In both common language and in social science, the term poverty trap refers to the idea that there exist circumstances in which an individual or group of individuals, once poor, will remain poor. As such, the poverty trap concept typically focuses on the question of the intergenerational transmission of socioeconomic status. A poverty trap should be thought of as an idealization or limiting case of an environment in which poverty is highly persistent across generations.

1. Family poverty traps

One type of poverty trap can occur at the family level and focuses on the possibility that if parents suffer sufficient socioeconomic disadvantage, their offspring will be poor as well. There are of course many ways in which parents affect the socioeconomic status of their children. Poverty traps, at the family level, have been most commonly associated with human capital formation. Following seminal models due to Becker and Tomes (1979) and Loury (1981), poverty can beget poverty if the level of educational investment in children is sufficiently sensitive to parental income. A key insight of these papers is that the fact that a parent is poor does not necessarily mean that poverty is transmitted across generations. If a parent could commit a child to repay loans made for his education, then the parent’s income would not determine the educational investment received by a poor child; rather the rate of return on investment in a poor child would determine the level of investment. However, such commitments are illegal since they would require that a parent be able to sign a debt contract to which the child has not agreed. Further, even if legal, the level of such loans would be greatly limited by moral hazard considerations. These reasons indicate why family income can
provide a mechanism for producing persistence in disadvantage across generations. Even if family income controls the level of offspring education, the degree of persistence in income, however will depend on the extent to which additional factors uncorrelated across generations (such as luck) additionally affect income; even if parental income fully determines education (Durlauf (2012)), so the education/income mechanism does not logically entail a poverty trap. Evidence on credit constraints, at least for higher education, is in fact mixed, see Lochner and Monge (2012). Further, if one combines evidence in Cameron and Heckman (2001), college attendance probabilities, conditional on scholastic achievement, are higher for blacks than whites, likely due to diversity efforts by colleges with evidence in Hoxby and Avery (2013) that many high achieved disadvantage students fail to exploit opportunities (which include financial aid) to attend elite colleges, it is hard to conclude that college access constitutes a trap. To be clear, parental income also “purchases” education through neighborhood location and school quality; in our view these are more likely reasons for income persistence and possible poverty traps.

Intergenerational persistence in income can also be produced as an epiphenomenon of intergenerational persistence in other variables. For example, if wages are determined by genotype, as would occur if genotype determines labor force productivity (or the ability to acquire human capital), then intergenerational income correlations would simply mirror genetic transmission. While efforts to measure the role of genes in socioeconomic outcomes have a long history, identification problems (e.g. Goldberger (1979)) continue to limit the extent to which the role of genes can be assessed. Another way in which parental income can affect children is through its effects on health. The “Fetal Origins” hypothesis argues that even the prenatal environment (health of the mother) affects the subsequent human capital formation of children (Almond and Currie (2011)). If parental income helps determine parental health (a relationship that is well established) then it is possible that persistence in health status is the source of the transmission of income status. Sociologists have long focused on intergenerational occupational mobility (Sewell and Hauser (1975), Blau and Duncan (1967)); persistence in types of employment, because of family skill transmission or occupation-specific knowledge of labor market opportunities can also
produce persistence in income; Corak and Piraino (2010) is an example of economists following this tradition.

An important recent development in the study of life inequality highlights the importance of early life conditions in shaping productive skills. James Heckman, has pioneered research that has demonstrated how early childhood experiences can have long run effects on socioeconomic status. Gaps in cognitive and noncognitive skills among socioeconomic groups open up early in the life of a child (Heckman and Mosso (2014), Carneiro and Heckman (2003), Cunha and Heckman (2007), Cunha, Heckman, and Schennach (2010)). Both cognitive and noncognitive skills exhibit periods of sensitive development after which they lose malleability. This work also finds that early childhood investment programs can have powerful long term effects on disadvantaged children. Current evidence does not make it clear whether credit constraints on parents affect skill investment in their children (Heckman and Mosso (2014)), but this seems an important area of investigation. See Almlund et al (2011) for a comprehensive review of the ideas underlying the skills approach.

Family based explanations of poverty traps for developing countries naturally involve mechanisms that differ from those proposed for developed ones. For example, Dasgupta and Ray (1986) propose a nutrition-based efficiency wage model that generates poverty traps. In this model the poor are unproductive because they are malnourished. Therefore, the poor remain poor because of the lack of productivity. Note that the absence of the credit market is implicit in this argument; otherwise the poor could simply borrow money, become productive and hence break the cycle of poverty. The nutrition-based poverty trap may be rarely directly relevant (Srinivasan (1994)), but it provides a useful metaphor for the presence of productive opportunities that are unexploited due to credit constraints.

Within the context of financial constraints, studies of poverty traps in developing contexts have emphasized how these limitations affect investments in both human and physical capital (entrepreneurial activities). Credit constrained individuals are not able to make lumpy investments in highly productive activities such as business formation, and thus they are forced to engage in subsistence level production or in traditional low-return activities (Ghatak and Jiang (2002), Matsuyama (2011)). In a variation of this
argument, the poor do not have access to the collateral and lenders do not lend to them, as a result they cannot expand whatever businesses they have. Similarly, the poor may be relatively less able to face risk because the negative outcomes may be devastating for them. Therefore the poor avoid high risk activities that might also bring high return. In addition, behavioral biases and the lack of appropriate savings technology may prevent the poor from being able to save (Duflo, Kremer, and Robinson (2011)). If the financial constraints limit the ability of poor households to accumulate capital, they may also limit their ability to invest appropriately in their children. Therefore parents and offspring will be trapped in poverty.

The fact that children in poor households in developing countries have lower health and educational attainment has been documented in numerous studies such as Paxson and Schady (2007) for Ecuador. Interventions that promote early childhood investments in developing countries have been shown to increase health and cognitive outcomes in disadvantaged children. Such evidence was found in Nicaragua (Barham, Macours, and Maluccio (2013)), Mexico (Gertler (2004)), and Jamaica (Gertler et al (2013)). Conditional Cash Transfer programs to the poor households have been implemented in many developing countries, with the explicit aim of increasing schooling and health outcomes of poor children in order to break the poverty trap. Such programs were demonstrated to increase schooling and health outcomes. However the increased schooling induced by these programs had modest effects on final outcomes such as learning and wages. The specific constraints and reasons for these low outcomes are not yet well understood (Fiszbein (2009)).

2. Social Poverty Traps

A second class of poverty traps focuses on the social determinants of disadvantage. As such, this class both focuses on traps that apply to groups of individuals and to mechanisms that involve group-level rather than family-level influences. In popular discourse, in the US context inner city ghettos and rural poverty (epitomized by Appalachia) are often regarded as poverty traps. Mechanisms that underlie social poverty traps may be institutional (i.e. lower quality of schools or other
public goods because of the limited tax-base in the poor community) or social (i.e. absence of role models, negative peer effects, identity formation, discrimination). In developing country contexts, there is a related concept of “Geographic poverty trap” that refers to the situation when social and economic characteristics of the place make it difficult for the place to escape poverty (Jalan and Ravallion (2002)). This social perspective leads to a “memberships” theory of poverty traps (Durlauf (1999,2006)) in which various group memberships can explain the transmission of disadvantage. While some individuals may be able to occasionally escape poverty, the social group as a whole may be trapped. Massey (2007) independently has elaborated a vision of “categorical inequality” which is analogous to the memberships theory.

A natural context for social poverty traps is residential neighborhoods. Focusing on education, local finance of education, role model and peer influences make physical location a natural domain for social influences. Durlauf (1996a,1996b) describes models of neighborhood human capital formation which mimic the Becker-Tomes environment, except that parents choose neighborhood location (subject to constraints) rather than the level of investment per se. These models generate poverty traps as human capital grows because children of the more or less affluent experience increasingly different neighborhood environments. Bénabou (1996a,1996b) and Hoff and Sen (2005) elaborate neighborhood mechanisms. Neighborhoods models illustrate an important feature of social poverty traps, namely that social structure is endogenous, so it is the interplay of strong social interaction effects as well as distinct social environments which combine to produce the trap.

Models of social influences on individual outcomes can produce poverty traps as they are typically highly nonlinear. Brock and Durlauf (2001) propose a model that formalizes the process that underlies the community poverty traps. If the utility or the payoff that an individual receives from his actions depends directly on other’s choices, this will induce the desire to conform to the reference group. Placed in an intergenerational context, children who grow up in disadvantaged communities may have lower academic and professional aspirations, both because of the negative influence of the peers and the absence of the positive role models in the community. If social interactions are strong enough, there will be multiple equilibria in socioeconomic
outcomes within the community. These equilibria can be ranked in that one generates higher social welfare than another. This type of model formalizes the idea of a culture of poverty (Lewis (1966)) in that a socially undesirable set of behaviors can be generated by self-fulfilling beliefs. However, the framework also shows that the possibility of such an outcome presupposes that individuals face low incentives for socially desirable behaviors. Hence one cannot discuss the role of social norms and educational effort without discussing labor market opportunities for the disadvantaged.

Recent work by Akerlof and Kranton (2000,2002) provides powerful microfoundations for understanding poverty traps. In their work, individuals do not maximize utility in the standard rational choice sense, but rather, make choices that are determined by an individual's sense of identity. If certain behaviors become embedded in identity, they become reinforcing. Akerlof and Kranton apply this idea to oppositional identity hypothesis (Ogbu (2003)) which argues that part of the identity of African American teen males does not include academic success. While controversial, this hypothesis would explain the argument by Neal (2006) that there appear to be unrealized high returns to additional education on the part of disadvantaged African Americans. To be clear, this argument does not blame the victim; rather it should be understood as saying that the damage of historical prejudices is not necessarily self-correcting.

How strong is the empirical evidence on social poverty traps? Starting with Manski (1993) a large literature has emerged which demonstrates the difficulty of uncovering social interaction effects using formal statistical models, which a fortiori applies to social poverty traps. See Blume, Brock, Durlauf, and Ioannides (2011) for an assessment. The strongest evidence on social interactions and hence the possibility of traps derives from studies such as Wilson (1987) which take a broad view of available evidence, integrating historical and other evidence with statistical analysis. Massey et al (2013) is an impressive contribution which uses a detailed case study to make a compelling argument that these effects are strong. Study of Chicago neighborhoods has long been a major source of evidence on neighborhood effects; Sampson (2012) summarizes the state of understanding of the city. Sampson's work shows how "concentrated disadvantage" is critical in producing social poverty traps, i.e. a
neighborhood is defined not just by income but by its level of various aspects of social order. Akerlof (1997) develops a vision of “social space” that can accommodate such a perspective.

3. National Poverty Traps

A final form of poverty traps can be understood as national in character. A country is said to be in a poverty trap if a large share of its population lives in poverty, and if it cannot grow precisely because it is poor to begin with. Factors that underlie individual poverty traps provide some of the microfoundations for the poverty traps for nations (Galor and Zeira (1993); Banerjee and Newman (1993)). Such factors include nonconvexities in production (i.e. indivisible investments in physical and human capital and complementarities in production) combined with underdeveloped credit and insurance markets. For instance, in poor countries firms and individuals are not able to invest in profitable activities because of high startup costs for which they cannot get financing. Azariadis and Stachurski (2005) survey formal models of national poverty traps.

While one can describe national poverty traps as a problem of missing markets, understanding national poverty traps requires explaining what prevents the missing markets or missing industries from being formed. In particular, such explanations need to clarify why institutions in poor countries do not facilitate creation of the missing markets and why infective institutions persist. “Institutions” in this argument refers to both the formal (i.e. rule of law, functioning courts, law enforcement and administration), and informal arrangements (norms, trust, corruption). The institutional problems are often modeled either as failure of coordination, or historical persistence. The modern study of economic growth has developed rich theories of the role of institutions: Acemoglu, Johnson and Robinson (2005) provides a good survey of this active research area.

As in the case of social poverty traps, empirical evidence on the sources of persistent national poverty can be problematic. Durlauf, Johnson and Temple (2005) survey statistical evidence on cross country income differences, with a focus on the
salience of different explanations. Durlauf and Johnson (1995) have argued that some classes of national poverty traps really cannot be distinguished from nonlinear development dynamics in which traps are absent. Historical evidence seems the more persuasive source of evidence for poverty traps at this level.
References


