Intelligence 70 (2018) 36–41

Contents lists available at ScienceDirect

Intelligence

journal homepage: www.elsevier.com/locate/intell

Higher levels of childhood intelligence predict increased support for economic conservatism in adulthood

Gary J. Lewis[a,*], Timothy C. Bates[b]

[a] Department of Psychology, Royal Holloway, University of London, UK
[b] Department of Psychology, University of Edinburgh, UK

ARTICLE INFO

Keywords:
Economic conservatism
Intelligence
Longitudinal
Education
Social class

ABSTRACT

A number of studies have reported that higher intelligence is associated with socially liberal attitudes. Less clear, however, is whether this link extends to economic attitudes, although there are indications that higher intelligence is associated with economically conservative attitudes. Here in two large, longitudinal UK cohorts (each $N > 7100$) we assessed whether childhood intelligence predicted adulthood economic attitudes. In both cohorts we saw that higher levels of childhood (age 10–11) intelligence were related to higher levels of economic conservatism in adulthood (age 30–33). These effects were robust to the inclusion of potential confounders (sex, parental social class, childhood conduct problems). Moreover, this pathway was at least partially mediated by educational attainment and achieved social class/income. These findings confirm the importance of intelligence as an important phenotype for understanding the origins of economic attitudes. Implications for self-interest and rational-interest theories are discussed.

1. Introduction

Intelligence predicts many important life outcomes, including educational attainment (Deary et al., 2005) and physical health (Gottfredson and Deary, 2004). Recent research has extended this footprint and highlighted that socio-political attitudes are also associated with intelligence. Specific associations include positive links to social liberalism (Deary et al., 2008a; Schoon et al., 2010: both using the same cohort data as reported in the current study), and negative links to racial prejudice (Hodson & Busseri, 2012; Onraet et al., 2015), authoritarianism (Choma and Hanoch, 2017; Heaven et al., 2011; Onraet et al., 2015), and social dominance orientation (Choma & Hanoch, 2017; Heaven et al., 2011). Higher levels of intelligence are also associated with being a regular voter and being more politically involved (Deary et al., 2008b). Of note, there have been some indications that both lower and higher levels of intelligence are associated with political liberalism – that is, a U-shaped relationship (Solon, 2014), although subsequent work suggests that such an association is likely only present for a small sub-set of political attitude items (Carl, 2015a). In general, then, these results suggest that higher intelligence leads to a system of attitudes variously described as liberal, enlightened, or left-wing/progressive (Deary et al., 2008a).

Political attitudes, however, are multi-dimensional (Feldman and Johnston, 2014), and the few studies relating intelligence to economic attitudes suggest divergence from a simple identification of cognitive ability with liberal or left-wing values. For instance, using US data from the General Social Survey, Carl (2014) reported that scores on a brief multiple-choice vocabulary test were positively, rather than negatively, associated with economic conservatism. This association was subsequently replicated in data from the American National Election Survey (Carl, 2015b).

Comparable results have been reported outside the USA. In two samples of Swedish males, higher adult general intelligence was associated with increased economic conservatism (Mollerstrom and Seim, 2014; Oskarsson et al., 2015). And research with the two UK datasets used in the current study – the British Cohort Study 1970 and National Child Development Study 1958, respectively – showed that a composite construct aggregating trust in politicians/government (e.g. "Politicians are in politics for their own benefit" (reverse-scored)) and economic conservatism items (e.g. "There is one law for the rich and one for the poor" (reverse-scored)) was positively associated with childhood intelligence. These results, however, need to be interpreted cautiously in light of the reported link between childhood intelligence and higher levels of generalized trust in adulthood in these datasets (Sturgis et al., 2010). As such, it is conceivable that the trust in politicians/government items drive the observed associations.

* Corresponding author at: Department of Psychology, Royal Holloway, University of London, Egham TW20 0EX, UK.
E-mail address: gary.lewis@rhul.ac.uk (G.J. Lewis).

https://doi.org/10.1016/j.intell.2018.07.006
Received 28 February 2018; Received in revised form 4 July 2018; Accepted 27 July 2018

1.1. The current study

Collectively, then, these findings indicate that higher levels of intelligence are predictive of economic conservatism. However, a number of issues remain. Firstly, studies to date have often had to rely on sub-optimal measures of intelligence, such as brief-form vocabulary tests (Carl, 2014; Carl, 2015b). And where intelligence has been measured more appropriately the sample population has been restricted to males (Mollerstrom and Seim, 2014; Oskarsson et al., 2015). Secondly, there is little work addressing possible mechanisms underpinning links between intelligence and economic conservatism. Some work suggests that much of the variance in socio-political attitudes is mediated by self-interest. For instance, Weeden and Kurzban (2014) argue that higher levels of human capital – a blend of cognitive ability and educational attainment – causes individuals to prefer economic policies that limit redistribution of the wealth they have accumulated (or might plausibly expect to accumulate in time). Consistent with this model, Mollerstrom and Seim (2014) reported that the association between intelligence and economic conservatism was at least partly accounted for by personal income. However, their sample was relatively modest in size ($N = 273$) and was restricted to Swedish males.

With the above in mind, we set out to address a number of factors which in turn would provide us with a more powerful test of the hypothesis that cognitive ability is positively associated with economically conservative attitudes, and the pathway(s) through which this link emerges. We used data from two large, longitudinal cohorts from the UK – the British Cohort Study 1970 (BCS1970) and the National Child Development Study 1958 (NCDS1958). These two cohorts provide a well-powered (each $N > 7100$) opportunity to address these issues using reliable and valid instruments, and with intelligence assessed in childhood, prior to the accumulation of educational differences and attitude development (thus reducing the likelihood of reverse causation), and with the opportunity to include potential confounders (i.e. sex, parental social class, childhood conduct problems: Deary et al., 2008a; Lewis, 2018) in the models. In short, we sought to answer the following questions. Firstly, does childhood intelligence predict adult economic conservatism in the UK? Secondly, if present, is this association mediated by educational attainment and achieved social class, as predicted by the self-interest model?

2. Methods

2.1. Participants

The data used in this analysis are drawn from two longitudinal cohort studies in the UK: 1) the British Cohort Study 1970 (BCS1970; Elliott & Shepherd, 2006; https://discover.ukdataservice.ac.uk/series/?sn=200001), and 2) the National Child Development Study 1958 (NCDS1958; Power & Elliott, 2006; https://discover.ukdataservice.ac.uk/series/?sn=2000032).

The BCS1970 is a longitudinal study examining 17,196 people born in England, Scotland, and Wales during one week in 1970. The current study examined data taken from sweeps of participants at age 5 and 10, collected in 1975 and 1980 by the Institute of Child Health at the University of Bristol, and who were also sampled at age 30, collected in 2000 by the National Centre for Social Research, managed by the Centre for Longitudinal Studies. 9773 individuals had complete data for the intelligence at age 10. Of these individuals 7104 provided complete data for the economic conservatism measure and 6736 also had complete data for the covariate measures. The demographics of this sample was: sex - 51% female; ethnicity - 93% reported European (UK or other) ethnicity; the rest of the sample consisted of West-Indian, Indian/Pakistani, “others”, and those who did not state their ethnicity.

The NCDS1958 is a longitudinal study examining 17,500 people born in England, Scotland, and Wales during one week in 1958. This study examined data taken from sweeps of participants at age 7 and 11, collected in 1965 and 1969 by the National Children's Bureau, and participants at age 33, collected in 2000 by the Social Statistics Research Unit at City, University of London. 9869 individuals had complete data for the intelligence at age 11. Of these individuals 8961 provided complete data for the economic conservatism measure and 6456 also had complete data for the covariate measures. The demographics of this sample was: sex - 49% male; ethnicity - 96% reported European (UK or other) ethnicity; the rest of the sample consisted of African, Indian/Pakistani, and “others”.

2.2. Measure

2.2.1. Economic conservatism

Economic conservatism was assessed identically in both the *BCS1970 and NCDS1958*, with six items (e.g. “Government should redistribute income” (reverse-scored); “Ordinary people don't get a fair share of the nation's wealth (reverse-scored)”; “Big business benefits owners at the expense of workers” (reverse-scored); Cronbach's $\alpha = 0.68$ and 0.79 in the two samples respectively (see Cheng et al., 2012). Higher scores reflected higher levels of economic conservatism.

2.2.2. Parental social class

BCS1970: Parental social class was determined from the father's occupation (or mother's occupation if no father was present) using six categories derived from the United Kingdom Registrar General's Classification of Occupations: professional, managerial/technical, skilled non-manual, skilled manual, semi-skilled, or unskilled. Higher scores reflected higher parental social class. The median score was 3.

NCDS1958: Parental social class was determined from the father's occupation (or mother's occupation if no father was present) using five categories derived from the United Kingdom Registrar General's Classification of Occupations: professional, managerial/technical, skilled non-manual or manual, semi-skilled, or unskilled. Higher scores reflected higher parental social class. The median score was 3.

2.2.3. Intelligence

BCS1970: Childhood general intelligence was assessed using a modified version of the British Ability Scales (Elliot, Murray, & Pearson, 1978), adapted to facilitate administration by teachers. Four sub-scales were used assessing verbal ability (word definitions, word similarities) and nonverbal ability (digit recall, matrix reasoning). Higher scores reflected higher levels of intelligence in each of the domains. Word Definitions: the teacher articulated a series of words in turn. The child was asked about the meaning of each word. Word Similarities: the teacher spoke 3 words (e.g. “orange”, “banana”, and “strawberry”). The child was asked to name another word consistent with the theme (e.g. a fruit). Recall of Digits: the teacher read out strings of digits at half-second intervals. The child was asked to repeat them. Matrices: the teacher asked the child to fill in the missing part of a pattern. Children were tested individually in all sub-tests. These four domains were used as indicators of the general intelligence latent factor in subsequent modelling. The first principal component accounted for 57% of the variance across the tests.

NCDS1958: Childhood general intelligence was measured using a general ability test that was group administered at school when the participant was 11 years of age. The test is comprised of 40 verbal and 40 non-verbal items. Higher scores reflected higher levels of intelligence in each of the domains. Children were tested individually by teachers, who recorded the answers for the tests. Verbal items: the children were presented with a set of three words that were linked in some way (e.g. logically, semantically, phonologically) and asked to identify (from a choice of five independent words) the word that best fitted the set. Non-verbal tasks: the same basic protocol was used as with the verbal items; but in this test shapes or symbols were used. As only two indicators of cognitive ability were available in the NCDS1958 an aggregate score was used as a measure of general intelligence in