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Stress, Pregnancy, and Motherhood: Implications for Birth Weights in the Borderlands of Texas

We argue that changes over time in how ideas of stress are incorporated into understandings of pregnancy and motherhood among Mexican immigrant women living in the United States may affect the documented increase of low birth weight infants born to those women. Stress has consistently been linked to low birth weight, and pregnant Mexican American and Mexican immigrant women differ in levels of perceived social stress. What is lacking is an explanation for these differences. We utilize a subset of 36 ethnographic interviews with pregnant immigrant women from northern Mexico and Mexican Americans living in south Texas to demonstrate how meanings of pregnancy and motherhood increasingly integrate notions of stress the longer immigrant Mexican women live in the United States. We situate our results within anthropological and sociological research on motherhood in the United States and Mexico, anthropological research in the U.S.–Mexico borderlands, and interdisciplinary research on Hispanic rates of low birth weight. [pregnancy, stress, birth weight, borderlands]

Introduction: How Ideas of Motherhood and Pregnancy Could Matter in Infant Birth Weight

Birth weight is a biopsychosocial phenomenon (Dunkel Schetter 2012; Dunkel Schetter and Glynn 2011; Dunkel Schetter and Lobel 2011). By biopsychosocial, we refer to Dunkel Schetter's (2012) modeling of birth weight as a physical health outcome influenced by individual psychological appraisals of stress, mediated by the cultural, social, and physical environments in which pregnant women live. In Mexican immigrant women, the links between different measures of perceived stress, cortisol levels, and birth weight have been established (Diego et al. 2006; Ruiz et al. 2007). Our work considers how and why levels of perceived stress during pregnancy can

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change as a result of exposure to different understandings of pregnancy and motherhood in the United States.

Using the special case of unexplained variation in rates of low birth weight infants among recently immigrated Mexican women, we argue that living in the United States fundamentally alters the meaning of pregnancy and motherhood in ways that can exacerbate stress while the women are pregnant and, in turn, affect birth weight (Fleuriet and Sunil 2015b). We have previously argued that ideas about pregnancy and motherhood that impact stress perceptions are significantly different between pregnant Mexican immigrant and Mexican American women. Stress itself has consistently been linked to low birth weight (Dunkel Schetter and Lobel 2011), and levels of perceived social stress are significantly different in Mexican American women and Mexican immigrant women (Fleuriet and Sunil 2014, 2015a).

Our present analysis utilizes a subset of 36 ethnographic interviews with immigrant women from northern Mexico from a larger mixed methods multiyear project examining the relationship between birth weight, psychosocial health, perceptions of social status, and experiences and understandings of pregnancy and motherhood among pregnant, low-income Mexican immigrant and Mexican American women living in the borderlands of south Texas. Here, we buttress quantitative findings on stress and birth weight in Hispanic women with qualitative analysis of how meanings of pregnancy and motherhood change with the length of time that Mexican immigrants live in the United States. We tie an increase in meanings of pregnancy and motherhood that include stress to different dominant discourses about pregnancy and motherhood in the United States and Mexico. At the same time, we pay particular attention to the tension inherent in such broad comparisons, especially given the diversity of immigrant populations from different regions of Mexico. We set the analysis against the backdrop of anthropological and sociological research on discourses of motherhood in the United States and Mexico, anthropological research in the U.S.–Mexico borderlands, and interdisciplinary health research on Hispanic rates of low birth weight.

Differences in Birth Weight of Infants Born to Mexican Immigrant and Mexican American Women

Whether measured by increasing years of primary residence in the United States or by generation since immigration, the incidence of low birth weight infants increases after emigration from Mexico (Flores et al. 2012; Franzini et al. 2001; Morales et al. 2002). Traditional epidemiological risk factors, such as smoking, parity, and age, cannot fully account for low rates of low birth weight among infants of recently immigrated Mexican women or the subsequent increase in low birth weight rates over time in the United States and in subsequent generations (Bryant et al. 2010; Madan et al. 2006; McGlade et al. 2004). Low-income immigrants from Mexico often live in poorly resourced and stigmatized environments (Castañeda et al. 2015). Yet, low-income, recently arrived Mexican immigrant women have unexpectedly healthy infants, as measured by birth weight. Since low birth weight (defined as <2,500 grams) is a key predictor of physical, developmental, cognitive, and mental health (reviewed in Fleuriet and Sunil 2014), increasing low birth weight incidence is a significant cause for concern.

We use this so-called Latina paradox because of its potential to highlight the impact of cultural understandings on a specific health outcome. Initial forays into cultural explanations for the unexplained variation (Acevedo-García and Bates 2008; Zambrana and Carter-Pokras 2010) identified practices and behaviors thought to be protective and specific to a pan-Mexican population, such as greater social support during pregnancy (e.g., Berry 1999; Harley and Eskenazi 2006), emphasis on family identity and reliance (Page 2004), and healthier prenatal care practices than Mexican American and non-Hispanic white women experience (e.g., Gress-Smith et al. 2013; Rafaelli and Ontai 2004). There are several problems with these explanations. First, the assumption of a pan-Mexican set of beliefs and practices does not take into account regional cultural diversity in Mexico. Second, a set of practices and beliefs are treated as culture, rather than as cultural products stemming from an underlying, shared way of knowing about the world. Finally, commonalities found among Mexican immigrants may be more related to beliefs and practices that are due to shared inequalities related to class and legal status (Castañeda et al. 2015) in the United States rather than something shared from Mexico.

Anthropologists have highlighted cultural diversity of beliefs and behaviors within Mexican immigrant populations that could influence health outcomes. They have also noted some important cultural similarities with U.S.-born women. Social support (e.g., Fleuriet 2009a) and familialism (e.g., Fernández and Newby 2010) in Mexican immigrant women are neither universal, predictable, nor exclusive. Notions of "self-care" among pregnant Mexican immigrant, Mexican American, and non-Hispanic white women in the United States are quite similar, not different (Fleuriet 2009b; Gálvez 2011). How could the Latina paradox be explained, then, when there is significant similarity rather than difference in the prenatal care experiences of Mexican immigrant and U.S.-born women?

A good to place to start is with Gálvez's work (2011, 2012) with Mexican immigrant women in New York City, which demonstrates that dominant American discourses of immigrant, low-income, and female intersect. By discourses, we refer to the current medical anthropological usage of discourse as cultural scripts of making sense of the world and our social relations within it as a way of knowing that "encompasses and envelopes how people come to think, to feel and ultimately to act ... in forms that we come to think of as normative" (Fordyce and Maraesa 2012; Foucault 1972, 1978; Norwood 2009:31, 225). The women with whom Gálvez worked appeared to increasingly experience their bodies as risky, which Gálvez suggests could impact birth outcomes, such as birth weight. She argues that pregnant Mexican immigrant women begin to value and adopt American biomedical prenatal care practices that are perhaps less effective than those with which they were raised in largely indigenous communities in southern Mexico.

Gálvez's research and related psychological, demographic, and public health work suggest several future agendas, including testing whether these American discourses similarly influence different Mexican immigrant populations; testing other possible sociocultural influences on birth weight that are part of the immigrant experience in the United States; and considering how these influences can be analytically correlated with a pathway by which birth weights are impacted. Here, we discuss our work on the last two of these agendas, focusing primarily on Mexican immigrant

women's changing understandings of pregnancy and motherhood and stress, vis-à-vis subjective social status, as part of the pathway to resulting birth weight.

Birth Weight and Cultural Understandings of Pregnancy among Mexican Immigrant and Mexican American Women

In our larger project, we hypothesized that the construct of subjective social status (i.e., the perception of one's own status in relation to others) could link the sociocultural variables of cultural understandings of pregnancy and motherhood with maternal psychosocial health variables known to influence birth weight, including depression, perceived social stress, and pregnancy-related anxiety. Over six years and three data collection periods with Mexican immigrant and Mexican American women, our samples sizes were 83 ethnographic interviews about pregnancy, status, prenatal self-care and formal care, and motherhood; 631 psychosocial health surveys from pregnant women and followed by collection of subsequent birth weight; and 558 surveys of psychosocial health, pregnancy intendedness, and contraception use among non-pregnant and pregnant women. Mexican American and Mexican immigrant women were recruited in two federally qualified health centers, a religious birth center, and flea markets in the two southernmost counties of Texas.

We included only low-income women without clinical risk factors for low birth weight to control for socioeconomic status and medical risk, both variables associated with variation in low birth weight rates. To address both the unexplained decline in infant birth weights within the Mexican immigrant generation and the difference between Mexican immigrant and Mexican American women, we included both U.S.- and Mexico-born women with varying lengths of time living in the United States who self-identified as Mexican or being of Mexican descent. Participation was confidential; all names are pseudonyms. Research protocols were approved by the Institutional Review Board (11-031, 11-276) at our university.

Five measures were administered: the MacArthur Scale of Subjective Social Status: Community Standing (SSS) (Adler and Stewart 2007; Franzini and Fernandez-Esquer 2006; Wolff et al. 2010); the Perceived Social Stress Scale (PSS) (Cohen and Williamson 1988); the Rosenberg Self-Esteem Scale (SE) (Rosenberg 1965); the Personal Health Questionnaire Depression-9 (PHQ-9) (Kroenke et al. 2001); and the Pregnancy-related Anxiety Scale (PRA) (Rini et al. 1999). Birth weight was extracted from birth records.

The MacArthur Network on SES and Health developed the subjective social status scale to capture a sense of one's place across multiple socioeconomic status and community indicators (Adler and Stewart 2007). The SSS asks respondents to use a ladder to indicate their status position in comparison with those with the most social status at the top rungs and those with the least status at the bottom rungs. There are two versions of the ladder. The Socioeconomic (SES) ladder asks respondents about status in relation to socioeconomic indicators of education, income, and occupation. The Community ladder asks respondents about status in relation to however status is defined in their community (Ostrove et al. 2000). Adler and colleagues found that the most common definitions of community are neighborhood and city (Adler and Stewart 2007). The Community ladder is most useful in poorer communities, where socioeconomic status may not be as important or variable as other indicators

of status (Adler and Stewart 2007; Wolff et al. 2010). The Community ladder was included in our project for three reasons: (1) the community is largely low income; (2) the Community ladder could allow for another phenomenon, such as pregnancy, to inform the subjective social status; and (3) Franzini and Fernandez-Esquer (2006) found in a similar regional population that education was not a significant variable in subjective social status, suggesting other reference categories.

During the 2011–2012 data collection period, surveys were complemented with 83 semi-structured interviews. Interview topics included: meanings and feelings associated with pregnancy and pregnant women, forms and expressions of support during pregnancy, behaviors and practices associated with a healthy pregnancy, friend and kin relationships during pregnancy, structural barriers to meeting expectations of pregnancy, social status during pregnancy, past experiences of pregnancy, and potential problems during pregnancy. Women's meanings of pregnancy and pregnancy-related subjective social status were elicited as dominant associations and illustrated with personal narratives. Women were asked what words, feelings, and experiences they associated with pregnancy and pregnant women. Women were then asked to provide stories about self, relatives, or friends that exemplified these associations with pregnancy and pregnant women. A bilingual community health worker or a doula, each born in Mexico, conducted interviews in English, Spanish, and both, according to participant preference. Interviews lasted 30–90 minutes. Transcribed by bilingual research assistants, interview transcripts were coded by the first author according to a priori and emergent themes.

As expected (D'Anna-Hernandez et al. 2012; Dunkel Schetter and Glynn 2011), pregnant Mexican immigrant women had higher birth weight infants, lower levels of depression, self-esteem, and perceived social stress, and higher pregnancy-related anxiety than pregnant Mexican American women. There was relatively consistent linear change in each variable with time living in the United States. Mexican immigrant women who had been in the United States longer were more likely to be depressed, have lower levels of pregnancy-related anxiety, higher levels of perceived social stress, lower self-esteem, and lower average birth weight infants than Mexican immigrant women who had lived in the United States for less time.

Higher subjective social status, as measured by the MacArthur Scale, increased the odds of having a baby with normal or higher birth weight in both Mexican American and Mexican immigrant women (Fleuriet and Sunil 2015b). Subjective social status than other psychosocial variables was a better predictor in regression models of having a baby with normal or higher birth weight in both Mexican American and Mexican immigrant women (Fleuriet and Sunil 2015a). Importantly, however, subjective social status was not significantly correlated with low birth weight in either group. This distinction is likely due to the statistically significant different correlations between subjective social status, depression, self-esteem, perceived social stress, and pregnancy-related anxiety in Mexican American and Mexican immigrant women (Fleuriet and Sunil 2014, 2015a). Specifically, subjective social status in Mexican American women correlated with each of the other psychosocial health variables, but it only correlated with self-esteem in Mexican immigrant women. Our first qualitative analysis of understandings of pregnancy between Mexican American and Mexican immigrant women (Fleuriet and Sunil 2015b) found complementary results: Mexican immigrant women were far more likely to uniformly

describe pregnancy as a blessed time of privilege, while Mexican American women were more likely to consider pregnancy as an ambivalent gift, similar to dominant American approaches to pregnancy (reviewed in Fleuriet and Sunil 2015b).

We now shift the analysis from a comparison of understandings of pregnancy and motherhood between U.S.- and Mexico-born Hispanic women to a more fine-grained analysis of changing conceptions of pregnancy and motherhood between Mexico-born women with differing lengths of time living in the United States. The different perceptions of stress, we argue, depends on the cultural registers of motherhood that are used to evaluate pregnancy and pregnant women. As years in the United States go by, ideas of pregnancy and motherhood become intertwined with perceived social stress during pregnancy. We illustrate with data from the particular ethnographic space of the U.S.–Mexico borderlands to underscore that pregnancy meanings are also shaped by the regional cultures of women's birthplaces and primary residences. We conclude by substantiating our results with the larger literatures on American and Mexican discourses of motherhood while offering a possible explanation for the unexplained low birth weight incidence among recent Mexican immigrant women.

Pregnant Mexican Immigrant Women from Tamaulipas, Mexico, and Mexican American Women Living in the Borderlands of South Texas

The lower Rio Grande of Valley (hereafter, Valley) is the southernmost portion of Texas, bordered by the Mexican state of Tamaulipas. Demographics of Valley counties reflect their proximity to and relationship with Mexico and the region's endemic poverty. In Cameron County in 2013, 88.5% of the population was Hispanic, and 24.7% were foreign born (U.S. Census Bureau 2014a). Among the foreign born in 2011, 97.2% were from Mexico(Pew 2014). In Hidalgo County in 2013, 91% of the population was Hispanic, and 29.5% were foreign born, of which 97.7% were from Mexico (Pew 2014; U.S. Census Bureau 2014b). Between 2008 and 2012, Hidalgo and Cameron's poverty rates hovered around 35% (U.S. Census Bureau 2014a, 2014b).

The Valley as an ethnographic site emphasizes the importance of recognizing the diversity within Mexican descent populations in the United States. Class and legal status and skin tone differences are arguably more salient than ethnic divides in the lower Rio Grande Valley (Garza 2014; Vila 2005). Valley Mexican descent populations vary widely according to historical land ownership and wealth, current socioeconomic statuses, legal status, and time since immigration, when applicable. Historically, economic and political power in the Valley was concentrated in the hands of a wealthy, non-Hispanic white minority and an even smaller minority of wealthy Mexican American elite families whose land claims preceded the 1848 Treaty of Guadalupe Hidalgo that established the current geopolitical border. Largely class-based ethnic segregation persisted until the 1970s (Heyman 2010), and its effects on economic capital accumulation are still evident today in housing and income demographics. However, beginning in the 1970s, a strong Hispanic middle class emerged. Slowly, the Hispanic community increasingly gained political power through election and appointment to local, state, and national offices. At the same time, poverty rates rose in the Valley, disproportionately affecting Hispanic

communities and, specifically, first- and second-generation Mexican immigrant families. Class and legal status interact with the often opposing borderland hegemonies of nationalism and globalization to produce fundamentally different experiences of the borderlands (Heyman 2010).

These borderlands are defined by regular and massive flows of people, goods, and ideas back and forth across the geopolitical border line (Alvarez 1995; Ruiz 1998). In 1994, NAFTA increased that flow as well as population sizes and poverty rates on both sides of the border. Recent militarization and increased violence in Mexican border cities have dramatically reduced material exchanges and crossings, but cross-border kin and friend relationships remain strong through technology and a long history of transnational ties (Heyman 2010; Vila 2005).

For decades and notably prior to the anthropological treatment of the borderlands as a transnational space, borderland residents have seen the region as a culturally distinct space that is neither American nor Mexican, but rather something unique. Third-space Chicana feminists and transnational scholars have theorized these borderlands as simultaneously productive and restrictive (Anzaldua 2012 [1987]; Ruiz 1998). Women's roles and statuses can be taken for granted or become cultural battlegrounds (Anzaldua 2012 [1987]; Fregoso 2003). Women's health care in the Texas borderlands is highly politicized due to then Texas Governor Rick Perry's 2013 attack on the Affordable Care Act and the Texas legislature's 2013 restrictions on access to abortion-related services.

In the mid-2000s, the Texas legislature declared the fetus an unborn citizen and deserving of care—though not the undocumented immigrant mother (see Fleuriet 2009c). As a result, low-income undocumented immigrant women legally have access to prenatal care in Texas but are otherwise ineligible for insurance under the Affordable Care Act. Due to the high rate of uninsured residents and endemic poverty, federally qualified health centers (FQHCs) provide a majority of the prenatal care. One notable exception is the religious birth center in Hidalgo County, which provides midwifery care and a place for unmedicated births on a sliding fee scale, including in-kind payments. Because of its distinctive approach to care, its reputation, and popularity among low-income Mexican immigrant women, it was included alongside FQHCs in our project. Language is rarely a barrier to health care or social services in the Valley. Many health care and social services providers and even more of their staff are bilingual. Bilingual public service announcements, media advertisements, television and radio news programs, and religious services are the norm.

Shifting Ideas of Pregnancy and Motherhood: Recent Immigrants from Northern Mexico, Established Mexican Immigrants, and Mexican American Women

Most immigrant families who reside in the Valley are, unsurprisingly, from northern Mexico. In our research, participating Mexican immigrant women were largely from northeastern borderland states: 57.9% (238) were born in Tamaulipas and another 3.9% (16) in Nuevo León. The next most frequent birth states were Veracruz (8.3%, 34) and San Luis Potosí (9.7%, 40), which border Tamaulipas to the south. Overall, 79.8% of the women were born in these four states. Because the sending region may have potentially different pregnancy traditions and penetration of biomedicine

into the pregnancy experience, our analysis here is restricted to women born in Tamaulipas. A subset of 11 Mexican American and 72 Mexican immigrant women was interviewed, 52 (72.2%) of whom were born in Tamaulipas. Of those, 36 responded with the number of years lived in the United States; 12 had emigrated less than five years prior to the interview (average 2.1 years), 14 had emigrated six–10 years prior (average 8.1 years), and 10 had emigrated more than 10 years prior (average 19.3 years).

Mexican immigrant women's narratives and ideas about pregnancy and motherhood varied by the length of time living in the United States. Pregnant women from Tamaulipas who had immigrated to the Valley within five years had a pregnancy narrative that was uniformly positive, excepting one woman with significant nausea at the time of interview. Primary pregnancy meanings were life, gift/blessing, and happiness. All but one woman felt that family members expressed more concern and attention or helped with household tasks. Carolina, a 20-year-old woman born in Matamoros, Tamaulipas, had emigrated two years prior. She was in the first trimester of her first pregnancy after trying to become pregnant for three years. Carolina described pregnancy as

> something beautiful. A true blessing, and, how could I put it? It is a gift. . . . [People] should treat pregnant women a little differently—but not too much. They should offer us help if we need it . . . [my family] treats me well, especially my husband. . . . He helps me clean—(laughs), sometimes.

Angela, a 29-year-old woman in her fifth pregnancy, was also born in Matamoros, emigrating two years prior to the interview. She similarly thought of pregnancy as "another life, something beautiful." She was particularly happy because after three sons, she was going to have a girl. Angela felt that when she was pregnant, people should treat her with more care, but

> all people should be treated with respect . . . (laughs), well, my husband treats me a lot better! . . . All the relatives [ask], "And how is your pregnancy? How is it going?" each time they see me or talk to me on the phone, always, they ask, "How are you? How is the pregnancy?" It makes me feel good, and I talk about "Well, yes, I went to the doctor, and they did this and that, and I feel calm," things like that. . . . I feel good about it all, truly . . . everyone knows that I feel relaxed about it all. With my husband, I am at ease, because each day, he has me in mind, and we talk about all that is coming and if we should buy some clothes or something for the baby. So, I am really calm and happy.

Carolina and Angela, along with other recently immigrated women from Tamaulipas, understood their pregnancies in terms of a privileged time for a woman that brings the family together in support of the mother-to-be. They were likely to receive more emotional and instrumental support. The most common emotion during their pregnancy was happiness. Remaining calm was important for the baby's development, an aspect of pregnancy experience shared with immigrant women from southern Mexico living in New York City (Gálvez 2011).

Pregnant women from Tamaulipas who had lived in the Valley between six and 10 years were more likely to be ambivalent about pregnancy and social relationships during pregnancy than recent immigrants. Their pregnancy narratives maintained pregnancy as a time of contentment and happiness, though it was tempered with periods of fatigue, mood swings, and concerns about domestic responsibilities. A common worry among these women, shared by recent immigrant women, was that their fetuses would be physically or emotionally damaged by their negative emotions. Overall, this group of women felt they were treated better by friends and family members during pregnancy with additional emotional and instrumental support, but a small, significant minority questioned it, too.

For example, Debora felt pregnancy was a God-given blessing, but thought her family's additional support during her pregnancies was excessive. Thirty-six years old and in the sixth month of her sixth pregnancy at the time of the interview, she said people should treat her "normal, like always" when she is pregnant, "just because I am pregnant does not mean I am different. I believe I am the same person. [But,] they take care of me more, they talk to me much more frequently. I think it is fine, but at times, they exaggerate a bit, but, it's fine." Elena, a 22-year-old single woman eight weeks into her first and unplanned pregnancy, was excited about her pregnancy but did not expect different treatment: "Babies, I love them ... I think [people treat me] normal. There doesn't have to be a difference. ... [But] I have changed. I am happier, more content, taking care of myself in terms of what I eat, making sure to walk."

When first asked about how they were treated by close friends and family members during pregnancy, eight women said there was no difference and there should not be any. As they moved through their pregnancy narrative, however, three women qualified their statements, saying that their family members did help take care of them. Victoria, 32 weeks into her fourth pregnancy, felt people should treat pregnant women the same, but soon after qualified that by saying: "At least to me, people treat me well. They say to me, 'Oh, you are pregnant! That is so cool' and they encourage me, make me want to do my best." In sum, the narratives of women who had immigrated six–10 years prior still had dominant themes of positive feelings during and associations with pregnancy, including more and better treatment by friends and family. However, as a group, they were less likely to see a need for differential support during pregnancy, and a minority associated pregnancy with negative emotions or additional responsibilities.

Experiences of ambivalence in pregnancy were even more common among women from Tamaulipas who had lived for more than 10 years in the United States. Importantly, this is the first group in which more than one woman's narrative included threads of stress, fear, worry, and unhappiness. Pregnancy was still often thought of as a blessing and a time of happiness, but almost all women expected to have or identified stressors associated with pregnancy. Fewer women associated their emotional states with risks to fetal development. It is also the first group in which more than one woman actively rejected additional support during pregnancy from family and friends, though most still felt and welcomed some support. Cora, a 25-year-old woman in the last few weeks of her fourth pregnancy, said that when she thinks of pregnancy, what comes to mind is "nothing more than a baby. ... OK, I worry about money, all that we will need to buy and all the things we need

to do to prepare the house for the baby." According to Cora, during pregnancy, women have "highs and lows. At times, we cry all the time, and at other times, we are very calm. At times, we want nothing more than to have our husbands with us, and other times, we can't stand them ... [that is normal]." Cora objected to the idea that small concessions for pregnant women were special treatment. She did not want or expect to be treated differently, except to "have patience and take care of me ... not let me carry heavy things ... they give me support but they don't give me special treatment. No, we [the women in my family] are just very caring."

Clara, a 30-year-old 17 weeks into her fourth pregnancy, found the idea of being treated differently during pregnancy unsettling: "I have never wanted them to treat me differently. On the contrary, it bothers me when [they say] 'don't do this, don't do that. And don't eat that, no, don't eat that, either.' But, oh, well." Clara felt happy during each pregnancy but found being pregnant and working stressful. When asked if she had any concerns with this pregnancy, she replied she worries about the size of her house: "[I want] a bigger place so they can all have their own individual space. ... I wouldn't have any space to put the crib. And I don't want the baby to sleep with me because that's dangerous." Laura, a 26-year-old woman 35 weeks into her first pregnancy, said that pregnant women and pregnancy make her think of "stress. Almost everyone tells me that [pregnancy] is very risky, that you really have to take care ... but I have been fine, very content awaiting my little one." In these three groups—recent, established, and long-term immigrants—we see changing patterns the longer immigrant women live in the United States, specifically, movement away from a certain form of valuing a pregnancy that includes improved status within the family as evidenced by material, emotional, and informational support to increasingly associating pregnancy with stress.

Indeed, Mexican American women's pregnancy narratives reflect an embedded ambivalence about being pregnant and increased reference to sources of concern, stress, or anxiety while pregnant. How a woman is treated when she is pregnant is almost an afterthought. Interviews with Mexican American women were likely to elicit pregnancy meanings or narratives associated with concerns about the fetal or maternal risks and health and a distinct feeling that pregnant women should not be pampered. Yet, certain kinds of help were often welcome. Ambivalence was inherent in the narrative of Juliana, a 22-year-old woman in the 32nd week of her first pregnancy, who had tried for several years to get pregnant. For her, meanings of pregnancy were tied to this effort and a broader notion of children: "Well, it has been fine. All has been fine, thanks be to God, a good pregnancy. ... I am happy, because this is a baby we wanted, a planned baby. ... [I feel] happy and hopeful that all will go well. Because, it is a child, and children bring happiness." Juliana felt that "it's not like pregnancy is an illness where you have to treat someone differently, but you do need to have a little care. When there are a lot of people around, I shouldn't be jostled."

Desiree, 37 years old and in the 29th week of her fifth pregnancy, rooted her narrative of pregnancy in self-care, specifically her diet. She said that for her, primary associations of pregnancy and pregnant women were "Eating healthy so that you can have a healthy baby ... just not to gain a lot of weight." Likewise, she felt no one should treat pregnant women differently if they are healthy: "I just think that if you are healthy enough, as long as everything is fine, no risks or nothing like that ... but

the kids serve [help] a little more." Maya, a 31-year-old pregnant woman in her last trimester, detailed her ambivalence. She had miscarried once before. She and her husband were thrilled she was 36 weeks along in this pregnancy. For her, pregnancy means

> responsibilities, joy, being scared . . . to have a really good life for the baby and myself. A safe environment. Safety . . . right now, I'm a medical assistant and [my husband] is going to school and he's almost done. When he's done, he's going to be working, we're going to save money, and then I will take time off from work and go to school so that I can be a nurse . . . this was a planned pregnancy, and we talked about it before. . . . I don't feel that he needs to [help out] or that he should, but it helps a lot that he does. . . . His mom will come over and help him clean the house, or she'll clean the house. My mom will come over and she'll clean the house. My sister will come and keep me company sometimes. It feels good.

In Maya's narrative, concern, planning, responsibilities, happiness, and support were immediate and key themes, reflecting a pregnancy interpretation that downplays a woman's status while pregnant and instead highlights the ways in which a pregnancy experience could be taxing.

Meanings and Experiences of Pregnancy and Mexican and American Discourses of Motherhood

What our data demonstrate is that the experience of living in the United States leads to changes in conceptualizations of what it means to be a pregnant woman. We argue that pregnancy meanings in the United States are more likely to include stressors than in Mexico, which may influence psychosocial health profiles during pregnancy that correspond to birth weight. Specifically, the tenor of the meanings and social relations of pregnancy shift the longer Mexican immigrant women from the northern Mexican state of Tamaulipas live in the lower Rio Grande Valley of Texas. Notably, the trends seen within each group did not vary significantly by age or parity but only by length of time living in the United States. For recent Mexican immigrant women, pregnancy meanings and social relations mark pregnancy as an expected time of gendered value. For Mexican immigrant women who had been in the United States longer, as well as for Mexican American women, meanings and social relations in pregnancy shift to include associations with financial and social stressors and the belief that pregnant women should perhaps be helped but not given special treatment. For immigrant women from other parts of Mexico, the relative importance and weight of biomedical authority during pregnancy may also change (e.g., Gálvez 2011).

Yet immigrant women from the northern Mexican borderlands were as likely to first seek a doctor's advice for physical, mental, and social health during pregnancy and basic pregnancy information, as were Mexican American women in south Texas. Another influence may be changing expectations of the ability of a woman's body to produce healthy infants (Fleuriet 2009b; Gálvez 2012). Perhaps the difference is less in the incorporation of the biomedical risk model of pregnancy

and childbirth and neoliberal constructions of responsibility and self-care, both of which have been dominant for some time in urban, central, and northern Mexico (Smith-Oka 2012, 2013), but in *how* they are woven into pregnancy understandings.

We propose that primary influences on the observed shifts in conceptualizations of pregnancy are normative, hegemonic discourses of motherhood in Mexico and the United States, which have been well documented (e.g., Guendelman et al. 2001; Hays 1996; Medina and Magnuson 2009; Oliver 2010; Russel y Rodríguez 2008; Smith-Oka 2012; Taylor 2011). We summarize them here with a few caveats.

First, following Russel y Rodríguez (2008) and other feminist writers, we do not suggest that individual women in either country conform to or unquestioningly reproduce these normative constructs but rather recognize and use them as subjective indices. Inasmuch as subjective social status utilizes a common, community definition of status, these motherhood/mothering ideologies are especially important in understanding how a woman defines self in relations to others during pregnancy.

Our second qualification is that the notion of a change from *this* to *that* can be problematic, as insightful critiques of acculturation have demonstrated (Hunt et al. 2004; Russel y Rodríguez 2008). Considering the degree to which Mexican immigrant and Mexican American groups of women in these borderlands are similar, however, it is striking that any differences were found. Women with whom we worked were also all clinically at low risk for low birth weight, low income, and accessing formal biomedical care in a region where bilingual health care and social services are standard. What was surprising was that the Mexican immigrant women did not have higher perceived social stress than the Mexican American women, given the militarization of the border and widespread, increasing anti-immigrant sentiment in Texas and the United States in the last several years (Sabo et al. 2014). More generally, immigration tends to produce stress. Yet, perceived social stress and often-related depression increase with time in the United States among pregnant Mexican immigrant women, and they are even more prevalent in pregnant Mexican American women (Fleuriet and Sunil 2014; Nguyen et al. 2007; Ruiz et al. 2007). Nevertheless, recent immigrant women from different parts of Mexico have significantly higher pregnancy-related anxiety than both Mexican American women and immigrant women with longer durations in the United States (Dunkel Schetter and Glynn 2011; Fleuriet and Sunil 2014).

A third caveat is that discourses of motherhood in the United States and Mexico share some significant characteristics. Both tend toward reducing women to maternity in heterosexual household situations, in spite of the lived experience of women that notably includes increasing economic and political participation and power (Oliver 2010; Russel y Rodríguez 2008). Both prioritize domesticity but define it differently. Both use mother blaming for "poor" child and family outcomes (Oliver 2010; Smith Oka 2013; Taylor 2011) as a tool of reproductive governance that serves to reinforce motherhood ideologies.

Nevertheless, there are some significant differences in discourses of motherhood in the United States and Mexico that could account for changes we observed. One difference is the degree to which childbearing and childrearing constitute fulfillment of female status. In Mexico, women often struggle against a limited female ideal: heterosexual marriage with children, childrearing in the home as the singular role for women, and little opportunity to envision self beyond that of family

(Guendelman et al. 2001; Smith-Oka 2013). Reproductive governance in Mexico emphasizes biomedical oversight and smaller families, with implicit gendered assumptions and legacies of the influence of the Roman Catholic Church that define "feminine virtues [as] self-abnegation, suffering, and caring for others who are paradigmatically displayed by motherhood, rendering maternity central to idealized womanhood" (Braff 2013:125). Mexican ideologies of mothering that limit a woman's role to childrearing in the home thus create a space where pregnancy can be a symbol of achieved and ascribed status for recently arrived Mexican immigrant women. The creative use of this status to secure more support and improved social relations during pregnancy calls forth a relational and agentive view of mothering (Barlow 2004), despite restrictive motherhood and mothering constructs.

In the United States, women come up against a surfeit of role expectations: heterosexual marriage with children, a sense of self beyond that of family that is actively pursued through education and profession, and childrearing and domestic responsibilities as somewhat shared with the father but whose failures are attributed to the mother (Guendelman et al. 2001; Taylor 2011). Reproductive governance in the United States has a similar emphasis on biomedical oversight but operates in conjunction with intensive mothering (Hays 1996) that is "expert guided, emotionally absorbing, and labor intensive" (Medina and Magnuson 2009: 91). Intensive mothering standards are inherently unattainable (Hays 1996; Oliver 2010) but even more distant for women whose reproduction is stigmatized and surveilled by virtue of their class, ethnic, or situational identities (Fordyce and Maraesa 2012; Garza 2014), such as low-income immigrant women from Mexico.

Tying together American articulations of intensive mothering and the absence of the positive symbolic status of pregnancy, low-income women of color in the United States are arguably more likely to experience pregnancy as stressful, even as it validates the dominant role of American women. As increased work opportunities and space to envision a self not exclusive to family (Guendelman et al. 2001) may increase immigrant women's economic power in the home, they may also add the additional stressor of role conflict.

Conclusion

Using current discourses of motherhood in Mexico and the United States as cultural backdrop, this study has shown that, over time, living in the United States, understandings of pregnancy and motherhood among Mexican immigrant women increasingly incorporate feelings of stressful ambivalence. Stress during pregnancy has been unequivocally associated with infant low birth weight. We have thus suggested here a possible explanation of the Latina paradox that warrants deeper inquiry.

While citizenship status and ethnicity have been implicated indirectly as explanations of birth weight differences, we found little support for this. Instead, the combined qualitative and quantitative analyses suggest that perceptions of stress related to discourses of motherhood are more likely explanations. Additional ethnographic and biological evidence would strengthen our argument. Multi-sited ethnography on the lived experience of pregnancy among low-income women and their communities in urban spaces of Tamaulipas, Mexico, and the lower Rio Grande Valley of

south Texas would test our claims about the influences of hegemonic discourses of motherhood on the psychosocial health of pregnant women. To substantiate our proposed biopsychosocial pathways, we would need to collect psychosocial health data alongside cortisol levels, as a measure of stress, in non-pregnant women of reproductive age and pregnant women in Mexico and of Mexican descent living in the United States. Nevertheless, our existing analysis contributes to ongoing discussions in medical anthropology and related disciplines, such as psychology, that advocate a biopsychosocial approach to understanding low birth weight, notably in the ways that normative ideas of gender and reproduction become embodied in reproductive health outcomes.

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References Cited

Acevedo-García, D., and L. Bates
2008 Latino Health Paradoxes: Empirical Evidence, Explanations, Future Research, and Implications. *In* Latino/as in the United States: Changing the Face of America. H. Rodríguez, R. Saenz, and C. Menjívar, eds. Pp. 101–113. New York: Springer.

Adler, N., and J. Stewart
2007 The MacArthur Scale of Subjective Social Status. San Francisco: MacArthur Research Network on SES and Health.

Alvarez, R. Jr.
1995 The Anthropology of the Borderlands. Annual Review of Anthropology 24:447–470.

Anzaldua, G.
2012 [1987] Borderlands/La Frontera. 4th ed. San Francisco: Aunt Lute Books.

Barlow, K.
2004 Critiquing the "Good Enough" Mother: A Perspective Based on the Murik of Papua New Guinea. Ethos 32:514–537.

Berry, A.
1999 Mexican American Women's Expressions of the Meaning of Culturally Congruent Prenatal Care. Journal of Transcultural Nursing 10:203–212.

Braff, L.
2013 *Somos Muchos* (We Are So Many): Population Politics and "Reproductive Othering" in Mexican Fertility Clinics. Medical Anthropology Quarterly 27:121–138.

Bryant, A. S., A. Worjoloh, A. B. Caughey, and E. Washington
2010 Racial/Ethnic Disparities in Obstetric Outcome and Care: Prevalence and Determinants. American Journal of Obstetrics and Gynecology 202:335–343.

Castañeda, H., S. M. Homes, D. S. Madrigal, M.-E. DeTrinidad Young, N. Beyeler, and J, Quesada
2015 Immigration as a Social Determinant of Health. Annual Review of Public Health 36:1.1–1.18.

Cohen, S., and G. Williamson
1988 Perceived Stress in a Probability Sample of the U.S. *In* The Social Psychology of Health: Claremont Symposium on Applied Social Psychology. S. Spacapan and S. Oskamp, eds. Pp. 31–67. Newbury Park, CA: Sage.

D'Anna-Hernandez, K. L., M. Hoffman, G. Zerbe, M. Coussons-Read, R. Ross, and M. Laundenslager
2012 Acculturation, Maternal Cortisol, and Birth Outcomes in Women of Mexican Descent. Psychosomatic Medicine 74:296–304.

Diego, M. A., N. A. Jones, T. Field, M. Hernandez-Reif, S. Schanberg, C. Kuhn, and A. Gonzalez-Garcia
2006 Maternal Psychological Distress, Prenatal Cortisol, and Fetal Weight. Psychsomatic Medicine 68:747–753.

Dunkel Schetter, C.
2012 Psychological Science on Pregnancy: Stress Processes, Biopsychosocial Models, and Emerging Research Issues. Annual Review of Psychology 62:531–538.

Dunkel Schetter, C., and L. Glynn
2011 Stress in Pregnancy: Empirical Evidence and Theoretical Issues to Guide Interdisciplinary Research. *In* Handbook of Stress. R. Contrada and A. Baum, eds. Pp. 321–343. New York: Springer Publishing Company.

Dunkel Schetter, C., and M. Lobel
2011 Pregnancy and Birth: A Multilevel Analysis of Stress and Birthweight. *In* Handbook of Health Psychology. 2nd ed. A. Baum, T. A. Revensen, and J. Singer, eds. Pp. 431–464. New York: Psychology Press.

Fernández, L., and A. Newby
2010 Family Support and Pregnancy Behavior among Women in Two Mexican Border Cities. Frontera Norte 22:7–34.

Fleuriet, K. J.
2009a Problems in the Latina Paradox: Measuring Social Support for Pregnant Immigrant Women from Mexico. Anthropology and Medicine 16:49–59.
2009b La Tecnología y Las Monjitas: Approaches to Pregnancy and Birth among Women from Mexico and their American Midwives and Nurses at a Religious Birthing Center in South Texas. Medical Anthropology Quarterly 23:212–234.
2009c Pregnant, Uninsured, and Undocumented: Prenatal Care for Immigrant Women in South Texas. The Applied Anthropologist 29:4–21.

Fleuriet, K. J., and T. Sunil
2014 Perceived Social Stress, Pregnancy-related Anxiety, Depression and Subjective Social Status among Pregnant Mexican and Mexican American Women in Texas. Journal of Health Care for the Poor and Underserved 25:564–561.
2015a Social Status, Mental and Psychosocial Health, and Birth Weight Differences in Mexican Immigrant and Mexican American Women. Journal of Immigrant and Minority Health 17:1781–1790.
2015b Reproductive Habitus, Psychosocial Health, and Birth Weight Variation in Mexican Immigrant and Mexican American Women in South Texas. Social Science and Medicine 138:102–109.

Flores, M. E., S. E. Simonsen, T. A. Manuck, J. M. Dyer, and D. K. Turok
2012 The "Latina Epidemiologic Paradox": Contrasting Patterns of Adverse Birth Outcomes in U.S.-born and Foreign-born Latinas. Women's Health Issues 22:e501–e507.

Fordyce, L., and A. Maraesa
2012 Introduction: The Development of Discourses Surrounding Reproductive Risks.

In Risk, Reproduction, and Narratives of Experience. L. Fordyce and A. Maraesa, eds. Pp. 1–16. Nashville: Vanderbilt University Press.

Foucault, M.
1972 The Archaeology of Knowledge. A. M. S. Smith, transl. New York: Pantheon Books.
1978 The History of Sexuality. New York: Pantheon Books.

Franzini, L., and M. Fernandez-Esquer
2006 The Association of Subjective Social Status and Health in Low-income Mexican-origin Individuals in Texas. Social Science and Medicine 63:788–804.

Franzini, L., J. C. Ribble, and A. M. Keddie
2001 Understanding the Hispanic Paradox. Ethnicity & Disease 11:496–518.

Fregoso, R. L.
2003 MeXicana Encounters: The Making of Social Identities in the Borderlands. Berkeley: University of California Press.

Gálvez, A.
2011 Patient Citizens, Immigrant Mothers: Mexican Women, Public Prenatal Care, and the Birth-weight Paradox. New Brunswick, NJ: Rutgers University Press.
2012 Failing to See the Danger: Conceptions of Pregnancy and Care Practices among Mexican Immigrant Women in New York City. *In* Risk, Reproduction, and Narratives of Experience. L. Fordyce and A. Maraesa, eds. Pp. 37–58. Nashville: Vanderbilt University Press.

Garza, S. D.
2014 Decolonizing Intimacies: Women of Mexican Descent and Colorism. Aztlan 39:35–63.

Gress-Smith, J. L., D. S. Roubinov, R. Tanaka, K. Crnic, N. Gonzales, C. Enders, and L. J. Luecken
2013 Prenatal Expectations in Mexican American Women: Development of a Culturally-sensitive Measure. Archives of Women's Mental Health 16:303–314.

Guendelman, S., C. Mailin, B. Herr-Harthorn, P. N. Vargas, and P. Noemi
2001 Orientations toward Motherhood and Male Partner Support among Women in Mexico and Mexican-origin Women in the United States. Social Science and Medicine 52:1805–1813.

Harley, K., and B. Eskenazi
2006 Time in the United States, Social Support and Health Behaviors during Pregnancy among Women of Mexican Descent. Social Science and Medicine 62:3048–3061.

Hays, S.
1996 The Cultural Contradictions of Motherhood. New Haven, CT: Yale University Press.

Heyman, J. McC.
2010 US–Mexico Border Cultures and the Challenge of Asymmetrical Interpenetration. *In* Borderlands: Ethnographic Approaches to Security, Power, and Identity. H. Donnan and T. M. Wilson, eds. Pp. 21–34. Lanham, MD: University Press of America Inc.

Hunt, L., S. Schneider, and B. Comer
2004 Should "Acculturation" Be a Variable in Health Research? A Critical Review of Research on U.S. Hispanics. Social Science and Medicine 59/5:973–986.

Kroenke, K., R. L. Spitzer, and J. B. Williams
2001 The PHQ-9: Validity of a Brief Depression Severity Measure. Journal of General Internal Medicine 16:606–613.

Madan, A., L. Palaniappan, G. Urizar, Y. Wang, S. Fortmann, and J. Gould
2006 Sociocultural Factors that Affect Pregnancy Outcomes in Two Dissimilar Immigrant Groups in the United States. Journal of Pediatrics 148:341–346.
McGlade, M. S., S. Saha, and M. E. Dalstrom
2004 The Latina Paradox: An Opportunity for Restructuring Prenatal Care Delivery. American Journal of Public Health 94:2062–2065.
Medina, S., and S. Magnuson
2009 Motherhood in the 21st Century: Implications for Counselors. Journal of Counseling and Development 87:90–96.
Morales, L. S., M. Lara, R. S. Kington, R. O. Valdez, and J. J. Escarce
2002 Socioeconomic, Cultural and Behavioral Factors Affecting Hispanic Health Outcomes. Journal of Health Care for the Poor and Underserved 13:477–503.
Nguyen, H. T., M. Clark, and R. J. Ruiz
2007 The Effect of Acculturation on the Reporting of Depressive Symptoms among Hispanic Women. Nursing Research 56:217–223.
Norwood, F.
2009 The Maintenance of Life: Preventing Social Death through Euthanasia Talk and End-of-life Care—Lessons from The Netherlands. Durham, NC: Carolina Academic Press.
Oliver, K.
2010 Motherhood, Sexuality, and Pregnant Embodiment: Twenty-five Years of Gestation. Hypatia 25:760–777.
Ostrove, J. M., N. E. Adler, M. Kuppermann, and A. E. Washington
2000 Objective and Subjective Assessments of Socioeconomic Status and Their Relationship to Self-rated Health in an Ethnically Diverse Sample of Pregnant Women. Health Psychology 19:613–618.
Page, R. L.
2004 Positive Pregnancy Outcomes in Mexican Immigrants: What Can We Learn? Journal of Obstetric, Gynecologic and Neonatal Nursing 33:783–790.
Pew Research Center
2014 Brownsville-Harlingen-San Benito, TX. Hispanic Population in Select U.S. Metropolitan Areas, 2011. Pew Research Center's Hispanic Trends Project. http://www.pewhispanic.org/2013/08/29/hispanic-population-in-select-u-s-metropolitan-areas-2011/ (accessed September 1, 2016).
Rafaelli, M., and L. Ontai
2004 Gender Socialization in Latino/a Families: Results from Two Retrospective Studies. Sex Roles 50:287–299.
Rini, C. K., C. Dunkel Schetter, P. D. Wadhwa, and C. A. Sandman
1999 Psychological Adaptation and Birth Outcomes: The Role of Personal Resources, Stress, and Sociocultural Context in Pregnancy. Health Psychology 18:333–345.
Rosenberg, M.
1965 Society and the Adolescent Self-image. Princeton, NJ: Princeton University Press.
Ruiz, R. E.
1998 On the Rim of Mexico: Encounters of the Rich and Poor. Boulder, CO: Westview Press.
Ruiz, R. J., R. P. Stowe, E. Goluszko, M. C. Clark, and A. Tan
2007 The Relationships among Acculturation, Body Mass Index, Depression, and Interleukin 1-Receptor Antagonist in Hispanic Pregnant Women. Ethnicity and Disease 17:338–343.
Russel y Rodríguez, M.
2008 Accounting for MeXicana Feminisms. American Ethnologist 35:308–320.

Sabo, S., S. Shaw, M. Ingrama, N. Teufel-Shone, S. Carvajal, J. Guernsey de Zapien, C. Rosales, F. Redondo, G. Garcia, and R. Rubio-Goldsmith
2014 Everyday Violence, Structural Racism and Mistreatment at the US–Mexico Border. Social Science and Medicine 109:66–74.
Smith-Oka, V.
2012 Bodies of Risk: Constructing Motherhood in a Mexican Public Hospital. Social Science and Medicine 75:2275–2282.
2013 Shaping the Motherhood of Indigenous Mexico. Nashville: Vanderbilt University Press.
Taylor, T.
2011 Reexamining Cultural Contradictions: Mothering Ideology and the Intersections of Class, Gender, and Race. Sociology Compass 5/10:898–907.
U.S. Census Bureau
2014a Cameron County, Texas. U.S. Census Bureau: State and County QuickFacts. http://quickfacts.census.gov/qfd/states/48/48061.html (accessed September 9, 2014).
2014b Hidalgo County, Texas. U.S. Census Bureau: State and County QuickFacts. http://quickfacts.census.gov/qfd/states/48/48215.html (accessed September 9, 2014).
Vila, P.
2005 Border Identifications: Narratives of Religion, Gender, and Class on the U.S. Mexico Border. Austin: University of Texas Press.
Wolff, L., S. Subramanian, D. Acevedo-Garcia, D. Weber, and I. Kawachi
2010 Compared to Whom? Subjective Social Status, Self-rated Health, and Referent Group Sensitivity in a Diverse US Sample. Social Science and Medicine 70:2019–2028.
Zambrana, R. E., and O. Carter-Pokras
2010 Role of Acculturation Research in Advancing Science and Practice in Reducing Health Care Disparities among Latinos. American Journal of Public Health 100:18.23.