

ECONOMIC COMMENTARY

Racial Inequality, Neighborhood Effects, and Moving to Opportunity

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Moving to Opportunity (MTO) was a housing mobility program designed to investigate neighborhood effects, the influences of the social and physical environment on human development and well-being. Some of the results from MTO have been interpreted as evidence that neighborhood effects are not as strong as earlier evidence had indicated. This *Commentary* discusses new research suggesting that neighborhood effects are, on the contrary, as strong and policy relevant as suspected before the experiment. This *Commentary* also discusses why the interpretation of the MTO data is important: If neighborhood effects drive outcomes, then addressing racial inequality requires concerted efforts beyond ending racial discrimination.

American cities still have black enclaves—neighborhoods where most residents are African American. Many of these neighborhoods have high levels of poverty and unemployment (figure 1).

We know that the history of intentional segregation, or the physical and social separation of races, played a central role in creating racial inequality in the United States.¹ If we consider that history along with the current patterns depicted in figure 1, we might ask: Do the geographic concentrations of race and poverty observed today play a role in maintaining racial inequality?

The answer to that question depends on whether the outcomes individuals achieve—educational attainment, income, jobs—are influenced in a significant way by the social and physical environment in which they live. If environments do affect development—that is, if so-called “neighborhood effects” are significant—then the observed geographical concentrations of race and poverty are likely

keeping the individuals in such areas from reaching their full potential. If neighborhood effects are insignificant, then we must look elsewhere for the causes of—and solutions for—persistent racial inequality.

Research on neighborhood effects is notoriously difficult. The problem of “selection,” which arises from individuals’ being able to choose where they live, means that researchers cannot obtain a random sample of subjects in various neighborhoods to study, without which they cannot tell if neighborhood characteristics drive or simply reflect individuals’ outcomes. An experimental program conducted in the 1990s, the Moving to Opportunity (MTO) housing mobility program, was designed to address this statistical problem and test the strength of neighborhood effects. Because of its experimental design, the results showing that MTO had little effect on the key determinants of intergenerational poverty such as educational achievement and employment were highly influential.

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This *Commentary* discusses new research that leads to interpreting the results from MTO differently. If poverty alone is used to measure neighborhood quality, then MTO would indicate there are no neighborhood effects on adult labor market outcomes. One obtains different results, however, if neighborhood quality is measured using an index that includes additional neighborhood characteristics that we think matter. Using such an index, we find that MTO results provide evidence that neighborhood effects are strong and policy relevant. Our findings suggest that considerable improvement in outcomes can be gained by focusing policy efforts on improving environments and that addressing racial inequality will require concerted investments in black enclaves.

Neighborhood Poverty as a “Cause” and “Consequence”

To determine whether the geographic concentrations of race and poverty we observe today play a role in maintaining racial inequality, we need to know how strongly individuals’ outcomes are affected by their neighborhoods. Two possible explanations for the patterns we see are the cause and consequence explanations. The policy implications for addressing racial inequality depend on which explanation is valid.

Under the “consequence” explanation, economic outcomes are determined primarily at an individual level by an individual’s personality, intelligence, drive, and so on. This explanation implies that regardless of where an individual grows up, he or she will end up with the same type and level of education, employment, and poverty they would have, had they grown up anywhere else. In this case, the neighborhood clustering of poverty simply reflects poor people’s inability to afford better housing and neighborhoods. Proponents of the consequence explanation would contend that the African Americans most capable of

economic success left segregated areas after the 1968 Fair Housing Act, resulting in today’s geographic clustering of African Americans with poor economic outcomes.

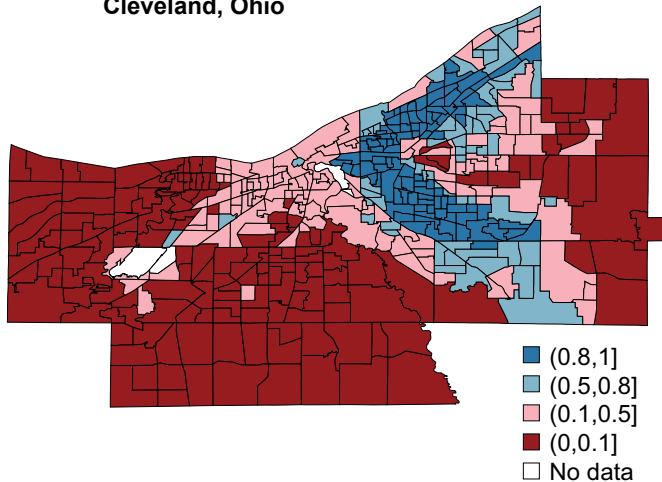
Under the “cause” explanation, economic outcomes are determined by a combination of individual and environmental factors. This explanation implies that the same individual might have different educational attainment, employment, or poverty outcomes depending on the neighborhood in which he or she lives. In this case, the neighborhood clustering of poverty would be a negative influence on individuals’ ability to improve their economic outcomes. Proponents of the cause explanation would contend that today’s geographic clustering of African Americans with poor economic outcomes could be a force in maintaining racial inequality.

Social scientists use the term “neighborhood effects” to refer to the ways places impact individuals. These effects are typically thought to operate through the physical environment, institutions, and social interactions that belong to the places in which individuals grow up and live. In terms of the physical environment and institutions, living in a poor neighborhood may translate into exposure to negative influences such as lead in older housing, violence, and low-quality schooling. In terms of social interactions, neighborhoods with concentrated poverty may also offer fewer social connections leading to a job, as well as higher levels of sustained, chronic conditions that lead to “toxic stress.”² If neighborhood effects are significant—if place impacts the individual—then all of these factors could be working against the economic success of low-income families.

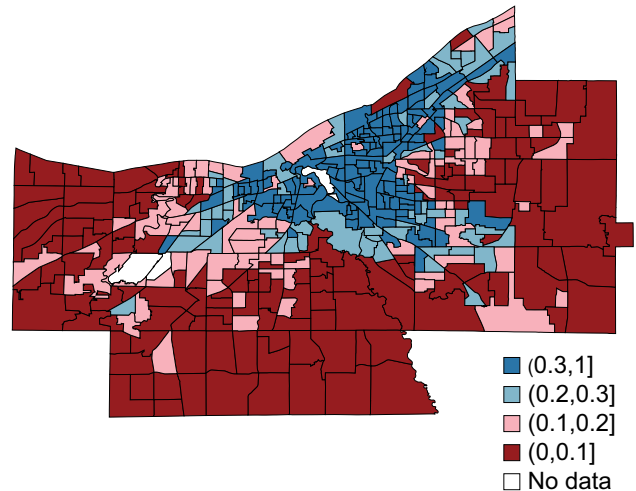
While the consequence explanation would not be unconcerned with racial inequality, it would focus our attention and policy efforts on individual-level mechanisms rather than geographic and group-level mechanisms. In

Figure 1. Geographic Concentration of Race and Poverty

Panel A. Share of Residents Who Are Black in Cleveland, Ohio



Panel B. Poverty Rate, Cleveland, Ohio



Note: Maps show Cuyahoga County, Ohio.
Sources: US Census/NHGIS, 2013-2017; American Community Survey.

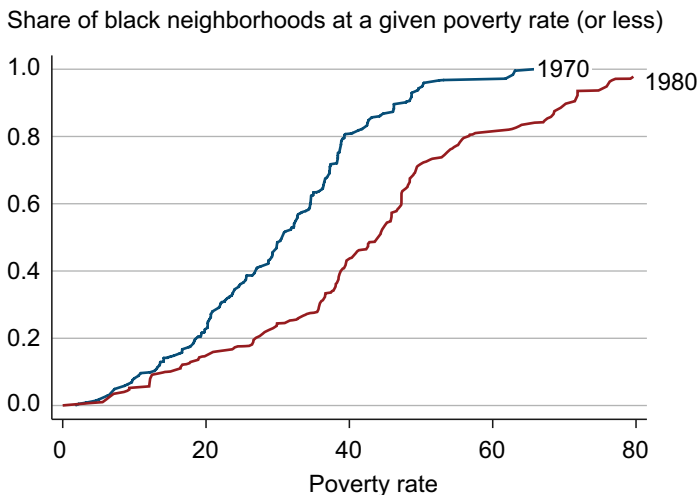
contrast, the cause explanation for the geographic patterns shown above would focus our attention and policy efforts on institutions and group-level mechanisms related to schools, employment, housing, safety, social norms, and societal racial biases. Gauging the importance of neighborhood effects, therefore, is of central interest to policymakers.

Concentrated Poverty

Influenced by Wilson’s (1987) research on concentrated poverty, many social scientists have focused in recent decades on the ways in which neighborhood effects could maintain racial inequality even in the absence of legal discrimination. Wilson examined changes in majority black census tracts in Chicago between 1970 and 1980.³ Since this was the decade immediately after the victories of the civil rights movement, one would have expected that outcomes in these neighborhoods would have improved. Wilson found that the opposite happened—the poverty rates in these neighborhoods had increased dramatically between 1970 and 1980. This result is illustrated in figure 2. While about one in five black neighborhoods had a poverty rate of 40 percent or higher in 1970, the ratio grew to almost three in five by 1980.

Wilson’s explanation for the increased poverty rates is twofold. First, deindustrialization hurt black households’ incomes: When blue collar jobs disappeared between 1970 and 1980, it affected African American communities disproportionately. Second, when high-income African Americans were free to choose higher-income neighborhoods after the passage of the 1968 Fair Housing Act, many did (an effect called “neighborhood sorting”). This led to increased poverty in the originally segregated and poorer neighborhoods.

Figure 2. Poverty in Historically Black Census Tracts, Chicago, Illinois



Note: Census tracts included are those with a share of black residents that was greater than 80 percent in 1960.
Source: US Census/NHGIS.

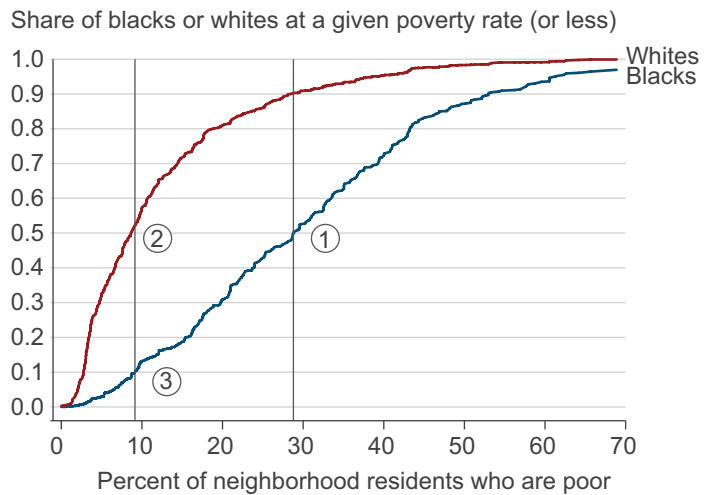
The implication of neighborhood sorting is that, when coupled with the initial conditions of geography and poverty established by centuries of discrimination, neighborhood effects could generate persistent poverty for African Americans even in the absence of legal discrimination. If neighborhood effects exert a significant effect on outcomes, then addressing racial inequality would require more than legislation like the 1968 Fair Housing Act.

The magnitude of the differences in the neighborhood environments of black and white Americans gives us reason to suspect that neighborhood effects could be an important factor in the persistence of racial inequality. A look at the most recent data from Cleveland, Ohio, for example, shows that the majority of African Americans live in neighborhoods with poverty rates that are exceptional for whites, and vice versa (figure 3). While 50 percent of black people live in high-poverty neighborhoods (those with higher than 30 percent poverty, as illustrated in point 1 in figure 3), this is true for only 10 percent of whites. Similarly, while 50 percent of white people live in low-poverty neighborhoods (those with less than 10 percent poverty, as illustrated in point 2 in the figure), this is true for only 10 percent of black people (as illustrated in point 3).

Evidence on Neighborhood Effects from Gautreaux

The importance of neighborhood effects for the outcomes of African Americans in the United States is still being debated today. While there is a large volume of experiential evidence, there is surprisingly little quantitative evidence of the type considered most credible by social scientists. We are still at the stage of simply trying to confirm whether and in which contexts neighborhood effects exist or not (Galster, 2019; Graham, 2018).

Figure 3. Neighborhood Poverty in Cleveland, Ohio



Notes: Gray vertical lines represent the median of each distribution (of whites on the left and of blacks on the right). Data are for Cuyahoga County, Ohio. Numbered points are discussed in the text.
Source: NHGIS/2013-2017, American Community Survey.

One reason for the lack of consensus is that none of the evidence we have has been obtained from the gold standard of a direct randomized experiment in which subjects are randomly assigned to the neighborhoods being studied. That is, we cannot run an experiment in which we randomly choose one group of individuals and then force them to live in high-poverty neighborhoods with low-quality institutions and force another group to live in low-poverty neighborhoods with high-quality institutions. Instead, we observe outcomes after people choose where to live, and the freedom to choose makes the data difficult to interpret. Does an individual become who they are partly because of where they live, or did who they are determine where they could and did choose to live?

History provides us some evidence on neighborhood effects from the forced segregations of people—think East and West Germany, North and South Korea, or the historical United States (Aliprantis and Carroll, 2018). Focusing on the case of East and West Germany, Ahlfeldt et al. (2015) use reunification to measure the large and highly localized neighborhood externalities within Berlin. Goldfayn-Frank and Wohlfart (2018) demonstrate that neighborhood effects can be persistent, showing that even decades after reunification, individuals originating in East versus West Germany continue to hold very different expectations about future economic conditions. For understanding neighborhood effects in the contemporary United States, however, the most credible evidence we have comes from housing mobility programs.

One of the first examples of this type of program is the Gautreaux Assisted Housing Program in Chicago. Created after a 1976 Supreme Court decision that ruled Chicago must remedy the segregation experienced by its public housing residents (Polikoff, 2007; BPI, 2019), the Gautreaux program gave one group of participants housing vouchers with the restriction that they be used in a suburban neighborhood with a majority of white residents and another group of participants vouchers with the restriction that they be used for city moves to specific majority-black neighborhoods that were expected to move along upward trajectories due to investments and other policies.

Relative to city movers, suburban movers ended up living in higher-income areas with higher-quality schools as measured by outcomes such as ACT scores and graduation rates (Mendenhall et al., 2006). The results were positive and showed that neighborhoods exert a strong influence on their residents' outcomes. Adult suburban movers were more likely to be employed than city movers, and children who had moved to the suburbs were more likely to graduate from high school, attend college, and have better labor market outcomes if not attending college than the children who had moved to city neighborhoods (Rosenbaum, 1995).

Evidence from Moving to Opportunity

Gautreaux provided evidence that neighborhood effects mattered, but it was not designed as an experiment. The Moving to Opportunity (MTO) housing mobility program run by the Department of Housing and Urban Development (HUD), beginning in 1994, was designed as a randomized experiment to measure neighborhood effects and improve on Gautreaux's design limitations. While MTO participants were randomly assigned to receive vouchers that encouraged them to live in low-poverty neighborhoods, individuals could choose whether to move and which neighborhood to move into. Moreover, they faced time and availability constraints when making these choices. As many social science research designs do, MTO faced certain tradeoffs that deviate from the perfect randomized control trial. It turns out that the precise form of randomization used in MTO is important when interpreting the program's effects.

In addition to the randomization of vouchers, there were two other important differences between MTO and Gautreaux: The MTO program was conducted in five different cities (Baltimore, Boston, Chicago, Los Angeles, and New York), and MTO was designed around poverty rather than race. The treatment group of participants was given housing vouchers with the restriction that they be used in neighborhoods with a poverty rate below 10 percent, which was the median neighborhood poverty rate at the time (de Souza Briggs et al., 2010). A control group was given continued public housing support tied to the project-based buildings where they lived at the time of the program, and an intermediate group was given unrestricted housing vouchers. MTO participants were households with children under 18 living in some of the poorest neighborhoods in the United States; they were primarily headed by a black female.

The expectations were high for the MTO program to lift participants out of intergenerational poverty. The results, however, suggested the program had little effect on the key determinants of intergenerational poverty such as educational achievement or labor market success. At the time of the interim evaluation, 4–7 years after families entered the program, the primary beneficial effects of the program were on mental health (Kling et al., 2007). Receiving an MTO voucher had no effect on adult labor market outcomes or welfare participation (Kling et al., 2007) and no effects on education outcomes such as test scores, repeating a grade, or suspensions (Sanbonmatsu et al., 2006). And while receiving an MTO voucher improved outcomes such as arrests and risky behavior for female teens, MTO actually worsened outcomes such as arrests, physical health, risky behavior, and absence from school for male teens (Kling et al., 2007).

A Reinterpretation of Moving to Opportunity

The MTO evidence seemed decisive. Prominent economists viewed MTO as a strong intervention that shifted participants to very different neighborhoods (Ludwig et al., 2008; Fryer and Katz, 2013), making the program an almost ideal test for detecting the types of neighborhood effects described in Wilson (1987). This view led to an interpretation of MTO as evidence that neighborhood effects on important outcomes are not as large as previously suspected (Ludwig et al., 2008; Ludwig et al., 2013; Angrist and Pischke, 2010).

An alternative interpretation of the results from MTO is that the program did not generate large enough changes in neighborhood conditions to detect neighborhood effects—even if such effects are in fact, large. One reason for this result could be the program’s focus on neighborhood poverty, and another could be the fact that randomization was a step removed from neighborhoods—families were encouraged but not forced to move to low-poverty neighborhoods. Sociologists were the most forceful early advocates of this interpretation (Clampet-Lundquist and Massey, 2008).⁴ Our recent reanalysis of the MTO results provides support for this alternative interpretation, finding evidence of strong neighborhood effects.

Aliprantis (2017) shows how the econometric models used to interpret the results of the MTO program as evidence against neighborhood effects are based on two critical assumptions. The first is that we can think of neighborhood quality as being high or low (binary). And the second is that neighborhood poverty summarizes all of the neighborhood characteristics driving neighborhood effects.

These assumptions seem reasonable, but there is evidence that they do not apply to MTO. We know that MTO participants tended to move from black neighborhoods to other black neighborhoods (Sampson, 2008). This choice matters because low-poverty black neighborhoods in MTO cities look like high-poverty white neighborhoods in terms of other characteristics such as educational attainment, unemployment, or the share of single-headed households (Aliprantis and Kolliner, 2015). As a result, moves from high- to low-poverty neighborhoods in the MTO experiment did not succeed in exposing participants to improvements in these neighborhood characteristics. Whatever decreases in poverty were experienced by participants, those decreases did not translate into more educated or more fully employed neighbors. The inability of the poverty rate to capture significant and relevant differences among neighborhoods points to the need to focus on something other than “high” and “low” poverty when investigating neighborhood effects and designing programs like MTO.

In a recent paper, my coauthor and I develop a new statistical technique that allows us to interpret the data from MTO while taking into account more meaningful measures of quality, despite MTO not being explicitly designed to treat participants with those characteristics (Aliprantis and

Richter, 2019). Our technique allows us to account for neighborhood characteristics such as the unemployment rate, educational attainment, and the poverty rate. It also allows us to characterize the effects from precise changes in neighborhood quality rather than just a “general improvement”; for example, we can look at the effects of moving from a neighborhood in the first decile of quality to a neighborhood in the second decile.

We find that the results from MTO support the idea that neighborhood effects are strong. We find large effects of neighborhood quality on adult outcomes such as labor force participation, employment, and welfare participation. The reason the program had no effects on adult labor market outcomes on average is because the program was not able to move enough participants to high-quality neighborhoods; a number of the treated participants moved to low-poverty neighborhoods that were also low in quality, that is, where little difference existed in neighborhood unemployment rates, education levels, or school quality. The neighborhood effects we found were from the 9 percent of program participants who moved from the first decile to the second decile of neighborhood quality.

These results matter for at least three reasons. First, they help us to think about the contribution of social experiments to evidence-based policy. Randomized experiments are a powerful tool in the effort to base policy on evaluation and continuous learning (List and Czibor, 2019; Maynard, 2018). Part of having high standards of evidence is acknowledging when we do not have strong or unambiguous evidence (Manski, 2013). This consideration is especially relevant when ethical concerns prevent us from running the experiment from which we would learn the most. In the case of MTO, we would have learned the most from forcing people to live in specific neighborhoods, but ethics rightly requires that we settle for merely encouraging people to live in specific neighborhoods.

Second, the result that neighborhoods appear to affect adults’ labor market outcomes offers an important avenue for policy interventions. Improving adults’ labor market outcomes improves children’s outcomes (Jacob and Michels, 2018; Akee et al., 2018; Oreopoulos et al., 2008) and is likely to be an important part of helping families gain financial independence to the point that housing assistance is unnecessary (Smith et al., 2015).

Finally, these results inform us about the possibilities for achieving very large effects by changing people’s environments. We found large neighborhood effects on economic outcomes when we focused on the small subset of MTO participants who actually experienced a real improvement in neighborhood quality. Other recent studies have tended to find stronger evidence of neighborhood effects on labor market outcomes than the early MTO studies as well. Pinto (2018) uses a related but distinct methodology from ours to document positive neighborhood effects on adult labor market outcomes in MTO. Chyn

(2018) finds positive effects on the labor market outcomes of children who moved through a related policy, the demolition of public housing in Chicago. Chetty et al. (2016) document positive effects on the adult labor market outcomes of the youngest children who had moved through MTO. Moreover, our work suggests that Chetty et al.'s findings might be even stronger if instead of focusing on all children who moved to lower-poverty neighborhoods, the authors focused on the smaller subset of children who moved to better-quality neighborhoods (in terms of education, unemployment, etc.). Those effects might potentially even be large enough to break intergenerational poverty.

Implications for Policy

Policy can aim to address the individual-level effects of poverty through programs that provide lower taxes or more resources for food and healthcare to low-income families. Several policies taking this approach have shown clear evidence of effectiveness (National Academies, 2019). But policy might also aim to improve the environments that low-income households have access to. Policies taking this approach may improve outcomes through neighborhood-effect pathways. Without disputing the relevance of both individual-level mechanisms and neighborhood effects, the question relevant for policy is this: To what extent can a change in neighborhood environment be a lever to improve outcomes for poor people, especially those living in racially segregated neighborhoods?

Our finding of large neighborhood effects in MTO suggests that there is considerable potential in focusing policy efforts on improving neighborhoods.⁵ There could be very large returns to investing in programs that create environments in which children can thrive, whether those programs are based in schools (Tough, 2016) or neighborhoods (Tough, 2009). The same potential can be seen in programs that help families move to high-opportunity neighborhoods. Currently implemented programs along these lines include experimenting with the design of Small Area Fair Market Rents (Collinson and Ganong, 2018; Aliprantis et al., 2019) and experimenting with counseling services, landlord outreach, and cash assistance as in the Mobility Works Housing Mobility Initiative and the Creating Moves to Opportunity program (Darrah and DeLuca, 2014; Weinberger, 2018; Bergman et al., 2019).

More broadly, our analysis of MTO supports the view that the types of neighborhoods that are fostered through policy are critical for determining the opportunities individuals face (Rothstein, 2017; Galster, 2019). Returning to the problem of persistent racial inequality in the United States today, our findings imply that addressing racial inequality will require concerted investments in black enclaves, both in the institutions serving the residents and in the people currently living there to improve the conditions.

Footnotes

1. See Section 2 of Aliprantis and Carroll (2018) for a discussion and references. Legal discrimination at the local and federal levels not only restricted African Americans' ability to move but also diverted investments and resources away from black neighborhoods. One example is that for many years after World War II, the Federal Housing Administration refused to insure mortgages in black neighborhoods; at the same time, it subsidized construction for the development of subdivisions with the requirement that the newly constructed homes not be sold to black households (Rothstein, 2017).

2. Toxic stress is defined as "excessive or prolonged activation of stress response systems in the body and brain"; such exposure negatively affects healthy neurological and physical development (Harvard's University's Center on the Developing Child <https://developingchild.harvard.edu/science/key-concepts/toxic-stress/>).

3. Census tracts are areas with an average of about 4,000 residents and are often assumed by social scientists as representing an area over which neighborhood effects operate.

4. Looking beyond neighborhood poverty is gaining some favor among economists today (Cook, 2019; Chetty, 2019).

5. It is difficult to use MTO to judge the relative importance of schools and neighborhoods. One reason is that MTO did not result in widespread, large improvements in school quality. Another reason is that measuring school quality in MTO is difficult. The MTO data do not include school rankings based on state test scores in two of the five sites (Baltimore and New York City) and do not include a value-added measure of school quality for any site. Finally, measuring children's cognitive achievement in MTO is difficult. Pre-experiment test scores were not collected, and there were nonrandom interviewer effects in the test scores that were collected. All of these issues are discussed in Sanbonmatsu et al. (2006). See Laliberté (2018) for related analysis.

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