

# Comments on Professor Heckman's report

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# Some keywords of Heckman's theory/research

- Importance and long malleability of non-cognitive skills
- Pre-school investment and intervention for developing cognitive skills (dynamic complementarity) Cost-effectiveness decreases geometrically with age.
- Predistribution (rather than redistribution) as a more effective strategy to reduce poverty
- Quality parenting/care to nurture capabilities

# Non-cognitive skills, a new classical theory of human capital?

- 1. What kinds are important?
- socioemotional skills, perseverance, attention, motivation, self-confidence (Heckman, 2008, *Economic Inquiry*)
- “Big five” measures in psychology: openness to experience, conscientiousness, extraversion, agreeableness, emotional stability (Lee and Ohtake, 2014, RIETI-DP)
- 2. Functional dependence of non-cognitive skills? Doesn't the type of productive non-cognitive skills, more than that of cognitive skills, vary with the type of jobs, organizations, and environments? Productive non-cognitive skills may differ between white-collar and blue-collar workers

# Personality and Society

- How are certain productive personalities nurtured in the society? Are they malleable effectively by a social intervention?
- 1. Sociological theories/studies emphasized personalities as functions of job/occupational experiences.
- (1) Modern personalities, such as “openness to experience”, emerge as a result of work experience in modern bureaucratic work settings. (Alex Inkeles, “Making men Modern”, *American Journal of Sociology*, 1969)
- (2) Intellectual flexibility develops for professionals (Kohn and Schooler, *Work and Personality*, 1983)
- 2. Robert Frank’s theory on *Passion within Reason* (1988) emphasizes that certain personalities such as honesty and commitment-orientation emerge because they can be evolutionally rational (beneficial for survival). But socially adaptive personalities are not necessarily economically productive personalities. (See next slide)

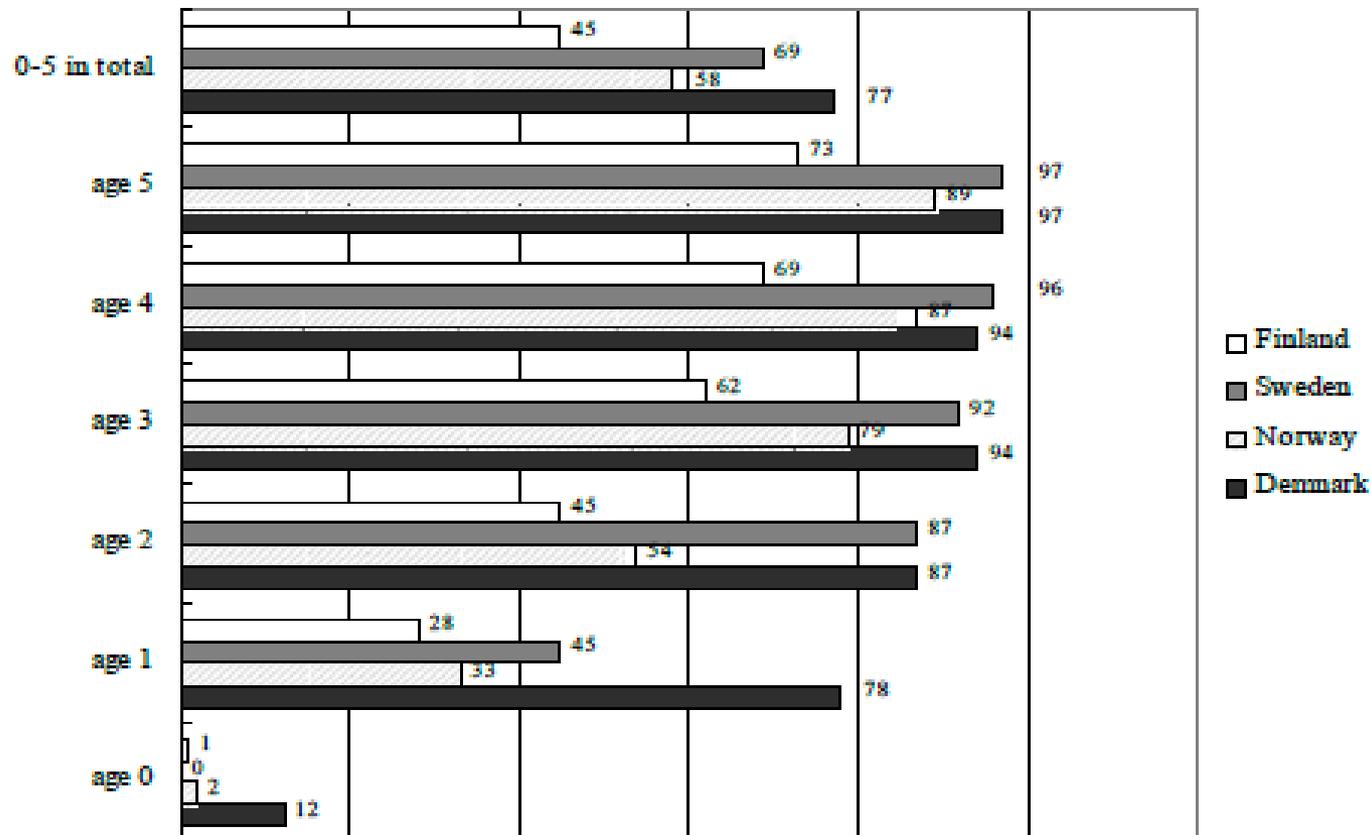
# Personality and Society - continued

- 3. Personality traits that develop may also depend heavily on youth culture.
- (1) Tamotsu Sengoku (千石保, the long-term director of the Institute of Youth Research in Japan) observes in his *Collapse of Conscientiousness* (「まじめ」の崩壊) published in 1991 that values that emphasize “conscientiousness,” “diligence”, and “social success” were gradually lost among the youth during the 1970-90. The most popular personality that emerged was “being humorous and entertaining” . This tendency seems to be true even nowadays.
- (2) Kyoko Nakamura and Yohei Harada (中村恭子と原田曜平) of Hakuodo Research Institute observe in their *Everything for Teenagers* (10代のぜんぶ、2005) that the most disliked youth are those who cannot “read the atmosphere (空気が読めない)”. The blind conformity to the majority’s attitude seems to be highly valued among Japanese youth, but creative innovators are almost always non-conformists.
- The development of youth culture heavily depends on the criteria of popularity among youth. But socially rewarding personalities are not likely to be the same as economically productive personalities, especially in contemporary Japan. So, how can we change them effectively?

# Pre-school Human-capital Investment and Predistribution

- 1. How can the mixture of human-capital investment and care be done effectively by policies for pre-school children?
  - (1) USA: Head Start, Perry preschool, etc. Target: low-income families
  - (2) Finland: ECEC (Early Childhood Education and Care) programs *EduCare* and *neuvola* (child-rearing advice centers)  
Target: all families with children.
  - (3) (For a comparison) . Sweden and Denmark: “Defamiliarization”  
A very high rate of the use of day-care services (next slide). The emphasis is the “socialization” of childrearing. But not much emphasis on education is made as in Finland.
- 2. Problems in Japan: Many families still believe that the best place for childrearing is the private home and the best caretaker is mother. Japanese also tend to consider childrearing as family matters, but the rising evidence of many child abuses (児童虐待) at private homes now calls those traditional attitudes into question. Related discussions next.

**Figure 1 Use of day care services for children below the school-going age in Denmark, Finland, Sweden and Norway (2004, %)**



Source: Nordic Statistical Yearbook (2005)

# Quality parenting to nurture capabilities – Evidence against the myth of rearing the child up to 3 years old by mother (3歳児神話)

1. Wrigley and Dreby's study of infant mortality rate in 1985-2003 in the USA (2005, *American Sociological Review*)

Compared with the death rate at day-care centers

The rate is 16 times as much for those who receive care at private homes.

The rate is 7 times as much for those who receive care by family day-care providers (baby sitters).

Note. There may be selection bias into care under people other than family members.

## Quality parenting to nurture capabilities – Evidence against the myth of rearing the child upto 3 years old by mother -continued

2. Children's vocabulary is proportional to vocabulary spoken to them. (according to Anne Fernald and others).

This is not simply a spurious association due to hereditary inheritance.

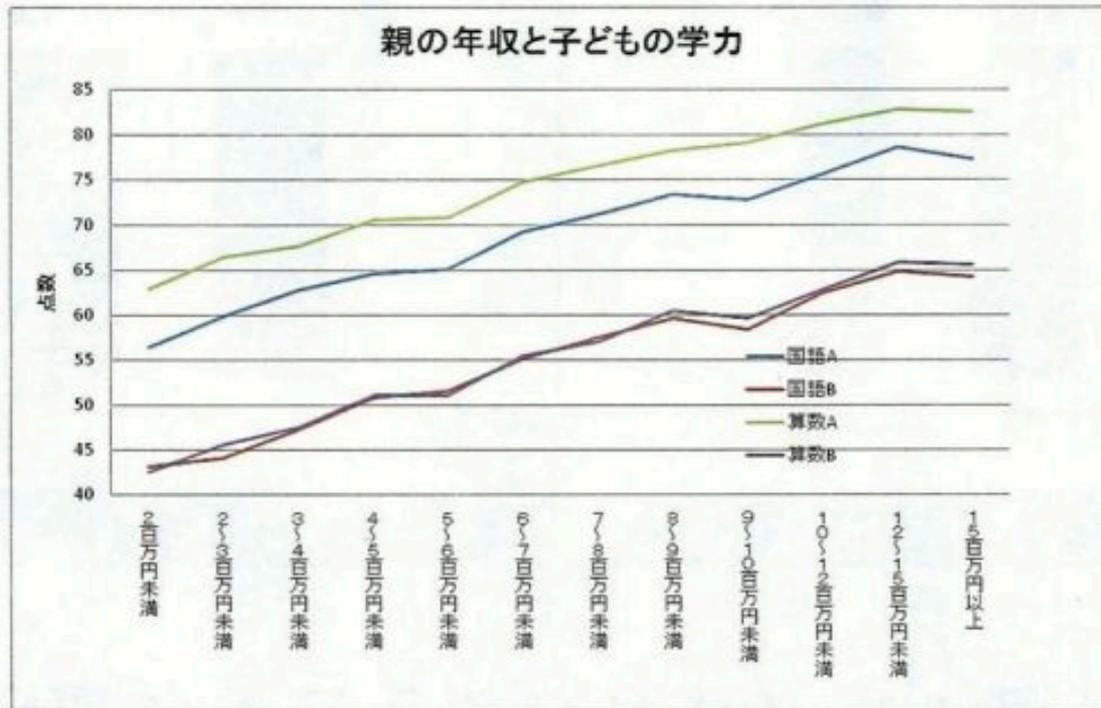
Implication: The working-class children may be better off under quality care at a care center rather than care at their private home. Parents' vocabulary will be smaller in number than that of quality caretakers, especially for children with poorly educated parents and/or parents under poor parenting.

# Children's Educational Achievement and Family Background in Japan

- 12 graders' math and Japanese achievements increase strongly with family income (by Aya Abe (阿部彩)) . See next slide.
- Cultural capital of women (but not men) varies greatly with their education and status in Japan. (by Emi Kataoka (片岡栄美))
- *Yutori Kyoiku* (pressure-free education) policy generated more class inequality in educational achievement because while study hours of middle-class children, including in-school and after-school study hours, were not reduced for them, those of working-class children were significantly reduced under the policy (an issue of “incentive divide by class” by Takehiko Kariya (苅谷剛彦))
- Hence, family backgrounds (family wealth, mother's education and related cultural capital, class-differences in incentive) strongly affect children's social opportunities in Japan.

# Child Poverty and Educational Achievement of the 12<sup>th</sup> graders in Japan (according to Aya Abe (阿部彩))

## 子どもの貧困の影響：



X-axis:  
Household  
Income

Y-axis:  
achievement  
test scores

Legend:  
Japanese A  
Japanese B  
Math A  
Math B

- 保護者の年収と小6の算数・国語テスト点は比例関係

# Social Inequalities and child inequality

- The rate of relative poverty among one-parent households with children is by far the highest (59%) in Japan among the OECD countries (a report by Aya Abe (阿部彩)).
- The majority of one-parent families in Japan are mother-and-child families (母子家庭) that resulted mostly from divorce. Those mothers are mostly irregular workers (非正規雇用者) because regular employment is mostly reserved for those who recently graduated from schools while divorced mothers are mostly labor-market reentrants.
- The combination of large gender wage gap, large inequality in wage between regular workers and irregular workers, and firms' employment practices on regular employment generated this outcome.

# Summary remarks

- 1. Heckman's theory and research results are very important. Policy intervention for family environments that are poor for the development of cognitive skills, or redistribution, gives an important conception for realizing the equality of opportunity.
- 2. However, the problems that hinder effective social interventions are deep-rooted in the society (both for Japan and the USA).
- 3. In any case, evidence-based policies for human development are critically needed in Japan.
- (1) What kinds of non-cognitive skills positively affect task performance (a concern of Heckman and his colleagues).
- (2) How does the formation of productive non-cognitive skills get facilitated or hindered in the society? Can we improve it effectively by policies directly? We may find that a change of the society to be such a one that gives the youth incentives to acquire productive non-cognitive skills is more effective.
- (3) What kinds of pre-school policy interventions for improving the cognitive skills of children are effective?
- Japan is still far behind the USA in evidence-based policy making in this regard.