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ABSTRACT

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Expanding on the concept of ethnic human capital, the paper distinguishes between cultural assimilation compatible with persistent ethnic groups and assimilation through intermarriage and other mechanisms that blur distinctions and lead to the disappearance of ethnic identities. Economic determinants of "successful" and "disadvantaged" group outcomes are shown to be sensitive to the relationship between ethnic and general human capital, especially with regard to externalities in the processes by which they are formed. The role of income transfer regimes tied to ethnic group membership is also considered.

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THE ECONOMIC DETERMINANTS OF ETHNIC ASSIMILATION
by
Carmel U. Chiswick[1]

I.   Introduction

The relevance of ethnicity for economic analysis derives from the fact that ethnic

groups differ in their consumption patterns and in their supply of resources to the

economy at large. Some of these differences are relatively minor, accounting for less

variation in supply and demand than individual differences in tastes and preferences, but

others affect markets and the social institutions at the basis of economic life in ways that

are both pronounced and persistent.   Ethnic differences in patterns of consumption and

labor supply induce differences in patterns of investment in human capital, resulting in

cases of occupational "specialization" within ethnic groups and to dramatic differences in

schooling levels between "successful" and "disadvantaged" ethnic groups (Borjas 1992;

Borjas 1995; Lehrer 2004).   These in turn influence ethnic differences relating to more

intimate matters such as health and medical care, marriage patterns, fertility rates and

family life. To a large extent, it is these differences that give an ethnic group visibility

and contribute to its image within the larger society.

Ethnic groups also develop consumption patterns within the community which,

unlike the examples cited above, are specific to the group and not shared by other

members of the larger society. Ethnicity-specific goods and services (referred to as

"ethnic goods") may include food and clothing items, religion, music, or ethnic

newspapers, radio, and TV stations (Chiswick and Miller 2005). Human capital related

to these consumption patterns may also be ethnic-specific. Important examples of ethnic

human capital are skills related to ethnic languages and religions, as well as gender and

age roles. Much of this human capital is formed within the family and community, often

fairly early in life, and affects the way in which people relate to the larger society in

which the ethnic group is embedded. The process of human capital formation (referred to

here as "ethnic education") may itself be group-specific, a possibility that will be

explored later in this paper.

The analysis developed in this paper begins with the assumption that each

individual belongs unambiguously to one and only one ethnic group.[2] For simplicity,

there are only two distinctive ethnicities within a larger society that they both share.[3]

Individuals face tradeoffs between goods that are shared (i.e., demanded by persons of

both ethnicities) and those that are specific to their own ethnic groups. Similarly, they

allocate their education budgets between shared and ethnic-specific human capital. Part

II develops this model, and Part III uses it to distinguish between two concepts of ethnic

assimilation. The model is applied in Part IV to the determinants of inter-ethnic

marriage patterns. Part V considers the effects of rent-seeking incentives on the

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[2] In some usage, an ethnic group is defined residually after controlling for such characteristics as race, religion, or place of origin. This study uses the term broadly to include groups defined by these characteristics as well. For simplicity, these characteristics are assumed to be unambiguous and well known, so that every member of the population knows the ethnicity of every other member.

[3] Individuals who distance themselves from ethnic particularism may view themselves as having no ethnicity. Typically, however, people who share this viewpoint develop their own social structures and thus create the equivalent of a more or less new ethnicity. The fact that these people have origins in different ethnic groups is not relevant for the distinction between ethnic-specific and shared types of human capital.

assimilation process. Part VI concludes with a discussion of implications for social and economic policy aimed at fostering the assimilation of ethnic groups.

II. <u>An Economic Model of Ethnic Identity</u>

Following (Chiswick 2006), membership in an ethnic group is understood to be a "good" in the sense that it is desirable but not costless. That is, identification with the group provides benefits both tangible and intangible, but requires diversion of scarce resources from other uses. Although ethnicity can not be purchased directly, it is best thought of as a z-good produced by combining ethnic goods and services (e.g., ethnic clothing, food, entertainment, charities, club memberships) and time expenditures on group-specific activities.[4]

Each ethnic group is part of the larger society and each has a group-specific ethnic z-good, E, that effectively defines its ethnicity. Utility-maximizing consumers allocate their time between ethnic and general activities. The problem can be expressed as:

$$(1) \quad \text{Max } U(E, Y) \quad \text{subject to} \quad L_E + L_Y + L_S = L^*$$

$$\begin{aligned}
\text{where } E &= \text{Ethnicity} \\
Y &= \text{All other (shared) goods and services} \\
L_E &= \text{Time spent in ethnic-specific activities} \\
L_Y &= \text{Time spent in general activities} \\
L_S &= \text{Total time spent in human capital formation}
\end{aligned}$$

and L^* is the total time available for all purposes.

Human capital may or may not be work-related, referring rather more generally to the skills and experiences relevant for producing the consumption goods, E and Y. It is useful to distinguish between ethnic human capital, the skills and experiences specific to E production thus useful only for members of that ethnic group, and shared human

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[4] For a discussion of ethnic goods see (Chiswick and Miller 2005)

capital, the skills and experiences that raise productivity for Y production and are thus useful to members of all groups.   For example, ethnic human capital, H_E, might include a group-specific ethnic language, religion, or customs affecting family relationships, while human capital shared by all ethnic groups, H_Y, would include the common language and labor market skills useful for everyone without regard to ethnicity.

Ignoring for simplicity the role of purchased goods and services, let the two consumption goods, Y and E, be self-produced with human capital specific to each activity:

(2) $E \ = \ g(h_E L_E)$

(3) $Y \ = \ f(h_Y L_Y)$

where h_E = level (quality) of ethnic human capital
and h_Y = level (quality) of general human capital.

In this specification the total amount of human capital, $H_E \equiv h_E L_E$ or $H_Y \equiv h_Y L_Y$ respectively, is the sole input for producing the corresponding consumption good. Each ethnic group is thus characterized by its own group-specific human capital.

In the present analysis, the term "ethnic education" refers to any investment in ethnic-specific human capital, a skill-formation process that enhances the productivity of resources deployed within the group (i.e., for making the ethnic z-good) but not productivity in the general labor market or in general consumption activities. Ethnic education in this sense begins early in childhood with ethnic-specific parenting styles and family customs, later expanding to include socialization within the ethnic community and more or less formal training in group-specific skills. The rate of return to ethnic

education depends not only on individual preferences (a lifestyle choice) but also on the production function for ethnic experience.

Each type of human capital is the output of an educational process with its own production function, the main input to which is the student's time. These can be written inversely as cost functions, expressing the time cost of education as a function of the level of skill to be acquired.

(4) $L_S = L_{YS} + L_{ES}$

(5) $L_{YS} = \varphi(h_Y),$ $\varphi', \varphi'' > 0$

(6) $L_{ES} = \gamma(h_E) - \omega\, h_Y\, h_E,$ $\gamma', \gamma'' > 0$

   where L_{YS} = Time spent in general (shared) learning activities
       L_{ES} = Time spent in ethnic-specific learning activities

and the constant coefficient ω indicates the degree to which the acquisition of general human capital imposes an external effect on ethnicity-specific education. For example, if $\omega > 0$ a greater level of general human capital (h_Y) would make it less costly to acquire any given level of ethnic education (h_E), while if $\omega < 0$ the opposite would be true.

This problem is solved by maximizing the Lagrangian function:

(7) $\pounds = U(g(h_E L_E),\ f(h_Y L_Y)) - \lambda[L_E + L_Y + + \gamma(h_E) + \varphi(h_Y) - \omega\, h_Y\, h_E - L^*]$

where equations (4)-(6) have been substituted into the time constraint to eliminate the schooling time variables. The first-order conditions can be solved to yield

(8) $U_g\, g'\, h_E = U_f\, f'\, h_Y$

(9) $L_E\,/\,h_E = [\ \gamma' - \omega\, h_Y\ ]$

(10) $L_Y\,/\,h_Y = [\ \varphi' - \omega\, h_E\ ]$

(11) $L^* = L_E + L_Y + \gamma(h_E) + \varphi(h_Y) - \omega\, h_Y\, h_E$

Equaton (8) equates the marginal rate of substition in consumption between ethnic-specific and common (shared) uses of time to –1, the slope of the time budget line, requiring that the marginal value of time be the same in both consumption activities. Equations (9) and (10) equate the slopes of the human capital quantity-quality isoquants, L_E/h_E and L_Y/h_Y respectively, to the marginal cost of the corresponding type of education. These conditions allocate time to each type of education up to the point where its marginal value in human capital formation is the same as the opportunity cost of that time in consumption activities. Equation (11) restates the overall time constraint for all activites.

Solving (9) and (10) for L_E and L_Y, substituting the result into (11) and rearranging terms permits the overall time constraint to be expressed solely as a function of skill levels, h_E and h_Y, and the externality parameter ω:

(12) $\quad L^* = h_E\,\gamma' + h_Y\,\varphi' + \gamma + \varphi - 3\omega h_E h_Y$

This describes the time-constrained opportunity for attainable combinations of human capital, and it generally has a negative slope.[5] Solving the same two equations for h_E and h_Y, substituting the result into equations (8) and rearranging terms yields:

(13) $\quad \dfrac{U_g\,g'\,L_E}{U_f\,f'\,L_Y} = \left[\dfrac{\gamma' - \omega h_Y}{\varphi' - \omega h_E}\right]$

The expression on the left-hand side of equation (13) is the marginal rate of substitution in consumption between h_E and h_Y, the slope of an indifference curve between levels of the two types of education. The right-hand side is the slope of a production possibility

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[5] A sufficient (but not necessary) condition for this is $\omega \leq 0$, meaning that the external effects of general education on ethnic education (and vice versa) are non-positive.

frontier (PPF) that holds constant L_S, the total resources devoted to general and ethnic

training combined. Optimization thus requires tangency between an indifference curve

and a human capital PPF determined by the allocation of time between consumption and

education. By varying the amount of time devoted to education, equation (13) implies an

expansion path with a positive slope as long as both h_Y and h_E are normal (in the sense

that more resources devoted to education raises the demand for each type). The overall

solution to the consumer's problem occurs where the time constraint in (12) crosses the

expansion path either at a unique combination of h_E and h_Y or at one of its corners.

Figure 1 illustrates the consumer's decision and its sensitivity to the group-

specific parameter ω. The indifference map between ethnic-specific skills (on the

horizontal axis) and shared skills (on the horizontal axis) has been drawn to represent an

individual with a strong preference for the ethnic good.[6] Three possible production

possibility frontiers have been drawn, all using the same total resources and thus with

endpoints at A and B. The PPF corresponding to a group where ethnic education and

general education are mutually independent (i.e., where $\omega = 0$) has been emphasized with

a dark curve. In this case the optimal combination of human capital would be at point C,

and the expansion path is indicated by a similarly dark line.[7] The PPF corresponding to

positive externalities in the education process is tangent to the indifference map at point

D, on a higher indifference curve than C and characterized by greater investments in both

types of human capital but with relatively more h_Y. In contrast, the optimal investment if

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[6]For an interesting empirical exercise in measuring these axes for people in Germany see (Constant et al. 2006). A promising approach to measurement elsewhere is suggested in (Jasso et al. 2006)

[7] The expansion path connects the tangencies between the indifference map and a family of PPF curves for which $\omega = 0$, only one of which is shown in Figure 1.

there are negative externalities between the two educational processes is at point E, on a lower indifference curve and with greater specialization in ethnic human capital. Although not shown on this graph, the expansion path passing through E is to the right and less steep than the path through C, while the one passing through D is to its left and more steep.

The key parameter in the model developed here is ω, an indicator of cultural tension between the ethnic group and the shared environment. When ω is positive the two kinds of human capital are acquired by means of complementary learning processes: the greater the level of h_E embodied in a person the more efficiently he can learn general skills, and the greater the level of shared human capital, the more efficiently he can acquire ethnic-specific skills. The opposite is true when ω is negative, indicating that high levels of ethnic human capital (hence attachment to the ethnic communmity) make it more difficult to acquire general skills and *vice versa*. The parameter ω will thus differ across ethnic groups to a degree that depends on the relationship between each group's culture relative to the shared culture of the larger society.

Figure 2a illustrates the case where ω is positive, indicating that the two learning processes are mutually complementary so that the PPF will be bowed outward (i.e., its convexity will be high), and Figure 2b illustrates the case of negative externalities where ω is negative and large in magnitude. In both graphs the dotted-line expansion path corresponds to the indifference map of a person with strong preference for the ethnic good, shown in Figure 1 as having a tangency to a PPF at points D (for Figure 2a) or E (for Figure 2b). The solid-line expansion path corresponds to the indifference map of people with weak preferences for the ethnic good or strong preferences for the

consumption basket shared by all groups. A shaded oval area around each expansion

paths is a stylized representation of the scatter of outcomes characterizing group members

with similar (but not identical) preferences.

III. Ethnic Identity and Assimilation

The concept of ethnic assimilation is socially determined and depends importantly

on the shared culture of the larger society. Two examples will be considered here,

referred to briefly as "pluralism" and "homogeneity," respectively. As its name suggests,

a pluralistic society is one in which multiple ethnic groups coexist within a larger social

framework that they all share. In this context, an ethnic group becomes assimilated when

its members accept the values, attitudes and norms of the shared culture and participate

more or less actively in its economic and social life. In contrast, a homogeneous society

is one where everyone is expected to conform to a shared ideal, typically associated with

the ethnic culture of one or more specific groups. In this context, assimilation occurs

when people of other ethnicities lose their particular identities and switch to those of a

dominant ethnic group.

A. Acculturation in a Pluralistic Society

Groups may be said to assimilate with respect to each other when they share

values, goals, and activities, giving their members an incentive to invest in a common set

of human capital attributes. That is, the greater the level of shared human capital

embodied in a person, h_Y, the more he or she has in common with members of other

ethnic groups and hence, by definition, the greater the degree of acculturation.[8] For

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[8] Note that this definition applies symmetrically to all groups, including those described
as "dominant" because of their large size or cultural influence.

simplicity, it will be assumed here that there is some threshold level of shared human capital, h_Y^*, beyond which an individual may be characterized as acculturated. By the same token, a group may be characterized as assimilated into the shared culture of a society if a large proportion of its members are acculturated because they embody at least h_Y^* amount of shared human capital.

Figures 2a and 2b illustrate this threshold with a horizontal line at h_Y^*. The portion of the shaded ovals above this line represent people who are assimilated in this sense, sharing the values, attitudes, experiences and knowledge common to all ethnic groups in the larger society. The portion below this line represent the unacculturated, people who do not share much human capital with the mainstream society and are thus perceived, by themselves and by others, as outsiders.

By this definition assimilation need not mean homogeneity, for only the amount of shared human capital, h_Y, is relevant for determining participation in a shared culture. Although the amount of ethnic-specific human capital, h_E, does not affect the extent to which an individual participates in the larger society, it is an important determinant of his or her ethnic identity and hence participation in an ethnic community. For simplicity, let there be some threshold level of ethnic human capital, h_E^*, required for a person to have a clear association with a particular ethnic group. Persons with more than this amount of h_E identify with the ethnic community and would lose the value of their ethnic human capital if they were to exit. Those with less than h_E^* have little attachment to the community and would incur little cost if they were to leave. While the latter group is sometimes described as "assimilated" because of their low ethnic identity, they may or may not be active participants in the society's shared culture.

The relationship between ethnic identity and assimilation is best seen by considering both definitions simultaneously, as illustrated in Figure 3 by the division into four quadrants. The axes and the shaded ovals duplicate those in Figures 2a and 2b, respectively. Individuals in the portion of the shaded ovals to the right of the vertical line at h_E*, in quadrants I and II, have strong ethnic identities, while those in quadrants III and IV, to the left of this line, do not. The people in quadrants I and IV embody more shared human capital than h_Y* and are thus assimilated in the sense that they share the same values, attitudes, experiences and knowledge as the members of other ethnic groups in the larger society. Those in quadrants II and III are below the threshold value of h_Y* and are in this sense "outside" the shared culture. People in quadrant II are "outsiders" because they identify with an ethnic group that does not share the society's common values. Those in quadrant III constitute an underclass that participates in neither the common culture nor an ethnic subculture.

People in quadrant IV are assimilated, and those in quadrant II are unassimilated, by both criteria. As Figure 3b suggests, these quadrants dominate in groups for which ethnic education is most anti-complementary with respect to general education, inducing people to specialize in either ethnic or shared human capital. Those who choose the ethnic-specific investment path have low levels of h_Y and thus tend to be socially – and perhaps also geographically – isolated from the mainstream. Group members who choose the shared-human-capital investment path tend to fall in quadrant IV, where low levels of ethnic human capital reduce the priority placed on ethnic lifestyles and high levels of shared human capital provide a common bond with persons of other ethnicities whose priorities are similar.

Figure 3a illustrates the propensity to assimilate for groups in which ethnic-specific and general educations are mutually complementary.   This complementarity in education raises the incentive to invest in both kinds of human capital, inducing outcomes in which most members are likely to be in quadrant I and a less-educated minority in quadrant III.   The group would thus be dominated by productive and culturally assimilated members of the larger society who also have a strong ethnic identity and are likely to participate in the ethnic community. Members who assimilate in the sense of reduced ethnic identity would tend to have low levels of shared human capital and hence would also find it difficult to participate fully in the larger society.

B. Assimilation in a Homogeneous Society

In a society whose shared culture emphasizes the benefits of homogeneity, ethnic particularism is discouraged and assimilation is defined as a decision to identify with the mainstream "shared" society. The decision to switch ethnicity in order to join the mainstream, whether informally or through some sort of formal conversion process, requires that the benefits of switching outweigh the cost. In this respect it is analogous to migration: the higher the stock of non-transferable ethnic skills, the higher the cost of switching and greater the gain required to compensate for the loss associated with changing groups.

If the largest cost of joining the mainstream is determined by the loss of non-transferable ethnic human capital, the vertical line at h_E^* in Figure 3 can be interpreted as the borderline dividing the ethnic group between leavers and stayers. People with human capital endowments to the right of this line have high levels of ethnic attachment and high costs of leaving the group, while those to the left of this line have low levels of

ethnic human capital and hence a low cost of exit from the group. Figure 3a suggests that members of successful ethnic groups with high positive values of ω are unlikely to assimilate in this sense, and that people who choose to switch affiliation are likely to be the least educated within the ethnic community. For groups illustrated by Figure 3b with large negative values of ω, however, the ethnic community will be divided into those that choose to assimilate by joining the mainstream (in the vertical oval mostly to the left of h_E^*) and strongly-identified ethnics who resist assimilation (in the horizontal oval that is mostly below h_Y^*).

In a society that places a high value on ethnic homogeneity, high levels of group-specific human capital associated with religion, language, or family life that reinforce clear group boundaries may thus serve as a *de facto* barrier to assimilation even if the ethnic group itself does not actively discourage its members from switching. In contrast, low levels of ethnic human capital would facilitate movement by individuals across ethnic boundaries, whether purposeful (by conversion or intermarriage) or inadvertently as a byproduct of other consumption decisions. To the extent that such switching results in assimilated families with relatives who are ethnically identified, they may lead *ipso facto* to a blurring of the social boundaries by which ethnic groups are distinguished from the mainstream and from each other. Vague boundaries in turn facilitate further blending of ethnic identities as they reduce the cost of switching into the relatively homogeneous mainstream.

IV. Ethnic Human Capital and Intermarriage

Even before the skill-formation associated with labor force activities, human capital formation begins early with childhood experiences and pre-school training by family members. Ethnic groups typically provide a social context for many of the intimacies of family life: childrearing practices, extended family relationships, observance of life-cycle milestones, cuisine, music, and virtually all other aspects of folk culture. Although later training may be of a more general nature (e.g., for an occupation or cultural role in the larger society), early childhood memories are often group-specific. And family experiences are themselves a form of training for adult roles, including those affecting marriage and parenting.

Complementarities between the different forms of human capital can amplify between-group differences in a few characteristics so as to generate substantial differences in the overall structure of investments in people. Moreover these can become fundamental group differences with significant implications for differences in marriage and fertility patterns. For example, groups that make greater investments in their children's human capital typically have smaller families as budget-constrained parents tend to marry later and to trade off between child "quality" and "quantity" (Becker 1981; Chiswick 1988). Similarly, ethnic differences in the allocation of parental investment between sons and daughters, whether in the amounts or types of human capital, have far-reaching implications for ethnic differences in adult gender roles. Affecting the intimate aspects of family life, such differences can drive a wedge between the lifestyles of different ethnic groups and provide the underpinning for each group to prefer its own as

"superior." This leads naturally to a segmentation of marriage markets along ethnic lines.

If marital compatibility is generally greatest for people with similar levels and types of human capital, the optimal marital sort would tend to pair people who are close to each other with respect to both h_Y and h_E (Lehrer and Chiswick 1993; Lehrer 1996; Lehrer 1998). People who closely identify with an ethnic group because they have $h_E >$ h_E^* would prefer partners of the same ethnicity, those who are assimilated into the shared culture because they have $h_Y > h_Y^*$ would prefer partners who are similarly acculturated, and those whose human capital falls below these thresholds would be more likely to marry each other. With reference to Figures 3a and 3b, the optimal marital sort would tend to pair people with a partner from the same quadrant.

A. Ethnicity and the Marital Sort

To see the implications of this for intermarriage between members of different ethnic groups, Figure 4 illustrates the situation for the simplest case where two ethnicities coexist in the same society.[9] The portions of Figures 4a and 4b to the right of their respective origins, with horizontal axes that measure ethnic skills of Group A, are a duplicate of Figures 3a and 3b. The portions to the left of the origin measure the ethnic skills of Group B from right to left, but otherwise they also duplicate Figures 3a and 3b, respectively. While it is not necessary (or even likely) that two ethnic groups would have the same production functions for ethnic human capital, the present discussion is sufficiently general to permit abstraction from such differences.

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[9] This analysis implicitly assumes that the content of ethnic education for the two groups is mutually compatible or at least neutral (i.e., does not generate hostility) with respect to each other.

Since people with high levels of ethnic human capital are most likely to seek marriage partners with similarly high levels of h_E, the propensity for intergroup marriage is low for people in quadrants I and II of either group. The propensity for ethnic intermarriage is greater for people in quadrants III and IV, in part because they have low attachment to their own ethnic group and in part because their low value of ethnic human capital means that they would lose little if they don't use it. It may even be that alienation from their respective ethnic communities provides a common bond for people on either side of the vertical axis but close to it, thus further increasing the likelihood of intermarriage.

Figure 4a illustrates the case where ethnic and general educations are mutually complementary, providing incentives to invest in both kinds of human capital. People with large investments in human capital would tend to have relatively high levels of ethnic as well as shared human capital and thus be less likely to seek partners outside the group. Intermarriage is more likely to occur among the less educated, who are also more likely to include persons with weak preferences for the ethnic good. At all levels of education, however, members with different preferences (and thus in different shaded ovals) have similar combinations of h_E and h_Y and thus can form stable marriages with each other.

In contrast, differences in preferences are extremely important for marital propensities in Figure 4b, where it is much less likely that people in different ovals would match themselves with each other. When ethnic and general educations are anti-complementary (i.e., when each generates negative externalities for the other) people face reduced incentives to invest in human capital and tend toward specialization in one or the

other type. In Figure 4b, the only people with a strong incentive to seek partners within

the group are those with strong preferences for the ethnic good and heavy investments in

ethnic human capital. In contrast, persons with weak preference for the ethnic good (or a

strong preference for the shared good) are in an oval to the left of h_E* and thus highly

unlikely to seek a marital partner in the other oval.   Those with low levels of h_E may

marry each other, but they may also match themselves with a partner of different

ethnicity but with similarly low levels of ethnic human capital.

   B. Some Implications of Ethnic Group Size

        Larger ethnic groups provide a larger pool from which to select a marriage partner

of the same ethnicity. Suppose the two ethnic groups in Figure 4 were identical in every

respect except that Group A is ten times larger than Group B.   Then each quadrant would

have ten people in Group A for every person in Group B. Even if the propensity to

intermarry were the same for both groups, the probability that people in quadrants III and

IV could find a match from the other group would be very high for members of Group B

but very low for members of Group A. Thus the observed intermarriage rate would be

much higher for group B than for group A, and would have very different implications

for their respective ethnic communities.

        Within a single ethnic group, the relative number of people within each oval may

also have implications for intermarriage rates.[10] Suppose, for example, that 80 percent of

the people in figure 4b are in the high-ethnicity oval in quadrants II and III while only 20

[10]Size is much less important for a group illustrated by Figure 4a, where people in
different ovals may marry each other and where the "exceptional" members with high
out-marriage rates would tend to be relatively few and among the least educated.

percent are in the other oval in quadrants III and IV, and suppose further that the threshold level of education h_Y* corresponds to graduation from high school. This group would be characterized as low-achieving because the large majority of its members have less than h_Y*. The "exceptional" group members who are high-school graduates would be found in quadrant IV and would be likely to marry outside the group not only because their ethnic identity is weak but also because their numbers are few. Now suppose the numbers were reversed, with 20 percent of the people in the high-ethnicity oval and 80 percent in other oval. Then the group might be characterized as assimilated, with a high out-marriage rate, with an "exceptional" minority preserving the ethnic heritage and marrying mainly within the group.

The utility-generating productivity of ethnic human capital is amplified when other consumers have high levels of the human capital specific to that ethnicity, so the size of an ethnic group has implications for the quality of its community life.[11] Investment in language skills are clearly more productive the larger the pool of people speaking the same language, and the more people who speak an ethnic language the greater the incentive to express oneself in it and hence the more extensive the literature that emerges. Human capital formation in childhood is more effective if all members of

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[11] Since shared experiences and goals are the bases for many voluntary social organizations, ethnic groups often exhibit characteristics typical of membership societies or clubs. Of particular interest here is the mutual complementarity among members of various forms of participation. Each individual finds the utility-generating productivity of resources devoted to ethnic consumption to be enhanced by the active participation of other group members or, conversely, finds the benefits of participation to be lower in a group where other members are apathetic. This generates "bandwagon" effects that can be either positive or negative. For some interesting applications of this phenomenon see (Iannaccone 1992; Chiswick and Chiswick 2000; Kahanec 2006).

the family share the same ethnicity, and the cost is further reduced when family life is embedded in an ethnic community with its larger stock of human capital and attendant social institutions.

C. Transferability of Ethnic Human Capital

The assumption until now has been that each individual acquires human capital specific to one and only one ethnicity and that ethnic human capital has little between-group transferability. This assumption can now be relaxed. Even people who identify strongly with one ethnic group may learn about (or acquire human capital specific to) another. In societies with multiple ethnic groups, two groups may have some ethnic human capital in common (e.g., languge or religion) even though it is not shared by everyone in the larger society.

To illustrate the new possibilities, each of the two-dimensional graphs in Figure 4 can be folded 90° along is vertical axis to make a third dimension, with one of its axes labeled Ethnic Skills Group A and the other labeled Ethnic Skills Group B. Individuals who specialize in the human capital of their own ethnic group would still be found near one of these axes (and hence near the ovals illustrated in Figure 4), but those who acquire some human capital specific to the other group would be represented by a point somewhere in this third dimension. In the extreme case, where the two types of ethnic human capital are mutually complementary and people from both groups tend towards the central area in this plane, the groups may effectively assimilate with respect to each other and form a combined ethnicity.

In general, the greater the ethnic specificity of family-related human capital, the greater the incentive to choose a marriage partner from within the group (Chiswick and

Lehrer 1991; Lehrer and Chiswick 1993). If ethnic differences have little bearing on childrearing skills and family experiences, intermarriage is less difficult and thus more likely. Ethnic group boundaries are further blurred when marital partners from different groups raise children with ambiguous affiliations, whether they belong to both groups or to neither. Intermarriage is thus both a symptom and a cause of assimilation.

This suggests an important relationship between religion, language and ethnicity that tends to link the two aspects of group identity. Passing on an ethnic language and the formation of religious human capital during childhood and youth are important functions of the family and community. If these types of human capital are transferable across ethnic groups that share the same language and/or religion, an ethnic intermarriage would be less costly between them than between groups speaking a different language or practicing another religion. In practice, the linguistic barrier to intermarriage can be overcome since members if all ethnic groups share the common language of the larger society.[12] The children of such marriages typically learn only the common language, with the long-run implication for ethnic languages to fade out. Finding a shared religion is more difficult, so ethnic intermarriages are less likely to cross religious boundaries and if anything marriage markets reinforce the distinctions between different religions. Thus the long-run tendency would be for intermarriage to blur ethnic distinctions within religious groups so that ethnicity and religion become identified with each other.

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[12] This condition is less likely to be met by immigrants than by their native-born children, although immigrants in extremely small communities have a stronger incentive to learn the language of the larger society and thus are more likely to inter-marry.

V. Ethnic Politics and Assimilation

If the larger society is multicultural and/or tolerant of diversity, Figure 3a illustrates a fully acculturated "successful" ethnic group and Figure 3b illustrates the case of a "disadvantaged" ethnic group that resists assimilation for whatever reason. If the shared society places great importance on ethnic homogeneity, however, both groups may be viewed as a problem to be solved only when their members either join the "mainstream" or leave the population entirely. The mainstream itself is typically similar to the ethnicity of a single group which is dominant because of its relative size, its economic influence, or its history. Its situation would be the one illustrated by Figure 3a, where the formation of general skills and ethnic skills are so highly correlated that for practical purposes the distinction between the two is blurred. Other ethnic groups might face the kind of negative externalities illustrated by Figure 3b. Members of the dominant ethnicity would have a clear economic advantage over the members of other ethnic groups.   Which specific group defines the mainstream is endogenous, however, and jockeying for that status can be a source of ethnic conflict.

When ω is positive, members of an ethnic group tend to have high levels of both h_Y and h_E and be successful participants in productive activities. Since there are many different productive skills encompassed in the concept of h_Y, members of a particular ethnic group may tend to cluster in occupations for which their ethnic human capital is especially complementary. Members of a particular ethnic group rarely account for the entire supply of labor to a particular occupation, but the advantage in skill-acquisition that attracts them implies a scarcity rent that tends to be higher than that of their colleagues with different ethnicities. In contrast when ω is negative, strongly-attached

members of an ethnic group tend to be low-earning, isolated socially and perhaps also geographically from other ethnic groups with whom they share little human capital. The combination of isolation and disadvantage can foster a sense of grievance, but more importantly it raises the return to rent-seeking behavior relative to production activities.

Economic agents have two basic strategies for expanding their opportunities for consumption, by raising productivity or by seeking to capture for themselves (whether by taxation, fiat, theft or extortion) the rents earned by other agents (Anderson and Hill 1989). In the "production" economy free markets maximize aggregate consumption and cause the income distribution to be Pareto optimal. In the "transfer" economy this is not the case, for even when transfers are limited to scarcity rents (in which case they would not change the level or allocation of existing resources) they represent a reduction in capital formation and hence a deadweight loss in aggregate production.

Ethnic differences in scarcity rents provide economic incentives to participate in the "transfer" economy, where laws or other arrangements are designed to benefit one ethnic group at the expense of others. The incentives to support such an economy are positively related to ethnic-group differences in the levels of economic rent and inversely related the cost of enforcing the transfer. Ethnic groups differ in their attitudes toward rent seeking as an acceptable alternative to production, as well as in their power to enforce such exchanges, and they vary accordingly in their supportiveness of these strategies. Where transfer strategies are viable, however, they constitute a clear incentive for groups to resist assimilation into the shared mainstream (Epstein 2006).

As with any other economic activity, the efficiency of rent seeking can be enhanced by an increase in the relevant skills. Unlike production skills, which are

potentially shared by all groups, rent-seeking skills can be focused on to group-specific

goals. When this is the case, a relatively high investment in such group-specific transfer

skills would provide an economic incentive to resist assimilation.

Rent-seeking skills would be especially valuable in countries where transfers have

been relatively more important than production as a source of income, whether because

productivity is low (as in some LDCs) or because transfers are especially large (as in the

former Soviet Union) or both. Thus it may be no coincidence that some of the most

virulent ethnic violence of our time occurs in countries with low levels of modern human

capital or a history of inefficiency in production. Economically induced ethnic violence

may be self-limiting (if only because it dissipates the very rents that serve as its

reward).[13] Yet it can be very destructive and have immiserating long-run effects on the

economy as a whole.

Ethnic conflict in general, and rent seeking conflict in particular, is probably as

old as history itself. Yet the modern era has added a new dimension to the transfer

society and hence a new economic impetus for ethnic conflict. Even as high productivity

raises the stakes by increasing aggregate income, public-sector provision of services

provides an institutional structure that facilitates extensive income transfers. Thus

control of a national government is a prize worthy of considerable sacrifice, and many

ethnic groups have chosen to divert resources to that end. This suggests that it is no

coincidence that economic development in the nineteenth and twentieth century has been

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[13] The image of a "cash cow" – yielding a steady flow of income with no diminution of
capital – meets the fable of the "goose that lays a golden egg" – a source of easy income
only as long as it remains intact.

accompanied by the emergence of particularly powerful nationalist movements on the part of many ethnic groups for whom sovereignty was not previously an issue.

VI. <u>Conclusion and Policy Implications</u>

The focus of this paper has been on understanding economic forces that support the assimilation of ethnic groups into a larger society. A microeconomic model of ethnic group membership is used to analyze the incentives for individuals to attach themselves to the group, and hence the economic conditions under which assimilation would be the likely outcome. Ethnic human capital was shown to be a key variable in this model, with important implications not only for group survival but also for a number of ethnic-group differences in educational attainment and demographic behavior. Between-group differences in the nature of ethnic human capital can also result in differences in shared skills and hence in the importance of scarcity rents earned by group members. When these differences are large they provide an incentive for low-rent groups to extract income transfers from high-rent groups, a process that necessarily involves some degree of conflict in a Pareto-optimal economy and thus retards assimilation.

The model developed in this paper suggests several different approaches to achieving assimilationist goals. First, and perhaps most importantly, it suggests that ethnic identity *per se* is neither undesirable nor a barrier to the assimilation of individuals into the larger society. In a pluralistic society the goal of assimilation is not to erode all ethnic distinctions, but rather to increase the common culture and economic opportunities shared by all groups. Adaptations of the shared culture that increase its compatibility with a particular ethnic group would also have the effect of raising that group's externality parameter, ω, and thus encourage its members to invest in the shared human

capital that constitutes assimilation. Policies that welcome ethnic diversity within the

larger society without encouraging separation would have this effect. A policy of

multiculturalism would fit this description as long as it is genuinely inclusive, but

multicultural policies that elevate some groups (e.g., "disadvantaged" relative to

"advantaged") would not have the desired effect.

Within an ethnic group, any adaptations that raise positive externalities between

ethnic-specific and general education, ω, would have the effect of increasing

assimilation. If the production possibility frontier (PPF) for the acquisition of these two

types of skill is convex to the origin, this will bow it out even further and thus have the

effect of strengthening ethnic identity as well.   If ω is negative and sufficiently large that

the PPF is concave, adaptations that make ethnic skills more compatible with the larger

society encourage more members to assimilate but also reduce the likelihood that

assimilated members will leave the group. For such groups the challenge is to find

adaptations that reduce negative externalities without sacrificing the ethnic identity that

gives the group its special character.

Apart from these educational changes, economic policies that encourage inter-

ethnic rent-seeking rivalries should be avoided since they retard assimilation. Any

transfer society based on group differences would *ipso facto* generate such rivalries.

Even if income transfers are voluntary, however, as they might be for public subsidies to

low-income families, a "disadvantaged" ethnic group with a large proportion of transfer

recipients may develop institutions that implicitly support low levels of assimilation. The

challenge is to design transfers that are neutral with respect to group membership to avoid

the unintended consequence of erecting barriers to assimilation.

References

Anderson, T. and P. J. Hill (1989). *The Birth of a Transfer Society*. Lanham, MD, University Press of America.

Becker, G. S. (1981). *A Treatise on the Family*. Cambridge, Mass., Harvard University Press.

Borjas, G. J. (1992). "Ethnic Capital and Intergenerational Mobility." *Quarterly Journal of Economics* **107**(1): 123-150.

Borjas, G. J. (1995). "Ethnicity, Neighborhoods, and Human Capital Externalities." *American Economic Review* **85**: 365-390.

Chiswick, B. R. (1988). "Differences in Education and Earnings Across Racial and Ethnic Groups: Tastes, Discrimination, and Investments in Child Quality." *Quarterly Journal of Economics* **103**: 571-597.

Chiswick, B. R. and C. U. Chiswick (2000). "The Cost of Living Jewishly and Jewish Continuity." *Contemporary Jewry* **21**: 78-90.

Chiswick, B. R. and P. W. Miller (2005). "Do Enclaves Matter in Immigrant Adjustment?" *City and Community* **4**(1): 5-35.

Chiswick, C. U. (2006). "An Economic Perspective on Religious Education: Complements and Substitutes in a Human Capital Portfolio." *Research in Labor Economics* **24**: 449-467.

Chiswick, C. U. and E. L. Lehrer (1991). "Religious Intermarriage: An Economic Perspective." *Contemporary Jewry* **12**: 21-34.

Constant, A., L. Gataullina and K. F. Zimmerman (2006). "Ethnosizing Immigrants". Discussion Paper, 30.

Epstein, G. S. (2006). "Migrants, Ethnicity and Employment". Unpublished manuscript, 29.

Iannaccone, L. R. (1992). "Sacrifice and Stigma: Reducing Free-riding in Cults, Communes, and Other Collectives." *Journal of Political Economy* **100**(2): 271-291.

Jasso, G., D. S. Massey, M. Rosenzweig and J. P. Smith (2006). "Interethnic Marriage, Citizenship, and Measurement of Ethnicity".

Kahanec, M. (2006). "Ethnic Specialization and Earnings Inequality: Why Being a Minority Hurts but Being a Big Minority Hurts More". Unpublished manuscript, 64.

Lehrer, E. L. (1996). "The Determinants of Marital Stability: A Comparative Analysis of First and Higher Order Marriages." *Research in Population Economics* **8**: 91-121.

Lehrer, E. L. (1998). "Religious Intermarriage in the United States: Determinants and Trends." *Social Science Research* **27**: 245-263.

Lehrer, E. L. (2004). "Religion as a Determinant of Economic and Demographic Behavior in the United States." *Population and Development Review* **30**: 707-726.

Lehrer, E. L. and C. U. Chiswick (1993). "Religion as a Determinant of Marital Stability." *Demography* **30**(3): 385-404.

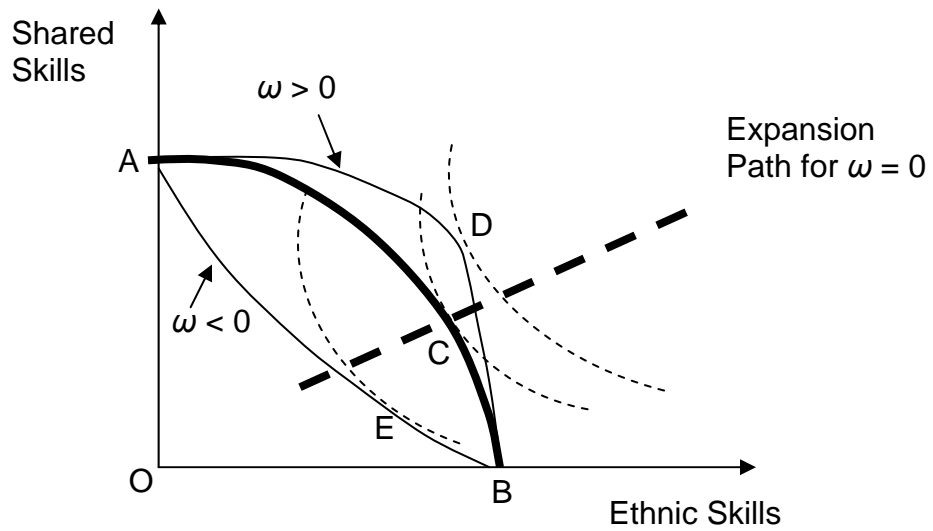Figure 1:
Strong Preference for Ethnic Goods

Figure 2a
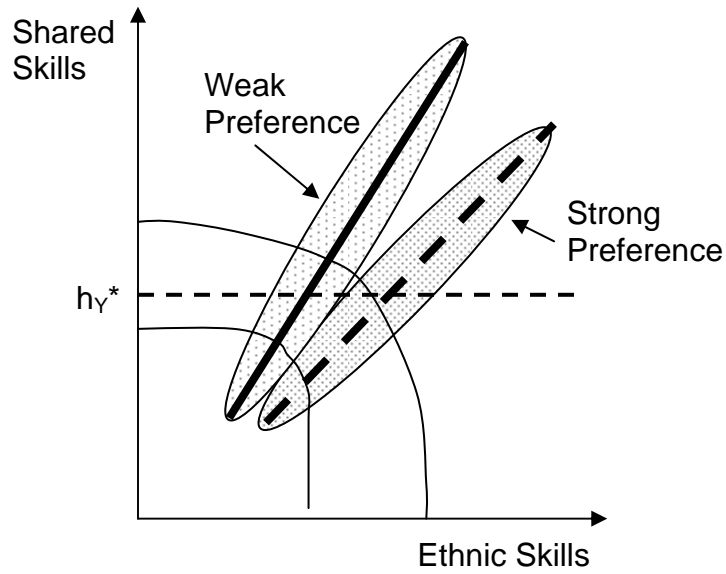Derived Demand for Ethnic Human Capital: $\omega > 0$

Figure 2b
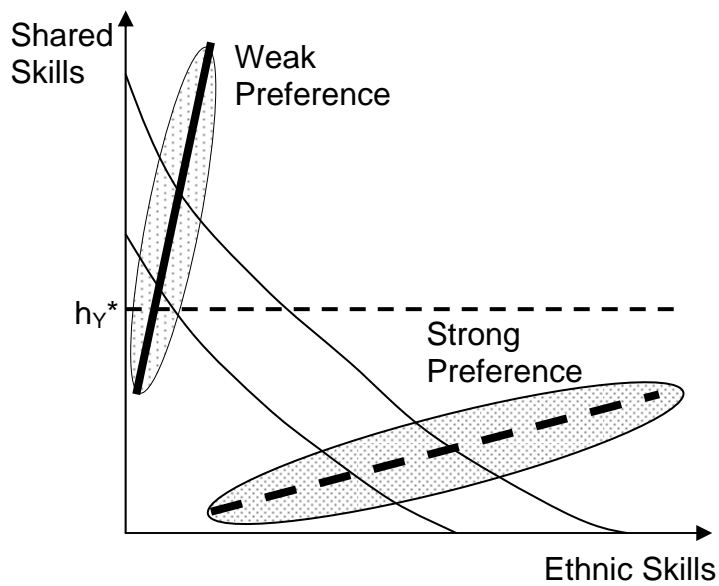Derived Demand for Ethnic Human Capital: $\omega < 0$

Figure 3a
Propensity to Assimilate: $\omega > 0$
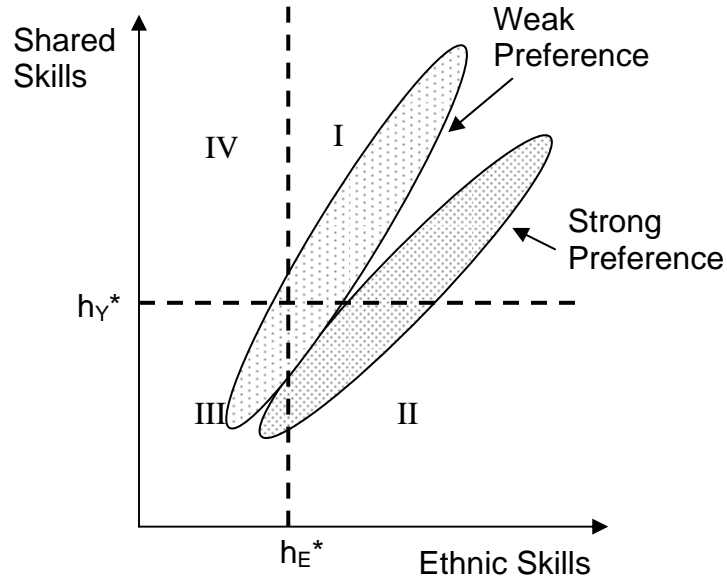

Figure 3b
Propensity to Assimilate: $\omega < 0$
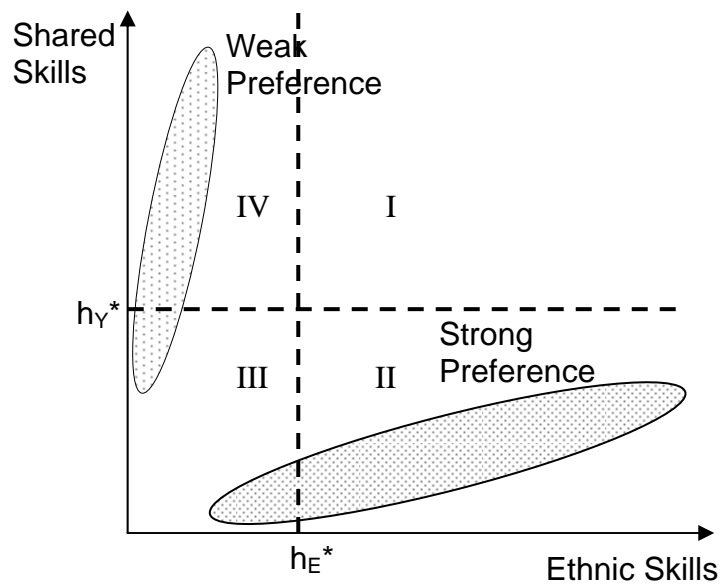
Figure 4a
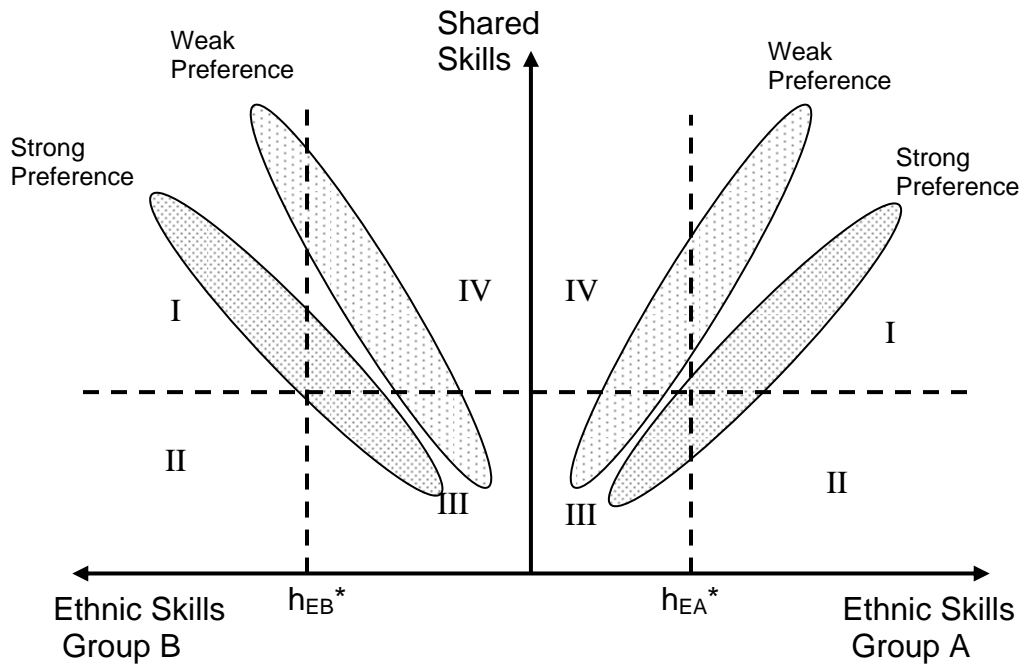## Two Ethnic Groups with Positive Externalities ($\omega > 0$)

Figure 4b
Two Ethnic Groups with Negative Externalities ($\omega < 0$)