Cultural Context, Sexual Behavior, and Romantic Relationships in Disadvantaged Neighborhoods

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While sociologists have been concerned with urban residents and their neighborhoods since the birth of the discipline (e.g., DuBois [1899] 1996; Park and Burgess 1925; Shaw 1929), the publication of Wilson’s *The Truly Disadvantaged* (1987) and Massey and Denton’s *American Apartheid* (1993) sparked a renewed interest among scholars of urban inequality in the role of neighborhood context in the intergenerational transmission of poverty. These works directly linked urban sociology to stratification, mobility, and race. In theoretical terms, neighborhoods became an important context for the social processes driving stratification and racial inequality, and neighborhood context was viewed as a causal force in the lives of youth and adults. These works set off a sustained effort to understand the effects of neighborhood context on individual outcomes, particularly for youth. Although there is mounting evidence that neighborhood effects are real causal effects (see Harding [2003] for a review and evidence on this issue), social scientists have only begun to uncover the mechanisms by which such effects operate.

When culture is invoked to understand the consequences of growing up in disadvantaged neighborhoods, the isolation of ghetto residents from mainstream institutions and mainstream culture is often emphasized. This article attempts to reorient current theorizing about the cultural context of disadvantaged neighborhoods, particularly when it comes to adolescent decision making and behavior. I argue that rather than being characterized by the dominance of “oppositional” or “ghetto-specific” cultures, disadvantaged neighborhoods are characterized by cultural heterogeneity: a wide array of competing and conflicting cultural models. I apply this conception to sexual behavior and romantic relationships among adolescents using survey data from Addhealth. Analyses show that disadvantaged neighborhoods exhibit greater heterogeneity in cultural frames and scripts and that, in more heterogeneous neighborhoods, adolescents’ frames and scripts are poorly predictive of their actual behavior.
Culture has been largely ignored in the empirical effort to identify and understand the social processes underlying neighborhood effects. Indeed, scholars studying race and poverty have shied away from discussing culture since the early 1970s, after critics of scholars such as Frazier (1966), Moynihan (1965), and Lewis (1969) argued that cultural explanations of poverty ignore structural barriers and blame the victim (e.g., Valentine 1968; see Wilson 1987 for a review). In the interim, however, cultural sociology has moved away from conceptions of culture as an internally coherent set of values and toward a view of culture as fragmented and composed of “disparate bits of information and . . . schematic structures that organize that information” (DiMaggio 1997:263). These ideas, however, have only slowly found their way into the sociology of disadvantaged neighborhoods. As I discuss below, new concepts in cultural sociology such as frames, scripts, and repertoires have the potential to illuminate the social processes at work in neighborhood effects.

When culture is invoked to help us to understand the consequences of growing up in disadvantaged communities, emphasis is often placed on the isolation of ghetto residents from mainstream social networks and mainstream culture. Wilson (1987, 1996) argues that the out-migration of the black middle class and the decline of manufacturing lead to neighborhoods in which life is no longer organized around work. Social interaction in isolated neighborhoods leads to the development of cultural repertoires that are “oppositional” or “ghetto specific,” adaptations to blocked opportunities in the labor market and society generally. Anderson (1999) invokes an alternative status system among adolescents from underclass neighborhoods to understand high rates of teenage pregnancy and single parenthood. Massey and Denton (1993) argue that racial segregation and the concentration of poverty lead to an “oppositional culture” in inner cities—an oppositional culture that upends conventional norms and values in response to blocked opportunities. “As intense racial isolation and acutely concentrated poverty have continued, ghetto values, attitudes, and ideals have become progressively less connected to those prevailing elsewhere in the United States. More and more, the culture of the ghetto has become an entity unto itself, remote from the rest of American society and its institutions, and drifting ever further afield” (Massey and Denton 1993:172).

This article aims to reorient current thinking about culture in disadvantaged neighborhoods and how it relates to adolescent decision making and behavior. I reintroduce an idea that was once a staple of theorizing about urban neighborhoods—disadvantaged neighborhoods are characterized by cultural heterogeneity (Shaw and McKay 1969). I apply these ideas, coupled with recent theoretical advances in cultural sociology, to the analysis of adolescent sexual behavior and romantic relationships. Using survey data from the National Longitudinal Study of Adolescent Health (Addhealth) on frames regarding teenage pregnancy and scripts for romantic relationships, I show that disadvantaged neighborhoods exhibit greater heterogeneity in scripts and frames. I also investigate the consequences of cultural heterogeneity for two adolescent behaviors, premarital sexual activity and the sequencing of events in romantic relationships.

CULTURE, INEQUALITY, AND NEIGHBORHOOD EFFECTS

Most recent work at the nexus of inequality and cultural sociology has focused on the analysis of class, broadly speaking (e.g., Bourdieu and Passeron 1977; Bryson 1996; DiMaggio 1982; Erickson 1996; Lamont 1992, 2000). Increasingly, however, poverty scholars have also employed cultural analysis, particularly in documenting the cultural world of the urban poor, describing how they understand their options and make decisions with regard to work, welfare, schooling, parenthood, and marriage (Anderson 1999; Carter 2005; Edin and Kefalas 2005; Newman 1999; Young 2004). Recent literature on the role of neighborhood context in the intergenerational transmission of poverty, however, has less explicitly incorporated culture.

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1 Shaw and McKay did not use the term cultural heterogeneity but instead referred to “different systems of values” and “different forms of organization.” As the term “different systems of values” suggests, they also employed a values conception of culture.
Two mutually compatible theories provide explanations of neighborhood effects on individuals, and cultural concepts have been incorporated into them to different degrees. Social organization theory argues that neighborhood disadvantage leads to difficulties establishing and maintaining order. Lack of resources, racial and ethnic heterogeneity, and population turnover result in fewer social ties and therefore diminished social control—communities lose the ability to regulate the behavior of their members (Park and Burgess 1925; Shaw 1929). Communities with denser social networks are better able to articulate and enforce common norms and values. In addition, local formal and informal institutions affect the ability of neighbors to maintain social control by influencing norms and expectations and by providing contexts within which social ties are created and strengthened. External institutions, such as police, city government, and markets affect the resources that are available for social control (Bursik and Grasmick 1993). Collective efficacy, defined as the “social cohesion among neighbors combined with their willingness to intervene on behalf of the common good,” (p. 918) mediates the relationship between concentrated structural disadvantages (residential instability, ethnic or racial heterogeneity, and poverty) and crime rates (Sampson, Raudenbush, and Earls 1997). Collective efficacy has been used almost exclusively to explain neighborhood differences in crime, violence, and delinquency outcomes (exceptions include Browning, Leventhal, and Brooks-Gunn [2005] on neighborhood collective efficacy and sexual initiation).

Though social organization models are not usually thought of as cultural models, they do incorporate cultural elements. In the classical formulation, social organization matters because socially organized neighborhoods are better able to enforce common values. In addition, collective efficacy can be thought of as a cultural concept, insofar as it is measured as residents’ commonly held expectations or beliefs about how others around them will behave when faced with nonnormative behavior. Finally, Small (2004) shows how cultural frames regarding a neighborhood and its origins can impact residents’ willingness to engage in the collective activity and institution building that lead to collective efficacy and social organization.

While social organization theory focuses primarily on processes internal to the neighborhood, social isolation theory emphasizes social and cultural disconnections between neighborhood residents and the outside world. Social isolation theory suggests that residents of concentrated poverty neighborhoods are more likely to be isolated from middle-class or mainstream social groups, organizations, and institutions (Wilson 1987). The joblessness endemic to high poverty areas means many residents are not connected to the mainstream labor market, an important tie to the culture of middle-class life (Wilson 1996). The lack of resources in high poverty neighborhoods makes sustaining neighborhood institutions more difficult, further isolating neighborhood residents from associated mainstream institutions. The result is that social interaction in isolated neighborhoods leads to the development of cultural repertoires that differ from the mainstream. Youth are socialized into a cultural environment that promotes behaviors, such as early sexual behavior and dropping out of high school, that are viewed as detrimental in the outside world.

Most research grounded in social isolation theory investigates the social connections of neighborhood residents, finding that neighborhood poverty predicts organizational participation and network ties to employed or college-educated individuals, net of individual characteristics (Fernandez and Harris 1992; Rankin and Quane 2000; Tigges, Browne, and Green 1998). Meanwhile, the cultural predictions of social isolation theory have been left largely uninvestigated. Social isolation theorists have relied heavily on the notion of “oppositional culture” from ethnographic research on racial differences in educational performance (Fordham and Ogbu 1986), extending the concept to domains other than education (e.g., Massey and Denton 1993). Fordham and Ogbu (see also Ogbu 2004), for instance, argue that poor black students develop an oppositional culture in which behaviors that promote academic achievement, such as speaking standard English, doing homework, and engaging in class discussion, become defined as “acting white,” as a response to inferior schools, discrimination,
and blocked opportunities. However, survey research has rejected the claim that black students are disproportionately sanctioned by their peers for academic effort (Ainsworth-Darnell and Downey 1998; Cook and Ludwig 1998). Carter (2005) shows that behaviors unconnected to school achievement are at the heart of notions of “acting white” among poor black and Latino youth. Moreover, cultural isolation and the development of a “ghetto-specific” or “oppositional culture” in poor neighborhoods is further challenged by both survey-based and ethnographic research on attitudes among the poor that finds very strong support for conventional or traditional views about education, work, welfare, and marriage (Carter 2005; Dohan 2003; Duneier 1992; Edin and Kefalas 2005; Goldenberg et al. 2001; Newman 1999; Solorzano 1992; Young 2004).

In short, there is little evidence that cultural isolation is an accurate description of the cultural context of poor neighborhoods. This article proposes a new conception of the cultural context of disadvantaged neighborhoods—a conception that emphasizes the cultural heterogeneity of such neighborhoods and the consequences of that heterogeneity for adolescent decision making and outcomes.

CULTURAL HOMOGENEITY/
HETEROGENEITY IN URBAN
NEIGHBORHOODS

The concept of neighborhood cultural heterogeneity has roots in previous work in urban sociology and is consistent with much ethnographic research on urban poverty. However, cultural heterogeneity has been the subject of only limited explicit theorizing, perhaps because much foundational work on urban neighborhoods rests largely on a view of neighborhoods as culturally homogeneous. For example, Park and Burgess (1925) and Gans (1962) viewed urban neighborhoods as immigrant receiving areas. Differences between neighborhoods were viewed largely as the consequence of cultural differences between immigrants’ home countries. The culture that immigrant groups brought with them was the basis of local neighborhood cultures. These analyses, like those of many of their contemporaries, viewed culture as relatively homogenous within local contexts.

Not all urban sociologists, however, viewed neighborhoods as composed of homogenous subcultures. Shaw and McKay (1969) argued that socially disorganized slum neighborhoods present youth with a wide array of “competing and conflicting moral values,” both conventional and unconventional, creating a breakdown of social control that leads to higher rates of delinquency in such neighborhoods. Urban ethnographers have also complicated the stark divisions of “ghetto culture” and “mainstream culture,” tending to see culture in disadvantaged neighborhoods as derived from mainstream culture but modified or reinterpreted to serve local needs and in response to blocked opportunities (e.g., Anderson 1978; Bourgois 1995; Duneier 1992; Liebow 1967). Nevertheless, because these works focused on particular groups within urban neighborhoods, there is little emphasis on cultural heterogeneity beyond subjects’ attempts to distinguish themselves from culturally defined others lower in local status hierarchies. Suttles (1968), for instance, highlighted cultural differences within disadvantaged neighborhoods, but he focused on those between ethnic groups that use different communication devices and have different cultural practices.

Hannerz (1969) was one of the first to recognize cultural heterogeneity not just across groups residing together in a single neighborhood but also in the actual use of culture by individuals. Though he draws on classic cultural concepts such as norms and symbolic meanings, he also introduces the concept of “cultural repertoire.” For Hannerz, there are multiple forms of culture: norms and values, meanings, and modes of action, and each individual has a repertoire

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2 Fordham and Ogbu (1986) are often interpreted as arguing that academic success itself comes to be defined as acting white within an oppositional culture, but in a recent article, Ogbu (2004) clarifies that their argument was that behaviors that lead to academic achievement are what are defined as acting white by poor black adolescents.

3 There are undoubtedly cultural dimensions on which middle-class neighborhoods have comparable or greater cultural heterogeneity than do poor neighborhoods, such as political views, fashion preferences, or religious beliefs. The focus of this article is on cultural dimensions related to individual outcomes typically studied by poverty and inequality researchers, such as sexual behavior.
of these. Local cultures can add to or substitute for items in the mainstream cultural repertoire and, thus, provide adaptations and reactions to a given structural situation. Like Liebow (1967) and Anderson (1978), Hannerz sees local culture as helping individuals come to terms with contradictions between the wider society's culture and the individual's position in the social structure. Yet, Hannerz makes it clear that "ghetto culture" is not a monolithic entity but rather a heterogeneous mix of fluid ideal-type lifestyle groups ("mainstreamers," "swingers," "street families," and "street corner men"). In ghetto neighborhoods, members of these groups live in close physical proximity, which often leads them to construct exaggerated social hierarchies and distinctions (see also Newman 1992). Countering the divisive moral judgments between lifestyle groups, however, are the family ties and spatial proximity that pull individuals with divergent lifestyles into regular contact and confrontation.

Consistent with the points above, some recent research has demonstrated that within disadvantaged neighborhoods, there are multiple cultural models available. For example, Newman (1999) shows that even in neighborhoods with high levels of joblessness, the majority of people pursue activities consistent with mainstream ideologies, such as working or going to school. Anderson (1999) documents the presence of both "street" and "decent" orientations among those living in disadvantaged neighborhoods. Though they are in the numerical minority, those with a "street" orientation dominate public space and public life in inner-city neighborhoods.

The concept of cultural heterogeneity is also broadly consistent with classic research traditions within the study of social stratification focusing on class inequality. Parkin (1971), in his analysis of the normative order of the working class, describes this order as composed of a number of competing meaning systems—the dominant, subordinate, and radical—each providing a different model of class stratification. The result is a state of "normative ambivalence," in which the working class draws from a "reservoir of meaning" that is fed by these three different "streams." Rodman (1963) develops the concept of the "lower-class value stretch" to explain how the lower classes can have a somewhat distinctive value system that is still derived from the dominant value system.

In sum, prior research suggests that the cultural context of disadvantaged communities can be thought of as derived from mainstream culture but modified or reinterpreted to serve local needs and in response to blocked opportunities. Most analysts recognize the presence of multiple competing lifestyle groups (to use Hannerz's terminology) or orientations (to use Anderson's) within urban neighborhoods. Culture within poor neighborhoods is not a single entity but rather a heterogeneous mix of lifestyles or orientations that individuals move between or draw upon as necessary. Such a conception is far from consistent with the view of poor inner-city neighborhoods as places of cultural isolation from middle-class culture and institutions.

However, analyses of the role of culture in explaining behavior in poor neighborhoods still largely rest on social isolation models. These analyses tend to identify subcultures that promote or justify particular behaviors as explanations for those behaviors. For example, Anderson (1999) explains adolescent sexuality, gender relations, and teenage pregnancy in disadvantaged neighborhoods with the development of a subculture in which early sexual activity and early parenthood are normative. The coexistence of these two incompatible models (one that describes poor neighborhoods as containing a mix of nondiscrete cultural groups and another that relies on cultural subgroup explanations of behavior) creates an analytical conundrum: If individuals draw from multiple cultural lifestyle models, how can subcultures hold such sway over behavior, action, or decision making? I propose that recent efforts to incorporate new cultural concepts such as frames, scripts, or repertoires into theorizing about culture in urban neighborhoods provide an important theoretical bridge toward better

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4 I follow Quinn and Holland (1987) in my use of the term "cultural models," which they define as, "presupposed, taken-for-granted models of the world that are widely shared (although not necessarily to the exclusion of other, alternative models) by the members of a society and that play an enormous role in their understanding of that world and their behavior in it" (p. 4). I consider frames and scripts to be two types of cultural models.
understanding the relationship between culture and behavior among adolescents in disadvantaged neighborhoods.

**CONCEPTUALIZING CULTURAL HETEROGENEITY**

In any social context, from the perspective of any individual, there are multiple cultural models available from which to choose (Fuller et al. 1996; Holloway et al. 1997; Quinn and Holland 1987; Swidler 1986). These models may be overlapping or contradictory, and they reflect ideas about how the world works, what appropriate goals are, and how to go about accomplishing things. To further unpack these issues, I rely on three concepts: culture as repertoire or tool kit (Hannerz 1969; Swidler 1986, 2001), culture as frame (Benford and Snow 2000; Goffman 1974; Small 2004), and culture as script.

Swidler (1986, 2001) draws upon the concept of cultural repertoire to develop a general conception of culture that allows it to play a causal role in influencing action. She sees culture as a “tool kit” of symbols, stories, and worldviews that people use to solve different problems. Under this model, culture is not a unified system but a repertoire from which to draw. Culture provides the components used to construct “strategies of action” or “persistent ways of ordering action through time” and can thereby have a causal role. The elements that make up one’s tool kit come not just from direct experience or social interaction but also from the wider culture through institutions such as the media, schooling, and religion. The ability of culture to predict behavior in the tool kit model comes from variation in repertoires across cultural groups or across individuals.

In the analysis below, I measure two types of cultural objects that may be present in an individual’s or group’s cultural repertoire: frames and scripts. Frames are ways of understanding “how the world works” (Young 2004). They encode expectations about consequences of behavior and how various parts of the social world relate or do not relate to one another. A frame is a lens through which one interprets events, and it therefore impacts how one reacts. Benford and Snow (2000) emphasize that frames are collectively constructed, often unintentionally but sometimes intentionally. Frames identify problems and assign blame, provide solutions or strategies, and provide a rationale for engaging in action. Like repertoires, frames allow for cultural heterogeneity. Individuals can have multiple contradictory or competing frames that they deploy in different situations, and frames may have various levels of specificity. Small (2004) shows that individuals in the same neighborhood can and often do employ distinct frames. He shows that frames are not fixed, as young people’s neighborhood frames change through interaction with neighborhood activists of an earlier generation.

Scripts provide cultural templates for the sequencing of behaviors or actions over time. They are akin to Swidler’s “strategies of action” in that they show how to solve problems or achieve goals. There need not be consistency across various scripts or frames, as individuals are often able to live with many contradictions and inconsistencies. Therefore, one should not think of frames and scripts as necessarily hierarchically nested. Instead, individuals or groups may possess or employ multiple contradictory frames and scripts. People of a common culture do not share a coherent, monolithic culture, but rather a set of available frames and scripts, objective structural conditions, and knowledge of what others do and think. Sewell (1999) char-

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5 A conception of culture as heterogeneous and contradictory appears elsewhere as well. For example, Sewell notes that “social actors are capable of applying a wide range of different and even incompatible schemes” (1992:17). He also describes cultures as contradictory, loosely integrated, contested, subject to constant change, and weakly bounded (Sewell 1999).

6 Tilly (1978) is also credited with the development of the concept of repertoire in his work on “repertoires of collective action.”

7 Swidler’s tool kit metaphor has been criticized for failing to specify how individuals choose which elements of their tool kits to employ in different situations (Lamont 1992; Lamont and Thévenot 2000). Lamont (1992) suggests that both proximate and remote structural conditions influence such selections. For an example of comparison of repertoires across cultural groups, see Lamont and Thévenot (2000).
acterizes this level of coherence as "thin coherence."

Though cultural heterogeneity is viewed here through what one might describe as macro- or mesolevel cultural concepts, it is important to note that my conception is also consistent with micro or interactionist perspectives on culture. Implicit in Goffman’s (1974) analysis of frames is the notion that multiple frames can apply in any interaction, and that participants must work to maintain the dominance of a particular frame and often come into conflict over which frame should govern a particular situation (see also Goffman 1959). His discussion of “out of frame activity” acknowledges that multiple frames can be present simultaneously, even if they are not mutually compatible. The cultural heterogeneity approach also shares with interactionist approaches the criticism of subcultural analyses as assuming homogeneity and stasis and defining culture in terms of values (Fine and Kleinman 1979). Furthermore, interactionist perspectives emphasize the role of local or group cultures in mediating the relationship between the wider social environment and individual action (e.g., Fine 1979). As will be discussed below, the consequences of neighborhood cultural heterogeneity are theorized to occur in part through microlevel interactions with neighbors with varying cultural orientations or lifestyles and through local interpretations of cultural information diffused through the media.

NEIGHBORHOOD DISADVANTAGE AND CULTURAL HETEROGENEITY

Why are adolescents in disadvantaged neighborhoods presented with a more heterogeneous array of cultural models from which to fashion their beliefs and actions than are those in more advantaged neighborhoods? Among disadvantaged neighborhoods, all but the most extremely poor neighborhoods contain a mix of people—some are working and some are on public assistance or involved in crime; some individuals are high school dropouts and some have attended college; families with middle-class incomes live near families that are struggling below the poverty line. Though many middle-class blacks left inner-city neighborhoods in the 1970s, many also remained there (Patillo-McCoy 1999). This mix means that adolescents will come into contact with people with a wide array of lifestyles.8

In addition, cultural models do not just come from immediate ecological factors or interpersonal interactions. Institutions that are decoupled from everyday interactions such as the media, religion, and politics also contribute to cultural repertoires and are another mechanism by which youth in disadvantaged neighborhoods are exposed to mainstream or middle-class culture. For example, youth draw role models from television and radio (Carter 2005, chap. 5), the American dream provides a cultural template for many of the poor (Hochschild 1995), feminism shapes how young mothers think about economic independence and marriage (Edin and Kefalas 2005), and religion provides a repertoire for constructing strategies of action in black communities (Patillo-McCoy 1998).

Residents of disadvantaged neighborhoods are also often less able to control public behavior or regulate those who deviate from mainstream lifestyle choices. Consensus is weaker on which behaviors are appropriate and inappropriate. A lack of strong social ties in such neighborhoods means that social control is diminished—local institutions are weak and collective behavior is more difficult (Shaw and McKay 1969). Residents of poor neighborhoods also typically lack confidence that their neighbors will intervene to stop public disorder and so hesitate to do so themselves (Sampson et al. 1997). Such breakdowns of order can be self-perpetuating, as residents lose touch with neighbors as they retreat from the public spaces, leading to further weakening of neighborhood social ties (Venkatesh 2000). Similarly, Wilson (1996) argues that the lack of social organization in these neighborhoods makes “ghetto-

8 There are of course many factors that determine the capacity of culture to influence behavior. Schudson (1989) outlines five “dimensions of cultural power”: retrievability, rhetorical force, resonance, institutional retention, and resolution. I emphasize retrievability, the availability or accessibility of a cultural model or cultural object. Schudson suggests that retrievability is highest when a cultural model or object is physically present, institutionalized in common practice or public memory, or more salient because it is more recent or more dramatic.
related behaviors” more acceptable, while the lack of opportunities makes them necessary for survival. As the number of individuals pursuing “ghetto-related” behaviors such as early parenthood, reliance on public assistance, or street hustling increases, the stigma attached to these behaviors declines.

Of course, the mere presence of a mix of mainstream and alternative lifestyles in disadvantaged communities does not necessarily mean that adolescents will interact with those who engage in these various lifestyles. In disadvantaged neighborhoods, lifestyles outside the mainstream may have more salience than sheer numbers would lead us to expect. In contrast to those with mainstream lifestyles who leave the neighborhood for work or school, people with “street orientations” have a daily presence in the neighborhood. In this vein, Anderson (1999) documents the power of drug dealers and others who use violence to control public space and flaunt material goods such as cars, jewelry, and clothing. While ethnographers such as Suttles (1968) and Hannerz (1969) have described the strong divisions along ethnic and lifestyle lines that occur when groups in physical proximity define themselves as fundamentally different or better than one another, today’s young people may be more forgiving of racial and ethnic differences than those of the 1960s (see, for example, Carter 2005). In addition, Hannerz’s neighborhood hierarchies are created and maintained largely by adults, not adolescents. Indeed, he describes how “mainstream” parents go to great pains to keep their children away from “street families.”

These factors related to neighborhood disadvantage suggest my first hypothesis:

Hypothesis 1: Adolescents in more disadvantaged neighborhoods will exhibit greater heterogeneity of cultural frames and scripts.

THE CONSEQUENCES OF CULTURALLY HETEROGENEOUS NEIGHBORHOODS

Adolescents may be particularly influenced by cultural heterogeneity because their developmental life stage is associated with a strong focus on social identities and peer influences, as well as greater experimentation and risk taking. What are the consequences for adolescents who face a wider array of cultural models in their social environments? If an individual’s repertoire is constructed from what one observes among the people with whom one interacts and from the broader cultural ideas to which one is exposed through media and institutions, then the average adolescent in a disadvantaged neighborhood will have a wider range of scripts and frames in his repertoire. From an interactionist perspective (e.g., Fine 1979), significant cultural fluidity is created when cultural models diffuse across small groups through local (neighborhood) and extended interaction networks.

Consider the multiple frames around teenage pregnancy that exist in disadvantaged neighborhoods and inform adolescents of the consequences of becoming a father or mother at a young age. One frame defines early parenthood as a hindrance to schooling and future success. Another highlights the adult status that comes from parenthood and the attention and admiration that a new baby brings (Anderson 1999). A third implies that having a child too late in life will mean one will be too old to have the energy to enjoy the child and to be a good parent. A fourth highlights the power of a child to boost a young man’s masculinity or a young woman’s femininity (Anderson 1999).

Consider also the multiple scripts for romantic relationships that are available to an adolescent in a disadvantaged neighborhood. One such script may follow a conventional path starting with casual dating, the exchange of gifts, exclusive dating, statements of love, sexual activity, marriage, living together, and pregnancy. Another script may involve little dating and a fast transition to sexual activity and cohabitation, followed by pregnancy, and far in the future, possibly marriage (Edin and Kefalas 2005). A third may involve early statements of love to multiple partners, nonexclusive dating, and sexual activity with multiple partners and the potential for unplanned—or at least unavoidable—pregnancy (Anderson 1999).

When it comes, then, to choosing a course of action from among available relationship scripts or to considering the various frames that define the risks and benefits of a particular behavior such as teenage sexual activity, adolescents in disadvantaged neighborhoods have much more to consider than do those in more affluent areas. Not only do disadvantaged neighborhoods provide a wider array of models, but—unlike more
middle-class communities—there is also social support for both mainstream and alternative models. One can observe neighbors engaging in behaviors that conform to various cultural models. In addition, when there are multiple models, the advantages and disadvantages of various options are more poorly defined. The social environment provides a much weaker signal about what option is best because there is social support from others for many different options. We can imagine two consequences of this problem.

First, because there is less consensus or agreement where there is greater cultural heterogeneity, it will be harder for an adolescent to choose between competing options. The result may be weaker commitment to the chosen option and a lower likelihood of follow-through. With a weaker commitment, when a particular option does not seem to be working out, it is easier to shift course because another option is available—with local approval. Obstacles or setbacks may be more likely to push the adolescent off track. For example, when a romantic partner is not serious about contraception, one can downplay the “pregnancy as roadblock” frame and adopt the “parenthood as status” frame to understand one’s options and behaviors. There are others one can look to who appear to be surviving or even thriving while engaging in behavior consistent with various cultural models.

The second consequence arises at the aggregate level. In a social environment in which many options are present and visible, there will be fewer people who have enacted a particular option. Because fewer people have followed a particular script to successful completion, there will be fewer examples of how to do so. In other words, the details of the available scripts will be less clearly defined, which may make it more difficult to successfully enact the script. On the one hand, this can be thought of as an information problem. For example, when fewer neighbors have successful long-term romantic relationships, it will be less clear how to develop such a relationship. On the other hand, it can also be thought of as a social support problem. In a culturally heterogeneous environment there will be considerably less than unanimous social and cultural support for particular frames or scripts. For instance, one’s frame about the advantages and disadvantages of early parenthood may face frequent challenge from others with different frames.

These arguments suggest that in the context of neighborhood cultural heterogeneity, adolescents will be less likely to act in ways consistent with the frames and scripts that they articulate. This leads to my second hypothesis:

**Hypothesis 2:** In culturally heterogeneous neighborhoods, there will be a weaker relationship between the scripts or frames that adolescents adopt and their corresponding future behavior.

### METHODS

#### DATA

I use data from the National Longitudinal Survey of Adolescent Health (Addhealth; Harris et al. 2003). The Addhealth survey initially sampled about 150 middle schools, high schools, and junior high schools. The first wave of data was gathered in the 1994–1995 school year, the second wave in 1996, and the third wave in 2001 and 2002. Students were in grades 7 to 12 in Wave 1. The first wave of data includes a short questionnaire completed by school administrators about school characteristics and policies, an in-school questionnaire completed by almost every eligible student in the sample schools, and longer in-home student and parent interviews with a subsample of about 20,000 students. Wave 2 followed the in-home students and includes another in-home interview with the student (but not the parent) and another school administrator questionnaire. Structural neighborhood characteristics from the 1990 census

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9 These arguments are also consistent with social psychological literature on the link between attitudes and behavior (though frames and scripts are different from attitudes—the degree of overall favorability toward a psychological object [Ajzen 2001]). According to the Fishbein/Ajzen model, discrepancies between attitudes and behavior can be produced by moderating third variables, for example, group norms (Fishbein and Ajzen 1975), or in this case, neighborhood context. Attitude-behavior discrepancy can also be a product of attitude specificity. For instance, concrete attitudes predict black adolescents’ educational behavior, whereas abstract attitudes do not (Mickelson 1990).
are available for in-home respondents. The strengths of the Addhealth data for this analysis are the nesting of respondents within neighborhoods, the availability of neighborhood structural characteristics, and the availability of survey measures of frames and scripts.

**Models**

To examine Hypothesis 1, that disadvantaged neighborhoods exhibit greater cultural heterogeneity, I construct neighborhood level measures of cultural heterogeneity for two cultural concepts, pregnancy frames and romantic relationship scripts (described below). I then regress each measure of neighborhood cultural heterogeneity on neighborhood disadvantage, controlling for other neighborhood characteristics that might also produce cultural heterogeneity, such as racial and ethnic diversity or residential instability. More disadvantaged neighborhoods are expected to have greater cultural heterogeneity.

To examine Hypothesis 2, that adolescents in more heterogeneous neighborhoods are less likely to act in accordance with their articulated frames and scripts, I estimate a series of multilevel regression models, one set for pregnancy frames and one set for relationship scripts. The pregnancy frame model examines the relationship between pregnancy frames (\(F\)) and engaging in sexual activity (\(Y\)) using an interaction between individual pregnancy frame and neighborhood level heterogeneity in pregnancy frame. If we index individuals with \(i\), neighborhoods with \(j\), and schools with \(k\), we can write a three-level model (Raudenbush and Bryk 2001).\(^{10}\) The individual level model is:

\[
\log \left( \frac{Pr(Y_{ijk} = 1)}{1 - Pr(Y_{ijk} = 1)} \right) = \pi_{0jk} + \pi_{1jk}F_{ijk} + \pi_{2jk}X_{ijk} + e_{ijk}
\]

Because \(Y\) is binary, I use a logit link. \(F\) is a measure of the individual’s pregnancy frame (described below), and \(X\) is a set of control variables measuring individual and family characteristics (and \(\pi_2\) is a vector of coefficients). There are two neighborhood level equations:

\[
\pi_{0jk} = \beta_{00k}\ + \beta_{01k}F_{jk} + \beta_{02k}W_{jk} + r_{jk}
\]

\[
\pi_{1jk} = \beta_{10k}\ + \beta_{11k}F_{jk} + \beta_{12k}V_{jk}
\]

The first equation models the intercept from the individual level model as a function of neighborhood cultural heterogeneity in the pregnancy frame (\(F\)) and a set of neighborhood control variables (\(W\)), including the neighborhood mean pregnancy frame. The second equation can be thought of as adding cross-level interaction terms. It models the coefficient capturing the relationship between the individual frame (\(F\)) and sexual activity (\(Y\)) from the individual level model as a function of neighborhood cultural heterogeneity in the pregnancy frame (\(F\)) and a set of neighborhood control variables (\(V\)), again including the neighborhood mean pregnancy frame. The coefficient on \(F\), \(\beta_{11k}\), in the second neighborhood level equation tests Hypothesis 2 in this model. Finally, there is a school-level equation that serves to control for a set of school characteristics, \(Z\):

\[
\beta_{00k} + \gamma_{000} + \gamma_{001}Z_{k} + u_{k}
\]

The analysis proceeds by estimating a set of increasingly more complicated models that build up to the model just described. Earlier models set various control variable coefficients to zero (effectively leaving out the control variables).

The romantic relationship scripts model is somewhat simpler. In this model, I measure directly the difference between one’s ideal romantic relationship and one’s subsequent actual romantic relationship (described in more detail below), denoted \(Y\). This is the dependent variable. The primary predictor of interest is heterogeneity in ideal romantic relationship scripts (also described in more detail below), denoted \(R\). Again, we can write a three-level model. The individual-level equation is:

\[
Y_{ijk} = \pi_{0jk} + \pi_{1jk}X_{ijk} + e_{ijk}
\]

The difference between one’s ideal and actual romantic relationship script is modeled with an intercept and a series of control variables for individual and family characteristics (\(X\)). The neighborhood-level equation is:

\[
\pi_{0jk} = \beta_{00k} + \beta_{01k}R_{jk} + \beta_{02k}W_{jk} + r_{jk}
\]
This equation models the individual level intercept as a function of neighborhood cultural heterogeneity in ideal romantic relationship scripts ($R$) and neighborhood control variables ($W$). The coefficient on $R$, $\beta_{01b}$, is the test of Hypothesis 2 for relationship scripts. It indicates the degree to which neighborhood heterogeneity in relationship scripts predicts the difference between individuals’ ideal relationship scripts and their subsequently realized relationships. The school-level equation serves to control for a set of school characteristics, $Z$:

$$\beta_{00b} = \gamma_{000} + \gamma_{001}Z_k + u_k$$

Again, the analysis proceeds by building up to a model with the full set of neighborhood and school control variables.

**Variables**

**Structural Neighborhood Disadvantage.** Neighborhoods are measured as census tracts. As is common in neighborhood effects research (e.g., Sampson et al. 1997), neighborhood disadvantage is measured by a scale constructed from a series of neighborhood structural characteristics. The neighborhood disadvantage scale is the mean of the following standardized items: the census tract’s family poverty rate, percent single mother households, percent youth, male unemployment rate, percent black, percent of those older than 25 who are college graduates, percent of workers in managerial or professional occupations, and percent affluent families (those with incomes above $75,000 per year), with the last three reversed in polarity. These data come from the 1990 census. Individuals’ residence at the Wave 1 in-home interview, which was conducted in spring or summer of 1995, is their census tract. The average inter-item correlation for this scale is .52 and Cronbach’s alpha is .90.

The Structural Neighborhood Disadvantage Scale (hereafter, Neighborhood Disadvantage) measures the economic and social characteristics of the families that make up the neighborhood. 11 Five of these variables (poverty, single mother households, percent youth, male unemployment, and percent black) indicate the presence of disadvantaged families. 12 The remaining three (college graduates, managerial and professional workers, affluent families) indicate the absence of middle-class families since their polarity is reversed. While some researchers (e.g., Brooks-Gunn et al. 1993) argue that the absence of middle-class families is more important than the presence of disadvantaged families, there are high inter-item correlations across all eight variables in these data. This suggests that these two sets of measures capture the same underlying neighborhood SES concept but simply focus on the presence of families at opposite ends of the SES distribution as indicators of a neighborhood’s position in that distribution. 13

**Premarital sex.** Premarital sex between Wave 1 (when almost all respondents are age 13 to 18) and Wave 2 (about a year later on average) measures whether the adolescents report having had sexual intercourse outside of marriage between the first and second waves of the survey. 14

**Romantic relationship scripts.** The Addhealth in-home data contain a series of questions about adolescents’ ideal and actual romantic relationships. Ideal relationships are natural and cultural characteristics, and therefore cultural characteristics of neighborhoods are measured directly, as described below.

12 Percent youth roughly captures the number of adults per child to supervise or monitor young people, both within families and in the neighborhood in general.

13 A correlation matrix of these variables is available from the author upon request.

14 Researchers studying adolescent sexual behavior from a more demographic perspective often focus on the transition to first sex. In this case, because of the emphasis on the effect of neighborhood context, conditioning on prior sexual behavior would be conditioning on an endogenous variable, one that is also affected by neighborhood context. In addition, limiting the sample to those who never had sex prior to Wave 1 would result in a large reduction in statistical power. Models estimated on this more limited sample show substantively similar results but with larger standard errors (models not shown).
measured at Wave 1 by asking the adolescents to choose the events that would be part of their ideal romantic relationships and then to arrange the events in their preferred chronological order. For the ideal relationship scripts, respondents choose from and then order the following list of 17 events:

- We would go out together in a group
- I would meet my partner’s parents
- I would tell other people that we were a couple
- I would see less of my other friends so I could spend more time with my partner
- We would go out together alone
- We would hold hands
- I would give my partner a present
- My partner would give me a present
- I would tell my partner that I loved him or her
- My partner would tell me that he or she loved me
- We would think of ourselves as a couple
- We would talk about contraception or sexually transmitted diseases
- We would kiss
- We would touch each other under our clothing
- We would have sex
- My partner or I would get pregnant
- We would get married

In Wave 2, each respondent is asked to describe up to three past romantic relationships using the same procedure. However, in Wave 2 the menu of possible events is slightly different. The two events involving telling each other that you love one another are collapsed into one event, as are the two events involving giving and receiving gifts. Getting married is not included in the menu of events in Wave 2, and an additional event, “You touched each others genitals (private parts),” is added. I consider the ideal relationship from Wave 1 to be a measure of the relationship script for the respondent’s ideal romantic relationship. I then use the first relationship listed at Wave 2 that started after the Wave 1 interview as the actual relationship script.

The analysis requires the construction of two measures, one that captures heterogeneity in ideal relationship scripts within a neighborhood and another that captures the degree to which individual respondents’ actual relationship scripts differ from their ideal relationship scripts. Hypothesis 2 predicts that adolescents in neighborhoods with more heterogeneity in ideal relationship scripts will have actual relationships that are more different from their ideal relationship scripts.

The string of events in the relationship scripts can be thought of as sequence data, and sequence analysis methods can be used to measure the resemblance or difference between two scripts. Optimal matching provides a method for comparing two sequences based on the insertions, deletions, and substitutions required to transform one sequence into the other. Each insertion, deletion, or substitution carries a cost, and the optimal matching algorithm finds the minimum total cost to transform one sequence into the other. This cost is a measure of the difference between two sequences. To measure heterogeneity at the neighborhood level in ideal relationship scripts, I take the mean of the differences between ideal romantic relationship scripts for all possible pairs of individuals in each neighborhood. The reliability of this measure depends heavily on the number of Addhealth respondents in the neighborhood, so all models are weighted by this reliability. Further information on the romantic relationship scripts and sequence analysis is provided in the Online Supplement on the ASR Web site: http://www2.asanet.org/journals/asr/2007/toc057.html.

Pregnancy frames. The degree to which respondents agree or disagree with the statement, “It wouldn’t be all that bad if you got pregnant [or got someone pregnant] at this time in your life,” measures their frame regarding teenage pregnancy. Above I conceptualized frames as ways of thinking about the world and about the consequences of one’s actions. While ideally one would use a measure that distinguished between multiple frames regarding pregnancy (such as early parenthood as status, early parenthood as hindrance, or early parenthood as leading to a closer relationship between parent and child), no such measures are available in these or any other survey data. However, this survey question is a reasonable measure of the respondent’s frame regarding teenage pregnancy in that it captures both the valence and strength of an adolescent’s thinking about the consequences of teenage pregnancy. By including the phrase, “at this time in your life,” it cues respondents to think of consequences, and in particular of the consequences for themselves.
rather than teenagers in general. Because of this practical orientation, this measure can be distinguished from more general attitudinal measures that tap values regarding the moral status of teenage sexual behavior or early parenthood.

To measure an individual’s adherence to this “pregnancy would have negative consequences for me” frame, I assign responses the numbers one through five such that higher values indicate a stronger feeling that pregnancy would have negative consequences. Measurement at the neighborhood level of pregnancy frame heterogeneity is based on a variance measure appropriate for ordinal variables and is described in the Online Supplement.

**NEIGHBORHOOD CONTROLS.** In models that examine the relationship between neighborhood disadvantage and neighborhood cultural heterogeneity, it is necessary to control for other potential sources of cultural heterogeneity. Social organization theory points to three other potential sources of cultural heterogeneity: immigration, residential instability, and ethnic and racial diversity. To control for immigration, I use the percent of neighborhood residents who are foreign born. To control for residential instability, I control for percent of housing units that are owner-occupied and percent of housing units that have housed the same

15 Contrast this question with questions in the attitude measures in the General Social Survey: “There’s been a lot of discussion about the way morals and attitudes about sex are changing in this country. If a man and woman have sex relations before marriage, do you think it is always wrong, almost always wrong, wrong only sometimes, or not wrong at all?” and, “What if they are in their early teens, say 14 to 16 years old? In that case, do you think sex relations before marriage are always wrong, almost always wrong, wrong only sometimes, or not wrong at all?”

16 This interpretation is also based on qualitative interviews with 60 adolescent boys in three neighborhoods in Boston in which this survey question was administered to each boy and then both their understanding of the question and their responses were discussed (these data are discussed in more detail in Harding 2005). When discussing how they thought about answering this question, the boys focused on how their lives would be different were they to become a parent in the near future and how that would affect their future plans and life chances.

17 These two variables are obviously somewhat collinear, but their role in the model is to control for potential confounding due to residential instability. I am not interested in the magnitude or statistical significance of their coefficients.
would expect, adolescents in more advantaged neighborhoods are more likely to strongly disagree that getting pregnant would not be all that bad. More surprising from the perspective of social isolation theory, though, we find that even in the most disadvantaged neighborhoods, over 70 percent of adolescents disagree or strongly disagree that a pregnancy would not be all that bad. It would be very difficult to conclude from Table 1 that the majority of adolescents in disadvantaged neighborhoods express cultural models radically at odds with mainstream views on teenage pregnancy. Yet Table 1 also reveals the greater heterogeneity of responses in disadvantaged neighborhoods. Descriptively, disadvantaged neighborhoods are distinguished from advantaged neighborhoods by the heterogeneity of their responses. Whereas more advantaged neighborhoods have considerable consensus on teenage pregnancy, in more disadvantaged neighborhoods there is a sizable minority of adolescents who do not subscribe to the dominant view. Most research on neighborhood context measures neighborhood characteristics using measures of central tendency (such as the mean), but Table 1 reveals that internal variation (or what I am calling cultural heterogeneity) also differs across neighborhoods and that neighborhood mean and neighborhood cultural heterogeneity are empirically related.

**NEIGHBORHOOD DISADVANTAGE AND CULTURAL HETEROGENEITY**

Table 2 examines the relationship between neighborhood disadvantage and neighborhood cultural heterogeneity, controlling for other neighborhood characteristics that may be sources of spuriousness. It examines Hypothesis 1, that disadvantaged neighborhoods will exhibit greater cultural heterogeneity. Table 2 shows one OLS regression model each for heterogeneity in pregnancy frames and relationship scripts. The unit of analysis is the neighborhood (census tract). The key predictor is neighborhood disadvantage. Controls are included for percent Hispanic, racial diversity, percent foreign born, and residential stability, though their coefficients are not of substantive interest for testing Hypothesis 1. As these control variables are highly correlated with one another, their individual coefficients should not be interpreted as indicating their ability to predict cultural heterogeneity. Each model is weighted by the reliability of the neighborhood level heterogeneity measure. Descriptive statistics for the

---

**Table 1. Pregnancy Frame by Neighborhood Disadvantage**

<table>
<thead>
<tr>
<th>Neighborhood Disadvantage Scale Quintiles</th>
<th>Strongly Agree (percent)</th>
<th>Agree (percent)</th>
<th>Neither Agree Nor Disagree (percent)</th>
<th>Disagree (percent)</th>
<th>Strongly Disagree (percent)</th>
<th>Row Obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>1.1</td>
<td>4.0</td>
<td>5.2</td>
<td>31.7</td>
<td>58.1</td>
<td>1,899</td>
</tr>
<tr>
<td>2nd</td>
<td>1.6</td>
<td>5.3</td>
<td>7.9</td>
<td>32.1</td>
<td>53.1</td>
<td>3,508</td>
</tr>
<tr>
<td>3rd</td>
<td>1.2</td>
<td>6.8</td>
<td>9.3</td>
<td>31.7</td>
<td>50.9</td>
<td>3,880</td>
</tr>
<tr>
<td>4th</td>
<td>2.9</td>
<td>9.7</td>
<td>10.1</td>
<td>32.6</td>
<td>44.8</td>
<td>2,689</td>
</tr>
<tr>
<td>5th</td>
<td>4.0</td>
<td>12.4</td>
<td>11.1</td>
<td>35.2</td>
<td>37.4</td>
<td>1,640</td>
</tr>
<tr>
<td>All</td>
<td>2.0</td>
<td>7.4</td>
<td>8.7</td>
<td>32.4</td>
<td>49.5</td>
<td>13,616</td>
</tr>
</tbody>
</table>

*Note: Estimates account for Addhealth sample design and Addhealth in-home Wave 1 weight.*

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18 Entering the neighborhood structural characteristics that make up the Neighborhood Disadvantage Scale in the model individually produces similar results (not shown).

19 Percent Hispanic is given a quadratic functional form in these models because one would expect the association between percent Hispanic and cultural heterogeneity to increase as the proportion of Hispanics increases from zero, but to peak and then decrease as the proportion Hispanic approaches one.

20 Multiple control variables are entered into the models individually so that they account for the maximum potential omitted variable bias in the relationship between structural disadvantage and cultural heterogeneity. Drawing conclusions about racial diversity, immigrant density, and residential stability as causes of cultural heterogeneity would require a different model specification.
variables in these models are provided in Table S2 in the Online Supplement.
Both models show a strong and statistically significant association between neighborhood disadvantage and neighborhood cultural heterogeneity, net of controls, and these associations are of the same order of magnitude across domains. In the pregnancy frame model, a one standard deviation increase in the neighborhood disadvantage scale is also associated with an increase of about one-fifth of a standard deviation in pregnancy frame heterogeneity.\(^{21}\) In the relationship script model, a one standard deviation increase in the neighborhood disadvantage scale is associated with an increase of a little less than one-sixth of a standard deviation in neighborhood cultural heterogeneity. These results show that disadvantaged neighborhoods exhibit greater cultural heterogeneity.\(^{22}\)

\(^{21}\) The neighborhood disadvantage variable is standardized because it is a scale with no inherent metric. The standard deviation of the pregnancy frame heterogeneity variable is .3285—see Table S2 in the Online Supplement.

\(^{22}\) One might question the relatively low \(R^2\) values produced by the models in Table 2. These are likely the result of measurement error in the cultural heterogeneity measures due to the low reliability of measurement in neighborhoods with few respondents. In OLS, measurement error in the dependent variable does not bias coefficients but does increase error variance.

CULTURAL HETEROGENEITY AND ADOLESCENT OUTCOMES

Hypothesis 2—adolescents in more culturally heterogeneous neighborhoods will be less likely than those in more homogenous ones to act in accordance with their own frames and scripts—predicts that the relationships between individual frames or scripts and individual outcomes will be weaker in neighborhoods with greater cultural heterogeneity. Table 3 shows various versions of the multilevel logit models predicting premarital sexual activity described above.\(^{23}\) (Descriptive statistics for the variables used in this model are provided in Table S3 in

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Table 2. OLS Models of Neighborhood Cultural Heterogeneity

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nhood Disadvantage Scale</td>
<td>.06786* (.00872)</td>
<td>.15083* (.02704)</td>
</tr>
<tr>
<td>Percent Hispanic</td>
<td>-.00014 (.00125)</td>
<td>-.00069 (.00398)</td>
</tr>
<tr>
<td>Percent Hispanic Squared</td>
<td>.00001 (.0014)</td>
<td>-.00002 (.00004)</td>
</tr>
<tr>
<td>Racial Diversity Index</td>
<td>.00012 (.00043)</td>
<td>.00102 (.00138)</td>
</tr>
<tr>
<td>Percent Foreign Born</td>
<td>.00074 (.00080)</td>
<td>.00429 (.00264)</td>
</tr>
<tr>
<td>Percent Owner-Occupied</td>
<td>.00026 (.00041)</td>
<td>-.00283* (.00133)</td>
</tr>
<tr>
<td>Percent Units Occupied 5 Years</td>
<td>.00031 (.00055)</td>
<td>-.00087 (.00178)</td>
</tr>
<tr>
<td>Constant</td>
<td>.56636* (.04751)</td>
<td>.14836 (.15386)</td>
</tr>
<tr>
<td>N Neighborhoods</td>
<td>1,322</td>
<td>1,367</td>
</tr>
<tr>
<td>(R^2)</td>
<td>.086</td>
<td>.057</td>
</tr>
</tbody>
</table>

Note: Each model weighted by reliability of neighborhood heterogeneity measure. Descriptive statistics available in Table S2 in the Online Supplement. * \(p < .05\).
### Table 3. Three-Level Logit Models Predicting Sex Between Waves I and II

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Pregnancy Frame</td>
<td>$-0.4384^*$</td>
<td>$-0.4185^*$</td>
<td>$-0.4975^*$</td>
</tr>
<tr>
<td></td>
<td>(0.0873)</td>
<td>(0.0988)</td>
<td>(0.1030)</td>
</tr>
<tr>
<td>Nhood Mean Pregnancy Frame</td>
<td>$-0.1504$</td>
<td>$-0.0930$</td>
<td>$-0.1207$</td>
</tr>
<tr>
<td></td>
<td>(0.1128)</td>
<td>(0.1123)</td>
<td>(0.1128)</td>
</tr>
<tr>
<td>Individual Frame × Nhood Mean Pregnancy Frame</td>
<td>$-0.0196$</td>
<td>$0.0477$</td>
<td>$0.0868$</td>
</tr>
<tr>
<td></td>
<td>(0.0830)</td>
<td>(0.0868)</td>
<td>(0.0868)</td>
</tr>
<tr>
<td>Pregnancy Frame Nhood Heterogeneity Quartiles:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Quartile Versus 1st Quartile</td>
<td>$0.0595$</td>
<td>$0.0200$</td>
<td>$0.0351$</td>
</tr>
<tr>
<td></td>
<td>(0.1006)</td>
<td>(0.1104)</td>
<td>(0.1115)</td>
</tr>
<tr>
<td>3rd Quartile Versus 1st Quartile</td>
<td>$0.0517$</td>
<td>$-0.0360$</td>
<td>$-0.0368$</td>
</tr>
<tr>
<td></td>
<td>(0.1019)</td>
<td>(0.1285)</td>
<td>(0.1289)</td>
</tr>
<tr>
<td>Top Quartile Versus 1st Quartile</td>
<td>$0.1503$</td>
<td>$0.0144$</td>
<td>$0.0159$</td>
</tr>
<tr>
<td></td>
<td>(0.1648)</td>
<td>(0.1986)</td>
<td>(0.1947)</td>
</tr>
<tr>
<td>Individual Frame × Nhood Frame Heterogeneity Quartiles:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Quartile Versus 1st Quartile</td>
<td>$0.2100^*$</td>
<td>$0.1949$</td>
<td>$0.1727$</td>
</tr>
<tr>
<td></td>
<td>(0.1001)</td>
<td>(0.1055)</td>
<td>(0.1040)</td>
</tr>
<tr>
<td>3rd Quartile Versus 1st Quartile</td>
<td>$0.3745^*$</td>
<td>$0.3514^*$</td>
<td>$0.3144^*$</td>
</tr>
<tr>
<td></td>
<td>(0.0902)</td>
<td>(0.1161)</td>
<td>(0.1189)</td>
</tr>
<tr>
<td>Top Quartile Versus 1st Quartile</td>
<td>$0.4335^*$</td>
<td>$0.4163^*$</td>
<td>$0.4059^*$</td>
</tr>
<tr>
<td></td>
<td>(0.1381)</td>
<td>(0.1560)</td>
<td>(0.1654)</td>
</tr>
<tr>
<td>Nhood Disadvantage Scale Quartiles:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Quartile Versus 1st Quartile</td>
<td>$0.0965$</td>
<td>($0.0767$)</td>
<td>($0.0881$)</td>
</tr>
<tr>
<td></td>
<td>($0.0816$)</td>
<td>($0.0881$)</td>
<td>($0.1057$)</td>
</tr>
<tr>
<td>3rd Quartile Versus 1st Quartile</td>
<td>($0.1361$)</td>
<td>($0.0729$)</td>
<td>($0.0783$)</td>
</tr>
<tr>
<td></td>
<td>($0.0765$)</td>
<td>($0.0783$)</td>
<td>($0.0765$)</td>
</tr>
<tr>
<td>Top Quartile Versus 1st Quartile</td>
<td>($0.2419^*$)</td>
<td>($0.0809$)</td>
<td>($0.0809$)</td>
</tr>
<tr>
<td>Constant</td>
<td>$-0.5372^*$</td>
<td>$-0.4742^*$</td>
<td>$-0.5926^*$</td>
</tr>
<tr>
<td></td>
<td>(0.1521)</td>
<td>(0.1714)</td>
<td>(0.1824)</td>
</tr>
<tr>
<td>N Individuals</td>
<td>9,281</td>
<td>9,281</td>
<td>9,281</td>
</tr>
<tr>
<td>N Neighborhoods</td>
<td>1,357</td>
<td>1,357</td>
<td>1,357</td>
</tr>
<tr>
<td>N Schools</td>
<td>142</td>
<td>142</td>
<td>142</td>
</tr>
</tbody>
</table>

*Note: Models weighted by reliability of neighborhood frame means. Robust standard errors in parentheses. Descriptive statistics available in Table S3. Individual, family, and school control variable coefficients available in Table S4 in the Online Supplement. Missing values on control variables imputed using multiple imputation with 10 replications. * $p < .05$.*

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24 I experimented with entering this variable into the model as a series of dummy variables, but the relationship with the outcome was fairly linear, so to reduce model complexity, I enter it as a linear term.
tiles allows its effects to be nonlinear. The individual frame variable captures the relationship between one’s pregnancy frame and premarital sexual behavior within low heterogeneity neighborhoods. Not surprisingly, among adolescents in these neighborhoods, there is a strong relationship between adolescents’ individual pregnancy frames and their sexual behavior. The interaction terms capture the difference in this relationship across neighborhoods with different levels of frame heterogeneity. These coefficients show that as cultural heterogeneity within a neighborhood increases, the association between an adolescent’s own pregnancy frame and sexual behavior declines dramatically.

Neighborhoods with greater heterogeneity in pregnancy frames also exhibit an average frame that views teenage pregnancy less negatively (see Table 1). In other words, there is an association between central tendency and variation at the neighborhood level for pregnancy frames. Thus, one potential source of spuriousness in Model 1 of Table 3 is a neighborhood’s mean pregnancy frame. Model 2 adds the control for the neighborhood mean pregnancy frame. Its coefficient is in the expected direction, but it is not statistically significant. Its inclusion changes only slightly the primary coefficients of interest, the interaction terms. This model also adds a term for the interaction between the individual pregnancy frame and the neighborhood mean pregnancy frame. Its coefficient is small and statistically insignificant. These results suggest that the smaller relationship between adolescents’ own pregnancy frames and their sexual behavior in more heterogeneous neighborhoods is not merely a product of greater average permissiveness toward teenage pregnancy in such neighborhoods.

Moreover, the comparatively small magnitudes and lack of statistical significance of the neighborhood mean pregnancy frame coefficients in predicting sexual activity suggest that once cultural heterogeneity is taken into account, a neighborhood oppositional cultural environment is not an important cause of differences in sexual behavior across neighborhoods. This is further evidence against the social isolation view of the cultural context of disadvantaged neighborhoods. Were social and/or cultural isolation affecting individual adolescent behavior, one would expect neighborhood mean pregnancy frames to be strong predictors of individual sexual activity.

It is also possible that the importance of neighborhood cultural heterogeneity is a spurious result of the strong association between neighborhood cultural heterogeneity and neighborhood disadvantage. Without controlling for neighborhood disadvantage, we cannot eliminate the possibility that the effects of cultural heterogeneity at the neighborhood level are simply capturing the effects of neighborhood disadvantage. Model 3 adds controls for neighborhood disadvantage that parallel the variables measuring frame heterogeneity. These include dummy variables for quartiles of the distribution of neighborhood disadvantage. These variables measuring frame heterogeneity. These interactions between these quartiles and the individual pregnancy frame. As we would expect, inclusion of the neighborhood disadvantage variables reduces the magnitudes of the frame heterogeneity interaction coefficients, but they remain large and statistically significant.

The coefficients in Model 3 show that in the lowest frame heterogeneity neighborhoods, the relationship between individual frame and behavior is strong, but that the importance of the respondent’s individual frame declines as neighborhood frame heterogeneity increases. In the lowest heterogeneity neighborhoods, a one category increase in the individual pregnancy frame multiples the odds of sexual behavior by about .61 ($e^{-.4975} = .6080$), while in the highest heterogeneity neighborhoods, a similar move in the individual pregnancy frame multiples the odds of sexual behavior by a more modest .91 ($e^{-.4975 + .4059} = .9124$). (Recall that since exponentiated coefficients from logit models are odds ratios, values closer to 1 represent smaller associations.) Adolescents in higher frame heterogeneity neighborhoods are much less likely to act in accordance with their own articulated frames regarding teenage pregnancy than are their counterparts in more culturally homogeneous neighborhoods.

One can also illustrate the interactions in these models graphically. Figure 1a shows the relationship between predicted probabilities of sexual activity and individuals’ pregnancy frames based on estimates from Model 3 in Table 3. Separate lines are plotted by quartiles of neighborhood frame heterogeneity. Other variables are fixed at either zero (indicator varia-
ables) or their means (continuous variables). Among adolescents living in neighborhoods with the least cultural heterogeneity (those in the 1st and 2nd quartiles of heterogeneity), individual pregnancy frames are strongly predictive of sexual activity. Among those in neighborhoods in the 3rd quartile, there is still a negative sloping line, but the slope is considerably more modest. Among those in neighborhoods with the highest pregnancy frame heterogeneity (the 4th quartile), the relationship between one’s own pregnancy frame and one’s sexual activity is not as strong.

**Figure 1a.** Relationship Between Individual Pregnancy Frame and Sexual Activity (by Neighborhood Pregnancy Frame Heterogeneity Quartiles)

**Figure 1b.** Relationship Between Neighborhood Pregnancy Frame Heterogeneity and Sexual Activity (by Individual Pregnancy Frame)
behavior is almost flat. Figure 1b rearranges the same data points to show the relationship between neighborhood pregnancy frame heterogeneity and sexual activity, with separate lines plotted by the adolescents’ own individual pregnancy frames. The importance of neighborhood cultural heterogeneity is also evident here. As cultural heterogeneity at the neighborhood level increases, the predicted probabilities of sexual activity converge for all adolescents, no matter what their stated frame regarding teenage pregnancy.

I now turn to the analysis of the romantic relationship scripts. Recall that the models are slightly simpler here, as the failure to realize one’s ideal relationship script is measured directly. Table 4 examines the relationship between neighborhood heterogeneity in ideal relationship scripts and the difference between the ideal and actual relationship scripts of an individual.25

(Descriptive statistics for the variables used in this model are provided in Table S5, and control variable coefficients are provided in Table S6 in the Online Supplement.) Model 1 shows that, net of individual, family, and school characteristics, neighborhood script heterogeneity is a significant predictor of the difference between one’s ideal and actual romantic relationships. Models 2 adds controls for neighborhood disadvantage. This control reduces the heterogeneity coefficient, but it remains statistically significant. These models provide further evidence in support of Hypothesis 2, suggesting that greater neighborhood cultural heterogeneity leads to a lower likelihood of realizing one’s ideal relationship. To the extent that romantic relationship partners are selected from among one’s neighbors, part of this association is likely related to the process of partner selection. In more heterogeneous neighborhoods, it is more difficult to find a romantic partner whose ideal relationship script is similar to one’s own. When two relationship scripts are incompatible, at least one partner must fail to realize his or her ideal relationship if the relationship continues.26

CONCLUSION

This article has attempted to reorient current thinking about the cultural context of disadvantaged neighborhoods, particularly as it relates to adolescent outcomes. The canonical account of neighborhood culture in the urban poverty literature (Wilson 1987) is one in which

25 Cases were selected for analysis in Table 4 if they had nonmissing data on the ideal relationship script and neighborhood relationship script heterogeneity variables and had at least one romantic relationship that started after the Wave 1 in-home interview (during which data on the ideal relationship script were collected).

26 It is likely that there are important gender differences in adolescents’ ideal romantic relationship scripts. Unfortunately, creating gender-specific measures of relationship script heterogeneity requires double the subject density per neighborhood to maintain measurement reliability. It is not possible to create such gender-specific measures in these data.
the departure of middle-class blacks from inner-city neighborhoods has left behind a socially isolated underclass with values that both depart significantly from middle-class or mainstream culture and are relatively uniform and coherent. Massey and Denton (1993) take this a step further, writing that “ghetto culture has become an entity unto itself” (p. 172). Theoretical notions based on this premise, such as “oppositional culture,” now dominate much scholarship on inner-city, disadvantaged communities. Accordingly, in considering the impact of neighborhood culture on adolescents, most previous work examining adolescent outcomes has employed a subculture model, in which negative outcomes are the product of participation in a particular subculture whose values promote negative behavior. Paradoxically, this work also emphasizes the multiple and overlapping lifestyle groups or orientations in disadvantaged neighborhoods.

I have proposed an alternate view of the cultural context of disadvantaged neighborhoods, a view that emphasizes their cultural diversity. The urban poverty literature has lost track of the insights developed by Shaw and McKay (1969), in which poor communities are characterized by conflicting cultural systems. Though Shaw and McKay were concerned with crime and delinquency, these ideas have the potential to further our understanding of the cultural context of disadvantaged neighborhoods as it relates to other domains as well. I have argued that an important way in which disadvantaged neighborhoods differ from more advantaged neighborhoods is cultural heterogeneity, the presence of a wide array of competing and contradictory cultural models.

The above empirical analyses show that cultural heterogeneity helps to predict adolescent outcomes regarding sexual activity and romantic relationships. This article has examined neighborhood cultural heterogeneity with regard to frames about teenage pregnancy and scripts for romantic relationships. Using data from Addhealth, I have shown that more disadvantaged neighborhoods exhibit greater cultural diversity in pregnancy frames and relationship scripts. This article also shows that adolescents in more culturally heterogeneous neighborhoods are less likely to act in accordance with their own articulated scripts and frames. In neighborhoods with a greater diversity of frames regarding the consequences of teenage pregnancy, adolescents are less likely to act in accordance with their own frames. And where there is greater variation in scripts for romantic relationships, adolescents are less likely to realize their own ideal relationships in the actual relationships that they pursue.

This research has theoretical implications for both social isolation and social organization explanations of neighborhood effects. The importance of cultural heterogeneity calls into question one of the fundamental ideas of social isolation theory, that disadvantaged neighborhoods are isolated from mainstream or middle-class culture. Instead, the results suggest that disadvantaged neighborhoods contain a mix of cultural models and that this heterogeneity impacts neighborhood adolescents. In contrast, the findings in this study are generally supportive of neighborhood effects models based on social disorganization theory and move us toward understanding the mechanisms underlying these models. Social disorganization theory highlights the limited capacity of residents in disadvantaged communities to regulate the behaviors of their neighbors. Heterogeneity in cultural lifestyles or orientations can be understood as the failure of more middle-class or mainstream residents of disadvantaged neighborhoods to regulate behavior in their communities. The result of this failure is that neither “oppositional” nor “mainstream” behavior is dominant in disadvantaged communities.

More broadly, this article’s findings challenge the underclass concept as a fruitful framework for the analysis of life in poor urban neighborhoods. This study suggests that rather than being disconnected from mainstream society, poor urban residents live in cultural environments that include both local elements and elements from the wider society and that these disparate elements are often contradictory and competing. This means that, as has been described in the ethnographic literature (Anderson 1999; Newman 1999), cultural conflict and cultural disagreement are widespread. I have argued here that such conflict may have further consequences for well-being and decision making. In addition, a theoretical framework that incorporates cultural heterogeneity allows both for variation in individual outcomes among those who experience the same structural conditions and for greater agency, as individu-
als choose between and evaluate the cultural models that exist in their cultural environments and in their repertoires.

The cultural heterogeneity view is both more optimistic and in some ways more pessimistic than the underclass view. The fact that there is considerable support for conventional norms in culturally heterogeneous environments means that the seeds of positive change are likely present in the vast majority of disadvantaged neighborhoods. On the other hand, neighborhood cultural heterogeneity can be created when even a relatively small minority of individuals or families display alternative or oppositional behaviors or lifestyles and thereby disrupt, confuse, or weaken the dominance of conventional cultural models. Cultural heterogeneity, and its consequences, will likely persist until the most disadvantaged residents of poor neighborhoods are empowered with more positive ways to adapt to and rise out of poverty.

Though this study has not set out to explicitly test competing hypotheses regarding cultural theories, it does suggest some implications for cultural sociology. First, findings regarding the consequences of neighborhood cultural heterogeneity show how local or group cultural contexts can matter for behavior, even when those local cultures are not starkly distinct or separate from other local cultures or the wider culture. In other words, different behavioral outcomes do not require distinct subcultures. Second, this article provides another example of the utility of cognitive cultural concepts such as frames, scripts, and repertoires. In doing so, it also suggests a further specification of how repertoires operate. The activation of elements from one’s repertoire depends not just on one’s structural position (Lamont 1992) but also on the relationships between various elements in the repertoire and on local social support for those elements. Third, the importance of cultural heterogeneity suggests that not only are the meanings attached to cultural models important, but how those meanings are organized and related to one another also has implications for behavior. The degree of harmony or conflict among available cultural models is another dimension along which cultural contexts or cultural repertoires should be evaluated.

While the results in this study are strongly suggestive of the importance of cultural heterogeneity for understanding disadvantaged neighborhoods, further research is required. Better measures of frames and scripts would provide stronger tests of the hypotheses examined here. For example, the measure of heterogeneity of pregnancy frames does not capture the presence of multiple frames but rather variation in allegiance to a particular frame. Further empirical predictions can be generated to test the utility of cultural heterogeneity as a sociological concept. For example, the hypothesized weaker commitment to frames or scripts that comes from exposure to greater cultural variations would suggest that adolescents in more heterogeneous neighborhoods should exhibit greater temporal variation in their articulated frames and scripts. Finally, further research is needed to examine the degree of cultural heterogeneity in other domains such as education or health and the ability of cultural heterogeneity to predict other outcomes.

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27 In addition, it could be argued that the survey question used here to measure pregnancy frames also taps the moral status of teenage pregnancy or that the question wording is confusing because it contains a double negative. Nevertheless, this measure is strongly predictive of behavior among adolescents in culturally homogenous neighborhoods, so measurement problems would have to disproportionately affect adolescents in culturally heterogeneous neighborhoods to call into question the larger argument.

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