for his violent death as well as Huff’s, his girlfriend (Hedges and Sacco 62, 64). In deserting Camden in the interests of corporate capitalism, leaving its black citizens not only destitute but pitting them against each other, corporations thereby destroy Black community at large. Just as their enslaved ancestors were “cut...off from direct access to their past” (Hall 227), so too are the Black inhabitants of Camden.

The Outsourcing of Labor: Global Imperialism as the Advancement of White Supremacy and Capitalism

Complicating the interactions between race and economics in Camden is the inherent imperialism associated with globally outsourcing labor. Apparently, the impoverishment, destruction, and suffering of the Black community is not sufficient for capitalist tyrants—they insist on taking their devastating touch a step further by sending it overseas, all in the name of profit. This corporate expansion—or invasion, rather—into other nations reflects Hall’s conception of the *Présence Européenne* and *Présence Americain*, both of which shape black Caribbean identities (230). The former “belongs irrevocably to the ‘play’ of power, to the lines of force and consent, to the role of the *dominant* . . . [It] is about exclusion, imposition and expropriation” (Hall 232-233). The latter, the “place of many, continuous displacements . . . the displacements of slavery, colonisation and conquest” with “silences” and “suppressions” (Hall

234). The devastation of corporate conquest, of the American and European presence, materializes in poor working conditions, including low wages, union busting, and unsafe environments leading to health issues (Hedges and Sacco 72). The countries whose natives endure such exploitation include emerging economies, namely India, China, and others (Hedges and Sacco 72). The fact that these nations are chosen for this end—while developed economies like Canada, France, or Britain are not—is telling and further proves the racial dynamics at work in the distribution of wealth and power. White supremacy and corporate capitalism, it seems, go hand in hand.

“Days of Slavery”

The Division of Labor

Hedges and Sacco reiterate this relationship in “Days of Slavery,” the fourth section of *Days of Destruction, Days of Revolt*. Their depiction of Immokalee, Florida, further demonstrates that the division of labor perpetuates both the racial hierarchy and corporate superstructure. Karl Marx notes in *The German Ideology* that “through the division of labor. . . there develop various divisions among the individuals cooperating in definite kinds of labor. The relative position of these individual groups is determined by the methods employed in agriculture, industry, and commerce” (731). The ramification of these methods in the food industry, Hedges and Sacco emphasize, are cause for concern. At the apex of power are the corporations, the leaders of the food industry; followed by the farmers, whose lands provide the crop; then crew leaders/overseers, who gather and supervise the workers; and, lastly, the laborers themselves, the individuals who earn low wages, spend hours in the sun, and endure abuse from their overseers. In the same way that “compliant black elites” fulfilled positions of authority in Camden’s city halls to maintain the status quo (Hedges and Sacco 65), Hispanic migrant workers

(typically men) rise in ranking to fulfill the role of crew leader. At best, these individuals merely fulfill their duties by recruiting, transporting, and managing the field laborers. At worst, the crew leaders physically and/or verbally abuse as well as exploit and deceive those under their watch. The Navarrete family, for instance, beat their workers, locked or chained them up to prevent their departure, and stole roughly \$240,000 of their wages (Hedges and Sacco 203). Similarly, other crew leaders have exploited field laborers through rape and debt peonage (Hedges and Sacco 198-199). Clearly, the division of labor within the food industry alienates people of color, coercing them into a stratification that only works to serve those in power. This process of weaponizing minorities, manipulating them as participants in the subjection of their own people, therefore preserves white dominance and wealth inequality.

Worker Commodification

Through their representation of the division of labor, Hedges and Sacco also bring attention to the inequitable distribution of power and wealth in America. Detailing the conditions in which field laborers work and live enables the authors to draw a stark distinction between “the property-owners and the propertyless workers” (Marx 718). While a corporate CEO may live in luxury and over-abundance, field workers like José Hilário Medel live in destitution: “I’ve been robbed three times. . . I don’t have anything anymore. I have a blanket. Sometimes the people in the rental park let me use their water. I eat one meal a day at the Guadalupe Center. I have five children in Mexico, in my village. But I haven’t seen them since I came here six years ago,” he states (Hedges and Sacco 202). Such is the extent of his exploitation at the hands of corporate capitalism that Medel has neither physical belongings nor guaranteed access to food and water, despite living in a developed-economy country. The irony of his plight, and that of other migrant workers, must be addressed here. Immigrants—whether from Mexico, Haiti, or elsewhere—

come to the United States for a variety of reasons, including economic opportunity. Yet the structure of the modern slave system under corporate capitalism, which seeks cheap, unprotected labor to maximize profit, does not allow for any financial gain, no matter how great the workers' sacrifice. Instead, these immigrants become ensnared in a cycle of debt that begins with the expenses of coming to America. They endlessly work to pay it off and, earning little to nothing while suffering abuse and serious health repercussions, expand the property-owners' capital and empire. Migrant laborers thereby become "the most wretched of commodities" (Marx 718). For them, as well as the products and means of their labor, do not belong to themselves but to the property-owners.

Estranged Labor

Marx, in his *Philosophic and Economic Manuscripts of 1844*, characterizes this process as alienated or "estranged" labor (718). He argues that workers engaging in labor experience alienation in a number of ways, including estrangement from the products of their labor and from humanity as a species. The miseries endured by migrant laborers in "Days of Slavery" typifies Marx's theory. As mentioned above, these workers, caught in an endless cycle of production, fuel their own poverty: "the more objects the worker produces the fewer can he possess and the more he falls under the dominion of his product, capital," Marx claims, adding that this production cycle leads to workers' alienation from the object of their labor (719). Put another way, by forcing migrant workers to essentially give their life for their product (in terms of performing intense work as well as making extreme sacrifices to engage in this work), corporate capitalism maintains its dominion over poor people of color. Crew leaders reify the power of this capitalist ideology in their treatment of field workers. For example, Lucas Benitez, recalling an instance when his overseer threatened him for attempting to rest after finishing his work early,

notes, “My error was to work quickly” (Hedges and Sacco 218). After defending himself from his crew leader’s verbal and physical threats, Benitez was fired and told not to return to the fields. Compliance and non-stop production, it seems, are valued over efficiency. The worth of a worker is determined equally by their susceptibility to exploitation as well as capacity to advance wealth and empire for those in power.

Alienation from the Self: The Inversion of Man and Animal

Marx’s notion of estranged labor further manifests in the alienation of migrant workers from humanity. This process occurs when a worker engages in forced labor. According to Marx, the knowledge that one’s activity (i.e., labor) is not one’s own causes a loss of (and alienation from) the self that reduces him from man to animal (721). Both the working and living conditions of those trapped in Immokalee’s modern slave system confirm the dehumanizing effects of labor. However, the supposed freedom these individuals have to engage in base animal functions—the *only* freedom left to workers, Marx notes—is ultimately denied. Hedges and Sacco cite debt peonage operations as examples of such debasement, particularly the crew leaders’ price-gouging of food and drinks. Under this system’s guise of freedom, migrant workers are led to believe they can spend their wages in whatever fashion they choose, yet their “freedom” has its limits in the monopolization of the market. Brothels, too, that target “desperately poor single men” deny workers (including those paying for and rendering services) procreative freedom (Hedges and Sacco 197). Likewise, appropriate shelter is a luxury that immigrant field hands do not enjoy; farm camps charge exorbitant rental fees for over-crowded, unkempt trailers. All of these injustices convey that Brown and Black non-native communities are not deserving of even the fulfillment of basic drives, instincts shared across species. In this way the food industry, operating within the larger system of corporate capitalism, magnifies

Marx's notion of estranged labor, namely in the inversion of man and animal. As an individual who speaks limited (if any) English, with no benefits, no organizations, and no laws or regulations to protect him, the migrant worker is rendered as less-than-animal in a profit-hungry framework.

The "Othering" of Immigrants

The alienation and oppression of the immigrant labor force further highlights the overlap between race and economics. In *The German Ideology*, Marx insists, "The nature of individuals ...depends on the material conditions determining their production" (730). His understanding that a person's nature relies on the economic process of production calls into question the motivation behind the slave system in its past and current forms. It is an established fact that food supply corporations capitalize on the vulnerabilities of migrant workers, underpaying, overworking, and exploiting them—even jeopardizing their health—to reap the highest profit possible. Economics, then, play an undeniable role in the subjection of workers. Yet race dynamics, specifically white supremacy as well as nationalism, contribute too to this subjection. In "Days of Slavery," Hedges and Sacco, chronicling the history of this practice in Florida, list those who were enslaved: first indigenous peoples, then African Americans, Seminole Indians, and now immigrants from Mexico, Central America, and Haiti. The enslavement of these groups and the color of their skin are no coincidence—as Hall observes, the American presence is "itself the beginning of diaspora", of "many, continuous displacements" (235, 234). The "material condition" Marx describes is forced labor (in a literal sense) that, by definition, displaces and dehumanizes an individual, making an enslaved-subject a slave-object. The subject-turned-object regression constructed these minority groups as an inferior other while cementing whiteness as the superior master. Capitalism's emphasis on profit necessitates a scapegoat and, to the

detriment of Brown and Black communities, white people decided first that they would not—and could not—fulfill that role.

Conclusion

In *Days of Destruction, Days of Revolt*, Hedges and Sacco show no mercy in their critique of corporate capitalism and white supremacy, bringing attention to the ways in which the former complements the latter. Thus, they affirm the intersections of race and economics—so deeply is one entrenched in the other that they become almost indistinguishable and inseparable, as revealed by their examination of the injustices in Camden, NJ, and Immokalee, FL. Although a decade has passed since its original publication, the racial economics captured by Hedges and Sacco's work seem more relevant now than ever, particularly in a post-Trump era with heightened attention on instances of racial injustice. And while efforts to expose and condemn such ideologies are an important step in the right direction, the lived realities of Black and Brown communities ultimately continue to be shaped by these forces, both in America and abroad. Recognition on an individual level lays the groundwork for systematic revolt, but the need for more concentrated efforts to promote dramatic, large-scale change is clear.

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Piece 4: Revised Version

Scholar and Practitioner Perspectives on Interactive/Responsive
Data Visualization: A Literature Review*Abstract*

This study seeks to answer the following research questions: How do scholars and UX (user experience) designer practitioners differ in their perceptions of interactive, responsive data visualization? What are the recommendations for chart/graphics selection and design in light of user-responsive data visualization features? How will the development of these features impact the role of UX designers? To address these questions, a mapping literature review was conducted in which articles were reviewed from two sources: *The International Journal of Human-computer Studies* and *UX Collective*. Each source was selected to represent both computer scientists' (scholars') and UX designers' (practitioners') viewpoints. Five articles from the first source and four from the second were chosen for inclusion in this study using criteria developed by Berkeley Library. Findings from these articles suggest that scholars and practitioners are at odds when it comes to interactive data visualization. While scholars applaud interactive displays for their complexity, depth, and applicability to a variety of contexts, practitioners are more reserved when it comes to the usage of such displays, viewing their complexity and depth as unnecessary complications that can potentially waste resources and even confuse users.

Introduction

Conflicting Stakeholder Perspectives

An emerging trend in UX (user experience) design is data visualization. Various stakeholders hold different perspectives regarding data visualization, each with their own agenda. Corporate workers, for instance, are concerned with increasing profit. Prestigious business publications, such as the Harvard Business School, make clear the benefits of data-driven decision making (DDDM): the use of data increases confidence in decisions, increases proactiveness, improves efficiency, and decreases expenses (Stobierski). In another publication from the Harvard Business School, Miller describes data visualization knowledge as the first step towards becoming more effective in a given role and adding value to a business.

Computer scientists and software engineers, on the other hand, seem to be more invested in theory and innovation. As Unwin reports, “There has been progress in developing a theory of graphics, especially thanks to Wilkinson's Grammar of Graphics (2005) and Hadley Wickham's implementation of it in the R package ggplot2 (Wickham, 2016).” Prior to the development of advanced data processing software, like Wickham's ggplot2, visualization techniques were at the discretion of designers/researchers, who selected and implemented traditional methods like bar or line graphs. But because of the work of computer scientists and engineers, visualization methods have advanced significantly: our understanding of existing techniques has improved, and more approaches are available. Moreover, as Unwin reports, graphics can now be generated by computer programs which read and interpret data with increasing ease, speed, and accuracy.

Producing Advanced Data Visualization

The development of such technology has led computer scientists and data visualization experts to push for further advancement, advocating for more interactive, user-responsive data

visualization features. In his research on developing dynamic visualization displays, Shneiderman asserts that “novel data structures, high-resolution color displays, fast data retrieval, specialized data structures, [and] parallel computation” are necessary for visualization products to be successful. In his view, these products also need to accommodate specific user tasks: provide an overview of a dataset, zoom in on specific items, filter out others, choose an item/group and retrieve details, view relationships among items, track a history of actions, and allow extraction of subcollections/details. Accommodating these tasks will allow users to not only access information more quickly but also give them full control over their information-exploration experience.

Similarly, Gorodov and Gubarev pose interactive features as solutions to key issues in Big Data visualization. They suggest that providing more than one view per representation display, offering dynamical changes in the number of factors, and allowing for user filtering will address these issues. The research findings of Perkhofer et al. verify that interactive features increase the usability of visualizations. Steichen and Fu also advocate for the development of adaptive data visualization, arguing that this innovation is necessary to make information more accessible for individuals with varying cognitive styles. To assess the feasibility of such a system, Steichen and Fu conducted an eye-tracking study with 40 participants who were asked to perform tasks using bar and line graphs. Their findings prove that a user’s cognitive style can be determined accurately when completing an informational visualization task. More importantly, their work confirms the possibility of an adaptive, personalized information visualization system.

It is a well-established fact among UX designers and researchers, the third stakeholder group, that data and data visualization methods are crucial to the design process. Rikke Friis Dam, co-founder of Interaction Design Foundation, the world’s largest design school, says that data from

quantitative research can be used to identify opportunities for improvement, to increase confidence in design decisions, to persuade business stakeholders, to test new features/designs, and to measure the monetary effects of design decisions. Product designers across a variety of industries share this same view, as demonstrated by Ankita Gupta, a product designer specializing in the strategy components of UX design. Gupta writes, “Though data cannot solve problems, it can help us to identify and understand them.” However, collecting data is only the first step; in order to make data useful and meaningful, UX designers must understand how to “simplify complex datasets” through data visualization so that companies can “identify new patterns” and “obtain actionable insights for better decision-making” (Radiant Digital).

Areas of Debate Concerning Data Visualization

Indeed, although UX designers and researchers across the board agree that data and data visualization are invaluable to improving design, there are several areas of contention regarding best practices. A primary debate concerns the how-to of graphics and visualization design/selection, which is the subject of much of the current data visualization literature for UX designers and researchers. Publications attempting to officially assert these principles continue to be released and revised—such as *Material Design* and *Apple Developer*, the official style guides offered by Google and Apple, respectively. Examples of practitioner-produced work on this subject include Taras Bakusevych’s outline of twenty best practices for better data visualization. Another is Mayra Magalhaes Gomes’s piece, “Data Visualization – Best Practices and Foundations.”

Some designers and researchers even disagree on foundational issues, such as the definition and purpose of data visualization itself. Cairo, for instance, characterizes data visualization as “uncertainty visualized” (“Of Conjectures” 115), stating that the goal of data visualization is “to

enlighten” (“The Complexity Challenge” 78). By contrast, in “Data Visualization for Human Perception,” Few describes data visualization as the act of “storytelling.”

Another area of debate concerns form and function: should data visualizations be beautiful? While Few claims to see value in both sides of this debate, he ultimately advocates for clarity of meaning: “a data visualization should only be beautiful when beauty can promote understanding in some way without undermining it in another” (“Should Data”). On the other hand, those designers who value aesthetics provide an unending number of suggestions for choosing visualization elements – from fonts to colors to spacing. In fact, color specialist Theresa-Marie Rhyne’s publication from *UX Collective* focuses solely on color harmony in data visualization, detailing how to build a color scheme. The staggering number of choices to be made when creating a graphic or visualization ultimately showcases how nuanced (and intimidating) data visualization can be for UX designers.

Further complicating the matter of data visualization are the interactive, responsive features put forth by computer scientists and software engineers. I am particularly interested in what these innovations mean for UX designers. This study seeks to answer the following research questions: How do scholars and UX designer practitioners differ in their perceptions of interactive, responsive data visualization? What are the recommendations for chart/graphics selection and design in light of user-responsive data visualization features? How will the development of these features impact the role of UX designers?

Methodology

A mapping literature review was conducted to determine answers to the questions posed by this study. Following a strategy described by Paré et al. and Paré and Kitsiou, relevant articles were selected for review from two different types of sources: an online academic journal and a

popular blog for UX designers. These two sources were selected to better represent both scholars' (computer scientists) and practitioners' (UX designers) views on data visualization. The academic journal, *The International Journal of Human-Computer Studies*, is an interdisciplinary publication that features research on innovative interactive systems. The second source, *UX Collective*, is the largest design publication on Medium, a popular blogging platform. Work from each publication was screened based on Berkeley Library's evaluation criteria: authority, purpose, publication and format, relevance, date of publication, and documentation. Potential pieces to be included in this study were ranked on a scale of one to five for each criterion, and those that scored a twenty or higher were included.

Three separate searches were conducted to locate relevant articles in *The International Journal of Human-computer Studies*. These searches were conducted using the journal's online search engine feature. In the first search, the key phrase "responsive data visualization" was used to locate publications; this search generated sixty-four results, of which only two publications met the necessary score requirement for inclusion in this study. During the second search, the search parameters were adjusted; the broader term of "data visualization" was used, producing 630 results from which an additional three articles meeting Berkeley's criteria were extracted. Lastly, the phrase "interactive data visualization" was used. This final search yielded 534 results of which zero publications were selected, as the last set of search results (including the articles already chosen for use in this study) began to overlap with those from the previous two searches.

To locate articles from *UX Collective* for use in this study, the three-part search methodology was repeated, using the same key phrases. The first two searches for "responsive data visualization" and "data visualization" yielded the same ten results, of which only two articles met Berkeley's evaluation criteria. In the final search for the phrase "interactive data

visualization,” two results by the same author were generated, neither of which appeared in the earlier searches. These final two articles met the evaluation criteria for inclusion in this study.

Subsequent discussion of the articles from *The International Journal of Human-Computer Studies* and *UX Collective* will be organized by publication.

Analysis and Interpretation

The International Journal of Human-computer Studies

In “Public Visualization Displays of Citizen Data: Design, Impact and Implications,” Valkanova et al. examine the effect of citizen-driven, public data visualization on social/civic awareness and engagement. Of particular interest to this literature review are the authors’ discussion of information visualization developments, specifically ambient, social, and artistic visualization. Ambient visualization, as defined by Valkanova et al., “provide abstract depictions of invisible dynamic processes, such as changes in weather, stock, currency or the amount of human presence or activity in a building, and are located in peripheral locations of everyday physical settings” (5). Social visualization seeks to help everyday people understand complex information by “democratizing the power of visualization . . . making its features accessible and usable for the public at large” (Valkanova et al. 5). Artistic visualization (as its name would suggest) refers to using visualization not for the analysis of data but for the expression of creativity. The discussion of these trends as a source of inspiration for Valkanova et al. is indicative of their interdisciplinary, progressive approach, one that is humanist and less-business-oriented as compared to previous work on information visualization traditionally geared towards experts and professionals.

Comprising the body of their work are three case studies in which Valkanova et al. tested the effect of information visualization displays in public spaces. They found that the perception of a public space can be improved and that new behaviors can be encouraged by adding interactive representations of human presence/user activity. They also found that visualizations have the potential to promote not only civic participation and discussion but also promote collective data exploration and reflection – particularly if the visualization makes use of playful design and allows for data comparisons and personalization of individual contributions. However, Valkanova et al. recognize that this personalization aspect has its limitations: the data entered by individuals may be skewed due to shame/embarrassment felt at submitting personal data publicly. Ultimately, these findings are significant because they showcase data visualization’s transformative potential. Rather than being a means for understanding numbers, which leaves no tangible impact, a creative, interactive display can affect real change, not only within individuals but also within a community at large. In this way Valkanova et al. take a clear stance in a popular debate amongst UX designers regarding the purpose of data visualization; their work clearly shows that the goal is, as Cairo described, “to enlighten” (“The Complexity Challenge” 78).

Though it does not directly address interactive visualizations as examined by Valkanova et al., the work of Azam Khan et al. re-assesses to what extent visualizations help people solve Bayesian problems, a measure used to test subjects’ statistical reasoning. Khan et al. specifically test the Mammography Problem, a type of Bayesian problem focusing on probabilistic diagnosis. Khan et al. claim there are three types of visual representation discussed in the literature: branching, nested-set relation, and frequency; there are also hybrids that combine elements from the distinct types. Five specific examples of these visualization types were selected for use in the

researchers' controlled experiment, which was conducted with 700 participants using a crowdsourcing platform. In addition to testing five examples of visualization types of the Mammography Problem, Khan et al. tested two textual representations. They found that while participants used the provided visualizations to attempt to solve the problem presented, these visualizations did not improve their performance accuracy. These findings are in line with previous research on data visualization and Bayesian problem-solving. The authors poignantly conclude, “[O]ur results suggest that major improvements will not come from better static visualizations. We therefore look to . . . animated visualizations for performance improvements in future work” (Khan et al. 113). In disavowing static visualizations' effect on increasing performance on Bayesian problems, Khan et al. point to the potential of responsive or interactive data visualization in future research. This research certainly holds promise; as Valkanova et al. concluded, effective interactive displays promote learning by allowing users to explore and reflect on the information presented.

Like Khan et al., Matsushita et al. also examine the relationship between interactive data visualization and problem solving. In their research, they seek “to develop a system that supports users in exploring data for decision-making and problem solving” (Matsushita et al. 469). Specifically, the authors focus on exploratory data analysis, characterized as an iterative process in which a user, unsure of what information they are looking for, creates several different visualizations using a computer system again and again until the user refines their thoughts. Matsushita et al. argue that particularly in these instances when a user is unsure, interactivity (i.e., the visualization approach interacts with or responds to user requests) is crucial. The authors first concentrate their discussion on why natural language interfaces, and not direct manipulation counterparts typically used in visualization systems, are better suited for

exploratory data analysis. They propose a model of data visualization that uses a semantic frame representation, a “formal representation framework” that not only “interprets the [user’s] requests” but also represents those requests (Matsushita et al. 472).

Matsushita et al. then discuss how context determines chart type selection and list which aspects to consider for chart drawing. They return to their proposed semantic frame representation and explain “how to update instances of the semantic frame to follow a sequence of user requirements” and continue their discussion of chart type selection by putting forth “a method for determining appropriate chart type based on the semantic frame instances” (Matsushita et al. 477). This proposed method considers the type of chart displayed and the parts of the chart that are altered by user input. In considering these factors, the method offers users a redrawn chart that best fits their needs. Their publication then details the findings of a user study they conducted; said findings confirm the authenticity of their proposed method. Ultimately, the research of Matsushita et al. speaks to the power of interactivity—how interactive elements can better help users access and understand data. Furthermore, their work shows the value of prioritizing the user, of allowing them personalization options and freedom of input, and it is this key takeaway that is at the heart of UX design.

In their work, Fairclough and Dobbins likewise conduct a user study, albeit in two phases using a mobile lifelogging platform. This platform, consisting of a smartphone and wearable sensor units, was used in the first part of the study to collect users’ cardiovascular data in five days of commuting to work. This first phase was designed as a “longitudinal data collection exercise” intended to “assess the variables that were predictive of subjective anger experienced during each commuter journey” (Fairclough and Dobbins 3, 5); in other words, the authors wanted to know if the anger people experience when driving has temporary physiological effects.

Fairclough and Dobbins's findings validate this claim, proving that there is a correlation between cardiovascular reactivity and anger incited by driving.

Fairclough and Dobbins then used the data from the first part of the study to inform the data visualization design in the second part. This follow-up study was made up of three different stages: a pre-test phase where more user data was collected during driving, a middle phase where users interacted with a data visualization reflecting data collected during pre-testing, and a post-test phase where final user data was collected during driving. By presenting the study's participants with an interactive data visualization representing cardiovascular reactivity, the researchers hoped to increase "awareness of negative emotions and underlying physiological activity," then "investigate the impact of interaction with this data visualization on subsequent emotion and psychophysiological responses" (Fairclough and Dobbins 10). After completing the second half of their research, Fairclough and Dobbins conclude that while the data visualizations were intuitive to users and allowed them to see the correlation between driving and cardiovascular activity, exposure to the data visualization had no evident effect on participants' emotional awareness or adaptive coping in driving situations. Nonetheless, these data visualization interactions did decrease heart rate and increase HRV (heart rate variability) in scenarios where participants encountered slow-moving traffic. Fairclough and Dobbins's findings then echo that of Valkanova et al. by highlighting the power of interactive data visualizations and illustrating that, if done correctly, these displays can affect concrete (corporeal) change.

Keefe et al. likewise turn to mobile applications, investigating the role that they play in enhancing user interactions with high-resolution visualization displays. In Keefe et al.'s view, to be most effective, a visualization system should support near- and far user interactions as well as

transitions between these modes. To test this theory, Keefe et al. developed two visualizations: a multivariate geospatial visualization and a graphical interface for a relational algebra package. While users interacted with these large-scale displays, moving around the display space, multi-touch devices (phones) and 6 degree-of-freedom trackers collected data to provide the user with “accurate high resolution selection capabilities” and “to enable the user to query underlying datasets” (Keefe et al. 704). Based on user feedback and testing, the researchers develop three guidelines:

- 1) Use a paradigm of progressive input refinement, favouring several discrete quick gestures made in sequence as opposed to a single complex input.
- (2) Further increase the expressiveness of simple gestures that are easy to perform on the small device by interpreting the gestures differently based on the active mode (or layer) of data visualizations.
- (3) Leverage context from both the user’s physical position relative to the large display and the current state of the visualization to intelligently interpret simple gestures, again increasing the expressiveness of the types of inputs that are most effective on small devices. (Keefe et al. 711)

In other words, Keefe et al. suggest that, first, an interface should allow users to use a series of simple, quick gestures to hone in on the data they are looking for. Second, make simple gestures more expressive so that they can have multiple functions, depending on the layer of data visualization. Third, the user’s physical location as well as the state of the visualization can be used to increase simple gestures’ expressiveness. By increasing expressiveness, designers can make their visualization system easier to use and understand, since users won’t have to recall and

perform multiple different gestures. It is this emphasis on intuitiveness that is yet another key principle in UX design.

UX Collective

Author, UX specialist, and data visualization advocate Kai Wong speaks from personal experience in his article, “A Simple Static Visualization Can Often Be the Best Approach.” He recounts a time he participated in a design challenge that required participants to improve a dataset from UNICEF. Wong’s chosen approach was to create an interactive visualization, one that made data comparison easier. However, after reviewing the work of other designers who participated in this same challenge, Wong noticed that the visualizations that were widely recognized as successful and effective were not interactive or detailed but simple and static. Wong uses this experience to caution designers to be more thoughtful in their usage of interactive displays. He adds that, although the tools are available to easily create such visualizations, they are not always in the best interest of the users, who can be confused by the “several muddled data stories” that dynamic visualizations offer (Wong, “Simple Static”). He poignantly concludes, “So before you jump into creating something interactive, consider whether or not the story that you’re trying to tell really needs it. Sometimes, simple is just better” (Wong, “Simple Static”). This viewpoint starkly contrasts that of the scholars mentioned in this paper, who espouse the power of interactive data visualization.

In his follow-up article, “The 4 Questions to Ask Yourself Before Creating an Interactive Visualization,” Wong revisits his bias against such displays, describing a challenging and time-consuming project he worked on while designing for the healthcare industry. He then shifts perspectives and, rather than focusing on the limitations and challenges associated with interactive displays, recognizes that there are times when such displays are necessary: “But as

I've learned more about interactive visualizations, I've begun to reconsider my bias against them. Of course, a simple static visualization is often the better approach, but there are also use cases for interactive visualizations" (Wong, "4 Questions").

Wong then distinguishes between static and interactive visualizations, pointing out that they differ in audience: the former means the designer chooses the story and attempts to tell it to users while the latter entails the user exploring the data and determining the story. He claims that, before choosing an interactive visualization over a static one, designers should ask themselves the following questions:

Will my audience want to see multiple views for a single visualization?

Do I need to reduce clutter through filtering?

Can I make the visualization more personal to invite exploration?

Do I need help understanding the data? (Wong)

He addresses each in more detail, offering words of caution and advice to accompany each question. Wong reminds readers that knowing the audience is fundamental to successful data visualization. Additionally, he states that, when offering filtering interactions such as clicking or scaling, users should be aware of all possible options. He also reminds designers that by adding personalization to a display, you can increase not only the likelihood of user engagement but also the duration of the interaction. Wong concludes by emphasizing the importance of understanding when to use interactive visualizations over static ones, as this understanding can save designers and the companies they work for time, effort, and money. Although he does not express the same blatantly anti-interactive sentiments present in his first *UX Collective* publication, Wong

nonetheless appears less enthusiastic and more cautious about the potential of interactive data visualization as compared to the scholars presented in this paper.

In “20 Ideas for Better Data Visualization,” Taras Bakusevych, lead UX designer at Windmill, offers a list of twenty guidelines to follow so that designers can improve the quality of their data displays. The majority of these guidelines (in fact, nineteen of them) provide recommendations concerning static visualizations, and for each guideline, Bakusevych offers a supporting graphic to illustrate his point. For example, his first and ultimately most important suggestion is to choose the right chart type. He also offers rules-of-thumb to follow concerning specific chart types: “Always start a bar chart at 0 baseline”; “Use adaptive y-axis scale for line charts”; “Limit the number of slices on a pie chart.” Other suggestions include those related to chart formatting: “Avoid randomness”; “Pick a color palette that matches the nature of your data”; and “Focus on legibility.” It is only at his final guideline, number twenty, that Bakusevych mentions more dynamic, interactive visualizations. He succinctly writes, “Go beyond static visualizations” to “help users explore” (Bakusevych), echoing the sentiments of several scholars as well as practitioners who view interactivity as a site of learning. However, the fact that he only mentions interactive data visualizations once at the end of his commentary indicates the same hesitancy Wong expressed regarding dynamic displays.

In “Top Data Visualization Examples and Dashboard Designs,” Shane Ketterman claims that in order to clearly present data to users, UX and visual designers need practice, an understanding of dashboard design principles, and the application of graphical excellence. Next, Ketterman defines this concept of graphical excellence. He then provides several examples of data visualization and dashboard design that demonstrate this trait, listing six of the former and eight of the latter. Of those six data visualization examples featured, only one of them is an

interactive display while the remainder are static. This interactive visualization, published by the German newspaper the *Berliner Morgenpost*, is titled, “Where the population of Europe is growing – and where it’s declining.” The visualization offers several opportunities for user interaction, including click-and-drag, zooming, filtering, and a search function. Ketterman praises this visualization for its success in “showing how to deal with an immense amount of data in an uncomplicated, well-designed, and truthful way,” characterizing it as an exemplar of “graphical excellence with thousands of complex data points.” Again, the discussion ratio of interactive-to-static visualizations highlights the fact that static displays predominate in the field of UX.

Conclusion

Based on the literature present in *The International Journal of Human-Computer Studies* and *UX Collective*, computer scientist researchers and UX practitioners hold contrasting perspectives regarding interactive or dynamic data visualizations. The five articles representing scholar perspectives indicate the enthusiasm of these researchers, who see the applicability of such displays in a variety of settings and industries. As reflected in the publications featured in this study, the scholars recognize these displays’ potential as a site of learning and exploration, and they encourage further research to be done.

On the other hand, the literature produced by UX designers indicates that they are more cautious about the use of interactive data displays, viewing them as a challenge to execute successfully. While they acknowledge that there is a time and a place for such visualization, they ultimately view these displays’ complexity and depth of data, qualities praised by the computer scientists, as a possible source of user misunderstanding or frustration. Furthermore, UX

designers are careful to recognize other limitations of these displays, as their development can be time- and resource-consuming.

To return to one of the key questions posed by this paper – “What are the recommendations for chart/graphics selection and design in light of user-responsive data visualization features?” – Wong would aptly reply, “Sometimes, simple is just better” (“Simple Static”). Overall, practitioners are more likely to incorporate static visualizations over dynamic ones in their designs. While the development of these features is an attractive trend, it appears that these features will not greatly impact the field of UX—at least not anytime in the near future. However, in order to gain a more comprehensive view on this issue, further research should be done to include examinations of more publications, such as other journals and blogs. Additionally, the conduction of ethnographic studies and the collection of qualitative data, gathered directly from scholars and practitioners in the workplace, might provide further insight into differing perspectives regarding data visualization usage.

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