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Race, concentrated disadvantage, and recidivism: A test of interaction effects ☆

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A B S T R A C T

This study sought to explore if the structural characteristics of a community (specifically what sociologists term concentrated disadvantage) interact with race in predicting recidivism. The literature on recidivism stresses the effects of individual factors. This study considered whether effects of the community in which an ex-prisoner lives should be further explored. Of particular interest was the possibility of interaction between concentrated disadvantage and race. Results showed that race strongly predicts recidivism (Blacks being much more likely to recidivate than Whites). This remained the case in spite of multiple controls accounting for racial differences. Neither concentrated disadvantage nor the interaction between it and race had significant effects on recidivism. The study considered what might account for the lingering racial effect, and why the community does not affect the likelihood of recidivism.

Introduction

Each year, well over 700,000 people are released from prison. Compared to non-felons, they are typically less educated, have less job experience, fewer employable skills, and less experience with technology (Western & Pettit, 2005). Such an array of dated or undesirable attributes reduces the probability of successful reintegration. Finding a job is problematic (Pager, 2003, 2007); the search for housing can be hard as well, whether the result of discrimination or legislation prohibiting residence in certain areas (e.g., for sex offenders). The path to a crime-free life is a difficult one, as evidenced by high recidivism rates discovered by Langan and Levin (2002). This is all in addition to the stigma of a felony criminal history.

Beyond individual characteristics, the contributions of a poor postrelease environment must be explored (Clear, 2007, Kubrin & Stewart, 2006). The neighborhood context to which convicted offenders return is a factor that should be examined for possible effects on recidivism. Travis (2006) and Visher and Travis (2003) showed that most prisoners are likely to return to communities that are severely impoverished. These communities are marked by high rates of poverty, unemployment, low educational achievement, low homeownership, and high rates of single-parent households.

Like the communities in the modern inner-city as described by Wilson (1987, 1996) and Anderson (1999), these neighborhoods suffer from a concentrated deprivation of resources and opportunities to develop social or cultural capital (Hagan, 1994). In neighborhoods high in concentrated disadvantage, the probability of economic or educational success for residents not involved in crime is comparatively low (to residents of more advantaged neighborhoods). The structural impediments in the environments where convicted felons reside and return to are difficult for most people to overcome, let alone those with criminal histories.

This study sought to explore individual and community effects on the likelihood of recidivism. In addition, this study explored if the community in which someone with a felony conviction lives has a measurable effect on the likelihood of recidivism. The size and direction of separate and interactive effects were also considered. Of particular interest was testing for interaction between concentrated disadvantage and race; for instance, whether Blacks or Whites are more likely to recidivate in communities characterized by concentrated disadvantage. The central question this study sought to explore was: *do the structural characteristics of a community (specifically what sociologists term concentrated disadvantage) interact with race in predicting recidivism*? The measure of concentrated disadvantage also allowed for concentrated advantage to be included, so the effects of deprived communities could be compared with effects of communities with ample resources.

Review of the literature

What is known about recidivism

Naturally, with an increase in prisoners comes an increase in prison releases; in 2002, more than 630,000 people were released from prisons (Travis, 2006). These people, labeled as "churners" (Lynch & Sabol, 2001) exhibit several traits that make them unique compared to past release cohorts. First, a smaller percentage of them participated in rehabilitation or education programs (as a result of larger prison populations and shrinking program budgets). Second, the reduced power of parole boards, in concert with the increasing use

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of determinate sentencing policies, means that, quite literally, a prisoner is more likely to "max out" their sentence than was the case in the past (Lynch & Sabol, 2001; Petersilia, 2003; Travis, 2007). At an individual level, Maruna (2000) found that individuals facing release hope to avoid recidivism, but generally consider themselves unlikely to remain crime free.

Research findings have shown that recidivism rates have remained remarkably high over the past several decades. By themselves, high rates of recidivism are already alarming, whereas already high rates showing an upward trend (an increase in recidivism) present another issue altogether. Analyzing a release cohort in 1987, Harer (1994, p. 1) showed that "40.8 percent of the former inmates had either been rearrested or had their parole revoked, that is, recidivated." By the time a similar release cohort was examined in 1994, however, Langan and Levin (2002) found that "67.5% of the prisoners were rearrested for a new offense, 46.9% were reconvicted for a new crime, 25.4% were resentenced to prison for a new crime, and 51.8% were back in prison" (p. 1). Hughes and Wilson (2002, p. 5) broke down the trends in rearrest rates by type of crime; specifically, the rate increased from 68.1 percent to 73.8 percent for property offenders, from 50.4 percent to 66.7 percent for drug offenders, and from 54.6 percent to 62.2 percent for public-order offenders. Despite the increased focus on punishment during this time period, recidivism increased on all the factors on which it is typically measured (rearrest, reconviction, and reincarceration).

Several meta-analyses reveal factors that consistently predict recidivism. For example, Andrews, Zinger, Hoge, Bonta, Gendreau, and Cullen (1990, p. 384), discussing the predictive power of appropriate risk identification and treatment, found that "the major source of variation in effects on recidivism was the extent to which service was appropriate according to the principles of risk, need, and responsivity." Another meta-analysis by Gendreau, Little, and Goggin (1996) reinforced this point by comparing individual-level static (e.g., age, gender, race, intellect, SES) and dynamic (e.g., achievement, distress, and criminogenic need) factors. The mean effect sizes slightly favored the dynamic factors in predicting recidivism, although static factors also had statistically significant effects on recidivism.

Structural conditions (such as unemployment rates, poverty, and housing availability) have been hypothesized to increase the likelihood of criminality (Clear, 2007, Reisig, Holtfreter & Morash, 2006, Sampson & Wilson, 1995). The current study contained data on the communities in which convicted offenders reside in; the data were at the individual and community level, and helped portray a snapshot of the presence or absence of opportunities for avoiding recidivism.

Race and recidivism

FBI (2007) Uniform Crime Reports showed that, for 2006, "70.1 percent of all adults arrested were white, 27.6 were black, and the remaining percentage was of other races" (p. 1). The proportion of blacks in jails (38.6 percent in 2006) and prisons (39.5 percent in 2005) are greater than that (FBI, 2006, 2007, Tonry, 1994). Also in 2005, 20.2 percent of all prisoners were Hispanic, and 34.6 percent white (FBI, 2006). Compared to their arrest rates, Blacks are disproportionately incarcerated.

Wacquant (2002) referred to prisons as the fourth "peculiar institution" of domination in the US; the first three were slavery, Jim Crow, and the urban ghetto. All of these institutions "were all instruments for the conjoint *extraction of labour* and *social ostracization* of an outcast group deemed unassimilable by virtue of the indelible threefold stigma it carries" (44, emphasis in original). Blacks entered prison in such numbers that "relative to their numbers in the general population, about 4.8% of all black men were in custody at midyear 2006, compared to about 0.7% of white men and 1.9% of Hispanic men" (FBI 2007, p. 9). The Bureau of Justice Statistics report also noted that a Black male's chances of incarceration were 6.5 times greater than the chances for a White man. The treatment of "Black" as "criminal" is well documented in sociological literature (Feagin, 1991, Harris, 2002, Lundman & Kaufman, 2003, Pager, 2003, 2007).

Some of the sociological literature on race issues touches on the structural elements that may contribute to disproportionate representation of Blacks at various stages of the criminal justice system. The literature tends to focus, however, on sources of racial discrimination (Feagin, 1991, Pager, 2003, 2007). While examining racial discrimination has merit, scholars must also consider racial concentration in specific ecological contexts. In the case of African-Americans, this means studying impoverished inner-city neighborhoods (Clear, 2007, Hagan, 1994, Sampson & Wilson, 1995). This study looked at identifying whether concentrated disadvantage contributes to the likelihood of recidivism, and if it interacts with individual race effects for African-Americans.

Concentrated disadvantage

Wilson's (1996) work on inner-city poverty drew from numerous interviews with residents of extremely poor communities. In areas defined by concentrated disadvantage, resource/opportunity deprivation extends to all residents, not just those with a poor education or ex-prisoners. Borrowing from Wilson, Anderson's ethnographies (1990, 1999) described the kind of odd jobs residents perform in his "Northton" community. They illustrated the common barriers to achievement via legal means, even among those who are motivated to work. In this kind of environment, acquisition through illegitimate means is socially permitted, since licit means may be obstructed. Such barriers reduce the likelihood that someone will reach a moderate to high degree of economic achievement via work. If they are working at all, their income is likely to be insufficient to meet day-to-day needs. Anderson (1999) described the "street" type of resident in the inner-city as possessing "norms [that] are often consciously opposed to mainstream society" (p. 33). This is a response to the poor conditions of the modern inner-city environment; that is, what sociologists call "concentrated disadvantage."

Another aspect of concentrated disadvantage is the pervasiveness of families receiving public assistance. It serves as both an indicator of poor economic conditions, as well as the potential stigma from being dependent on public assistance. When ex-convicts seek work after returning to areas of concentrated disadvantage, they are stigmatized both by their criminal past as well as their association with communities whose residents are believed to have an unreliable work ethic.

A high proportion of single-parent households in a community indicates the possibility that fewer children receive adequate time to interact with their parents in ways that build meaningful bonds or serves to reinforce pro-social behavior. A parent who occupies the roles of both wage earner and caregiver has to make some sacrifices on either end; the result becomes that many children socialization experiences are more likely to occur outside the home and away from the observation of a guardian (see Lareau's discussion of "natural growth," 2003).

In their discussion of residential segregation, Massey and Denton (1993) proposed a theoretical argument that places the "culture of poverty" as the consequence, rather than the cause, of residential segregation and concentrated disadvantage. It "created the structural conditions for the emergence of an oppositional culture that devalues work, schooling, and marriage and that stresses attitudes and behaviors that are antithetical and often hostile to success in the larger economy" (8). The positive effect of marriage on desistance is also supported by Laub, Nagin and Sampson (1998).

In addition to the social pressures towards conducive to criminality in the inner-city, research shows that a substantial proportion of recently released prisoners return to areas characterized by high

degrees of concentrated disadvantage. Travis (2006) cited data that show only 6 of Chicago's 77 communities "accounted for a third (34 percent) of the prisoners returning to the city" (p. 281). In addition, over half (59 percent) of Maryland state prisoners returned to Baltimore City, with 30 percent residing in only 6 of the 55 communities comprising Baltimore City.

One unintended consequence of the concentration of releases in a few select areas could be the dilution of general and specific deterrent effects of incarceration. When going to prison becomes an expected part of the life course for people, the stigma associated with a criminal lifestyle and prior incarceration becomes far less prevalent among members of the community. This does not alleviate issues with employment and housing, however. Given the majority of inner-city communities that are disadvantaged are heavily populated by minorities, and Western's (2006, p. 17) finding that Black males who dropped out of high school stand a 32.4 percent chance of being incarcerated, this is certainly a possibility.

Theoretical considerations

Social disorganization theory is among the most established criminological theories cited by scholars. Shaw and McKay (1942) and Toby (1957) accounted for racial conflict and racial heterogeneity in communities. Sampson and Wilson's (1995) theory of race, crime, and urban inequality extended social disorganization. Two points of their theory emphasize, first, the different neighborhood conditions in which poor groups of Blacks and Whites live. Second, that crime rates vary among these contexts for both Blacks and Whites. This theory is tied to the "racial invariance" thesis (Sampson & Bean, 2006). While a significant effect of concentrated disadvantage would support Sampson and Wilson's claim of an "intersection of race, place, and poverty" (p. 53), significant interactions between race and disadvantage would not.

Massey (2007) stated, however, that concentrated disadvantage is a neighborhood condition that corresponds with higher rates of crime, disorder, stress, and also "creates a dangerous milieu that… [enmeshes] them in a self-perpetuating spiral of crime and deviance that dovetails with the rise of the prison industrial complex to fuel mass incarceration, which further hardens the lines of race and class to promote racial stratification" (pp. 111-112). Concentrated disadvantage is a measure of neighborhood conditions, yet it is not, in Massey's view, theoretically separable from race. The conditions of disadvantaged neighborhoods pose unique barriers to African Americans because of the hypersegregated conditions of the modern inner-city. Contrasting with Sampson and Wilson (1995), significant interactions between race and concentrated disadvantage would support Massey's argument.

The literature on concentrated disadvantage focuses on racial differences in areas such as residential segregation, employment, and poverty. This study explored the effects of ecological variables on recidivism. At the moment, research on recidivism and its causes emphasizes individual characteristics and differences. While some group comparisons are made on individual differences as well (comparing groups based on race, gender, criminal history, treatment type, etc.), recidivism studies that consider ecological contexts have emerged in recent years (Kubrin & Stewart, 2006). Nevertheless, it is still relatively small.

Massey and Denton (1993) and Wilson (1977, 1987, 1996) help elaborate on the link between poverty and race. Hagan (1994) extends this to the idea of capital disinvestment. Given the propositions of Sampson and Wilson's (1995) and Massey's (2007) theories, and the disproportionate representation of Blacks in both the criminal justice system and urban areas of high concentrated disadvantage, this study tested for interactions between race and neighborhood conditions. With data from Wayne County, Michigan that included both individual (age, race, criminal history) and structural variables (the degree of concentrated disadvantage in a community), this study looked to see if (minority) race and (disadvantaged) place interact, leading to an increased risk of recidivism.

The present study

Data and sample

This current study started with 1,917 randomly selected cases located in Wayne County, Michigan. Wayne County is particularly disadvantaged compared with the rest of the nation. The data were a random sample of Basic Information Reports (BIR) in Michigan collected from 1996-2001. A BIR was created for every convicted felony offender. Many of these cases involved people who had committed crimes for which they were given sentences of probation, with the remainder given jail or prison sentences.

Recidivism was determined by examining data listed on Michigan's Offender Tracking Information System (OTIS), a searchable online database available to the public. Only felony convictions were listed in the database, so other common actions classified as recidivism (e.g., rearrest or retrial) did not show up in the data (Langan & Levin, 2002). Misdemeanor convictions were omitted from OTIS. Records were matched by full name, birth date, criminal history, and height/weight if necessary. The time to recidivism was also calculated via information from OTIS. BIR reports did not provide data on the time of offense, but they did have a listed court date for each of the cases. This approximation of time to recidivism, then, was calculated as the time from the court date in the BIR to the time of the temporally subsequent offense in the OTIS database.

1,548 of 1,917 (80.75 percent) of the people in the dataset had records located in the OTIS. No criminal record was found for the remaining 19.25 percent. The missing 369 cases were omitted from the final sample to be used in the research. It was inappropriate to label these cases as not having recidivated for a number of reasons: (1) human error in the recording of the offender's name in the BIR data, (2) human error in the recording of the offender's name in the OTIS database, or (3) court discretion. The first two possibilities created a scenario where individuals were unable to be matched between the BIR and OTIS records, irrespective of which data contained the errors. In the case of the third, there was a possibility that a portion of the 369 records were expunged or otherwise removed. The OTIS website specified, "information is only removed from OTIS if the conviction is set aside, or expunged, by the sentencing court or by operation of law." The possibility could have been, then, that nonviolent felonies would be expunged, causing the compiled data set to no longer resemble a random sample of offenders.

A t-test compared the 369 missing cases to the remaining 1,548. Significant differences between the two groups would indicate possible selection bias. Results show that there were no significant differences between the two groups on the variables of interest (see Table 1). These results ruled out the possibility of selection bias providing data that are skewed and invalid.

An additional concern arose in the racial composition of the data. While race had several categories available, small sample numbers for all but blacks and whites made the inclusion of all groups difficult. Representing Hispanic, Asian, and Native American groups, the sample size was nonrepresentative and would be unresponsive to logistic regression. All but 33 of the cases reported as Black or White racially, so those 33 were omitted from the sample. The final sample size for this research project was 1,515 individuals spread out among 546 census tracts in the state of Michigan. 25.48 percent of the cases identified as White, while the remaining 74.52 percent identified as Black.

After following up on their criminal histories, street address and zip code were used to identify the census tract of residence. This tract

Table 1
Descriptive statistics and frequency tables of BIR and OTIS data

Variables	*N*	*Mean*	*SD*	*Minimum*	*Maximum*
Individual Characteristics					
Age	1511	30.95	10.92	15	78
Employed	1515	0.5	0.5	0	1
Married	1515	0.12	0.33	0	1
Military Service	1515	0.06	0.25	0	1
Female	1515	0.14	0.35	0	1
Drug Abuser	1515	0.49	0.5	0	1
Alcohol Abuser	1515	0.21	0.41	0	1
Criminal History					
Juvenile Commitments	1510	0.1	0.36	0	4
Prior Convictions	1512	1.13	1.94	0	23
Recidivated	1515	0.42	0.49	0	1
Reincarcerated	611	0.39	0.49	0	1
Environmental Characteristics					
% Single Parent	1515	17.58	9.17	0	74.9
% Nonwhite	1515	70.16	35.91	0	99.7
% Unemployed	1515	7.27	3.66	0	27
% On Public Assistance	1515	19.59	10.83	0	54.7
% Below Poverty Line	1515	23.84	13.41	0	64.75

Individual Characteristics	Frequency	Percent	Valid %	Cumulative %
Education				
Less than 12	786	51.88	51.88	51.88
High School Diploma/GED	552	36.44	36.44	88.32
Some College	144	9.50	9.50	97.82
College Degree	24	1.58	1.58	99.40
Postgraduate	1	0.07	0.07	99.47
Missing	8	0.53	0.53	100.00
	1515	100.00	100.00	
Race				
Black	1129	74.52	74.52	74.52
White	386	25.48	25.48	100
	1515	100	100	
Criminal History				
New Offense Type				
Property Crime	207	13.66	32.39	32.39
Drug Crime	206	13.60	32.24	64.63
Violent Crime	171	11.29	26.76	91.39
Sex Crime	16	1.06	2.50	93.90
Other	39	2.57	6.10	100.00
Total New Offense	639	42.18	100.00	
Did Not Recidivate	876	57.82		
	1515	100		

was their place of residence at the time of the offense recorded in the BIR database (meaning that it was their residence at time 1). Although this was not as accurate a measure as their residence upon release, the majority of the cases are probationers, and therefore less prone to residential instability as incarcerated individuals. Additionally, research findings show when incarcerated persons are released, they are likely to return to neighborhoods that have the same degree of disadvantage they left behind (Travis, 2006), or that only under rare conditions (e.g., in response to a natural disaster) do they not return to the neighborhoods they left behind (Kirk, 2008). Once the tract was identified, the US Census American FactFinder served as the source for data that was aggregated into the concentrated disadvantage index at the tract level.

Measures

Recidivism

The dependent variable in this study was a dichotomous measure of recidivism. In these data, recidivism was defined by the presence of a follow up felony conviction (as found in the OTIS database) that occurred at a date after the felony conviction taken from the BIR reports. Since other means of measuring recidivism focus on rearrest (which doesn't always lead to reconviction) or reincarceration (which includes convictions with sentences beyond probation as well as technical violations of community release conditions), there were some limitations to focusing solely on reconviction. The advantage that reconviction offers is theoretical: reincarceration can overestimate recidivist criminal behavior via the inclusion of technical violations, and rearrest is measured at a stage too early to be ensured of recidivist behavior (i.e., rearrests are not all indicted or even convicted).

Independent variables

Race was a dichotomous measure (0 = White, 1 = Black). The data and sample section covers why only these two groups were included.

A standardized, centralized index measure represents concentrated disadvantage. Following in the footsteps of Sampson, Morenoff, and Earls (1999) & Benson, Wooldredge, Thistlethwaite & Fox (2004), five variables were centered, converted to z-scores, and averaged to create this index. These component variables included percent non-White, percent of single parents, percent unemployed, percent below the poverty line, and the percent of families on public assistance (Cronbach's alpha = 0.74). The concentrated disadvantage index was used to estimate neighborhood level effects on recidivism.

Methods

The research questions were as follows:

1) *Do statistically significant interaction effects exist for race and concentrated disadvantage when predicting the occurrence of recidivism?*
2) *Between Blacks and Whites, which group is more likely to recidivate in an area characterized by concentrated disadvantage?*

To answer these questions, two logit models were created. First, the additive regression model:

$$\log_{recid} = y + b_1(RACE) + b_2(CONDIS) + r \quad (1)$$

where RACE was the race of the respondent, and CONDIS the degree of concentrated disadvantage in the community they reside in. This was done to identify statistically significant individual effects before beginning to identify potential interactions.

The second regression equation was an interaction model:

$$\log_{recid} = y + b_1(RACE) + b_2(CONDIS) + b_3(RACE{*}CONDIS) + r \quad (2)$$

Both regressions were tested with control variables in each model, including gender, marital status, education, age, criminal history, and a history of substance abuse (separate measures for alcohol and drugs).

Hypothesis

Research demonstrates that Blacks are more likely to recidivate than Whites overall (Langan & Levin, 2002), and also that Black releases are more likely to cluster in communities characterized by concentrated disadvantage (Travis, 2006), thus the working hypothesis for this project was *that there is an interaction effect between race and concentrated disadvantage*. Further, this interaction helps explain a portion of differences in recidivism rates between the two racial categories. Differences in the degree of concentrated disadvantage in communities in which Blacks and Whites reside was expected to be a part of the reason (as opposed to strictly race-based differences) that blacks are overrepresented in both prison and recidivist populations.

Results

Descriptive statistics

As Table 1 shows, of the 1,515 cases, the mean age was almost 31 years old. Exactly half of all cases were employed, 12 percent married, 14 percent female, and 7 percent had served in the military. Almost half had a history of drug abuse, while just over one in five had a history of alcohol abuse. More than half (52 percent) of the cases did not graduate from high school, while that proportion jumps to over 88 percent of the entire cohort if high school graduates (at highest level of education) are included.

Regarding the criminal history of this dataset, one out of every ten in the data had been committed while a juvenile. The average number of prior convictions is 1.13. Over four out of every ten (42 percent, n = 621) had recidivated either via a new offense or technical violation. Of those 621 recidivists, 39 percent were reincarcerated.

Religion may have an impact on the likelihood of recidivism, due to attitudinal differences between individuals with strong and weak religious identification. When asked what religion they identify as, the top three groups (outside of "other") included no religion at all in a quarter of all cases, Protestantism in a quarter of all cases, and Catholicism in fewer than 11 percent of all cases.

Finally, looking at those in the sample who did recidivate, of the 639 felonies that led to a reconviction, distribution was mostly even amongst property, drug, and violent crimes (32.39 percent, 32.24 percent, and 26.76 percent respectively). New sexual offenses were the smallest category of new offenses, and consisted of 2.5 percent of all new offenses falling under this category.

Results of logistic regressions

Four binary logistic regression models were run. In all cases, recidivism was the dependent variable. The independent variables are listed below for each specified model:

Model 1: race (Black) and concentrated disadvantage (ConDis)
Model 2: race, concentrated disadvantage, and an interaction term for those two variables (Black*ConDis).
Model 3: race, concentrated disadvantage, and control variables including marital status, categorical education, number of prior convictions, age in years, and binary drug and alcohol abuse variables
Model 4: race, concentrated disadvantage, an interaction term for race and concentrated disadvantage, and control variables including marital status, categorical education, number of prior convictions, age in years, and binary drug and alcohol abuse variables.

Table 2 shows the results for each model. In model 1, race was statistically significant. In this case, being White, holding all other variables constant, had a 0.585 odds ratio of recidivating compared to Blacks. On the other hand, concentrated disadvantage was not statistically significantly associated with any change in the likelihood of recidivism.

Model 2, which added the interaction term but not control variables, showed that race is still the only significant variable. There was a slight reduction in the odds ratio of recidivating (0.548 compared against blacks). The important note in this model was that even before including control variables, the interaction term was not statistically significant.

Once control variables brought into the model (beginning with model 3) the race effect (of being White) on recidivism has decreased, with an odds ratio of 0.704. Two significant control variables that accounted for such a reduction include education (a 1 category change in education is associated with a -,144 change in the log odds) and age (each 1-year increase in age is associated with a -0.05 change in the log odds). A history of prior convictions was associated with a .095 change in the log odds of recidivating. Another variable that increased the likelihood of recidivism was having a history of drug abuse. It corresponded to a log odds change of 0.223 in the likelihood of recidivism.

Model #4 added the interaction term to the variables included in model 3. As was the case in model 2, it was not statistically significant. This model provided no explanatory advantages over model 3. Additionally, the inclusion of the interaction term did not significantly change the strength or direction of the other variables except for a small change in the strength of the race (though its significance remained unaffected).

These results did not support Massey's (2007) theory of an interaction effect between race and concentrated disadvantage. Additionally, there was no support in these data for even an individual effect of concentrated disadvantage. While Sampson and Wilson's (1995) racial invariance theory was supported by the nonsignificant interaction term, the resilience of race effects (combined with concentrated disadvantage's lack of significance in all models) did not support it. For all models that used these data, race had a significant effect on recidivism; neither concentrated disadvantage nor the interaction between the two variables showed any statistical significance. The hypothesis that there was an interaction effect was not supported by these data.

Despite this, race was still significant in the data, with Blacks at a greater risk of recidivism than whites. What might explain this difference? Controlling for age, education, gender, criminal history, and substance abuse, there was not much left to identify that might explain why Blacks are so much more likely to recidivate.

Table 2
Logistic regression models predicting recidivism for race and concentrated disadvantage

	Model 1				Model 2				Model 3				Model 4			
	B	Sig.	SE	Odds Ratio	B	Sig.	SE	Odds Ratio	B	Sig.	SE	Odds Ratio	B	Sig.	SE	Odds Ratio
Variables of Interest																
White	-0.536	**	0.178	0.585	-0.601	**	0.227	0.548	-0.346	*	0.189	0.708	-0.431	*	0.237	0.650
ConDis	-0.087		0.077	0.917	-0.064		0.091	0.938	-0.124		0.082	0.884	-0.094		0.095	0.911
Controls																
Female									-0.717	***	0.173	0.488	-0.719	***	0.173	0.487
Married									0.095		0.180	1.100	0.091		0.180	1.095
Education									-0.144	*	0.083	0.866	-0.147	*	0.083	0.863
Prior Convictions									0.095	**	0.031	1.100	0.096	**	0.031	1.101
Age									-0.050	***	0.006	0.952	-0.049	***	0.006	0.952
Drug Abuse									0.223	*	0.112	1.250	0.223	*	0.112	1.249
Alcohol Abuse									0.057		0.146	1.059	0.048		0.147	1.050
Interaction Term																
White*ConDis					-0.082		0.173	0.921					-0.112		0.182	0.894
Constant	-0.181	**	0.069	0.835	-0.191	**	0.072	0.826	1.344	***	0.207	3.835	1.334	***	0.207	3.797

* = Sig. at p<.10, ** = Sig. at p<.01, *** = Sig. at p<.001.

Limitations of the data

One possible limitation of the data was the relative level of disadvantage that pervades Wayne County. 2000 census data showed that, in the five categories used to create a scale of concentrated disadvantage, 9.2 percent of households nationwide were single-parent households (versus 17.58 in the sample), 4 percent were unemployed nationwide (versus 7.2 in the sample), 20.6 were nonwhite (versus 70.16 in the sample), 8.7 percent were living below the poverty level (versus 23.84 in the sample), and 1.12 percent were living on public assistance (versus 19.59 in the sample). Among all of the measures, the sample was more deprived than the national average, in some cases by greater than a factor of 17 (in the case of people living on public assistance).

The data were heavily skewed towards disadvantage, with few examples of people living in communities lacking disadvantaged conditions. They more closely approximated Massey and Denton's (1993) hypersegregation than any other concept of poverty, given their distance from the national averages. This sample, then, was not only nonrepresentative by virtue of its geographic limitations to one county and metropolitan area; it was ungeneralizable by virtue of the immense degree of disadvantage residents are exposed to.

As Travis (2006) pointed out about prisoners returning to the Baltimore area, the vast majority moved to a small cluster of communities; these communities were also highly disadvantaged. These data showed the same patterns; with very little variation in the community characteristics measured here, further research might want to oversample those few cases who, following a sanction, return to neighborhoods that are characterized by either a lack of disadvantage or the presence of advantage.

A final limitation of the data was the collection of disadvantage using data from the Basic Information Reports. Past research showed that people are likely to return to the neighborhood they left behind or one just like it in terms of disadvantage (Travis, 2006), and recent research emphasized the extraordinary conditions under which releases move to a new and unfamiliar neighborhood (Kirk, 2008). The data here were an indirect measure of the structural conditions each individual lived in. The majority of the sample was probationers, so they experienced far shorter disruptions in their time away from their neighborhoods. If future research is to account for a larger portion of felons who were incarcerated, more accurate data (and data collection techniques) must accompany those endeavors. The data here were reliable given prior research and theoretical concerns; nevertheless, there are other, superior, ways of collecting these data.

Discussion

The challenge in this study was to discover the degree to which community conditions interact with race differences in recidivism occurring. With data that possessed a degree of concentrated disadvantage (relative to the national average) so extreme, it was hard to conclusively say that environmental characteristics had no effect on recidivism occurring. What it suggested was that the *degree* of disadvantage did not make any difference in predicting recidivism; what it did not suggest is that, when compared to cases in advantaged neighborhoods, there was little difference in the potential outcome for those in disadvantaged communities. It was, in essence, the lack of variation in the data masking possible causal mechanisms. For the meantime, though, the results here did not bode well for theoretical arguments of environmental effects, like Sampson and Wilson (1995). This concentrated disadvantage index had no effect on recidivism in this study.

The most important finding was the reinforcement of the strength of race in predicting recidivism. It is frequently found to be statistically significant in the recidivism literature (Andrews et al., 1990; Gendreau et al., 1996). In this study, however, it remained significant after accounting for a number of control variables that should have explained most of it. After accounting for differences in education, marriage, prior convictions, age, and drug and alcohol abuse, though, race remained a resilient and significant predictor of recidivism. Discrimination may have accounted for some of the lingering race effects. What other direct effects might be hidden within the race variable is a question for better data and future research to handle.

An additional challenge for future research is to gather data that helps answer questions about environmental effects more definitively. The data here all appeared to be lumped into extreme concentrated disadvantage. Continuing this line of research, data collection should focus on oversampling and weighting the small portion of those who do return to advantaged communities (if replicating this research method). It may be just as useful to begin with several case studies of recent releases, to get a thorough understanding of the sorts of difficulties and adjustments people experience at release; are they uniform across ex-prisoners, or are there patterns that seem to develop depending on the quality of the neighborhood they reside in after release? With data that are so consistently disadvantaged, the lack of statistical significance could be a result of the way the data skew.

The skewness of the data presented one final problem. If, as these data suggested, and as Travis' (2006) research indicated, people are coming from and returning to highly disadvantaged communities, what policy implications might criminologists derive if a lack of disadvantage helps reduce recidivism? If the data show that upon release ex-prisoners return to communities with high poverty, high crime, and high unemployment, then a finding that the community effects recidivism would have substantial policy implications. Continuing this line of research is crucial to see how much recidivism in the US is related to ecological effects.

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