Parenting with Style: 
Altruism and Paternalism in Intergenerational Preference Transmission

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Parenting Style in Developmental Psychology

- Three parenting styles (Baumrind 1967):
  - Permissive parenting
  - Authoritative parenting
  - Authoritarian parenting

- Focus on effects of parenting style on children
What We Do

- An economic theory of parenting style
  - Parents have altruistic and paternalistic motives
  - Can affect children through shaping their preferences (persuasion) and through restricting their choices (coercion)
- Equilibrium parenting style depends on economic environment
- Application to patience and occupational choice
- Assess implications for variation in parenting style over time and across countries
Some preference characteristics/non-cognitive skills are key for economic success: Preferences are a form of human capital. Patience and perseverance affect education, labor market and marriage outcomes (Heckman et al. 2006, Segal 2004). Also: female pregnancy, smoking, crime, etc.

Risk tolerance is a key attribute of entrepreneurship (e.g., Beauchamp et al. 2012).

Family environment crucial for preference transmission and non-cognitive skills (Dohmen et al. 2007, Heckman et al. 2006, . . . )
Theoretical Literature

- Models of preference transmission:
  - Imperfect empathy (Bisin and Verdier 2001 and 2005, Hauk and Saez Marti 2002)
  - Beckerian altruism (Becker and Mulligan 1997, Doepke and Zilibotti 2008)

- Optimality of restricting choice:
  - Gul and Pesendorfer (2001)

- Models of parenting strategies:
  - Lizzeri and Siniscalchi (2008)
  - Cosconati (2009)
Traditional Authoritarian Parenting
The Rise of Authoritative and Permissive Parenting

- Education reformers in the nineteenth century
- Maria Montessori (1870-1952):
  - Freedom within limits; guide children to independence.
  - “To give a child liberty is not to abandon him to himself”
- Decline in authoritarian parenting (e.g., use of corporal punishment) over time
- Permissive parenting (“anti-authoritarian”) becomes popular in the 1960s and 1970s
- More intensive parenting (“helicopter parenting”) from the 1970s to the present, but not in all countries
General Model

- Dynastic model: Every person has one child
- People live for two periods: young and old
- Children have different preferences from adults
- Parents paternalistic towards young children
- Parents form child’s preferences
Value function for an old adult:

\[ v^o(a, h, s) = \max_{a', X} \{ U^o(c|a) - e(X, a'|h, s) + \delta w(X, a'|a) \} , \]

subject to \( c = C^o(h, s) \), \( X \in \mathcal{X}(h, s) \), where:

\[ w(X, a'|a) = E_{s'} \left[ (1 - \lambda) \underbrace{U^y(c|a')}_{\text{ALTRUISM}} + \lambda \underbrace{U^o(c|a)}_{\text{PATERNALISM}} + \beta v^o(a', h', s') \right] \]
The value function of a child is given by:

\[ v^y(X, a') = \max_{c,x} \left\{ E_{s'} \left[ U^y(c|a') + \beta v^o(a', h', s') \right] \right\} \]

subject to:

\[ x \in X, \ c = C^y(x, s'), \ \text{and} \ h' = H(x, s'). \]

The child’s decision rule is given by \((c, x|X, a')\)
Natural Inclinations

- There exists an $\bar{a}$ s.t. $\forall \ a \in A$:

  \[
  U^o(c|\bar{a}) \geq U^o(c|a) \\
  U^y(c|\bar{a}) \geq U^y(c|a) \\
  e(X, \bar{a}|h, s) \leq e(X, a'|h, s)
  \]

- $\bar{a}$ is the natural inclination of children
- Focuses attention on molding preferences to affect children’s behavior
Parenting Styles

- A parent is **authoritarian** if she spends effort to restrict the choice of the child (choose small $X$)
- A parent is **authoritative** if she spends effort to mold the preferences of the child ($a' \neq \bar{a}$)
- A parent is **neglecting** if she minimizes parenting effort
- Otherwise, a parent is **permissive** (e.g. expand choice set to include trip to Legoland)
Some General Results

- Fully altruistic parents ($\lambda = 0$) are either permissive or neglecting.
- A parent is authoritarian only if restricting the choice set changes the child’s behavior.
- A parent is authoritative only if molding preferences changes the child’s behavior.
  - Implies that if the child does not have a choice ($X$ is a singleton), parent is not authoritative.
  - Implies that if $U^y (c|a') = U^o (c|a)$, parent is not authoritarian.
Application to Patience, Occupational Choice, and Educational Effort

- Preference parameter is weight attached to young-age consumption, $a \geq 0$

- Adult felicity:

  $$U^o(x, a) = \frac{c^{1-\sigma}}{1-\sigma},$$

  where $0 < \sigma < 1$ (positive utility)

- Children’s felicity:

  $$U^y(x^y, a) = a \frac{(c^y)^{1-\sigma}}{1-\sigma},$$

  where $a \in [0, \bar{a}]$ with $\bar{a} > 1$

- When $a' = 1$, parents and children agree
- When $a' = \bar{a}$, disagreement, but happy children
There are many occupations \( i \in I \)

For a given child, the economic return to an occupation is \( y_L \) or \( y_H > y_L \) with equal probability (talent)

Talent unknown ex ante

Incumbency advantage: The return is higher by a factor of \( \mu > 1 \) if the child adopts the parent’s occupation

In any occupation, child can exert effort \( x \) when young and get return \( Rx \) when old

Consumption profile:

\[
\begin{align*}
    c^y &= y - x, \\
    c^o &= y + Rx.
\end{align*}
\]
Choosing the Child’s Choice Set

- Parent can either force child to stay at home or grant independence.
- Staying at home:
  - Child adopts parent’s occupation with expected return
    \[ \mu \frac{y_L + y_H}{2} \]
  - Parent can control child’s effort \( x \)
- Independence:
  - Child chooses occupation based on talent, resulting in return
    \[ y_H \]
  - Child chooses effort \( x \)
Consider independent child. Should the parent choose $a' = \bar{a}$ (permissive) or $a' < \bar{a}$ (authoritative)?

- Cost of being authoritative is utility loss of the child
- Gain of being authoritative is higher investment $x$ by the child
- More likely to adopt authoritative parenting if $R$ is large
Authoritarian Parenting

- If the child stays at home, parent chooses $x$ directly (authoritarian parenting)
- No benefit from also imposing guilt on child: Set $a' = \bar{a}$
- Authoritarian style attractive if $\mu$ (incumbency premium) is large
- However, loss from imperfect match between child’s talent and occupation
Equilibrium Parenting Style

![Graph showing the equilibrium parenting styles with the x-axis representing μ and the y-axis representing R. The graph illustrates three distinct regions: Authoritative, Authoritarian, and Permissive. The transition between these regions is marked by a sharp change in R at a specific value of μ.](image-url)
History of Parenting in the West

- Until nineteenth century: Authoritarian parenting (e.g., corporal punishment widely recommended)
- Twentieth century until 1970: Increasingly permissive parenting (“anti-authoritarian”)
- Since 1980: Increasingly involved parenting especially in upper middle class (“rug rat race,” “helicopter parenting,” “Tiger Mom”)
History of Parenting in the Model

- Authoritative
- Authoritarian
- Permissive

- 2000s
- 1970s
- 1800s
Recent Trend in Parenting, Canada versus United States (Ramey and Ramey 2010)
Recent Trend in Spanking in United States by Education

![Graphs showing data and polynomial fit for HS or Less, Associates/BA, and Graduate education levels over the years 1970 to 2010. Each graph includes data points and a fitted polynomial line.]
"Intensive" parenting styles (authoritarian and authoritative) are associated with high stakes.

World Value Survey question:
"Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important?"

Examine correlation of answers with inequality.
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<th>2</th>
<th>3</th>
<th>4</th>
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<td>Percent of Variance Explained</td>
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<td>0.26</td>
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<tr>
<td>Correlation with Gini Coefficient</td>
<td>-0.69</td>
<td>-0.07</td>
<td>0.17</td>
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</table>
Inequality and Parenting Values

Hard Work

Independence

Imagination

Principal Component

Gini Coefficient

Hard Work

Independence

Imagination

Principal Component

Gini Coefficient
Summary

- Model of endogenous preference transmission with altruistic and paternalistic motives
- Yields theory of endogenous parenting styles as a function of the economic environment
- Explains broad trends of parenting in the data
Risk Aversion

- Individual endowed with CRRA preference with endogenous risk aversion, \( a \in [\bar{a}, \bar{a}] \)
- Parents chooses the child’s risk aversion
- \( U^Y \) induces less risk aversion than \( U^O \)

\[
U^Y(x, a) = E \left[ \frac{c^{1-\sigma-a} - 1}{1 - \sigma + \psi - a} \right] x
\]

\[
U^O(x, a) = E \left[ \frac{c^{1-\sigma-a} - 1}{1 - \sigma - a} \right] x
\]

- \( \psi > 0 \), so for given \( a \) the young are less risk averse than the old
Juvenile Lotteries

- Young people can choose between a (relatively) safe (S) and a risky (R) action, represented by lotteries:

\[
c(S^y) = \begin{cases} 
  c_{S,L} \text{ prob. } p_L \\
  c_{S,H} \text{ prob. } 1 - p_L \end{cases}
\]

\[
BJR \equiv \begin{cases} 
  c_{R,L} \text{ prob. } p_L \\
  c_{R,H} \text{ prob. } 1 - p_L \end{cases} \text{ prob. } p_R
\]

\[
c(R^y) = \begin{cases} 
  c_{S,L} \text{ prob. } p_L \\
  c_{S,H} \text{ prob. } 1 - p_L \end{cases} \text{ prob. } 1 - p_R
\]

- Assume even the most risk-tolerant parent dislikes juvenile risk.

- When \( p_R = 1 \) the two lotteries are identical. So, \( p_R \) measures the exposure to endogenous juvenile risk.

- The risk \( (c_{S,H} - c_{S,L}) \) is unavoidable, so we label it as exogenous juvenile risk.
Entrepreneurial Lotteries

- Old people choose between being employees and entrepreneurs
- Employees bear less risk than entrepreneurs
In equilibrium, two choices may be optimal

1. set \( a' = 0 \). The child will take the bad juvenile risk, but also the entrepreneurial opportunities

2. set \( a' = a^y \). The child will decline BJR, but (possibly) also entrepreneurial opportunities

The optimal choice of \( a' \) depends on both \( \lambda \) and the parent’s risk aversion (\( a \))
Parent’s Utility and Child’s Risk Aversion

Risk Aversion of Child

Utility of Parent

\[\lambda = 0.4\]

\[a = 1\]
Parent’s Utility and Child’s Risk Aversion

- Utility of Parent
- Risk Aversion of Child

- lambda=0.4
- a=0.8
- a=1
Parent’s Utility and Child’s Risk Aversion

-4.5
-4
-3.5
-3
-2.5
-2
-1.5
0 0.5 1 1.5 2
Risk Aversion of Child

Utility of Parent

lambda=0.4
a=0.6
a=0.8
a=1
There exist two thresholds, \( 0 < \lambda_1 \leq \lambda_2 \leq 1 \) such that

1. all parents with \( \lambda \leq \lambda_1 \) set \( a' = 0 \) (permissive parenting)
2. for \( \lambda \in (\lambda_1, \lambda_2] \), risk-tolerant parents set \( a' = 0 \)  
   (permissive parenting), whereas highly risk-averse parents set \( a' = a^\gamma \) (authoritative parenting);
3. all parents with \( \lambda > \lambda_2 \) set \( a' = a^\gamma \)  
   (authoritative parenting)
Low lambda (all set $a' = 0$)
Intermediate lambda (parenting style depends on $a$)

Risk Aversion of Child
Utility of Parent

$a=a^\gamma$
$a=0$

Risk Aversion of Child

Utility of Parent

lambda=0.6
High lambda (all set $a' = a_y$)
1. An increase in **exogenous risk** \((c_{S,H} - c_{S,L})\) reduces parents’ motives for transmitting high risk aversion (e.g., Israel)

2. An increase in **endogenous juvenile risk** \((p_R)\), increases parents’ motives for transmitting high risk aversion (e.g., gang-infested neighborhood)

3. An increase in the **expected return to entrepreneurship** reduces parents’ motives for transmitting high risk aversion
Choice of Risk Aversion (Safe Suburb)

Utility of Parent

Risk Aversion of Child

lambda=0.4

a=0.65

a=0.8
Choice of Risk Aversion (Safe Suburb vs. Bad Neighborhood)

![Graph showing the choice of risk aversion between safe suburb and bad neighborhood. The graph plots risk aversion of the child on the x-axis and utility of the parent on the y-axis. Two lines are shown, one for lambda=0.4 and another for lambda=0.8. The line for lambda=0.4 is represented by a dashed line, and the line for lambda=0.8 is represented by a solid line. The y-axis values range from -4.5 to -2.5, and the x-axis values range from 0 to 2.]
Suppose parents can restrict the choice of lotteries available to children, in order to prevent juvenile risk taking.

A strict boarding school or a safe suburb where there is no street violence and no supply of illicit drugs.

Alternative interpretation: heavy monitoring (helicopter parent).

These options come with a cost for the child (being annoyed by parents, being disciplined by the school, etc.).

- hence, we assume that this lottery is dominated by the safe choice $S^y$ in the full choice set.
- alternative interpretation: cost borne by parents (school fees or cost of moving into a safe neighborhood).
Parenting Style (Permissive vs. Authoritarian)

- Parents with low $\lambda$ and/or low $a$ tend to choose a permissive parenting style (low risk aversion)
- Parents with high $\lambda$ and/or high $a$ tend to choose an authoritative parenting style (high risk aversion)
- Parents with intermediate $\lambda$ may choose to be authoritarian