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Childhood Misbehavior, Toxic Personality and Leadership

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Abstract

Recent studies have found that childhood misbehavior, despite predicting worse schooling outcomes, is associated with higher adult earnings. Using a retrospective measure in a representative Dutch survey panel, I document a new dimension of the misbehavior-career link: people who misbehaved as children are overrepresented in leadership positions and among entrepreneurs. Yet the same people are, as adults, more likely to engage in physical aggression and social transgressions. They also have an aversive personality – markedly more disagreeable, dishonest, narcissistic, manipulative, neurotic, unconscientious, and vindictive – and report lower wellbeing. These patterns persist even among those who reach the top, making them potentially toxic as leaders.

JEL classification

J24, D91, I21, M51

Keywords

childhood misbehavior, externalizing behavior, leadership, antisocial behavior, personality, non-cognitive skills

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1 Introduction

Childhood externalizing behaviors such as aggression towards authority figures and peers are linked to lower educational attainment and strongly discouraged and sanctioned by schools (Campbell, Shaw, and Gilliom, 2000; McLeod and Kaiser, 2004; Duncan and Magnuson, 2011; Malti and Rubin, 2018). Surprisingly, a couple of recent studies have shown that childhood misbehavior is nevertheless positively linked to later-life career outcomes. Papageorge, Ronda, and Zheng (2022) find that childhood externalizing behavior is linked to higher adult earnings across several British and American datasets, despite being universally correlated with worse schooling outcomes. Del Bono, Etheridge, and Garcia (2024) similarly find that aggression and impulsivity in childhood are associated with positive labor market outcomes including higher wages.

The mechanisms and pathways behind this intriguing correlation remain unclear. Possibly, externalizing behavior is a sign of agentic skills that are valuable for leadership and entrepreneurship, and well-meaning policies to curb perceived misbehavior in children could backfire. Alternatively, however, aggressive people may excel at zero-sum status games, managing to elbow their way up corporate hierarchies at the cost of their co-workers, partially succeeding by having lower moral standards (see Monbiot 2024 for a newspaper column that interprets Del Bono, Etheridge, and Garcia's results in such a way).

I explore the link between childhood misbehavior and later-life outcomes in representative Dutch survey data using a retrospective measure of childhood misbehavior. I show that people who misbehaved as children are more likely to work in management or supervisory positions and are more likely to become entrepreneurs. However, these people also engage in more antisocial and transgressive behavior as adults, including physical aggression, social aggression, rule breaking, and drug use. Strikingly, this also applies to people who reached leadership positions. Moreover, these people tend to have an aversive personality – disagreeable, dishonest, narcissistic, manipulative, neurotic, unconscientious, and vindictive. This raises the possibility that their success might create negative externalities for their colleagues and the organizations that hire or promote them. My findings also indicate that there might be a personal cost: people who misbehave as children are less happy, have lower self-esteem, are lonelier, and are less satisfied with their work and social life.

Hundreds of papers across psychology, sociology, and economics document that externalizing behavior — a construct dating back to Achenbach (1978) — is robustly associated with lower test scores, lower grades, and fewer years of schooling (Kessler et al. 1995; Campbell, Shaw, and Gilliom 2000; Eisenberg et al. 2001; McLeod and Kaiser 2004; Duncan and Magnuson 2011). For an overview, see Malti and Rubin 2018. A closely related literature in economics treats early socio-emotional skills, including the absence of disruptive behavior, as predictors of adult earnings and other life outcomes alongside cognitive skills, and as malleable through early-childhood and school-based interventions (Heckman, Stixrud, and Urzua 2006; Borghans et al. 2008; Almlund

et al. 2011; Cunha and Heckman 2008). Influential work motivates large-scale social-emotional learning programs on the grounds that curbing such behavior pays off in higher earnings, lower crime, and better health decades later (Heckman, Pinto, and Savelyev 2013; Kautz et al. 2014; Heckman 2008; Stage and Quiroz 1997; O'Connor and Hayes 2020).

In line with the negative correlation with schooling, some studies have found a significant negative relationship between childhood misbehavior and later-life labor market outcomes. Segal (2013), for example, uses U.S. data from the NLSY79 to show that classroom misbehavior strongly predicts both lower educational attainment and lower earnings. Both Papageorge, Ronda, and Zheng (2022) and Del Bono, Etheridge, and Garcia (2024) show, however, that the correlation between externalizing behaviors in childhood and earnings becomes positive once internalizing issues such as depression or anxiety – which are correlated with externalizing behaviors to some extent – are controlled for.

The results of Papageorge, Ronda, and Zheng (2022) and Del Bono, Etheridge, and Garcia (2024) may call into question the wisdom of discouraging or sanctioning externalizing behavior. Potentially, aggressive and disruptive behavior is (sometimes) a sign of valuable agentic skills and schools should focus on channeling it in productive ways. Following this interpretation, both Papageorge, Ronda, and Zheng (2022) and Del Bono, Etheridge, and Garcia (2024) call for a re-examination of school policies that combat aggressive and hyperactive behavior. Further evidence that supports this view comes from Levine and Rubinstein (2017) who find that teenage illicit behavior such as drug use and petty crime predicts incorporated entrepreneurship later in life. They speculate that this may be due to increased creative thinking. All of these studies explicitly acknowledge that there might be downsides to aggressive behavior, either for colleagues or the individuals themselves. Del Bono, Etheridge, and Garcia (2024), in supplementary analyses, show empirical evidence that childhood misbehavior is associated with negative later-life outcomes, including a higher prevalence of problematic drinking, smoking, and criminal behavior.

I use exceptionally rich survey data to make two main contributions to this fledgling literature. First, I establish a strong link between childhood misbehavior and later-life leadership and entrepreneurship. Second, I paint a detailed picture of the link between childhood behavior and people's psychological and social lives in adulthood. While I replicate the positive link between childhood misbehavior and professional success, my results indicate that one should be cautious when positively reevaluating childhood misbehavior based on its positive link with labor market outcomes. Adults who misbehaved as children are more likely to engage in antisocial behavior as adults, including physical and social aggression, and are less satisfied with their lives. Strikingly, this is true also for people in leadership positions. People who misbehaved as children also tend to have an aversive personality – disagreeable, dishonest, narcissistic, manipulative, neurotic, unconscientious, and vindictive – calling into question the wisdom of promoting them to leadership positions. While I do not have direct measures of work-place behavior, these results bolster the

interpretation that the increased professional success of people who misbehaved as children might be due to unproductive aggressive behavior (such as bullying and cheating) that creates negative externalities, rather than to leadership skills or creative thinking.

2 Data

I use data from the Dutch LISS (Longitudinal Internet Studies for the Social sciences) panel. This is an ongoing online survey panel that has been operating since late 2007. It is based on a true probability sample of households drawn from the population register by Statistics Netherlands (www.lissdata.nl). Approximately 7,500 panel members answer yearly "core" questionnaires which cover topics including work, education, wealth, family, and personality. On top of this, researchers can pay to run questionnaires on the panel, which can then be linked to all other data that is available on the respondents. All LISS data, including researcher-run questionnaires, is publicly available to all researchers.

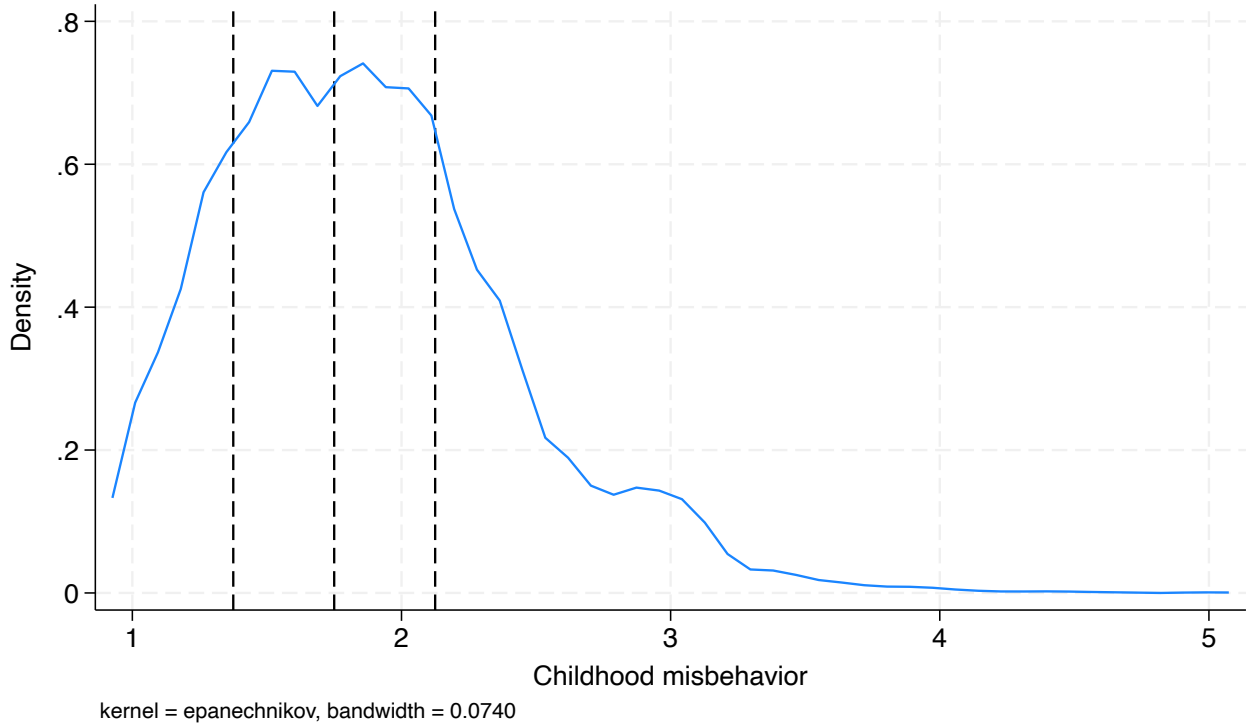
The childhood misbehavior questionnaire is retrospective and was collected in April 2024. Panel respondents were asked: "Think back to when you were a child, how often..."

- ... were you not able to sit still in class?
- ... did you talk back to adults?
- ... were you disrespectful to adults?
- ... did you get into arguments with other children?
- ... did you get into physical fights with other children?
- ... did you get in trouble with teachers?
- ... did you get in trouble with the police?
- ... did you get into arguments with your parents?

Each of these eight items was answered on a scale from 1 (never) to 5 (very often). The main measure of childhood misbehavior used in this study is the average of the answers to the eight items. Figure 1 shows a kernel density graph of the distribution. The vertical lines indicate the boundaries of the quartiles of the distribution. Most of the observations are concentrated between 1 and 2, meaning that most people answer "never" or "rarely" for most behaviors. There is also a long tail of people who misbehaved frequently.

Contrary to most studies on childhood externalizing behavior, which typically use teacher or parent reports of child behavior, the childhood misbehavior measure I use is a retrospective self-report of respondents' own past behavior. The literature speaking directly to the accuracy of such measures is small. Henry et al. (1994), using the Dunedin birth cohort, compare adolescents' contemporaneous reports of their own behavior at ages 13--15 with the same individuals' retrospective recollections of that period as adults. While they find poor agreement for items capturing internal states, they find better agreement for behaviorally specific and salient items such as misbehavior

Figure 1: Distribution of childhood misbehavior



Note: the graph shows a kernel density plot of the childhood misbehavior measure. The measure consists of the average answer across the eight behaviors whereby 1 means "never" and 5 means "very often". The vertical dashed lines indicate the boundaries of the quartiles of the distribution.

(e.g. being suspended from school). They conclude that retrospective elicitation is a valid strategy in particular when the relative standing of individuals in a distribution is more important than exact frequency, which is the case for my analyses. They also find a general tendency for retrospective recall to under-report earlier negative behavior (see also Jolliffe et al. (2003)), which should attenuate correlations and bias against finding significant relationships.[1]

Another potential issue springs from the skewed nature of the answer distribution. If some respondents do not pay attention and either consistently pick the midpoint of the answer scale or just choose randomly, they will end up not in the middle of the distribution (as would be the case if answers were normally distributed) but as high-scoring outliers. This tendency could be spuriously correlated with the outcomes I consider for different reasons. The tendency to not pay attention could be genuinely correlated with (worse) labor market outcomes or just with a tendency to pick random answers elsewhere, which would falsely increase the likelihood of relatively rare outcomes such as entrepreneurship or management positions. Huang et al. (2012) recommend several remedies for this potential problem, some of which I can implement in the LISS survey data. First, they recommend dropping individuals who raced through the questions and are therefore very unlikely to have actually thought about any of them. I implement their recommendation of only keeping respondents who spent more than two seconds per question on average. This means dropping 97 observations. Second, I eliminate respondents who "straightline" their answers by always picking the middle option of the answer scale (which, due to the skewed nature of the distribution, places them in the upper percentiles of misbehavior). This applied to 65 observations. There is some overlap and implementing both sample restrictions simultaneously leads to dropping 132 observations. In the appendix, I show results when these individuals are included in the sample.

I use the LISS core data to construct three main indicators of leadership: ever having held any supervisory position, ever having held a management position, and ever having been an entrepreneur. The Work and Schooling core module asks respondents to classify their profession.[2] "Manager" means that a respondent indicated that they hold a "higher supervisory profession" at

[1]Using data from the Survey of Health, Aging and Retirement in Europe, Havari and Mazzonna (2015) find that people's self-reports of their childhood health and socio-economic status (living conditions) between age 0–15 are generally accurate. Similarly, Smith (2009) finds that even older adults can remember salient childhood events about themselves, such as illnesses, fairly accurately. A much larger psychology literature on retrospective recall is overwhelmingly concerned with adverse events *experienced by* the child – abuse, neglect, family adversity – rather than own behavior (Brewin, Andrews, and Gotlib, 1993; Hardt and Rutter, 2004). Findings from this literature do not necessarily translate directly to self-reports of one's own behavior, but they are generally consistent: negative experiences are sometimes underreported but retrospective measures capture real signal.

[2]LISS gives respondents the following answer options: Higher academic or independent profession (e.g. architect, physician, scholar, academic instructor, engineer). Higher supervisory profession (e.g. manager, director, owner of large company, supervisory civil servant). Intermediate academic or independent profession (e.g. teacher, artist, nurse, social worker, policy assistant). Intermediate supervisory or commercial profession (e.g. head representative, department manager, shopkeeper). Other mental work (e.g. administrative assistant, accountant, sales assistant, family carer). Skilled and supervisory manual work (e.g. car mechanic, foreman, electrician). Semi-skilled manual work (e.g. driver, factory worker). Unskilled and trained manual work (e.g. cleaner, packer). Agrarian profession (e.g. farm worker, independent agriculturalist).

least once over the years they participated in the panel. "Supervisor" means that a respondent indicated that they hold a "higher supervisory profession" or an "intermediate supervisory or commercial profession"). Managers are therefore a subset of supervisors. I use a different yearly question to identify entrepreneurs. I designate as entrepreneurs all respondents who indicated that they are a "director of a limited liability or private limited company" or a "majority shareholder director" at least once (note that this excludes people who designate themselves as "self-employed/freelancer" or "independent professional"). True entrepreneurship is a relatively rare outcome and I therefore also use a continuous measure of future intention to become an entrepreneur. This measure was collected for working-age respondents in November 2023 and is the average of six items.[3] The LISS background data contain each respondent's monthly gross income and level of education. Respondents are asked to update this information every time they answer a survey and I use the observation that was collected at the same time as the childhood misbehavior scale.

I use the Subtypes of Antisocial Behavior Questionnaire (Burt and Donnellan, 2009) that was collected in October/November 2023 to construct three summary measures of antisocial behavior: physical aggression, social aggression, and rule breaking. Each of the types of antisocial behavior is elicited through 10 or 11 behaviors for which the respondents states a frequency with which they engaged in it over the past 12 months (from "never" to "very often"). Example items include "Swore or yelled at others" and "Hit others when provoked" for physical aggression, "Made fun of someone behind their back" and "Intentionally damaged someone's reputation" for social aggression, and "Stole property from school or work" and "Was suspended, expelled, or fired from school or work" for rule breaking. The three antisocial behavior measures have skewed distributions. To make the results more easily interpretable, I use count versions of the three antisocial behavior scales in the main analyses. These are equal to the number of times the respondent answered something else than "never" to an item in the scale.

The distribution of the three resulting indices of antisocial behavior are strongly skewed. Many people answer "never" for all or most elicited behaviors: for physical aggression, around 38 percent of people answer "never" for all behaviors, and for social aggression around 45 percent. For rule-breaking, which elicits mostly illegal behaviors such as stealing from work or selling drugs, 90 percent of respondents answer "never" throughout. When correlated with the equally skewed misbehavior index, this exacerbates the above-mentioned issue of spurious correlation due to inattentive respondents choosing random or arbitrary answers that place them at the top of the distribution. For the analyses using the antisocial behavior indices, I therefore drop respondents who spent two seconds or less per answer or who chose the middle answer option throughout. This means dropping 100 additional observations above the sample restrictions described above. In the appendix,

[3] I am ready to do anything to be an entrepreneur. My professional goal is to become an entrepreneur. I will make every effort to start and run my own firm. I am determined to create a firm in the future. I have very seriously thought of starting a firm. I have the firm intention to start a firm someday. Agreement was measured on a 7-point scale.

I show results when these individuals are included in the sample.

I also use the core LISS data to construct several indicators of general wellbeing and health. The Personality module asks respondents how satisfied they are with the life they lead on a scale from 0 to 10. The same module elicits the Rosenberg (2015) self-esteem scale. The Work and Schooling core module asks respondents how satisfied they are with several aspects of their current employment.[4] I use the mean of the answers as an indicator of how happy respondents are with their career. The Social Integration and Leisure module elicits a 6-item loneliness scale, which I use as an indicator of the quality of people's social lives. Additionally, I use a binary indicator for having a partner (from the background data) and the number of children (from the Family and Household module) as descriptors of people's family life. I construct a health index based on two sets of variables from the LISS Health core module: first, respondents rate the difficulty they experience in performing a list of activities on a four-point scale[5], and second, they are asked whether they suffer from any of a list of health conditions[6]. I use the first principal component of these variables as an objective measure of people's health. Additionally, respondents rate their own health on a scale from 0 to 10. Finally, I use data from the Health module to construct indicators for being a smoker, the frequency of alcohol intake and the number of legal (marijuana, sedatives, and laughing gas) and illegal drugs (XTC, hallucinogens, and hard drugs such as stimulants, cocaine, or heroin) the respondent has consumed over the past month. All core LISS data is elicited yearly, making it possible to replace missing values with those from subsequent or previous years.

I also connect childhood misbehavior to an extensive range of personality traits and economic preferences. The core Personality module elicits the Big Five traits (Goldberg et al., 2006). These are complemented by preference and trait measures that were elicited through different one-off questionnaires. Indicators of competitiveness and social preferences were elicited in July 2021. Competitiveness is measured through the detailed questionnaire of Buser and Oosterbeek (2023) which is mostly based on the questionnaire of Urbig et al. (2021)[7] and the single general question validated by Buser, Niederle, and Oosterbeek (2024). Social preferences are measured through items taken from the preference survey module of Falk et al. (2023). The six items measure negative reciprocity, positive reciprocity, trust, altruism, and willingness to punish someone who

[4]Respondents rate their satisfaction with their earnings, working hours, type of work, colleagues, and their current work in general on a scale from 0 to 10.

[5]Walking 100 meters, sitting for around two hours, getting up from a chair in which you sat for some time, walking several stairs without resting in between, walking up a staircase without resting, crouching, kneeling, crawling on all fours, reaching above shoulder height or stretching your arms above shoulder height, moving large objects such as a dining room chair, lifting or carrying a weight of 5 kilos, such as a heavy bag of groceries, picking up a small coin lying on the table.

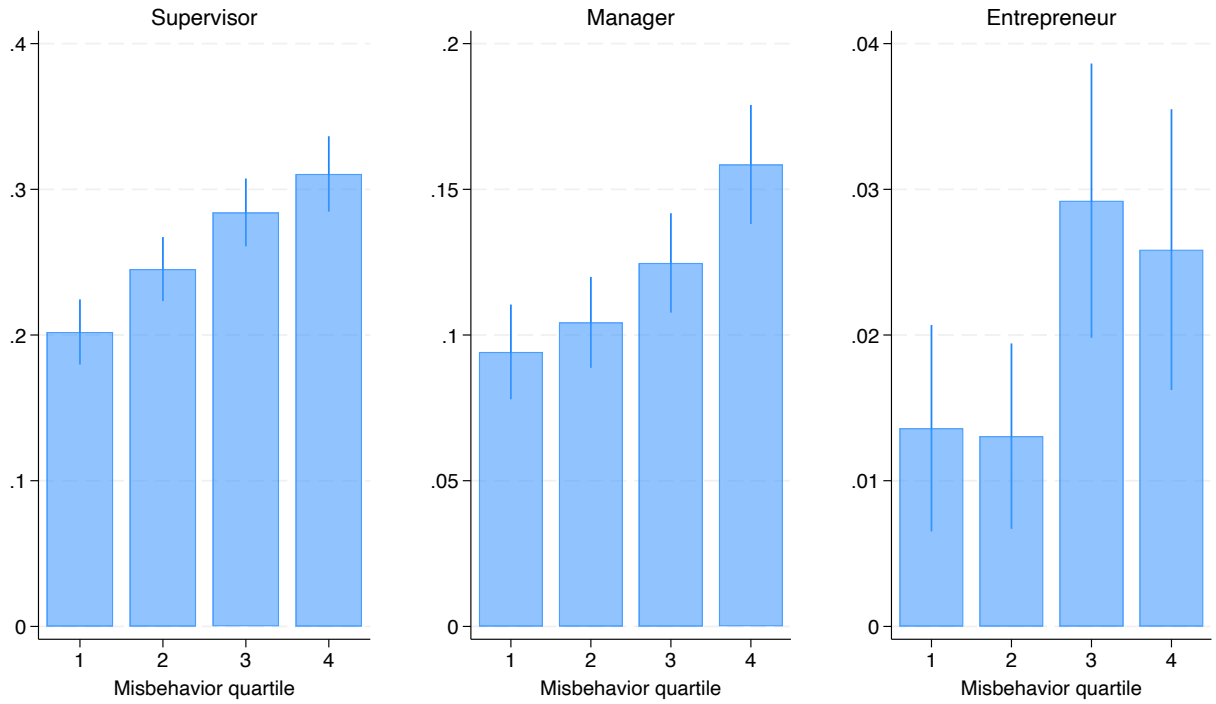
[6]Back-, knee-, hip-pain or pain in any other joint, heart complaints or angina, pain in the chest due to exertion, short of breath, problems with breathing, coughing, a stuffy nose and/or flu-related complaints, stomach or intestinal problems, headache, fatigue, sleeping problems, other recurrent complaints.

[7]The Urbig et al. (2021) questionnaire items are in turn taken from Spence and Helmreich (1983); Smither and Houston (1992); Newby and Klein (2014); Bönte, Lombardo, and Urbig (2017).

treats others unfairly (third-party punishment).[8] The same questionnaire also elicited general challenge seeking through two items[9], general willingness to take risk through the single-item measure of Dohmen et al. (2011), grit through the questionnaire of Duckworth and Quinn (2009), and self-efficacy through the questionnaire of Chen, Gully, and Eden (2001). I also use data from a questionnaire collected in 2023 that elicits the so-called dark triad traits – machiavellianism (a tendency to manipulate and exploit others), psychopathy (lack of empathy and remorse), and narcissism (excessive self-love and entitlement) – through the short scale of Jonason and Webster (2010). The same questionnaire also contains two measures of cognitive skills: a short version of the need for cognition scale (Lins de Holanda Coelho, Hanel, and Wolf, 2020)[10] and the three-item cognitive reflection test (Frederick, 2005)[11]. Finally, the same questionnaire collected in April 2024 which elicited the childhood misbehavior scale also collected a measure of honesty-humility (Lee and Ashton, 2004). This is part of the HEXACO personality inventory that augments the Big Five classification with a sixth trait called honesty-humility that captures sincerity, fairness, greed avoidance and modesty. This trait is strongly correlated with the dark triad traits which are not well-captured by the Big Five traits.[12] This questionnaire also elicits survey items that were experimentally validated by Buser and Sangi (2025) as part of a project that investigates willingness to engage in dirty competition. This comprises two measures: willingness to play dirty (elicited by items such as "In competition, almost anything is justified to win") and aversion to rule breaking (elicited by items such as "I cannot stand it if others don't play by the rules").

Table A1 in the online appendix shows descriptive statistics for all variables used in the study.

Figure 2: Childhood misbehavior and leadership positions



Note: means and confidence intervals are from OLS regressions of binary indicators of ever having indicated to hold any supervisory position, ever having indicated to hold a management position, and ever having indicated to be an entrepreneur on dummies for the quartiles of the childhood misbehavior index. The sample excludes respondents flagged as inattentive (see Section 2 for details). Standard errors are robust.

3 Results

I will start by analyzing the relationship between childhood misbehavior and the likelihood of holding a leadership position. Figure 2 shows the likelihood of holding a leadership position by quartile of childhood misbehavior. I consider three main indicators of leadership: ever having held any supervisory position, ever having held a management position, and ever having been an entrepreneur. For each of these indicators, the likelihood increases strongly with misbehavior. The magnitudes are striking. 31 percent of people in the top misbehavior quartile versus 20 percent in the bottom quartile have ever held a supervisory position. For management, this is 16 vs 9 percent and for entrepreneurship it is 2.6 versus 1.4 percent. That is, people who misbehaved a lot as children are nearly twice as likely to become managers or entrepreneurs than people who hardly ever misbehaved.

In Table 1, I use OLS regressions to analyze the correlation between childhood misbehavior and later-life career outcomes in more detail. For each outcome, the table shows results without and with flexible controls for level of education. All regressions control for gender, immigration background, and age-in-years dummies.

The regressions in Panel 1 show that childhood misbehavior is strongly and significantly associated with lower educational attainment. An increase of one on the misbehavior scale (e.g. answering "rarely" rather than "never" or "sometimes" rather than "rarely" across the different behaviors) is associated with 0.28 fewer years of education and a 4.7 percentage points decrease in the likelihood of having attended college. Papageorge, Ronda, and Zheng (2022) and Del Bono, Etheridge, and Garcia (2024) both show that the negative correlation between misbehavior and schooling outcomes is weaker when controlling for internalizing behavior (which is negatively associated with schooling and positively associated with misbehavior) and that the negative association between misbehavior and earnings flips to positive. I do not have a measure of internalizing be-

[8]Negative reciprocity is the mean of the following two questions: "How willing are you to punish someone who treats you unfairly, even if there may be costs for you?" and "If I am treated very unjustly, I will take revenge at the first occasion, even if there is a cost to do so." The other social preferences are measured by a single question. The LISS personality module also elicits trust through a question taken from the European Social Survey (ESS): "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?". I use the mean of this question and the Falk et al. (2023) item ("I assume that people have only the best intentions") in my analysis.

[9]"I always look for new challenges" and "I enjoy working on challenging tasks".

[10]Need for cognition measures "the tendency for an individual to engage in and enjoy thinking" (Cacioppo and Petty, 1982) and has been shown to predict fluid intelligence (Fleischhauer et al., 2010; Hill et al., 2013).

[11]The cognitive reflection test consists of three quantitative questions where the most intuitive answer is wrong, and therefore measures a person's "ability or disposition to reflect on a question and resist reporting the first response that comes to mind" (Frederick, 2005).

[12]The questionnaire also elicits a measure of moral universalism (Enke, Rodriguez-Padilla, and Zimmermann, 2022) that I use as an outcome variable in supplementary analyses. The measure consists of the average of two hypothetical monetary allocation decisions. The first asks respondents to divide 100 Euros between a person from the same neighborhood and a random Dutch person. The second asks respondents to divide 100 Euros between a random Dutch person and a random person from the rest of the world. These questions are variations of the questions that were experimentally validated by Enke, Rodriguez-Padilla, and Zimmermann (2022).

havior in childhood but, to the extent that adult emotional stability is correlated with childhood emotional stability, I can use a contemporary measure as a proxy. In columns 2 and 4, I control for the Big 5 emotional stability scale which picks up internalizing behaviors such as depression and anxiety. The correlations become slightly weaker but remain significantly negative.

Panel 2 shows results for labor market outcomes. Columns 1 to 3 show the correlation of childhood misbehavior with monthly income for working-age respondents. Without controls for level of education (column 1), the coefficient is negative and statistically insignificant. The coefficient turns positive (but still statistically insignificant) when controlling for level of education (column 2). When additionally controlling for emotional stability (column 3), the positive correlation becomes stronger and significant at the 1 percent level. This pattern mirrors the results of Papageorge, Ronda, and Zheng (2022) and Del Bono, Etheridge, and Garcia (2024).[13] Independent of included controls, people who misbehaved as children are significantly less likely to have worked in the public sector in their most recent job (columns 4 to 6), indicating that childhood misbehavior is associated with occupational sorting.

In Panel 3, the outcome variables are the binary leadership indicators: whether people ever held any supervisory position and whether people ever held a management position. The regression results confirm that the relationship between childhood misbehavior and later-life leadership is robust to controlling for gender, migration background, and age. People who misbehave as children are significantly more likely to advance to supervisory or management positions later in life, even when not correcting for their lower educational attainment (columns 1 and 4). Controlling for level of education (columns 2 and 5) and emotional stability (columns 3 and 6) further strengthens the coefficients. The correlations are also economically significant. Conditional on level of education and emotional stability, a one-point increase in childhood misbehavior is associated with a 6 percentage point increase in the likelihood of reaching a supervisory position and a 4 percentage point increase in the likelihood of reaching a management position.

Panel 4 concentrates on entrepreneurship. People who misbehaved more as children are more likely to become entrepreneurs later in life: conditional on level of education and emotional stability, a one-point increase in childhood misbehavior is associated with a 1 percentage point increase in the likelihood of becoming an entrepreneur (relative to a sample mean of 2 percent). Because entrepreneurship is rare – I only consider people who are a "majority shareholder director" or a "director of limited liability company", and not people who are merely self-employed or independent professionals – effects are necessarily noisy. In columns 4 to 6, I therefore consider a supplementary indicator of entrepreneurship, "entrepreneurial intention", which is available for the subset of working-age respondents. People who misbehaved as children are significantly more likely to

[13] I recover this positive association only conditional on education: controlling for emotional stability but not for level of education, the correlation between childhood misbehavior and income is close to zero. Papageorge, Ronda, and Zheng (2022) and Del Bono, Etheridge, and Garcia (2024) find the positive earnings association more directly, but they control for cognitive ability (verbal, reading, and math scores) and attention problems respectively in all regressions, and these controls at least partially capture the educational-attainment channel.

Table 1: Childhood misbehavior and labor market outcomes

Panel 1: Education

	(1) Years of education	(2) Years of education	(3) College	(4) College
Misbehavior	-0.276***	-0.229***	-0.047***	-0.039***
	(0.070)	(0.072)	(0.013)	(0.013)
Mental stability	No	Yes	No	Yes
Observations	5509	5356	5509	5356
Adjusted R^2	0.189	0.194	0.090	0.094

Panel 2: Labor market outcomes

	(1) Income	(2) Income	(3) Income	(4) Public sector	(5) Public sector	(6) Public sector
Misbehavior	-67.813	108.609	186.623***	-0.050***	-0.040***	-0.041***
	(72.051)	(67.615)	(69.549)	(0.014)	(0.013)	(0.014)
Education level	No	Yes	Yes	No	Yes	Yes
Mental stability	No	No	Yes	No	No	Yes
Observations	3008	3008	2892	4509	4509	4398
Adjusted R^2	0.093	0.222	0.242	0.041	0.072	0.072

Panel 3: Leadership

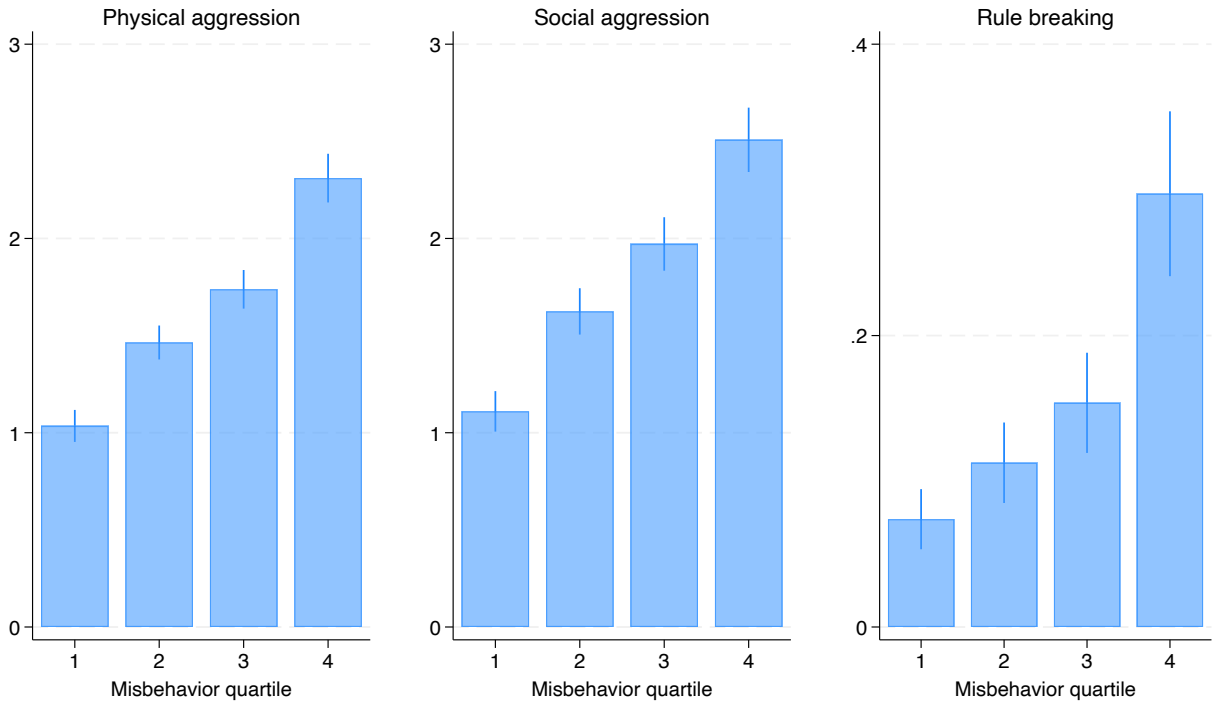
	(1) Supervisor	(2) Supervisor	(3) Supervisor	(4) Manager	(5) Manager	(6) Manager
Misbehavior	0.039***	0.045***	0.059***	0.021**	0.032***	0.040***
	(0.012)	(0.012)	(0.012)	(0.009)	(0.009)	(0.009)
Education	No	Yes	Yes	No	Yes	Yes
Stability	No	No	Yes	No	No	Yes
Observations	5367	5367	5256	5367	5367	5256
Adjusted R^2	0.036	0.049	0.057	0.032	0.101	0.110

Panel 4: Entrepreneurship

	(1) Entrepreneur	(2) Entrepreneur	(3) Entrepreneur	(4) Intention	(5) Intention	(6) Intention
Misbehavior	0.007	0.009**	0.011**	0.228***	0.235***	0.249***
	(0.004)	(0.004)	(0.004)	(0.061)	(0.062)	(0.063)
Education	No	Yes	Yes	No	Yes	Yes
Stability	No	No	Yes	No	No	Yes
Observations	4509	4509	4398	2118	2118	2114
Adjusted R^2	0.009	0.019	0.020	0.128	0.131	0.133

Note: The table shows coefficients from OLS regressions of adult outcomes on the retrospective childhood misbehavior index. All regressions control for gender, immigration background, and age-in-years dummies. Years of education is imputed from the CBS (Statistics Netherlands) education level classification. College means a degree from a university or university of applied sciences. Income is monthly gross income in Euros. Public sector means the most recent job was in the public sector. Supervisor means ever having stated to work in a supervisor or management position. Manager means ever having stated to work in a management position. Entrepreneur means ever having stated being a "majority shareholder director" or a "director of limited liability company". Intention is the 6-item entrepreneurship intention index. The sample excludes respondents flagged as inattentive (see Section 2 for details). Robust standard errors in parentheses, *p<0.10; **p<0.05;***p<0.01.

Figure 3: Childhood misbehavior and antisocial behavior in adulthood



Note: means and confidence intervals are from OLS regressions of the three antisocial behavior indices on dummies for the quartiles of the childhood misbehavior index. The three indices count the number of behaviors in each category a respondent engages in at least sometimes. The sample excludes respondents flagged as inattentive (see Section 2 for details). Standard errors are robust.

express an interest in future entrepreneurship.

The appendix presents two robustness checks. Table A2 shows the analyses in Table 1 without dropping inattentive respondents. The results are qualitatively the same but most coefficients are somewhat larger in magnitude, indicating that the problem flagged in Section 2 – inflated estimates due to inattentive respondents picking rare outcomes more often – is real. My measure of childhood misbehavior is very similar in content to the one used by Del Bono, Etheridge, and Garcia (2024), with the exception of the questionnaire item eliciting getting in trouble with the police. Illegal behavior could be uniquely negatively correlated with labor market success. Table A3 therefore shows the analyses in Table 1 using a misbehavior index that excludes getting in trouble with the police. The positive correlations with leadership and entrepreneurship are indeed slightly strengthened and the negative correlations with educational attainment sightly weakened when using this alternative measure.

One possible causal mechanism behind these strong correlations is that childhood misbehavior is a proxy for valuable agentic skills that make people better leaders; or even for a tendency to be a creative free thinker who is willing to go against the grain. An alternative, less sanguine, explanation is that people who misbehave as children turn into ruthless bullies who elbow their

way into leadership positions, possibly to the detriment of their colleagues and employers. The LISS data does not contain direct measures of workplace behavior, but I can connect childhood misbehavior to a detailed questionnaire on antisocial behavior that covers many behaviors that would typically be seen as highly toxic in leaders.

Figure 3 shows the tendency to engage in three types of antisocial behavior by misbehavior quartile: physical aggression, social aggression, and rule breaking. The left-most graph of Figure 3 shows the number of physical aggression behaviors (out of 10) the average respondent engages in by quartile of the childhood misbehavior scale. The gradient is steep: whereas individuals in the lowest quartile engage in 1.0 behaviors on average, this is 2.3 for the fourth quartile. The picture is similar for socially aggressive behavior (center graph): 1.1 in the lowest quartile versus 2.5 in the fourth quartile. Numbers are much lower for the mostly illegal behaviors captured by the rule breaking index, but still steeply increasing in childhood misbehavior: people in the bottom quartile engage in a mere 0.07 of these behaviors on average, but this is 0.30 for those in the top quartile.

The regression results in Table 2 show that the relationship between childhood misbehavior and adult antisocial behavior also holds when controlling for gender, migration background, age, and level of education (columns 1 and 2). Columns 3 and 4 show that the relationship also holds for individuals in supervisory and management positions (with the exception of rule breaking for people who ever held a management position).[14]

The LISS data contain a thorough range of personality measures. Figure 4 shows how childhood misbehavior correlates with each trait conditional on gender, age and migration background. Each cell shows a regression coefficient conditional on these controls. In the second column, I additionally control for level of education. In the third and fourth columns, I limit the sample to supervisors and managers. All trait measures are standardized to ensure comparability. The heat maps report many correlations without correcting for multiple testing. The results should therefore be treated as descriptive and exploratory. However, it is worth pointing out that many of the correlations are statistically significant at much stricter thresholds than 1%.

Childhood misbehavior is strongly correlated with many personality traits. Starting with classic taxonomies, childhood misbehavior is negatively correlated with agreeableness, conscientiousness, stability, and grit. Looking at social preferences, childhood misbehavior strongly predicts negative reciprocity and is weakly negatively correlated with pro-sociality (trust, altruism, and positive reciprocity). People who misbehave during childhood are also significantly more competitive and risk seeking, but these correlations are weaker for people in leadership positions who are presumably selected on being competitive. The strongest correlations, however, are with "dark" personality

[14]Tables A4 and A5 in the appendix show results without dropping inattentive respondents and using the misbehavior measure that excludes getting in trouble with the police. Including inattentive respondents only slightly increases the correlations of misbehavior with physical and social aggression but strongly inflates the correlations with rule breaking, showing that noisy responding indeed spuriously inflates correlations between rare outcomes. Excluding trouble with the police from the misbehavior measure only slightly reduces the magnitude of the coefficients.

Table 2: Childhood misbehavior and adult antisocial behavior

Panel 1: Physical aggression

	(1) All	(2) All	(3) Supervisors	(4) Managers
Childhood misbehavior	0.941***	0.943***	0.790***	0.877***
	(0.055)	(0.055)	(0.108)	(0.186)
Education	No	Yes	Yes	Yes
Observations	4174	4174	1141	502
Adjusted R^2	0.158	0.157	0.137	0.074

Panel 2: Social aggression

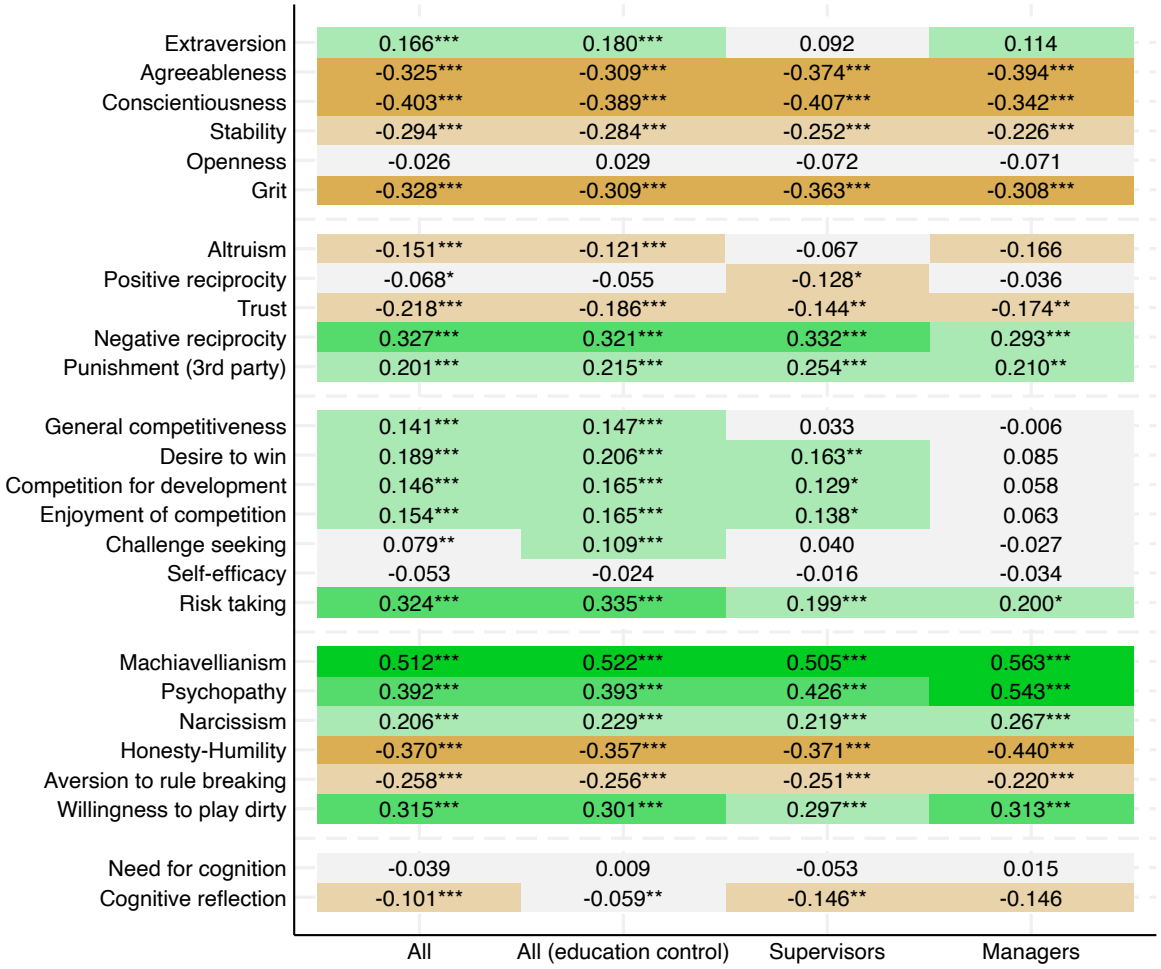
	(1) All	(2) All	(3) Supervisors	(4) Managers
Childhood misbehavior	1.049***	1.071***	1.005***	1.168***
	(0.073)	(0.072)	(0.144)	(0.219)
Education	No	Yes	Yes	Yes
Observations	4174	4174	1141	502
Adjusted R^2	0.147	0.150	0.122	0.069

Panel 3: Rule breaking

	(1) All	(2) All	(3) Supervisors	(4) Managers
Childhood misbehavior	0.192***	0.189***	0.138***	0.157
	(0.038)	(0.038)	(0.051)	(0.099)
Education	No	Yes	Yes	Yes
Observations	4174	4174	1141	502
Adjusted R^2	0.047	0.047	0.047	-0.007

Note: The table shows coefficients from OLS regressions of adult antisocial behavior on the retrospective childhood misbehavior index. I use count versions of the three antisocial behavior scales which are equal to the number of times the respondent answered something else than "never" to an item in the scale. All regressions control for gender, immigration background, and age-in-years dummies. The sample excludes respondents flagged as inattentive (see Section 2 for details). Robust standard errors in parentheses, *p<0.10; **p<0.05;***p<0.01.

Figure 4: Childhood misbehavior and personality



Note: the graph shows coefficients from OLS regressions of the childhood misbehavior index on standardized personality measures (described in Section 2). Green cells indicate positive correlations and orange cells negative correlations; the shading reflects the sign and magnitude of the coefficient, not whether the trait is desirable. All regressions control for gender, immigration background, and age-in-years dummies. Education control means dummies for the six CBS (Statistics Netherlands) education levels. Supervisor means ever having stated to work in a supervisor or management position. Manager means ever having stated to work in a management position. The regressions for the supervisor and manager samples also control for education level. The sample excludes respondents flagged as inattentive (see Section 2 for details). Standard errors are robust, *p<0.10; **p<0.05;***p<0.01.

traits. People who misbehave as children are much more manipulative, narcissistic, callous, dishonest, and immodest. They are also less averse to rule breaking and much more willing to play dirty in competitions.

While some of these correlations are with traits that can be beneficial in leaders and entrepreneurs – e.g. willingness to compete and take risk – the overall picture is bleak. Narcissism, manipulativeness, dishonesty, willingness to engage in dirty competition, disagreeableness, emotional instability, and low conscientiousness probably make for a toxic blend in leaders. These correlations do not show that people who misbehave as children more often become leaders *because of* these toxic traits. They are, however, *consistent* with the interpretation that the positive correlation between leadership and childhood misbehavior is due to ruthlessness and status seeking rather than valuable but unobserved skills. People who are willing to play dirty in competitions, for example, plausibly obtain an advantage when they move up the corporate hierarchy, but dirty play could be detrimental to both their colleagues and employers.

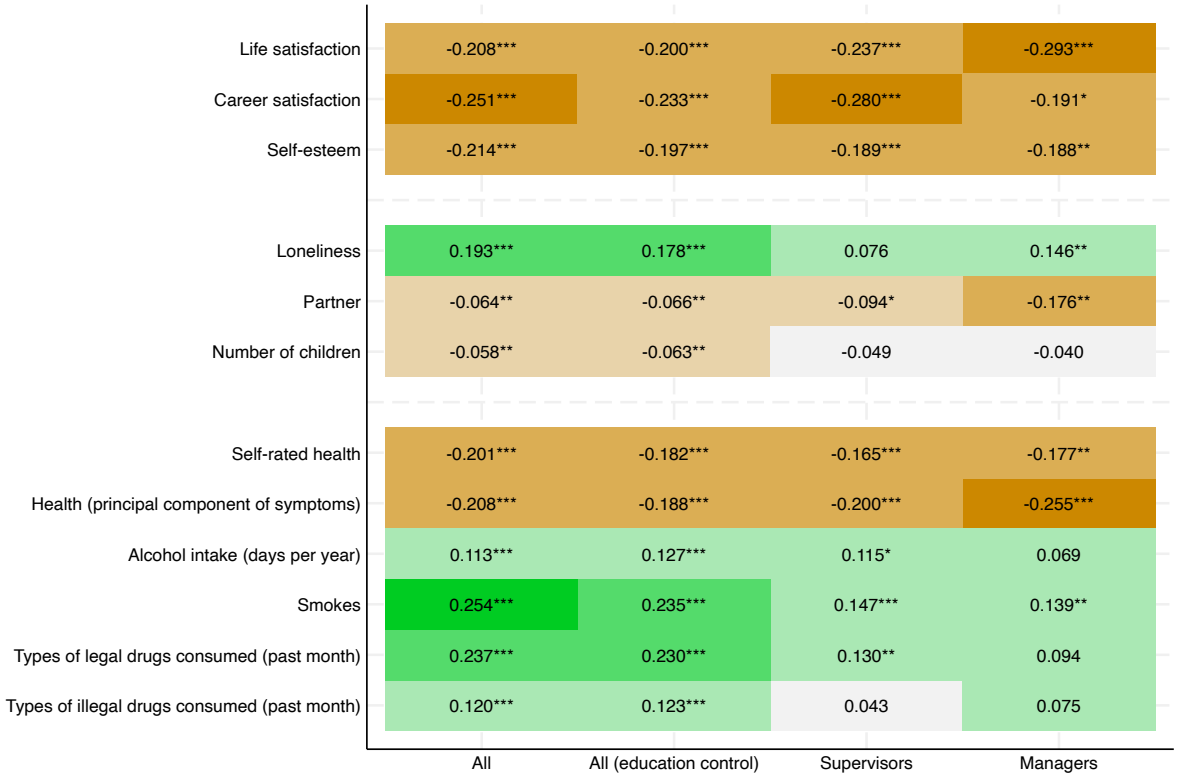
So far, I have shown that childhood misbehavior predicts reaching leadership positions but that it also correlates with engaging in toxic behavior that may create negative externalities for colleagues and organizations, and with an aversive personality. Next, I will investigate whether this mixture is costly or beneficial for personal wellbeing. Professional success typically positively predicts happiness, health, life satisfaction, personal relationships, and romantic success (Diener et al., 1999; Dolan, Peasgood, and White, 2008; Kahneman and Deaton, 2010). But the results presented above show that misbehavior is associated with behaviors and attitudes that could easily be related to social isolation and bad (mental) health, and ultimately lower life satisfaction.

Figure 5 shows correlations of childhood misbehavior with indicators of wellbeing, social connection, and health. People who misbehaved more as children are less happy, less satisfied with their careers, and have lower self-esteem, and these correlations are of similar magnitude for people who have achieved leadership positions. People who misbehaved more as children are also more lonely, less likely to have a partner, and have fewer children. They judge themselves to be less healthy, experience more symptoms of bad health, and are more likely to smoke, drink, or take drugs.

4 Conclusion

Using a retrospective measure of childhood externalizing behavior in representative Dutch survey data, I establish several new findings on the link between childhood misbehavior and later-life careers. People who misbehaved as children are more likely to reach corporate leadership positions and to become entrepreneurs. But they are also more antisocial and violent as adults, have an aversive personality, and experience lower wellbeing.

Figure 5: Childhood misbehavior and adult wellbeing



Note: the graph shows coefficients from OLS regressions of the childhood misbehavior index on standardized wellbeing measures (described in Section 2). Green cells indicate positive correlations and orange cells negative correlations; the shading reflects the sign and magnitude of the coefficient, not whether higher values are desirable. All regressions control for gender, immigration background, and age-in-years dummies. Education control means dummies for the six CBS (Statistics Netherlands) education levels. Supervisor means ever having stated to work in a supervisor or management position. Manager means ever having stated to work in a management position. The regressions for the supervisor and manager samples also control for education level. The sample excludes respondents flagged as inattentive (see Section 2 for details). Standard errors are robust, *p<0.10; **p<0.05;***p<0.01.

Papageorge, Ronda, and Zheng (2022) and Del Bono, Etheridge, and Garcia (2024) suggest that schools should reconsider discouraging such behavior, on the possibility that it signals agentic skills that are productive in the labor market. My results point to a less benign interpretation. People who misbehaved as children are more aggressive, narcissistic, dishonest, and manipulative as adults, and more willing to compete unfairly – and these patterns hold even among those who reached leadership positions. This is consistent with their advancing not through unique skill but through aggression and rule-bending that may impose costs on their colleagues and employers.

While these findings are correlational and the causal pathways remain to be established, they carry two policy implications. First, calls to re-evaluate schools' negative attitudes toward misbehavior appear premature: even if misbehavior pays off privately, the social return may well be negative, and – despite their professional success – people who misbehaved as children are themselves less content, less healthy, and more socially isolated. Second, the findings matter for managers and employers: people who misbehaved as children are far more likely to reach leadership positions, yet even among those who do, misbehavior predicts a potentially toxic mix of aggression, manipulativeness, status-seeking, and dishonesty.

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Appendix: Additional figures and tables

Table A1: Descriptive statistics

	Mean	Std. Dev.	Min	Max	N
Childhood misbehavior	1.874	0.543	1.00	5.00	5,665
Supervisor	0.264	0.441	0.00	1.00	5,534
Manager	0.121	0.326	0.00	1.00	5,534
Entrepreneur	0.021	0.143	0.00	1.00	4,664
Entrepreneurship intention	2.225	1.439	1.00	7.00	2,193
Years of education	12.900	2.709	6.00	16.00	5,658
College	0.430	0.495	0.00	1.00	5,658
Income	3033.362	2529.343	0.00	50000.00	5,356
Public sector	0.338	0.473	0.00	1.00	4,664
Gender=female	0.535	0.499	0.00	1.00	5,681
Gender=other	0.001	0.038	0.00	1.00	5,681
Age	53.054	18.620	16.00	96.00	5,681
Western immigrant background	0.106	0.308	0.00	1.00	5,683
Non-western immigrant background	0.104	0.305	0.00	1.00	5,683
Physical aggression	1.637	1.787	0.00	10.00	4,397
Social aggression	1.806	2.324	0.00	11.00	4,397
Rule breaking	0.218	0.998	0.00	11.00	4,397
Life satisfaction	7.295	1.487	0.00	10.00	5,507
Career satisfaction	7.374	1.250	0.00	10.00	2,116
Self-esteem	5.445	1.067	1.00	7.00	5,517
Loneliness	1.339	0.445	1.00	3.00	5,546
Partner	0.663	0.473	0.00	1.00	5,681
Number of children	1.522	1.336	0.00	15.00	5,421
Self-rated health	3.101	0.815	1.00	5.00	5,574
Health (principal component of symptoms)	-0.000	2.676	-15.92	2.26	5,571
Alcohol intake (days per year)	76.203	94.310	0.00	286.79	4,886
Smokes	0.105	0.307	0.00	1.00	5,571
Types of legal drugs consumed (past month)	0.074	0.313	0.00	3.00	5,571
Types of illegal drugs consumed (past month)	0.032	0.245	0.00	3.00	5,571
Negative reciprocity	4.296	2.350	0.00	10.00	3,517
Punishment (3rd party)	4.826	2.485	0.00	10.00	3,517
Trust	6.095	2.066	0.00	10.00	5,514
Altruism	6.233	2.629	0.00	10.00	3,517
Positive reciprocity	7.693	1.775	0.00	10.00	3,517
Extraversion	3.170	0.677	1.00	5.00	5,520
Agreeableness	3.835	0.539	1.30	5.00	5,520
Conscientiousness	3.736	0.533	1.60	5.00	5,520
Stability	3.435	0.735	1.00	5.00	5,520
Openness	3.509	0.505	1.70	5.00	5,520
Grit	3.564	0.507	1.80	5.00	3,520
General competitiveness	6.037	2.048	0.00	10.00	3,538
Desire to win	3.601	1.214	1.00	7.00	3,528
Competition for development	3.477	1.262	1.00	7.00	3,528
Enjoyment of competition	3.473	1.148	1.00	7.00	3,528
Challenge seeking	4.435	1.208	1.00	7.00	3,531
Self-efficacy	4.766	0.968	1.00	7.00	3,530
Risk taking	4.125	1.192	1.00	7.00	3,538
Machiavellianism	2.398	1.394	1.00	9.00	4,247
Psychopathy	3.300	1.433	1.00	9.00	4,246
Narcissism	3.109	1.504	1.00	9.00	4,244
Honesty-Humility	3.743	0.526	1.20	5.00	5,665
Aversion to rule breaking	4.861	0.987	1.00	7.00	5,671
Willingness to play dirty	2.726	1.279	1.00	7.00	5,671
Need for cognition	4.515	1.066	1.00	7.00	4,242
Cognitive reflection	1.088	1.109	0.00	3.00	4,236

Table A2: Childhood misbehavior and labor market outcomes (without dropping inattentive respondents)

Panel 1: Education

	(1) Years of education	(2) Years of education	(3) College	(4) College
Misbehavior	-0.360***	-0.314***	-0.058***	-0.050***
	(0.068)	(0.069)	(0.012)	(0.012)
Mental stability	No	Yes	No	Yes
Observations	5639	5482	5639	5482
Adjusted R^2	0.190	0.194	0.089	0.093

Panel 2: Labor market outcomes

	(1) Income	(2) Income	(3) Income	(4) Public sector	(5) Public sector	(6) Public sector
Misbehavior	-130.380*	53.934	130.814*	-0.059***	-0.046***	-0.047***
	(68.170)	(64.763)	(66.830)	(0.012)	(0.013)	(0.013)
Education level	No	Yes	Yes	No	Yes	Yes
Mental stability	No	No	Yes	No	No	Yes
Observations	3079	3079	2961	4629	4629	4515
Adjusted R^2	0.096	0.225	0.245	0.042	0.073	0.073

Panel 3: Leadership

	(1) Supervisor	(2) Supervisor	(3) Supervisor	(4) Manager	(5) Manager	(6) Manager
Misbehavior	0.052***	0.059***	0.071***	0.026***	0.039***	0.046***
	(0.011)	(0.011)	(0.012)	(0.009)	(0.009)	(0.009)
Education	No	Yes	Yes	No	Yes	Yes
Stability	No	No	Yes	No	No	Yes
Observations	5495	5495	5381	5495	5495	5381
Adjusted R^2	0.037	0.049	0.057	0.033	0.100	0.109

Panel 4: Entrepreneurship

	(1) Entrepreneur	(2) Entrepreneur	(3) Entrepreneur	(4) Intention	(5) Intention	(6) Intention
Misbehavior	0.008*	0.010**	0.012***	0.245***	0.248***	0.258***
	(0.004)	(0.004)	(0.004)	(0.058)	(0.059)	(0.060)
Education	No	Yes	Yes	No	Yes	Yes
Stability	No	No	Yes	No	No	Yes
Observations	4629	4629	4515	2185	2185	2180
Adjusted R^2	0.009	0.018	0.019	0.134	0.135	0.138

Note: The table shows coefficients from OLS regressions of adult outcomes on the retrospective childhood misbehavior index. All regressions control for gender, immigration background, and age-in-years dummies. Years of education is imputed from the CBS (Statistics Netherlands) education level classification. College means a degree from a university or university of applied sciences. Income is monthly gross income in Euros. Public sector means the most recent job was in the public sector. Supervisor means ever having stated to work in a supervisor or management position. Manager means ever having stated to work in a management position. Entrepreneur means ever having stated being a "majority shareholder director" or a "director of limited liability company". Intention is the 6-item entrepreneurship intention index. This table includes respondents flagged as inattentive. Robust standard errors in parentheses, *p<0.10; **p<0.05;***p<0.01.

Table A3: Childhood misbehavior and labor market outcomes (using misbehavior measure that excludes trouble with the police)

Panel 1: Education

	(1) Years of education	(2) Years of education	(3) College	(4) College
Misbehavior	-0.201***	-0.159**	-0.035***	-0.027**
	(0.064)	(0.065)	(0.012)	(0.012)
Mental stability	No	Yes	No	Yes
Observations	5509	5356	5509	5356
Adjusted R^2	0.188	0.193	0.089	0.093

Panel 2: Labor market outcomes

	(1) Income	(2) Income	(3) Income	(4) Public sector	(5) Public sector	(6) Public sector
Misbehavior	-34.636	107.720*	181.113***	-0.042***	-0.033***	-0.035***
	(66.817)	(62.632)	(64.721)	(0.012)	(0.012)	(0.013)
Education level	No	Yes	Yes	No	Yes	Yes
Mental stability	No	No	Yes	No	No	Yes
Observations	3008	3008	2892	4509	4509	4398
Adjusted R^2	0.093	0.222	0.243	0.040	0.072	0.071

Panel 3: Leadership

	(1) Supervisor	(2) Supervisor	(3) Supervisor	(4) Manager	(5) Manager	(6) Manager
Misbehavior	0.035***	0.040***	0.053***	0.020**	0.028***	0.035***
	(0.011)	(0.011)	(0.011)	(0.008)	(0.008)	(0.008)
Education	No	Yes	Yes	No	Yes	Yes
Stability	No	No	Yes	No	No	Yes
Observations	5367	5367	5256	5367	5367	5256
Adjusted R^2	0.036	0.049	0.057	0.032	0.101	0.110

Panel 4: Entrepreneurship

	(1) Entrepreneur	(2) Entrepreneur	(3) Entrepreneur	(4) Intention	(5) Intention	(6) Intention
Misbehavior	0.007*	0.008**	0.010***	0.193***	0.197***	0.210***
	(0.004)	(0.004)	(0.004)	(0.056)	(0.056)	(0.057)
Education	No	Yes	Yes	No	Yes	Yes
Stability	No	No	Yes	No	No	Yes
Observations	4509	4509	4398	2118	2118	2114
Adjusted R^2	0.009	0.019	0.020	0.127	0.130	0.131

Note: The table shows coefficients from OLS regressions of adult outcomes on the retrospective childhood misbehavior index. All regressions control for gender, immigration background, and age-in-years dummies. Years of education is imputed from the CBS (Statistics Netherlands) education level classification. College means a degree from a university or university of applied sciences. Income is monthly gross income in Euros. Public sector means the most recent job was in the public sector. Supervisor means ever having stated to work in a supervisor or management position. Manager means ever having stated to work in a management position. Entrepreneur means ever having stated being a "majority shareholder director" or a "director of limited liability company". Intention is the 6-item entrepreneurship intention index. The misbehavior index excludes the item on getting in trouble with the police. Robust standard errors in parentheses, *p<0.10; **p<0.05;***p<0.01.

Table A4: Childhood misbehavior and adult antisocial behavior (without dropping inattentive respondents)

Panel 1: Physical aggression

	(1) All	(2) All	(3) Supervisors	(4) Managers
Childhood misbehavior	0.934***	0.940***	0.849***	1.112***
	(0.062)	(0.062)	(0.122)	(0.209)
Education	No	Yes	Yes	Yes
Observations	4369	4369	1200	529
Adjusted R^2	0.151	0.151	0.163	0.141

Panel 2: Social aggression

	(1) All	(2) All	(3) Supervisors	(4) Managers
Childhood misbehavior	1.006***	1.037***	1.042***	1.405***
	(0.077)	(0.076)	(0.151)	(0.237)
Education	No	Yes	Yes	Yes
Observations	4369	4369	1200	529
Adjusted R^2	0.139	0.143	0.147	0.122

Panel 3: Rule breaking

	(1) All	(2) All	(3) Supervisors	(4) Managers
Childhood misbehavior	0.411***	0.409***	0.524***	0.735***
	(0.060)	(0.060)	(0.116)	(0.218)
Education	No	Yes	Yes	Yes
Observations	4369	4369	1200	529
Adjusted R^2	0.077	0.076	0.138	0.113

Note: The table shows coefficients from OLS regressions of adult antisocial behavior on the retrospective childhood misbehavior index. I use count versions of the three antisocial behavior scales which are equal to the number of times the respondent answered something else than "never" to an item in the scale. All regressions control for gender, immigration background, and age-in-years dummies. This table includes respondents flagged as inattentive. Robust standard errors in parentheses, *p<0.10; **p<0.05;***p<0.01.

Table A5: Childhood misbehavior and adult antisocial behavior (using misbehavior measure that excludes trouble with the police)

Panel 1: Physical aggression

	(1) All	(2) All	(3) Supervisors	(4) Managers
Misbehavior	0.851***	0.851***	0.726***	0.783***
	(0.050)	(0.050)	(0.098)	(0.166)
Education	No	Yes	Yes	Yes
Observations	4174	4174	1141	502
Adjusted R^2	0.157	0.156	0.136	0.071

Panel 2: Social aggression

	(1) All	(2) All	(3) Supervisors	(4) Managers
Misbehavior	0.959***	0.975***	0.911***	1.026***
	(0.066)	(0.065)	(0.130)	(0.196)
Education	No	Yes	Yes	Yes
Observations	4174	4174	1141	502
Adjusted R^2	0.147	0.149	0.120	0.063

Panel 3: Rule breaking

	(1) All	(2) All	(3) Supervisors	(4) Managers
Misbehavior	0.168***	0.166***	0.126***	0.131
	(0.032)	(0.032)	(0.044)	(0.084)
Education	No	Yes	Yes	Yes
Observations	4174	4174	1141	502
Adjusted R^2	0.045	0.046	0.046	-0.011

Note: The table shows coefficients from OLS regressions of adult antisocial behavior on the retrospective childhood misbehavior index. I use count versions of the three antisocial behavior scales which are equal to the number of times the respondent answered something else than "never" to an item in the scale. All regressions control for gender, immigration background, and age-in-years dummies. The sample excludes respondents flagged as inattentive (see Section 2 for details). The misbehavior index excludes the item on getting in trouble with the police. Robust standard errors in parentheses, *p<0.10; **p<0.05;***p<0.01.