2017

Contextualizing the Relationship between Culture and Puerto Rican Health: Towards a Place-Based Framework of Minority Health Disparities

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VOLUME XXIX • NUMBER III • FALL 2017

Contextualizing the Relationship between Culture and Puerto Rican Health: Towards a Place-Based Framework of Minority Health Disparities

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ABSTRACT

In both the culture of poverty literature and the acculturation literature, Puerto Ricans are portrayed in negative terms. The culture of poverty framework attributes Puerto Rican poverty to the mental, behavioral, and moral pathology of Puerto Rican individuals and to Puerto Rican culture. Similarly, outdated acculturation frameworks also trace the poor health of immigrants and racialized minorities, such as Puerto Ricans, to equivalent perceived deficiencies. In this paper, we argue that both the culture of poverty and acculturation frameworks are two pillars of the White Racial Frame (Feagin 2009) that sustains racial inequality in the United States. To build our case, we provide an overview of Puerto Rican physical health disparities and highlight key findings. Then, we analyze this literature using natural language processing (NLP) tools to examine the lexicon of words that scholars use to understand such disparities. Our literature review shows that Puerto Ricans are generally doing worse than other groups across a range of health indicators. Results from the NLP analyses reveal that the lexicon of the culture of poverty and outdated notions of acculturation are rhetorical tools that scholars still use to make sense of these conditions. We conclude by arguing that moving away from a White Racial Frame of Puerto Rican health requires a theoretical model that puts race, place, and culture within a multilevel framework that we call the Racialized Place Inequality Framework. [Keywords: Puerto Ricans, Health, Segregation, Inequality, Culture, Acculturation]

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INTRODUCTION

Over the past two decades, social scientists have made a strong case for studies that situate the life chances of racialized minorities, such as Puerto Ricans, within a larger framework that contextualizes migration, neighborhood characteristics, and local institutional resources. Minority health advocates, medical sociologists, and social epidemiologists have shown that the health of individuals cannot be adequately understood if the social, political, and economic conditions of places, neighborhoods, and communities are ignored (Bell and Rubin 2007; Burgos and Rivera 2012; Lee et al. 2015). Unfortunately, studies on Puerto Rican physical health, the focus of this paper, tend to be descriptive, rely on over-individualistic and outdated cultural accounts of health disparities, and largely ignore fundamental structural causes of health, which have become indispensable in decoupling the onset and trajectory of illness, disease, physical limitations, and disability (see Phelan et al. 2010; Cockerham et al. 2017).

Our review of the literature below reveals that researchers of Puerto Rican poverty and health disparities tend to draw heavily on two closely related frameworks of culture. One dominant approach is the *culture of poverty framework*, which holds that poor people and groups (i.e., inner-city African Americans and Puerto Ricans) are responsible for their own economic marginalization because they lack the values, beliefs, and behavioral patterns necessary for social mobility (see Royce 2015). Although many consider the culture of poverty to be an outdated framework, key ideological tenets of this perspective are still driving public policy on poverty (Harrison 2000; Huntington 2000; Patterson 2015), and remain influential in the study of Puerto Rican poverty as well (see Briggs 2002). A second dominant cultural framework is found in the concept of *acculturation,* which is in full use in the health literature, to explain Latino health disparities. In its most extreme and early incarnation, accultura-

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tion research has as its foundation anti-immigrant sentiments and the social Darwinist (survival of the fittest) notion that migrants are at a health disadvantage *vis*-á-*vis* White Anglo-Saxon Protestants (the dominant group) because immigrants came from defective classes whose culture is viewed as inferior. The assumption is that health disparities will disappear once immigrants are assimilated and/or acculturated to the dominant group (see Rudmin et al. 2017; Hunt et al. 2004). Embedded in both cultural approaches is the idea that White Protestant Anglo-Saxon Western culture is superior to the cultures of racialized minorities and non-Westerners (e.g., Harrison 2000). As such, key elements of these two frameworks (the culture of poverty and acculturation) are part of what Feagin (2009) calls *the White Racial Frame,* which is a belief system that legitimizes and justifies racial inequality at the symbolic, ideological, rhetorical, and interpretative levels (see also Bonilla-Silva 2009).[2]

In this paper, we provide a critical overview of the literature on Puerto Rican physical health and assess if and how the concept of culture is used to understand Puerto Rican physical health disparities. How prominently does culture and acculturation feature in studies of Puerto Rican health disparities? We use quantitative text mining techniques (Silge and Robinson 2017; Ted 2017) to extract, categorize, and relate the terms that are most commonly used in research articles to describe Puerto Rican health disparities. To the best our knowledge, this is the first empirical paper to use quantitative Natural Language Processing (NLP) techniques to evaluate the lexicon of words that scholars invoke to frame the study of Puerto Rican physical health disparities.

We have two overarching goals in this paper. First, we argue that outdated and xenophobic notions of culture need to be abandoned, and that scholars need to do a much better job of measuring and conceptualizing culture and acculturation as part of a critical analysis of urban poverty, as Pimentel (2008) so astutely notes. Second, we make a case for a place-based, multi-level model that contextualizes Puerto Rican health disparities: The *Racialized Place Inequality Framework* (RPIF), which we briefly summarize in the conclusion of the paper. With the implementation of structural equation and multilevel statistical routines in standard statistical packages (Preacher et al. 2010), researchers now have the methodological tools to test old and new theoretical insights on how communities affect individuals (Logan 2012). To this end, we conclude by making some recommendations on how culture can be better measured and studied within the RPIF that we propose. Because the RPIF is founded on the premise that segregation is a form of structural racism, and incorporates culture and discrimination (see below) in the segregation-health nexus, it provides a theoretical advancement over individualized understanding of Puerto Rican health. In short, Puerto Rican health disparities are best understood if culture is contextualized, as keen acculturation scholars are beginning to do (Arévalo et al. 2015).

In the next section of the paper, we first give an overview of two dominant cultural perspectives—the culture of poverty thesis, and the notion of acculturation—that have been used to frame Puerto Rican poverty and Latino health. We also

identify the key criticism of both perspectives. Second, the discussion is followed by a literature overview of Puerto Rican physical health studies. We identify key patterns that emerge from these studies and then refocus our attention on if/how culture is utilized in those investigations. What are the key conceptualizations of culture produced by scholars of Puerto Rican health? Does the Puerto Rican physical health literature reproduce the main criticisms of the culture of poverty and the critiques of the acculturation literature? Third, we present the results of our quantitative text analysis. What is the lexicon of words used by scholars of Puerto Rican health? How prominently do the words culture, acculturation, and poverty feature in this literature? Are scholars conceptualizing Puerto Rican health disparities at the individual level or as rooted in structural conditions? Fourth, we conclude the paper by highlighting the key tenets of the RPIF and making a few recommendations on how culture can be better conceptualized and contextualized within this framework.

BACKGROUND

A Note on Culture and White Supremacy: The White Racial Frame

Our critical review of these two cultural perspectives in favor of a more structural approach, and our concluding recommendation for a contextualized treatment of culture in research articles is not simply an academic exercise. Embedded in our argument is a repudiation of white supremacy and any insinuation that there is anything wrong with Puerto Rican culture. As it has become apparent in today's political climate with the rise of the alt-right movement and the response of the Trump administration to Hurricane Maria in Puerto Rico, the ideology of White cultural superiority and the cultural pathology of racialized minorities represent the most pressing challenge in the fight for racial justice and equality. We contend that both the culture of poverty thesis that has been used to explain Puerto Rican poverty, and much of the research that attributes Latino health disparities to acculturation are consistent with a White Racial Framing of Puerto Rican life chances.

According to Feagin (2009, 3), the White Racial Frame is an "overarching white worldview that encompasses a broad and persisting set of racial stereotypes, prejudices, ideologies, images, interpretations and narratives, emotions, and reactions to language accents, as well as racialized inclinations to discriminate." At the general level, the White Racial Frame includes the internalized and taken for granted view that Whites are superior to minorities in the economic, political, and social spheres of life. Whites evaluate minorities negatively and discriminate against minorities through cognitive schemas (racial stereotypes), reproducing negative images of minorities through media and art (e.g., Dove commercials), fearing minorities (negative emotions), and using metaphors that portray minorities in negative ways in everyday language.[3] Whiteness is taken for granted as being good and superior, and the inferiority of people of color is a normalized and unquestioned assumption. This ideological frame

functions as part of an internalized cognitive world view to justify and rationalize practices such as discriminatory housing policies, police brutality, restrictive immigration policies, deregulation of racist environmental policies, and a general attack on the social safety net that disproportionately impacts racialized minorities and people living in poor segregated communities. The White Racial Frame operates in a fashion to what Bonilla-Silva (2009) calls a color-blind ideology that conceals racial violence, and re-writes history from a predominantly White viewpoint; it favors White privilege and dominance over racialized minorities. Based on this theoretical work by Feagin and Bonilla-Silva, we further qualify our statement above and suggest that the culture of poverty thesis and outdated notions of acculturation are two important pillars of the White Racial Frame that help reinforce the racial order.

Regardless of where Puerto Ricans settle, they are depicted as "lazy" and "dependent" (Rivera and Aranda 2017), and have even been portrayed as "bizarre and grotesque" in plays like Westside Story (Briggs 2002). The framing of Puerto Ricans in this negative light speaks to their legacy as colonial subjects, to the contemporary relevance of White supremacy, and the view that Puerto Rican culture is deficient and pathological. For instance, when the 45th President of the United States Donald J. Trump tweets that Puerto Ricans "want everything to be done for them when it should be a community effort," the assumption is that Puerto Ricans have a culture of dependency. As Nobel Prize-winning economist Paul Krugman (2017) notes, Trump has "suggested that Puerto Rico is responsible for its own disaster, and he has systematically denigrated the efforts of its people to take care of one another." This ideological stance allows Trump to have the moral justification to threaten to cut off aid to the island—the juncture where ideology, health, and even life and death meet.

A recent opinion piece in a Philadelphia newspaper by Law school professors Wax and Alexander (2017) further reveals the contemporary relevance of the White Racial Frame. Wax and Alexander argue that the loss of bourgeois habits by disadvantaged groups (alert!: dog whistle for people of color) is the root of their economic and social marginalization. These habits include getting and staying married, getting an education, working hard, and avoiding idleness. Wax and Alexander also contend that going the extra mile for a client and/or employer, being a patriot, being "neighborly, civic-minded, . . . charitable . . . 'avoiding' coarse language in public . . . 'being' respectful of authority . . . 'and eschewing' substance abuse and crime" were the values that made *America great* from the late 1940s to the mid-1960s, when the U.S. economy was undergoing economic productivity, experiencing large educational gains, and enjoyed valuable social coherence.

These valued cultural attributes probably resonate with many of the readers of this journal because these are the same values that our parents and grandparents instilled in us. The problem with Wax and Alexander's ideological argument is that these values are incorrectly superimposed on some groups (i.e., Whites have them and minorities lack them) and are then used as the cause of social/economic inequality among certain groups. This is of course an absurd perspective as these cultural orientations and values

do not map along racial and ethnic lines. Rather, they are shared by both the dominant group and racialized minorities and thus do not explain minority disadvantages. To put it in statistical terms, there is more intra-group variation in bourgeois habits than inter-group variation. In addition, this rosy picture of when "America was great" ignores the painfully obvious Jim Crow Laws that segregated African Americans and Puerto Ricans in poor inner-city neighborhoods, excluded them from labor unions and high prestige jobs, and ignores the continual reliance on police violence to enforce racial boundaries and racial inequality (Byrnes et al. 2014; McKee 1993; Blauner 2001; Muñiz 2015). These are but a few contemporary examples that corroborate Feagin's thesis.

The Culture of Poverty as a White Racial Frame

There has been a renaissance in the study of culture, its relationship to the life chances of minority individuals (Patterson and Fosse 2015), and a renewed interest in the causal primacy that structure has over culture in sociological studies of Black and Puerto Rican poverty (Lewis 1998; Wilson 2010). Because Puerto Ricans have some of the highest poverty rates in the United States (Pimentel 2008; Marzan 2009), and experience significant health inequalities in the form of relative poor health (Tucker et al. 2010; Torres-Pagán 2011), culture is often used as an analytical concept to understand Puerto Rican poverty and health disparities.

One of the most influential frames used to explain the plight of the urban poor, particularly Puerto Ricans and African Americans living in cities like New York, Philadelphia, Chicago, Milwaukee, Cleveland, Boston, and other de-industrializing cities throughout the U.S. (see Whalen 2005), has been the *culture of poverty* thesis that was first introduced by Oscar Lewis in his 700-plus-page, award-winning book *La Vida* (1966). Lewis coined the *culture of poverty* term as an analytically useful concept to study the inter-generational transfer of poverty from grandparents to parents and to children. To build the case, Lewis conducted an intensive study consisting of five members of a lower-class family in San Juan, Puerto Rico, and was quick to reiterate throughout the book that life in the Puerto Rican "slum" was difficult at best and often gruesome. He noticed that children grew-up too fast as they experienced violence in their homes and in neighborhood streets, often went hungry, and watched their mothers turn to prostitution and adults to drug dealing to make ends meet.

Lewis also observed that the idealized middle-class nuclear family was not the norm in this Puerto Rican community. Adults had multiple sexual relationships, there were high rates of out-of-wedlock teenage pregnancies, family dissolution was widespread, and unemployment was high despite work opportunities. These attributes, according to Lewis, prevented lower-class individuals and their descendants from becoming upwardly mobile. Once they grew up, these children would pass behaviorally, emotionally, and intellectually bankrupt values, beliefs, and behaviors to their children through the process of socialization, which cemented their lower-class status.

The observations made by Lewis of these marginalized families in Puerto Rico have been widely used by social and cultural conservatives to explain poor inner-

city poverty of Blacks and Puerto Ricans in the U.S. (e.g., Murray 1994; Harrison and Huntington 2000). Several culturally rooted and psychological traits are particularly important to the intergeneration study of poverty, including the rejection of middle-class values and aspirations, condoning violent behavior, dismissing the importance of education, and not cherishing the nuclear family. Other cultural attributes include having strong feelings of marginality, helplessness, dependency, powerlessness, inferiority, and personal unworthiness (see also Patterson 2015). Poor people, including Mexicans, Puerto Ricans, and African Americans live in impoverished neighborhoods, emphasize the present, neglect to plan, and are living to satisfy sexual urges and violent impulses. Poor people do not get ahead because they have low intelligence, lack personal organization, motivation, self-discipline, ambition, diligence, work initiative, and perseverance and give up easily when facing adversity. They are lazy, seek government handouts, reject the values of personal responsibly, and are defeatist. People who value "thrift, investment, hard work, education, organization, and discipline" get ahead in life, while those who do not value these cultural attributes stay behind, so the culture of poverty logic goes (Lewis 1998; Harrison 2000). In short, the poor are victims of their own personal pathology, and Puerto Rican poverty and limited life chances result from the pathological values, believes, behaviors, and morals of Puerto Rican individuals and Puerto Rican culture (Briggs 2002).

Briggs (2002) notes that La Vida *and the Moynihan Report resulted in an anti-immigrant political campaign and newspaper stories that framed the mass migration of Puerto Ricans and their residents in poor urban communities as hypersexual, bad mothers, unwanted, unassimilable, and responsible for their improvised status—as welfare queens.*

In 1965, Senator Daniel Patrick Moynihan's (1965) study on the Black American family set off a blaze as he blamed urban Black poverty on the culture of poverty, including the idea that high rates of single mother-families and Black unemployment stemmed from a "tangle of pathology" that characterizes Black culture, rather than systemic structural inequalities. Briggs (2002) notes that *La Vid*a and the Moynihan Report resulted in an anti-immigrant political campaign and newspaper stories that framed the mass migration of Puerto Ricans and their residents in poor urban communities as hypersexual, bad mothers, unwanted, unassimilable, and responsible for their improvised status—as welfare queens. This framing of Puerto Ricans was reinforced in public policy circles, political debates, and academic writings (Briggs 2002).

Importantly, Briggs notes that this line of cultural-pathology framing of Puerto Ricans in poor and segregated urban communities was part of a larger demonization campaign, and, we argue, continues to be part of the White Racial Frame and current racialization projects (Feagin 2009; Rivera and Aranda 2017).

This White Racial ideological frame has informed past and present colonial rule of Puerto Rico; its outlook is driven by the idea of the religious and racial superiority of White Americans (Whalen 2005; Denis 2015), and is central to the war on poverty debate and attacks on the social safety net (Piven 2011; Greenbaum 2015; Royce 2015). The White Racial Frame continues to inspire neoconservative arguments that blame the poor and minorities for their misgivings (Murray 1994; Harrison 2000); moreover, it drives the alt-right movement and anti-immigrant rhetoric that romanticizes the Jim Crow Era of the 1950s, when America was supposedly "great" (Huntington 2000; Wax and Alexander 2017), and it even rationalizes U.S. slavery of African Americans (Astor 2017). This framing gives Trump the license to call Puerto Ricans *needing* government help *"ungrateful"* to deflect for the botched and slow Federal response to Hurricane Maria. This is a classic example of blaming the victim (Gans 1995; Greenbaum 2015), a judgment facilitated by the White Racial Frame and the culture of poverty ideology.

Critique of Culture of Poverty

There are several important critiques of the culture of poverty that are worth highlighting for the purposes of this paper. One critique is that it ignores the fact that, just like habits of the bourgeois culture (see above), the culture of poverty does not map along racial/ethnic lines. The poor share many middle-class values, norms, and behaviors, so those attributes do not fully explain poverty along racial/ethnic lines. Also, Lewis based his arguments in a family that reified his White Racial Frame and ignored other poor families who did not have many of the indicators of the culture of poverty. For instance, only 16 percent of the families he studied were female headed (Briggs 2002). The culture of poverty also ignores structural correlates of poverty, such as the decimation of the old plantation system caused by the industrialization of the Puerto Rican economy by American corporations and the Federal government's removal of corporate tax-breaks in Puerto Rico that led to a large exodus of factories out of Puerto Rico. What happened subsequently was the migration of Puerto Ricans to the U.S. in search of low wage jobs and better opportunities, and the settlement of Puerto Ricans in cities that were hit hard by deindustrialization beginning in the 1970s (Santiago and Galster 1995; Duany 2017). In short, the culture of poverty and its contemporary usage ignores the powerful role of history and structural conditions that affect Puerto Ricans and other racialized minorities living in disadvantaged communities across the United States.

Acculturation as a White Racial Frame: Reinforcing the Hegemonic

The literature on acculturation is vast and is experiencing a burgeoning renaissance with many important empirical, conceptual, and theoretical innovations (see Schwartz and Unger 2017).[4] Acculturation is broadly conceived as the process whereby immigrant or indigenous individuals change their behavior, beliefs, attitudes, identity, customs, language, and social relationships toward that of the host

society (Fox et al. 2017). Early in the 20th century, acculturation meant the process of moving from *primitive* societies to more *modern* societies, and today many scholars adhere to the idea that acculturation is moving away from traditional values, norms, practices, and towards the orientations of the mainstream culture (Hunt 2004, 980). Rudmin, Wang, and de Castro (2017) define acculturation as "the acquisition of second cultures, whether completely or incompletely, correctly or incorrectly, intentionally or intentionally, alone or collectively" by one group, usually an immigrating or emigrating group towards a dominant group. Hunt and associates (2004, 973) indicate the "concept that acculturation levels predict or explain health inequalities . . . posits that culturally based knowledge, attitudes and beliefs cause people to make behavioral choices that result in the observed health patterns." Thus, much like the culture of poverty thesis, an over-individualized conceptualization of believes, values, and behaviors that are based on *personal choice* are viewed as a primary driving force of health disparities by many acculturation scholars. Minority individuals and their faulty culture are the main culprits of their health, so the logic goes.

There are several important critiques of the acculturation literature that resonate with Feagin's thesis of the White Racial Frame. Rudmin and associates (2017) contend that the concept of acculturation has a "dark shadow" that most acculturation researchers either deny or have not noticed. Like Hunt and colleagues (2004), Rudmin and associates claim that the notion of acculturation emerged during era of European "ethnocentric arrogance," whereby European cultures are viewed as superior, and the cultures of indigenous people, African Americans, and Latinos are viewed as inferior. At the most elemental conceptual level, the parent logic of the acculturation frame is the assumption that non-Europeans need to assimilate to White Europeans. Hunt and colleagues (2004) argue that acculturation research has its ideological foundation in a Social Darwinism that views non-White immigrants as having mental deficiencies, as coming from a defective class of degenerates, and from primitive cultures that need to assimilate to mainstream society and modernity.

Thus, the first critique of acculturation is that it is an ideological frame, one that has historically been used as a unidirectional concept to the extent that the end goal of cultural progress is Whiteness and Europeanization. This unidirectional assumption doesn't account for the process of bi-directional acculturation whereby Whites also may acculturate to the minority groups they encounter (Schwartz and Unger 2017). To be clear, few present-day acculturation researchers consciously adhere to the assumption of White cultural superiority, but many scholars remain unaware of the historical shadow of a racist conception of acculturation and still rely on outdated notions of acculturation (Rudmin et al. 2017). Thus, researchers framing Puerto Rican health disparities through an acculturation lens run a real risk of being unwittingly wedded to a perspective that may be sustaining a White Racial Frame of health disparities.

Rudmin and associates outline six disparaging conceptions of acculturation that many scholars still use, even if inadvertently. First, scholars tend to conflate acculturation with acculturative stress and with discrimination. Viewed in this

way, acculturation is consistent with the original conception in that acculturation is something that happens to people who are inferior. The second critique is that the relationship between acculturation and health is studied without controlling for SES and other structural constraints. Thus, the assumption is that deficient culture and individual attributes are the driving force behind poor health, rather than structural constraints and opportunities. Third, about 20 percent of the more than ten-thousand articles searched by Rudmin and colleagues label one group dominant, to "which an inferior group will be acculturating." This treats acculturation as a stigmatizing attribute and semantically treats the dominant group as superior and the minority group an inferior group that is acculturating. Fourth, the research tends to focus on the acculturation of the minority groups (i.e., Latinos and Asians) in the U.S. and does not consider that the dominant group also acculturates, nor does it address the process of reciprocal acculturation. The expectation is that minorities acculturate to the dominant group and not vice versa, which inherently pathologizes the minority group. Fifth, researchers who find that lower Socioeconomic Status (SES) minority groups have better health than even higher SES majority group members find such findings to be a paradox or counter-intuitive. The underlying assumption of such "surprising" findings is that minorities are expected to be inferior and have poor health; and SES is, again, conflated with acculturation. Equally interesting is that when immigrants from "advanced" societies move to the U.S. and studies reveal that they have better health, the framing of paradox or counter-intuitive findings are not invoked by researchers. This is consistent with a framing of White superiority. Sixth, Rudmin and associates (2017) present what they call a final "demeaning" conceptualization of acculturation. In this literature, they argue, there is a tendency to use broad stereotypical labels such as Asian or Latino. This approach is a pejorative one, which obfuscates and demeans ethnic groups (e.g., Puerto Rican, Filipino) by lumping their distinct cultural experiences, histories, and contexts under these broad pan-ethnic labels.

The presumptions about the cultural characteristics of minority groups are often based on stereotypes, divorced from the history and migration patterns of the minority groups in question, and there is also a failure by researchers to define who is the dominant group, and it is often unclear if said cultural traits apply to the dominant group and not to the minority group.

Hunt and associates (2004) offer other important critiques of the acculturation literature. Methodologically, acculturation is often undefined and unmeasured, and when it is defined, the definition is vague. Too often, the relationship between acculturation and health is assumed. This is one of the reasons, for example, why the relationship between acculturation and single health outcomes

(e.g., depression) vary so much in magnitudes with some studies reporting higher, lower, or no effects between acculturation and depression (Abraído-Lanza et al. 2016). The presumptions about the cultural characteristics of minority groups are often based on stereotypes, divorced from the history and migration patterns of the minority groups in question, and there is also a failure by researchers to define who is the dominant group, and it is often unclear if said cultural traits apply to the dominant group and not to the minority group. There is an assumption that acculturation is related to health because of cultural change, but that change is often not measured (but see Arévalo et al. 2015). The operationalization of acculturation often does not follow from its conceptualization and definition. Acculturation is often measured using proxy variables such as the use of English, place of birth of respondents and/or parents, their ethnic identity, family values, length of residence in the U.S., generational status, age at immigration to the U.S., the types of food people eat, and gender roles that supposedly map to the respondent's ethnic group (Arcia et al. 2001). There is also the assumption that there is a dichotomy between mainstream and ethnic culture.

In addition, Hunt and colleagues conclude that studies of acculturation have low content validity, and it is unclear what is actually being measured. Specific cultural elements mentioned as reasons are often not measured. Acculturation is confused with other scales such as self-efficacy, family cohesion and social support, an emphasis on family, religiosity, SES, immigrant status, and group attitudes that do not necessarily map across ethnicity. Moreover, studies assume culture maps across broad pan-ethnic categories like Latino or Black, ignoring ethnic differences or country of origin (e.g., Puerto Rican, Dominican, Salvadorian). In the case of Puerto Ricans, it is difficult to argue that Puerto Rican culture is not intertwined with those of the dominant group, as there are high rates of intermarriage between Puerto Ricans and Whites and other forms of constant contact through tourism and the workplace (De Jesús et al. 2014). In addition, mainstream culture is not explicitly defined, so the "invented majority" may not really exist. There is also slippery language to equate ethnicity, race, and acculturation with biology. For instance, in arguing that we need to do a better job contextualizing the relationship between acculturation and health, Fox and associates (2017) conclude that the health and well-being of disadvantaged communities could be improved if we understand the interactions between acculturation, context, and biology. We know that biology does not map along racial and ethnic lines, so it is unclear why the old minority-biology argument would be resurrected.

Aside from these methodological problems, Hunt and associates argue that the concept of acculturation has deep political roots that were used to justify Western expansion, such as the need to restrict immigration from foreigners, who were perceived as having defective mental traits, and taking over the lands of native Americans who were considered savages. In the case of Puerto Rico, for example, the U.S.-appointed Governor Allen of Puerto Rico referred to poor Puerto Ricans as undesirable, simple peasants, and other U.S. administrators soon after the 1898 inva-

sion of Puerto Rico viewed Puerto Ricans as "incapable of self-government" to justify complete control over Puerto Rico (Whalen 2005). This cultural framing of Puerto Ricans justified and reified the subjugation of Puerto Ricans to White American men. Hunt and colleagues conclude that because much of the work on acculturation since the 1960s is driven by the inaccurate notion that traditionalism and folk beliefs are at the center of health disparities, and that because culture cannot be reliably measured, researchers need to suspend the use of acculturation measures.

Taken as a whole, our view is that both the culture of poverty thesis and the outdated usage of acculturation in health research are consistent with a White Racial Frame of Puerto Rican life chances. The culture of poverty ideology has been used a perverse manner that frames Black and Puerto Rican poverty in the U.S. as being a result of individual's deficiencies (and not social and economic conditions), subjugates Puerto Ricans to second-class colonial subjects, and gives politicians the moral license to attack the social safety net that marginalized populations rely on for basic survival. Similarly, outdated notions of acculturation that are still used in research on Latino health disparities are also consistent with a White Racial Frame to the extent that they pathologize "Latino Culture" and also over-individualize Latino health disparities. Thus, our argument that the Culture of Poverty thesis and outdated notions of acculturation are two pillars of the White Racial Frame is substantiated by the evidence presented above. There is plenty of evidence to substantiate this outlook.

In the next section, we provide an overview of studies on Puerto Rican physical health disparities. We ask if Puerto Ricans are doing better or worse than other racial/ethnic groups. What do empirical studies of Puerto Rican physical health reveal? We also assess the frequency of the words culture, poverty, and acculturation in this literature and whether these words are used in tandem. Finally, we are interested in, if taken as a whole, the word lexicon used to describe Puerto Rican physical health disparities are individual level explanations or more structural accounts? Our focus on physical health is threefold. First, the literature on mental health is massive and is the focus of another article by us. Second, relatively little attention has been paid to studies of Puerto Rican physical health, making a review of this literature important to our understanding of health disparities. Third, the text analyses techniques used in the article are computationally extensive, and we wanted to ease into this discussion with a more manageable set of articles.

DATA, METHODS, AND RESULTS

Data and Methods

Our data are taken from research articles on Puerto Rican physical disparities published between the years 1990 to 2017. We systematically reviewed research articles on *Medline*, *PubMed*, and Google scholars for the words "Puerto Rican" and "Health." A more detailed review of the search results produced 47 articles whose primary objective was to compare the physical health of Puerto Ricans to the physi-

cal health of other racial/ethnic groups, or Puerto Rican physical health disparities. Each phase of the literature review was cross-checked by the authors to eliminate articles that did not involve the study of Puerto Rican health disparities.

We converted all the research articles that we found online through the search engines from Adobe Portable Document Format (.pdf) to text (.txt) files using the statistical package R (R Core Team 2017). These text files were then analyzed using various R libraries as discussed by Silge and Robinson (2017) using the Tidy Text approach. Text mining treats text as data frames and allows researchers to summarize, visualize, and find relations between words using natural langue processing (NLP) techniques that are becoming popular in fields such as linguistic analyses, in businesses interested in analyzing online responses from customers, and in the studies of interest to other analysts in the business of mining online sources of text data. Before mining these articles, we cleaned up the text by removing spaces, stop words (e.g., to, the, but), and other characters that are analytically not meaningful in the text files. This produces cleaner patterns of words in graphical and tabular representation of the text, which can include hundreds of thousands of data points.

Puerto Rican Health Disparities

Before presenting our results from the text analyses, it's useful to provide a brief overview of key findings from studies on Puerto Rican health disparities. Overall, our literature review reveals that Puerto Ricans fare worse than other racial/ethnic groups. As Figure 1 shows, out of the 47 studies analyzed, 30 of the studies document that Puerto Ricans had worse health than other groups. In addition, 7 studies reveal that Puerto Ricans enjoy better health than other groups. Furthermore, 10 studies show no statistically significant health differences between Puerto Ricans and other groups.

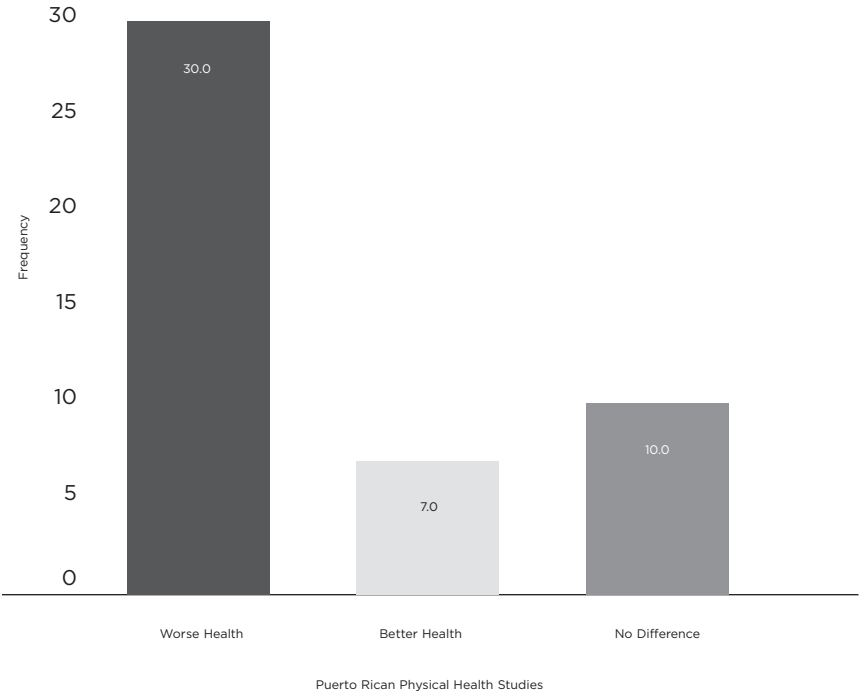
Puerto Ricanss report higher rates of poor health across various health outcomes compared to other groups, Puerto Ricans have been found to have a higher prevalence of diabetes (Flegal et al. 1991), hypertension (Cangiano 1994; Crespo et al. 1996), and self-reported bronchitis (Bang et al. 1990). Puerto Ricans have also been shown to have higher Body Mass Index (BMI) levels (Aponte 2009), and higher prevalence of asthma (Durazo-Arvizu et al. 2006; Rose et al. 2006; Holt et al. 2013; Alicea-Alvarez et al. 2014). For example, a study in New York City found that Puerto Rican households exhibited the highest levels of asthma in comparison to 10 other racial/ethnic groups (Rosenbaum 2008). Similarly, higher rates of recent and lifetime asthma attacks were found among Puerto Rican children residing in the United States (Lara et al. 2006). The authors documented Puerto Rican children born outside the continental United States had higher rates of asthma than other foreign-born children, independent of poverty, household smoking, single parenthood, and obesity. The prevalence of asthma was the highest among Puerto Rican children, compared to Mexican children (Reibman and Liu 2010). In addition, a review of mortality studies from 1980 to 2007 found that the death rates for asthma were approximately four times higher in Puerto Rico than in the US general population (Bartolomei-Díaz et al. 2011).

Findings for other health indicators reveal a similar pattern of health disadvantage among Puerto Ricans. For instance, Durazo-Arvizu and colleagues (2006) found higher age-adjusted mortality rates of cardiovascular disease (CVD) for Puerto Ricans compared to Whites, Blacks, Cubans, and Mexicans; however, Island-dweling Puerto Ricans were at a lower risk for CVD mortality than U.S. mainland Puerto Ricans. This finding suggests a relative advantage for Island Puerto Ricans (at least for CVD mortality), despite higher prevalence rates of metabolic syndrome, overweight, and obesity than the adult U.S. population (Pérez et al. 2008). Additional research on cardiovascular disease shows that U.S. Puerto Ricans have high measurement levels of subclinical CVD (Allison et al. 2008), increased risk of comorbidity and death (for mainland Puerto Rican women) from coronary heart disease (Lange et al. 2009), and hypertension for Island Puerto Ricans (Borrell and Crawford 2008). Moreover, Daviglus and colleagues (2012) found Puerto Ricans to have higher CVD risk factors (high cholesterol, high blood pressure, obesity, diabetes mellitus, and smoking) than other Latino groups (Cuban, Dominicans, Mexicans, Central and South Americans) in the United States.

Higher rates of diabetes among Puerto Ricans are disconcerting as recent findings show diabetes to be an important predictor of mortality among Island-dwelling Puerto Ricans and a leading cause of death among U.S. mainland Puerto Ricans.

Diabetes, cancer, HIV, and disability are a significant health problems in the Puerto Rican population. Higher rates of diabetes among Puerto Ricans are disconcerting as recent findings show diabetes to be an important predictor of mortality among Island-dwelling Puerto Ricans and a leading cause of death among U.S. mainland Puerto Ricans. Numerous studies have found higher rates of diabetes among Puerto Ricans (Whitman et al. 2006; Pabon-Nau et al. 2010; Downer et al. 2017; Pérez and Ailshire 2017). Reports on cancer incidence and mortality find similar health patterns. Puerto Ricans have been found to have higher cancer mortality rates than Mexicans, but not Cubans (Martinez-Tyson et al. 2009). For example Pinheiro (2009) analyzed 16 types of cancer incidence rates (e.g., prostate, lung, colon and rectum, bladder, etc.) among Latinos in Florida, and found Puerto Ricans had the highest incidence rates. Other studies suggest an advantage in health and mortality among Island Puerto Ricans; however U.S. mainland Puerto Ricans were found to have the highest incidence rates for stomach, liver, and cervical cancers (Crespo et al. 2008; Ho et al. 2009; Pérez and Ailshire 2017). Conversely, Perez and Alishire (2017) documented an advantage in cancer among Island Puerto Ricans compared to U.S. Whites and Blacks; however, this study also found U.S. mainland Hispanic men to have a lower prevalence of cancer. Finally, research specific to Island Puerto Ricans reported mixed findings on incidence and mortality of cancer, with cancers of the stomach and esophagus higher in low SES areas

Figure 1. Summary of Findings: Studies on Puerto Rican Physical Health



and breast, colorectal, kidney, pancreas, prostate and thyroid cancers more prevalent in areas with high SES (Torres-Cintron et al. 2012).

Additionally, studies on HIV and disability tend to show some similar patterns. Puerto Ricans account for the highest HIV infection rates among Latinos in the United States (Espinoza et al. 2008), which attribute to Puerto Rican adolescents being more likely to become sexually active (McDonald et al. 2009). Likewise, Hajat, Lucas, and Kington (2000) documented that Puerto Ricans reported lower health status and increased functional limitations when compared to other Latino subgroups (Mexican Americans and Cubans). Furthermore, Rivera and Burgos (2010) found that Puerto Ricans had higher rates of six types of disability when compared to the national average, but the results varied by counties. Similarly, Markides and associates (2007) found older Puerto Ricans had the highest rates of disability (e.g., sensory, physical, mental, self-care, and mobility) compared to non-Latino Whites and other Latino subgroups, regardless of sex. Other studies have found Puerto Ricans to have higher rates of disability and functional limitations compared to Whites (Melvin et al. 2014; Payne 2015; Sheftel 2017).

Poor health outcomes are not limited to Puerto Rican adults. For instance, researchers have documented a Puerto Rican health disadvantage for infant mortality rates (Becerra et al. 1991; Hummer et al. 1992; MacDorman and Mathews 2008), as well as a higher prevalence of low weight birth rates than other groups (Rosenberg et al. 2005; Acevedo-Garcia et al. 2007), and all-cause mortality for women between 45 and 65 years (Borrell and Crawford 2008). Conversely, Fenelon and colleagues (2017) show that Island-born Puerto Rican women 65 and older have a lower risk of mortality compared to non-Latino Whites.

Overall, the health profile for Puerto Ricans reveal a general pattern of disadvantage for most of the health outcomes explored: over-weight, hypertension, cardiovascular disease, diabetes, some types of cancer, HIV, disability, physical functioning, mortality rates, high prevalence of asthma, and high rates of infant mortality. From this literature, we can discern two important profiles. First, most of these studies are descriptive in nature, with few providing possible reasons for the disparities, other than socioeconomic disadvantages. Thus, the tendency is to reduce the experience of this racialized group to social class. Second, many studies alluded to socio-cultural norms associated with acculturation, such as protective healthy behaviors, and classical measures of acculturation including behaviors such as smoking, drinking, and duration of time in the U.S. In short, the literature on Puerto Rican physical health disparities is limited by many of the criticisms outlined by both Hunt and by Rudmin and colleagues (2017; 2004).

Results from text analyses

Our focus here is on the word frequencies and patterns that emerge from the literature. We pay attention to the words culture, poverty, acculturation, and the relationships between these words. We also focus our analysis on whether scholars are using individualistic words to describe these disparities or more structural accounts. Before we present the results, it is worth pointing out that we are concerned about general patterns that emerge from this literature. Thus, we do not single out any scholar(s), many of whom are our friends and esteemed colleagues, in our graphic-rich analyses.

We begin our analyses by examining words most frequently used in this literature. Table 1 ranks orders among those words that occur at least 380 times. We chose this arbitrary number after trying different iterations because it produces a readable table and because it reveals some very interesting patterns. As expected, the word health features prominently (N=3,050 times), as does the word Hispanic (N=1,503) and Puerto Rican (N=3,335 combined). The other words that feature prominently are health conditions such as diabetes, mortality, prevalence, and disease; and words such as higher rates and differences. This reflects the descriptive nature of these studies. Importantly, notice how frequently the word acculturation (N=591), which is highlighted, occurs in the top half of the list. Figure 2 provides a graphic representation of the same frequencies that appear in Table 1.

Figure 3 shows a word cloud or tag cloud of Puerto Rican physical health disparities. Here, we lower the word frequency so that words that occur at least 100 times in

the literature are displayed. In addition to the most frequent words that appear in the analyses above, the words *poverty*, *income*, *poor*, *english*, *black*, *white*, and *socioeconomic* emerge. These are words associated with outdated measures of acculturation and the culture of poverty, as described above. Equally interesting is that all the words refer to individual level characteristic with almost no mention of words that describe structural conditions, with the exception of the word *community*. Notice how the words race, racism, or discrimination do not feature in this word cloud at all. We find this omission very surprising and suggest that this may be part of a color-blind ideology (see Bonilla-Silva 2009) operating in this field. There is no critical race analyses in this literature despite the fact that Puerto Ricans are one of the most racialized groups in the U.S. To the best of our knowledge, this is the first word cloud of Puerto Rican physical health disparities.

We are also interested in the co-occurrence of words. Specifically, which words are correlated with the word acculturation. Table 2 shows words that have at least a r=.4 correlation with the word acculturation? We were surprised to see that the words acculturation is highly correlated with the word poverty, r=.69. This suggests that both culture of poverty and acculturation frames of Puerto Rican health disparities are deeply embedded with each other.

Our next and final question is: What are the sentiments that emerge from this literature? Are scholars of Puerto Rican health disparities discussing the issue in negative of positive ways? Figure 4 shows the results of our sentiment analysis. In this figure, words that are viewed as negative in the English language appear in the bars pointing down. Words that are considered positive in the English language appear protruding up. Figure 4 clearly reveals that more negative words are used to describe Puerto Rican health disparities than positive words. Words such as risk, poverty, chronic, and death are the most commonly used negative words in this literature. There are a few positive words that emerge as well, but they are not as frequent as the negative words. This is not surprising considering that Puerto Ricans have poorer health when compared to other groups. But still, the literature paints a negative picture of Puerto Ricans.

Conclusion

This paper began with the observation that the life chances of Puerto Ricans are often framed through two theoretical lenses that pathologize Puerto Rican individuals and Puerto Rican culture: the culture of poverty framework and the acculturation framework. We argued that these two frameworks are consistent with a White Racial Frame that structures race relations and sustains racial and ethnic inequalities in the United States. After outlining the key tenets of these three frameworks, and presenting critiques of the culture of poverty and acculturation frameworks, we examine if key tenets of the culture of poverty and acculturation frameworks are invoked in the study of Puerto Rican health disparities. Our results reveal that remnants of these perspectives are still in use in this literature. In addition, and perhaps most important, most studies in this area are descriptive in nature and do not contextualize and/or theorize why Puerto Ricans have worse health outcomes than

do other groups. In the end, the medical rhetoric that is used in these studies reduce Puerto Rican health disparities to individual accounts such as poverty and culture.

Moving away from ideas that blame poverty and poor health on individuals and families requires a theoretically driven model that places the study of culture within a multilevel structural framework.

The question is where do we go from here? Should we abandon acculturation research, as Hunt and colleagues (2004) suggest, or should we do a better job contextualizing the study of culture, as Fox and associates (2017) and Abraido-Lanza and associates (2016) and others (Arévalo et al. 2015) argue? Our stance is with the latter approach, and we suggest that we need to do a much better job of contextualizing the relationship between acculturation and health. Also, we must address the significant challenge of conceptualizing culture in a more sociologically robust way. Moving away from ideas that blame poverty and poor health on individuals and families requires a theoretically driven model that places the study of culture within a multilevel structural framework. To this end, we conclude this essay with two propositions. First, we re-introduce the Racialized Place Inequality Framework (RPIF) and point out that

Table 1. Word Frequency of Puerto Rican Physical Health Studies, N = 380 or more words

Health	puerto	Hispanic	rican	risk	Diabetes
3050	2316	1503	1019	925	906
age	mexican	population	mortality	prevalence	ricans
891	848	839	824	767	745
states	American	Hispanics	status	higher	americans
738	716	690	664	653	627
factors	**acculturation**	rates	national	high	social
600	591	578	569	567	564
disease	women	groups	adults	years	men
557	549	539	527	515	514
use	rico	research	older	differences	lower
513	496	493	477	466	441
care	nonhispanic	physical	smoking	public	group
438	412	412	390	386	384

Figure 2. Word Frequency Histogram: Studies of Puerto Rican Physical Health Disparities

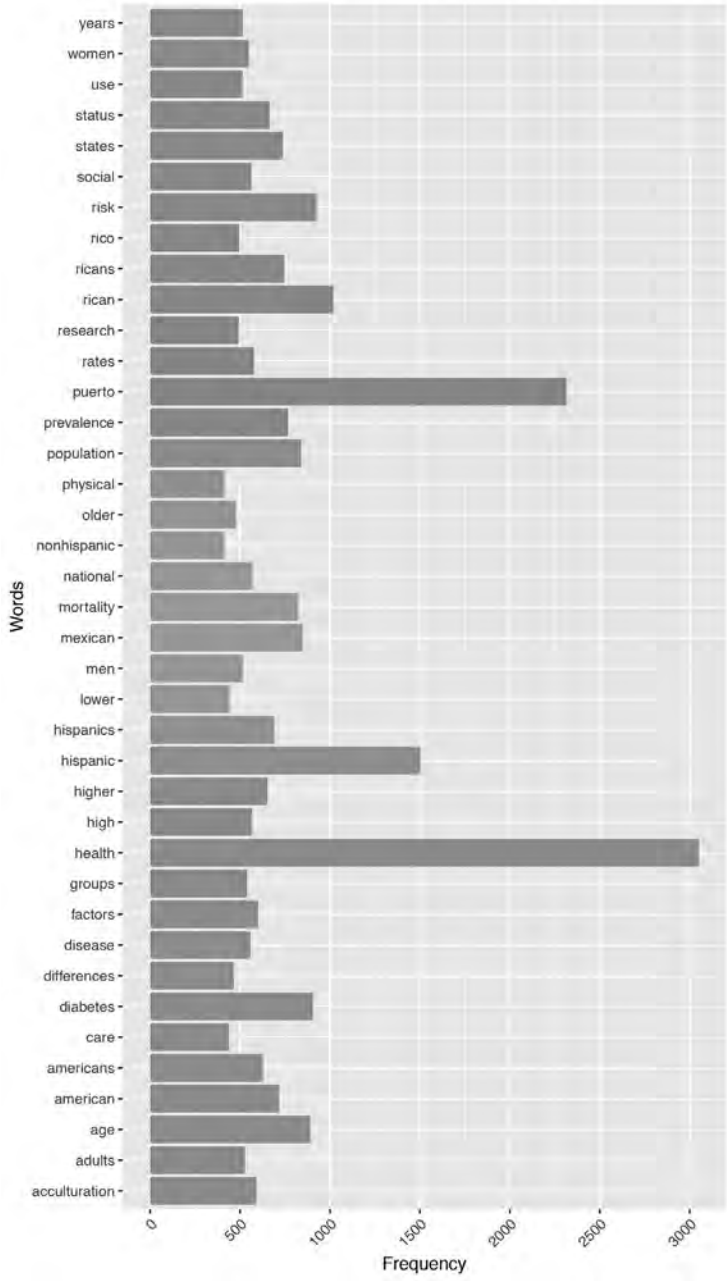
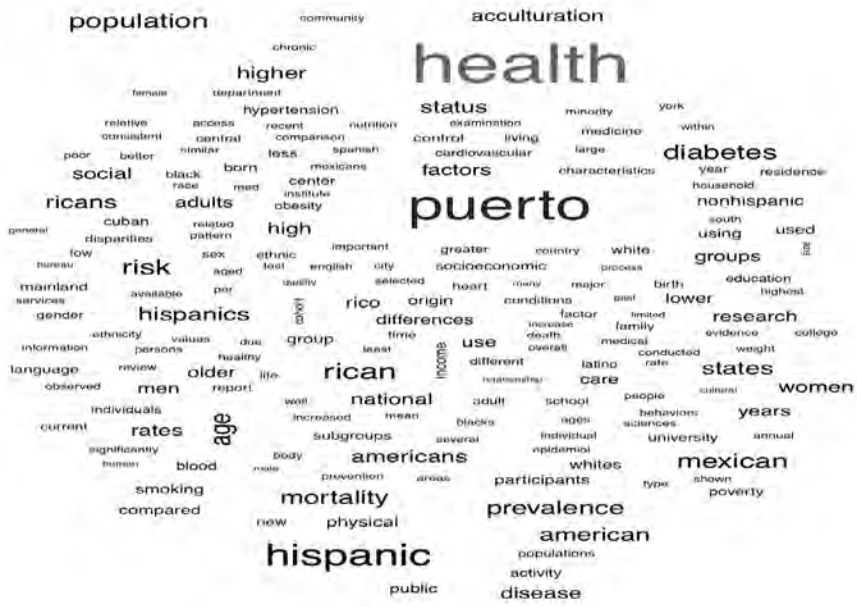


Figure 3. Word Cloud from Studies of Puerto Rican Physical Health Disparities



many of the emerging ideas put forth by scholars of acculturation can be incorporated into the RPIF. Second, we draw on the work of cultural sociologists and propose different ways of thinking about culture that are largely ignored in studies of health. These different ways of thinking about culture could prove useful in future attempts to study the relationship between culture and Puerto Rican health within a multilevel context. As Eppard (2016, VIII) notes: "Inequality in the U.S. [has] been disproportionately focused on the individual, casting poverty and inequality as personal troubles and downplaying structural concerns." The RPIF is, we argue, a step in the right direction in that it incorporates both individual and structural accounts of Puerto Rican health, including innovations in the study of culture.

Our first proposition is that the study of culture and acculturation needs to be contextualized. As distinguished sociologist William Julius Wilson, an expert on Black inner-city poverty, contends, understanding how culture impacts the life chances of individuals necessitates that the *structures* in which culture operates, the *social acts* that give culture meaning, and the *social processes* that bring culture to life be considered (Wilson 2010). By *social structures* Wilson (2010, 201) means the "way social positions, social roles, and networks of social relationships are arranged in our institutions, such as the economy, polity, education, and organization of the family." *Social acts* refer to behaviors of "individuals who occupy particular positions with a

Table 2. Words Correlated with the Word Acculturation in Studies of Puerto Rican Health Disparities, r > .4

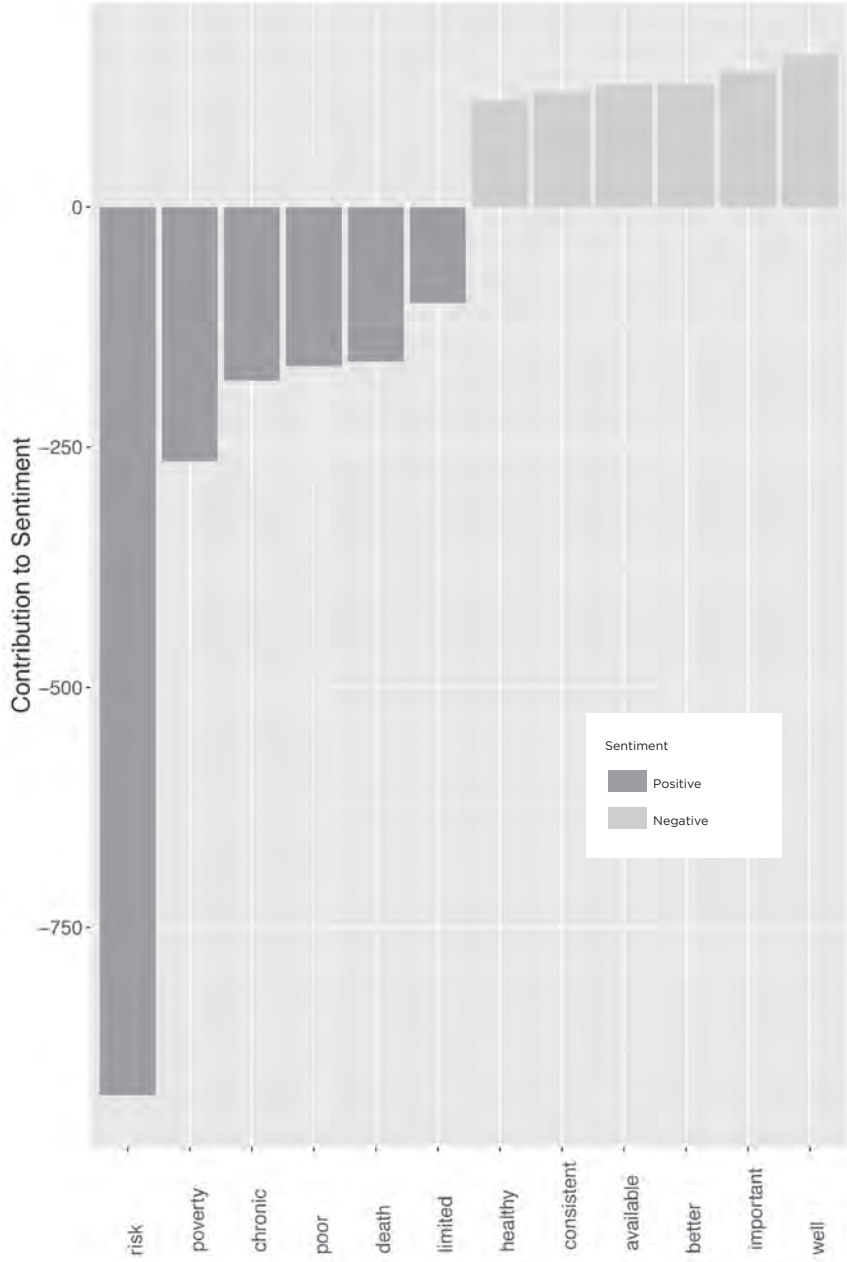
language	poverty	nutrition	english	value	majority
0.69	0.69	0.69	0.62	0.56	0.55
present	greater	spanish	type	less	increased
0.54	0.51	0.51	0.51	0.49	0.45
obesity	behaviors	contrast	quality	process	
0.45	0.42	0.42	0.42	0.42	

society," such as experiences of discrimination in the housing and job markets, and exclusion from schools and civic associations. Social acts are of most consequence when individuals and/or groups have and exercise power over others within and across institutions. *Social processes* are the "machinery" or tools of society that "promote relations between members of the larger groups" such as policies, institutional practices, and laws that are utilized to include or exclude people along racial and ethnic lines. Examples of social processes include Jim Crow segregation laws, voting restrictions, the systemic tracking of minority students into less rigorous classes, racial profiling by police to maintain neighborhood racial boundaries, and policies by banks and insurance companies to prevent minorities from home-ownership. Wilson (2010:201) concludes that racial inequality is maintained by "ideologies about group difference [that] are embedded in organization arrangements." The White Racial Frame is one of those ideological pillars of racism.

This basic idea of the need to contextualize how culture affects the health of Latinos resonates with emerging work being developed by acculturation scholars. For example, Abraído-Lanza and colleagues (2016) argue that research on community contexts would be useful to advance research on acculturation and health. They argue that theoretical and methodological approaches that test the mediating mechanisms that link contextual and structural factors to health need to be examined in acculturation research, as part of a complex contextual framework. Hunt and colleagues (2004, 981) note that relations between health and acculturation need to consider the structural conditions where people settle, such as the socioeconomic status of communities and other available resources that impact health. Similarly, Fox and associates (2017) argue that neighborhood and community conditions may moderate and/or mediate the relationship between acculturation and health outcomes. This must be done in a theoretically informed manner with *a priori* hypothesizing of how context moderates and/or mediates the relationship between acculturation and health.

Much of the work in the acculturation literature that advocates for the consideration of structural conditions adheres to what sociologists refer to as ethnic

Figure 4. Sentiment Analysis of Positive and Negative Words Used in Studies of Puerto Rican Physical Health Analysis



enclave or ethnic community models of incorporation. These models are premised on the assumption that ethnic communities/enclaves are welcoming places where immigrants first settle, and where they receive instrumental support with housing, jobs, and schooling. These enclaves are also assumed to be beneficial to the extent that they provide social and emotional support and a sense of belonging and inclusion to newcomers (Waldinger and Perlmann 1998; Logan et al. 2002).

As Fox and colleagues (2017) and others (Abraído-Lanza et al. 2016) suggest, communities can offer cultural congruity and social support to the extent that immigrants living in communities with their co-ethics will have more social support and less acculturative stress as they find themselves in similar cultural environments in ethnic enclaves. This idea resonates with social psychological work on identity. As Mcleod and colleagues (2015) note, the sociological study of identity is crucial for understating how broader social structures impact micro-level social phenomena, including mental health and physical health. Identities, or how individuals identify (e.g., Puerto Rican, White, a good person) are based on social roles and develop through social interactions. There is a large body of research on how identities influence behaviors and attitudes whereby "people seek consistency between their self-conception, their behaviors, and situated meanings" (McLeod et al. 2015, 25). Fox and associates (2017) also maintain that "discrepancies between how people identify and how they are treated can cause stress, status inconsistency, and incongruency," Individuals who identify with the dominant group and who are rejected will experience isolation, cognitive dissonance, status frustration, and poor health. Individuals who are integrated into the dominant group and who are accepted will have better health. In those culturally congruent communities, newcomers are insulated from discrimination by the dominant group and experience less acculturative stress. Minorities living in ethnic enclaves can benefit from living in communities with members of their own group. In short, the ethnic community and ethnic enclave perspectives suggest that segregation can have beneficial effects on the health of acculturating individuals.

The Racialized Place Inequality Framework (RPIF) introduced by Burgos and Rivera (2012) and further tested by De Jesús and associates (2014) captures many of the insights provided by Wilson and acculturation scholars (see Figure 5). Building on place stratification literature (Logan 1978; Logan and Molotch 1987) and the literature on neighborhoods and health (Hill and Maimon 2013), the RPIF begins with the premise that the segregation and concentration of racialized U.S. minorities (i.e., Puerto Ricans, African Americans) in poor disadvantage communities is not largely choice-based, to the extent that these groups choose to live with others of the same racial and ethnic background. Instead, residential segregation, whereby African Americans and Puerto Ricans live in separate and unequal (economically disadvantaged) neighborhoods from Whites, results from discrimination in the real estate and employment markets (Carr and Kutty 2008b). Residential racial segregation is considered a social structure and reflects social processes that negatively impact the

life chances of Puerto Ricans, who experience worse health, because it concentrates Puerto Ricans in economically disadvantaged neighborhoods. Living in communities with extreme, segregated, and concentrated poverty has negative consequences for the life chances of Puerto Ricans and African Americans (Marzan 2009; Santiago 2015; Jargowsky and Yang 2016).

The machinery, to use Wilson's (2010) terminology, that has resulted in Puerto Ricans and African Americans becoming two of the most residentially segregated groups in the U.S. includes social processes such as anti-miscegenation laws, "aimed at preserving racial purity of the white race [and preventing] interracial couples from marrying and producing legitimate racially mixed children [since such children] would destabilize a system of racial apartheid [that preserved] white privilege and supremacy" (Oh 2005, 1329–30). Other discriminatory practices that have also created separate and unequal residential areas between Puerto Ricans/Blacks and Whites include:

- the building of housing projects in poor urban communities by the federal government;
- the passing of building codes by local governments that limit the number of people who can live in an apartment and prohibit the building of multi-unit dwellings in White neighborhoods;
- the *redlining* by banks of predominantly minority areas for the sole purpose of denying mortgages to minorities in those communities;
- the higher denial rates by mortgage insurance companies to minorities that makes owning a home in more expensive/exclusive neighborhoods unlikely;
- the *steering* by real estate agents of minorities away from White neighborhoods; contracts or housing *covenants* that disallow Whites to sell and/or rent to minorities in White neighborhoods;
- Whites' strong preferences to live in all-White communities, including leaving neighborhoods that are "turning" and becoming more racially and ethnically diverse—a process known as *White flight* (see Miller et al. 2009; U.S. Housing Scholars and Research and Advocacy Organizations 2008).

Today, Puerto Ricans are the most segregated Latino group, and the spatial isolation for other Latino groups has increased with existing anti-Latino immigrant attitudes and long- standing prevailing stereotypes by Whites, many of whom still hold negative attitudes toward minorities. Prejudices might include the belief that minorities have low intelligence, a lack of motivation, and a propensity towards violence (Massey 2016). Such negative ideologies are the foundation of and are consistent with a White Racial Frame (Feagin 2009).

Housing discrimination practices such as these, among many others (see Turner and Ross 2005), have led to some powerful conclusions by place stratification scholars about the social detriments that result from segregation. For instance, Williams and Collins (2001: 404) argue that segregation is a direct result of systemic acts of housing discrimination that "protect Whites from interaction with Blacks" and other minorities. Rugh and Massey (2010: 630) indicate that segregation "concentrates the

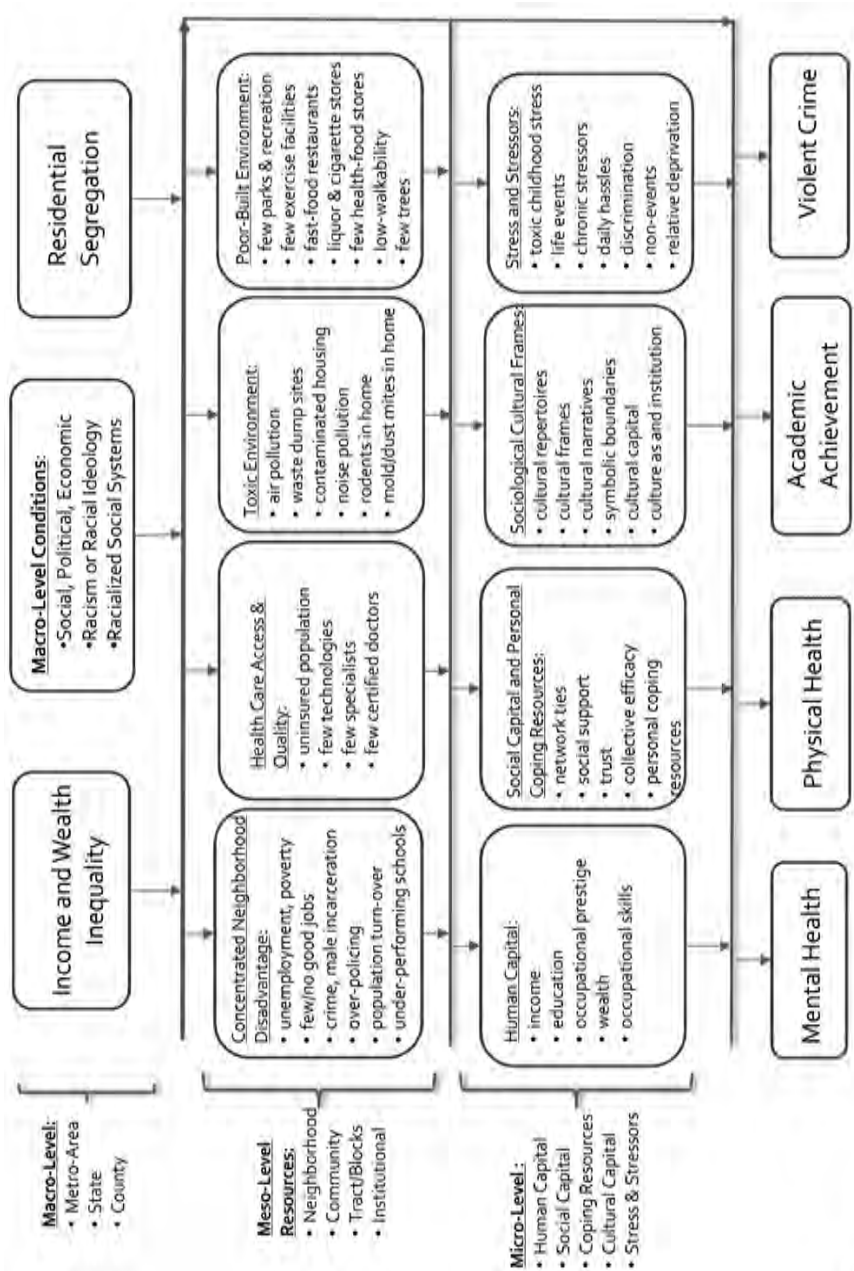
effects of any economic downturn spatially. . . and hit Black and Hispanic neighborhoods with particular force." Carr and Kutty (2008a, 1) maintain that "denial of access to housing is arguably the single most powerful tool to undermine and marginalize the upward mobility of people." Perhaps not surprisingly, place stratification scholars have referred to residential segregation as the structural "lynchpin of American race relations" (see Bobo and Zubrinsky 1996; Massey 2016).

As captured by the RPIF that appears in Figure 5, segregation is a macro-level characteristic of place (metropolitan area, state, county) that sets into motion a series of disadvantages at the meso-level, such as sorting Puerto Ricans into economically disadvantaged neighborhoods with high crime rates, over-policing, high male incarceration rates, high school dropout rates, dilapidated housing, poorly built environment (i.e., few parks and green spaces, healthy food deserts), lack of access to quality health care (see also Anderson 2017), and toxic environments (air pollution, noise, contaminated housing). In turn, these meso-level conditions concentrate disadvantages at the micro-individual level, including low SES, limited human capital, high levels of stress/discrimination, lack of social integration including network ties, social support, and social capital. As the negative consequences of segregation converge in Black and Puerto Rican communities, the racialization of place also negatively impacts the health of Puerto Ricans. Thus, to understand how culture affects individuals, we must understand how culture is embedded in these structural conditions (see Small and Newman 2001).

Unfortunately, residential racial segregation continues to mar the upward mobility prospects of Blacks and Latinos, many of whom live in hyper-segregated metropolitan areas and counties, but with the added complexity of rising levels of economic inequality in both income and wealth (Burgos and Rivera 2012). As Massey (2016, 6) contends, existing levels of segregation and increasing levels of income inequality creates a "more complex urban ecology in which race and class interact powerfully to determine individual and family well-being [that in] a very real sense, the perpetuation of poverty among blacks and Latinos today prevails because segregation is not a thing of the past, but a condition that continues to be generated and reinforced by ongoing social and economic processes that continue to operate within distinct segments of American society." Segregation leads to the concentration of social problems in the very same communities where Puerto Ricans, other Latinos, and African Americans live (Rugh et al. 2015; Massey and Rugh 2018).

Thus, the recent call by acculturation researchers (Abraído-Lanza et al. 2016; Fox et al. 2017) to contextualize the relationship between acculturation and Latino health can be addressed by the RPIF, such as examining how acculturation interacts with stress, discrimination, social support, individual's coping mechanisms, and SES. We know that stress affects health, such that individuals who experience more negative life events, life traumas, daily hassles, and other chronic stressors have worse health than individuals with less stress in their lives (Rivera and Burgos 2014). We also know that there is an inverse relationship between SES and health to the extent that higher SES individuals tend to enjoy better health than

Figure 5. The Racialized Place Inequality Framework, RPIF



their lower SES peers, and that such a relationship is contingent on structural factors such as neighborhood conditions and segregation (Williams and Jackson 2005). The insights by acculturation scholars for research that contextualizes the health effects of acculturation are significantly important.

But, the RPIF presents a different perspective from the ethnic enclave argument favored by some acculturation scholars. Whereas ethnic community and ethnic enclaves are expected to be beneficial for the health of immigrants and minorities (see Osypuk et al. 2009), the RPIF suggests that segregation will have the opposite effects on the Puerto Rican community—detrimental effects. There are at least two possible reasons for the conflicting theoretical expectations between the place stratification-based RPIF and the ethnic enclave model. First, the percent of minorities living in a neighborhood and residential segregation are not the same thing. Segregation measures capture the spatial distribution of minorities in a geographic area *vis-à-vis* Whites. For instance, imagine two counties with 20 percent Puerto Ricans each. A hyper-segregated county will have most minorities living in a couple economically disadvantaged neighborhoods within the county, away from Whites. A county with low segregation will have minorities living in and dispersed throughout better-off White neighborhoods in the county. Thus, segregation represents the racialization of place and the distribution of disadvantages along racial lines. Measures of percent minority and ethnic enclaves do an inadequate job of capturing the social process and structural effects of residential concentration for racialized minorities. Today, the geographic concentration of African Americans and Puerto Ricans largely results from racism and discrimination and should not be equated with romanticized notions of White ethnic communities of the 19th and 20th centuries.

Thus, segregation represents the racialization of place and the distribution of disadvantages along racial lines.

The RPIF is also multilevel and considers structural conditions of places at three levels of analyses, including the county/state/metro (level 3); the neighborhood (e.g., census block/tracts, zip codes, or level 2); and individual and group level attributes (level 1). Thus, the RPIF can be used to capture social structure, social acts, and social processes as envisioned by Wilson (2010). The RPIF is also designed to be tested and extended with some of the most innovative and advanced statistical technique, including hierarchical linear modeling, which allow researchers to examine the mechanisms (mediating and buffering) that link structural conditions to health. In short, the RPIF allows for the testing of many of the contextual insights that acculturation researchers are developing with recent statistical innovations.

Lastly, we'd like to conclude with some suggestions on how to understand culture within the RPIF. Wilson's (2010) work and Small and Lamont (2008) insights

are informative. Wilson (2010) defines culture as the "sharing of outlooks and modes of behavior among individuals who face similar place-based circumstance (such as poor segregated neighborhoods) . . . when individuals act according to their culture, they are following inclinations developed from their exposure to the particular traditions, practices, and beliefs among those who lie an interact in the same physical social environment." Wilson indicates that while this definition includes traditional measures of culture, such as values, norms, behaviors, and attitudes, it also includes *cultural repertoires*, which are skills, styles, habits of individuals. Repertoires are micro-level meanings and understanding upon which individuals make decisions according to their understanding of social conditions. This definition moves us away from notions of cultures as being internal to an individual or belonging to a specific ethno-racial group, and toward a definition of culture that emerges from social interactions and relationships (see Pimentel 2008). This is an important distinction from old notions of culture, one that treated culture as belonging to an individual or an ethnic group. These conceptualizations of culture as a social process of meaning-making and decision-making, given structural advantages and disadvantages at play, is the best way to move forward.

To this end, Small and Lamont (2008) present equally important work by cultural sociologists interested in understanding the culture, poverty, and structure dialectics. They suggest that to understand the relations between culture and behavioral outcomes, researches can draw on the literature exploring cultural frames, cultural repertoires, cultural narratives, culture as symbolic boundaries, culture as cultural capital, and culture as an institution. *Cultural frames* are how individuals cognitively perceive the world around them, including racial and class relations. These cognitions can be used to explain how people respond to neighborhood poverty and how they mobilize to deal with disadvantaged conditions. *Cultural repertoires* are toolkits that involve habits, skills, believes, practices, and attitudes upon which people can draw on in times of need. As Small and Lamont note, frames are the lenses through which people view the world, while repertoires are the set of tools individuals have at their disposal to deal with adversity and challenges.

Cultural narratives are collective stories and represent the discourse people use to initiate action to solve problems, from beginning to end. These narratives are based on people's personal experiences and the experiences they observed from others around them. Thus, when faced with a problem, people will act in accordance with the narrative they have about the situation. Culture as *symbolic boundaries* are "conceptual distinctions between objects, people, and practices that operate as a 'system of rules that guide interaction by affecting who comes together to engage in what social act'" (Small and Lamont 2008, 84). Examples include acts of inclusion/exclusions in social groups along religious, moral, class, and cultural sophistication. *Cultural capital* includes the cultural habits (e.g., listening to classical music), pecuniary tastes (brand of clothing & apparels), lifestyles (playing golf), and other high status symbols that the upper middle class use to exclude lower class individuals

and pass on their privilege to their children through symbolic power, and overt and subtle cues of behavior. Lastly, *culture as an institution* are the formal and informal rules and norms of behavior or shared cognitive and interpretative schemas that are learned and practiced within organizations. They include processes such as discourse and definitions about things related to class, gender, and race that ultimately feed into public policy on poverty. An example given by Small and Lamont incudes the language used in annual income proposals during the 1960s and 1970s. Boundaries were created between those who were viewed as welfare recipients and those viewed as the working poor, and between those needing income supplements and those described as needing welfare support. These shared understandings within institutions translate into policy actions about who deserves support and who does not deserve support. These basic ideas also apply to shared group understanding in other instructional arrangements, such as communities and schools.

Lastly, to understand the relationship between culture and health, it is important to also think of cultural frameworks in terms of national views and beliefs on race. One of the dominant cultural frames is the White Racial Frame (Feagin 2009), and both Wilson and Feagin agree that racism is an American cultural frame of how Whites perceive and act toward Blacks and other racialized minorities. Racism is sustained by ideologies and belief systems affirming that Whites are superior culturally and biologically to racialized minorities, and that racialized minorities are responsible for their economic conditions (i.e., laissez-faire racism). Whites use this belief system to rationalize racial domination and maintain their economic, social, ideological, and moral power in society (Bonilla-Silva 1997; Bonilla-Silva 2009). Thus, in analyses of racial/ethnic inequality, we also need to think of culture in macro-terms, not as a characteristic that belongs to individuals. Instead, it is more truly an ideology that shapes and defines social structures, social processes, and social acts (Bonilla-Silva 1997). When this happens, as it does in the United States, we have a *racialized social structure*. When this happens within and across institutions, and within and across geographical locations, we have *racialized places*. When these two processes converge, we have a racialized place inequality framework. The RPIF is a good starting point to place the study of Puerto Rican culture and health in multi-level context. Culture is a reaction to local and national circumstances. It reflects social processes and is not something that is inherent in the individuals, as has been traditionally viewed by the culture of poverty and acculturation frames.

We will conclude with at least one definitive answer to a lingering question. When scholars who adhere to the culture of poverty framework ask, and when commentators who believe in bourgeois habits inquire, and when acculturation scholars who hold on to outdated notions of acculturation ponder, what is wrong with Puerto Rican culture, the answer is: Nothing! Perhaps we should be asking, What is wrong with the White Racial Frame that triggers such questions about the life chances of *Mi Gente*. The White Racial Frame not only shapes discussions of and policy responses to poverty, it also shapes how scholars frame research on culture and Puerto Rican

health. As scholars of culture and health, we need to be very careful and not be locked into cultural perspectives that inadvertently reify outdated and racist ways of framing Puerto Rican life chances. We also need to be careful of invoking ideological frameworks masked as social science; these frameworks ultimately end up blaming the victim (Royce 2015; Eppard 2016) and vilifying the poor and the disadvantaged (Greenbaum 2015).

ACKNOWLEDGEMENTS

We'd like to thank Nicolas Wilson and Kathleen Fallon from Stony Brook University and Kristin Norget from McGill University, for insightful conversations and theoretical resources on culture and sociology. We gratefully acknowledge financial support for this research provided by the National Institute on Aging (5T32AG270).

NOTES

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[2] We elaborate on Feagin's perspective below.

[3] The Dove beauty product commercials on television represent a contemporary example of racist imagery in the media, see Astor (2017).

[4] Because a complete review of the advances taking place in the acculturation literature is beyond the scope of this paper, in this section we highlight key critiques of the acculturation frame at the conceptual level.

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