

Intelligence, Social Mobility, and Growth

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We develop a model where the allocation of human resources, intergenerational social mobility, and technological growth are jointly determined. High growth endogenously increases the equilibrium return to innate cognitive ability and makes the allocation of individuals depend more on innate ability and less on social background. Individuals with a higher level of innate cognitive ability can deal better with less known, but more productive, technologies and thus choose a higher rate of technological growth. A social allocation based on innate ability and high growth will thus reinforce each other, implying the possibility of multiple endogenous growth equilibria. (JEL J62, O1)

Intelligence is what you use when you don't know what to do.

—Jean Piaget

Individuals are not born equal. Society and nature endow different individuals with different abilities. An individual's upbringing is determined by his or her social background and affects the individual's future ability to respond adequately to the problems faced by economic agents. Other differences between individuals are the result of nature—some individuals are more talented than others. Using economic jargon, we may say that an individual is born with two types of valuable assets: innate and social.

The distribution of innate and social assets among individuals is not independent between generations. In the game of allocating intellectual ability, Mother Nature stacks the cards in favor of individuals with gifted parents, which

we call the *genetic heritage*. Similarly, the upbringing of one's offspring provides a powerful mechanism for transferring social advantages between generations. We call this mechanism the *social heritage*.

In this paper, we assume that genetic heritage is weaker than social heritage. In other words, an individual's amount of innate assets depends less on his/her parents, and more on chance, than does his/her amount of social assets. More specifically, we assume innate intellectual ability to be less than perfectly correlated between generations, whereas the social advantages that result from a particular upbringing are fully determined by the parents' social position. Intergenerational social mobility, defined as the extent to which factors other than parental social position affect the individual's own social position, will then depend on whether the social sorting mechanism emphasizes traits and abilities determined by innate or social assets. If innate intellectual ability is important for an individual's social position, social mobility will be high. If the individual's upbringing, determined by one's parental background, is of greater importance, social mobility will be low.

Our first goal is to demonstrate that economic mechanisms determine the relative importance of innate abilities and social heritage when individuals are allocated over different economic roles in society. For this purpose, we construct a stylized economy, in which each individual chooses whether to become an entrepreneur or a worker. Workers are paid a common wage, determined on a Walrasian labor market.

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