Culture at Work:

Self-Entrepreneurialism and Earnings Inequality in the United States

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ABSTRACT

Several social theorists describe a culture of self-entrepreneurialism: a subjectivity in which individuals see themselves as determining their objective economic outcomes or earnings. This culture, it is thought, is institutionalized in contemporary employment practices such that, as in human capital theory, self-entrepreneurialism is widespread among employees, and the more self-entrepreneurial earn more. I contribute a quantitative and comprehensive response to these largely untested claims using survey data from the mid-1990s through mid-2010s, representative of working-age Americans. I find individuals' self-mastery, self-directedness, focus on self-growth and self-foresight of their future forms one general latent reflective self-concept. As a subjectivity, this self-entrepreneurialism is not associated with self-sufficiency or self-flexibility but is high among Americans regardless of social group. In terms of objective earnings, I find self-entrepreneurialism to be associated with an average earnings premium of up to ten percent of average earnings within occupations. However, self-entrepreneurialism does almost nothing to account for enduring earnings inequality between occupations. Further, over individuals' working life, there is no association between increasing self-entrepreneurialism and increased earnings. Thus, in line with the theory of cultural capital, but not of human capital, self-entrepreneurialism works materially at work.

INTRODUCTION

A founding claim of sociology is that culture structures the personal self and political economy alike. For Weber, capitalism was a culture – one in which work was its own end, and a job supplied its own ethics and identity (Ghosh 2016). Along with specialization through the division of labor, people came to define themselves by their occupation and to equate personal sacrifice with economic salvation. Industrialism, for the factory owner and the laborer, demanded a self-disciplined self.

Today, a distinctly sociological claim is that an enterprise or ‘neoliberal’ culture is restructuring both subjective concepts of self and objective conditions of employment. For several social theorists, contemporary American or Anglo capitalism involves a culture in which working to improve one’s self is work, with its own ethics and source of identity (Foucault 2008 [1979]; Miller and Rose 1990; Rose 1996). Along with the externalization of labor markets, employees have come to see themselves as ‘companies of one’ and to equate their self-growth and mental development with economic success. Post-industrialism, for the actual entrepreneur and the ordinary employee, demands a self-entrepreneurial self.

Although such a self-entrepreneurial culture is frequently critically invoked, there is little clarity or empirical research about what a self-entrepreneurial subjectivity is – or how it relates to objective and unequal employment conditions. At times, the self-entrepreneurial self is said to upend the industrial self-disciplined self (or ‘homo economicus’) and be autonomous, independent, adaptative, and short-termist (Beck and Beck-Gernsheim 2002; Giddens 1991; Sennett 2006). At other times, though, it seems to evolve and be principally self-controlled, persistent, and focused on the future (Dardot 2013; Illouz 2007; Rose 1990). Existing theory also implies quite different relationships between a subjective self-entrepreneurialism and the

objective, material aspects of the economy. In many accounts, a self-entrepreneurial culture is presumed to operate at an ideal or ideological level – as a superficial ‘branding’ or ‘false consciousness’ that obfuscates or legitimates economic inequalities. But ‘strong cultural’ sociological perspectives on the economy theorize that culture works independently of and causally on the economy, such that a self-entrepreneurial culture could materially affect or structure employment and earnings inequalities.

Analysts of popular management and careers advice texts, whether targeted at company managers or ordinary employees, do find a common representation of work and its compensation as a question of the individual’s self-augmentable self-psychology (Boltanski and Chiapello 2005; Illouz 2007; Vallas and Cummins 2015). Interviewers of the working poor and the working rich hear men and women describing their work and earnings as being in their personal and psychological control (Edin et al. 2019; Gershon 2017; Godechot 2017; Pugh 2017; Sherman 2017; Silva 2013; Vallas and Christin 2018). Organizational ethnographers of factory floors, engineering firms, and silicon valley start-ups document firms cultivating ‘entrepreneurial mindsets’ among their employees in response to increased pressure for productivity or innovation – and to employees’ expectations of self-realization and equity at work (Burawoy 1979; Elliott and Long 2016; Kunda 1992; Vallas 2006). But what specifically does an entrepreneurial subjectivity comprise, and how widely is it shared? And is there a material basis to it, whereby those who are or become more self-entrepreneurial do objectively earn more?

I provide a quantitative and comprehensive response to these questions. I use detailed (and, in some cases, longitudinal) psychological and occupational measures for two samples representative of working-age Americans in 1995-6 and in 2012-3 in the Midlife in the United States (MIDUS) surveys. First, from an exploratory factor analysis of seven measures of self-

concept that speak to various aspects of self-entrepreneurialism referenced in existing popular cultural and academic discussions, I find that self-growth, self-mastery, self-directedness, and self-foresight of the future form a common factor. This latent ‘self-entrepreneurialism’ is not associated with self-sufficiency or self-flexibility. Americans report high levels of it regardless of race, gender, class, or age/period/cohort. This supports self-entrepreneurialism as a shared subjectivity, but one that evolves, rather than upends, industrial self-discipline.

Second, from a series of multilevel models, I find that self-entrepreneurialism, defined as a latent, reflective self-concept of self-growth, mastery, directedness, and foresight, is associated in the cross-section with a significant earnings premium – of between 5% and 10% of average earnings – between individuals within the same occupation. However, differences in degrees of self-entrepreneurialism do almost nothing to explain the earnings differences between different occupations. Further, within individuals over their working lives, there is no significant longitudinal association, in either direction, between changes in self-entrepreneurialism and earnings. Self-entrepreneurialism is economically rewarded, but within – not between or against – the enduring occupational and life-course structure to earnings inequality.

A ‘strong’ cultural sociology of the economy, as Alexander (2011) sets out, recognizes that meanings and moralities can influence market dynamics and distribution, not only the other way around. Subjective cultural understandings, as Zelizer (2005) and Wherry (2014) emphasize, are not reducible to objective economic dynamics and can themselves influence those dynamics. Discussing work specifically in his magnum opus, Bourdieu (2000:204) argued that “what is apparently most ‘subjective’ and ‘personal’ is an integral part of the reality that analysis has to account for”. He called for “models capable of integrating the representations of the agents”. Still, he thought individuals’ subjective conceptions – such as an entrepreneurial conception of

the self – were collective, durable phenomena and not fully consistent with their objective, economic situations. Employees’ beliefs about their self-control over their work and economic situation, Bourdieu (2000:205) thought were “sometimes realistic, often fictitious, sometimes fantastical, but always partial, [and] always partially effective”.

In line with this theory, I find that the idea of the employee as an ‘entrepreneur of himself’ – central to the microeconomic human capital theory that Foucault (2008 [1979]) saw as defining an ‘American neoliberalism’ – is partial and partially effective. Employees do see themselves as entrepreneurs of themselves – *in one sense*. Differences in degrees of self-entrepreneurialism do help explain disparities in earnings – *on one scale*. Culture does ‘work’ materially at work.

That said, the cultural idea of the employee as an ‘entrepreneur of himself’ mistakes the relationship between subjective self-concept and objective economic conditions for a relationship the individuals themselves determine. There is an irony in this: self-entrepreneurialism, at its core, involves a belief in one’s individual capacity for self-growth and foresight of one’s future, but there is no association between *growing* self-entrepreneurialism and subsequently earning more. Self-entrepreneurialism includes a perception of lack of self-constraints but affects earnings only within occupational bounds on earnings. Human capital theory has expanded to recognize a role for culture in earnings, but it misrecognizes *how* culture ‘works’ at work.

The paper proceeds as follows. I begin with background on the nature of a self-entrepreneurial self-concept and its relationship to earnings inequality expected in (1) the theory of human capital as developed by Becker in economics, (2) the theory of cultural capital as developed by Bourdieu in sociology, and (3) the current employment context in the United States (US) as described in existing empirical research. Then, after detailing my data and measures, I

identify an entrepreneurial self-concept semi-inductively and describe its distribution by social and occupational groups. I go on to estimate how much this self-entrepreneurialism accounts for four distinct outcomes or quantities of earnings inequality: earnings differences (i) between occupations and (ii) within occupations in the cross-section, and (iii) between individuals and (iv) within individuals over their working life. For all four major quantities, I consider self-entrepreneurialism's relationship to earnings conditioned and unconditioned on social-categorical inequalities and established measures of human capital. A discussion section connects the responses to the two questions – what self-entrepreneurialism is and how it corresponds to earnings – with each other. I conclude that we can think of an entrepreneurial self-concept as a cultural capital, a collective subjectivity that imperfectly complements current economic institutions, but not as human capital, an individually augmentable or rewarded skill.

BACKGROUND

Self-Entrepreneurialism and Earnings Inequality in Human Capital Theory

In 1979, shortly before a major restructuring of employment institutions and a rise in earnings inequality in the US, Foucault (2008 [1979]:215) identified an intellectual trend that he termed 'American neoliberalism'.¹ Central to this was the new theory of human capital, set out most explicitly by Chicago economist Gary Becker. This theory assumed, as Foucault (2008 [1979]:226) observed, that the individual was an 'entrepreneur of himself': his own capital,

¹ Neoliberalism has been used to describe multiple phenomena and as a political epithet, leading some to question the analytic utility of the term. I use it, as Foucault did, to refer to the institutionalization of a self-entrepreneurial subjectivity and because it is the term under which theorizing on this has developed.

producer, and source of his earnings. Rather than seeing himself as one partner in an economic exchange, he saw himself as an asset to control, manage, invest in, and grow for the future.²

This theory of the worker as being in control of his own productive capacity and earnings answered a puzzle that the empirical data on economic inequality presented to economists. Why did economic models of physical capital, which counted labor only as a stock or a simple number of workers, not explain differences in countries' growth rates over time (Goldin 2016)? Unlike economists writing in the first half of the twentieth century, Becker saw labor's productivity (and therefore their power) as 'augmentable' (Becker 1993:7). This, alongside advances in data and statistics, turned economic distribution from a macro to a micro question (Goldfarb and Leonard 2005). Becker worked closely with Mincer (1958), who, to account for individual differences in earnings, emphasized skills as a person's latent ability or productivity (Becker 2006). Mincer formalized a simple model for earnings: log earnings were a linear function of education and a quadratic function of years of potential experience. Today, the 'Mincer equation' remains the foundation of the labor economics of earnings inequality – predominantly microeconomics (Lemieux 2006).

The expansion of human capital to include self-entrepreneurialism itself

By the turn of the twenty-first century, though, a new empirical puzzle arose for micro labor economics: why did standard measures of human capital or skill not, as predicted, explain differences in workers' earnings? Heckman (2014), Becker's junior colleague at Chicago, offered an answer in collaboration with psychologists: there were '*non-cognitive*' skills or social-

² I use masculine pronouns in keeping with the authors. The idea of the entrepreneurial self can be seen as androcentric (England 2003).

psychological aspects to human capital (Borghans et al. 2008; Heckman, Humphries, and Kautz 2014; Heckman and Rubinstein 2001).³ Non-cognitive is a misnomer – the initial measures of it came from cognitive psychology and spoke to the construct of ‘cognitive control’ or mental willpower (Mischel et al. 2011; West et al. 2016). But, in contrast to cognitive skill or intelligence – thought to be largely fixed, if not genetically so – non-cognitive skills are said to be malleable.⁴ Consistent with the idea of self-entrepreneurialism, one can invest in and enhance one’s non-cognitive skills.

Non-cognitive skills, defined in contrast to cognitive intelligence or skill, have never been well specified.⁵ Many studies use measures that fit under the umbrella construct of self-control or mental self-discipline: delayed gratification, persistence, conscientiousness, effort, or willpower, often indicated by the absence of externalizing behavior or inattention problems (Currie and Stabile 2006; Fletcher 2013; Heckman, Pinto, and Savelyev 2013; Mischel et al. 2011; Moffitt et al. 2011; Watts, Duncan, and Quan 2018). Many of these involve an orientation towards – or foresight of – the future. ‘Grit’, for example, according to psychologist Duckworth (2007; 2012), one of Heckman’s coauthors, is individuals’ evaluation of their own ‘persistence’ combined with their ‘passion for long-term goals’. Yet non-cognitive skills also refer to a self-concept that could, and certainly has in the popular management press, been classed as specifically ‘entrepreneurial’ (Hoffman and Casnocha 2014; McGrath and MacMillan 2000;

³ Although Becker himself modeled human capital in terms of formal education and training, he hinted (1993:17) that people could develop it through the “formation of habits that radically alter the way they are”.

⁴ Non-cognitive skills often include measures that psychologists identify as personality *traits* and consider largely fixed, but Heckman explicitly refers to *skills* because they are malleable (Heckman 2006).

⁵ Heckman, with Rubenstein (2001), introduced non-cognitive skills as a residual explanation. The initial idea was “written in the spirit of ‘dark matter’ research in astrophysics. We have established the quantitative importance of non-cognitive skills without identifying any specific non-cognitive skill” (p.149).

Vallas and Cummins 2015). ‘Self-mastery’ or efficacy is a person’s evaluation of the extent to which their life is in their own internal, self-regulatory control, as opposed to externally constrained by the environment (Bandura 1991; Gecas 1989). A flexible or adaptive self, able to respond to changing circumstances and take up new opportunities, is often cited, whether as mental agility, resilience, or ‘openness to experience’ (Borghans et al. 2008). Other measures focus on self-growth and development. ‘Growth Mindset’, as formulated by psychologist Dweck (2006), is the belief in one’s capacity to learn, develop, and improve one’s self. It is contrasted with a ‘fixed mindset’, a belief that one’s ability or attainment is constrained, whether by social-environmental or genetic factors. This ‘new psychology of success’, as Dweck’s bestselling trade book is subtitled, sees objective economic value in the subjective belief about the self’s capacity for growth and control of its future – that is, in a self-entrepreneurial self-concept.

Empirically, the evidence for the effects of such a self-concept on economic outcomes is inconclusive – largely because studies use different psychological measures to predict very different economic outcomes or quantities. Some economists and psychologists highlight positive effects shown at the margins within groups (usually low-income or low-cognitive ability) (Claro, Paunesku, and Dweck 2016; Duckworth and Seligman 2006; Heckman et al. 2013; Heckman, Stixrud, and Urzua 2006) or in cross-sections between individuals overall (Duckworth 2011; Duckworth, Quinn, and Tsukayama 2012). Within-individuals and/or between social groups, studies elicit generally null, or certainly insubstantial, results (Credé, Tynan, and Harms 2016; Watts et al. 2018; West et al. 2016). Still, the hypothesis of this new human capital theory is clear: an entrepreneurial self-concept is an individual skill, both in the sense that it can be developed or learned and that it is productive at work (Borghans et al. 2008; Heckman and

Mosso 2014). The more self-entrepreneurial an employee is or becomes, the more he or she will earn.

Self-Entrepreneurialism and Earnings Inequality in Cultural Capital Theory

Drawing on theories of *cultural* capital, sociologists could form the same general hypothesis. Bourdieu (1997) deliberately described culture in people, including psychological orientations, as a capital. Rejecting the ‘false antimony’ between sociology and psychology, he emphasized ‘the correspondence between ‘mental structures’ and ‘social structures’ or the interplay of the subjective or symbolic, and objective or economic (Bourdieu 1984; Bourdieu and Wacquant 1992). And while Bourdieu did not theorize ‘self-concept’ as such, sociologists and psychologists agree that a (if not *the*) primary and remarkably stable mental schema is the schema one has of one’s self (Callero 2003; DiMaggio and Markus 2010; Stets and Burke 2003a).

Beliefs that connect the self to work, Bourdieu (2000:202) wrote, are part of “the real conditions of the performance of labor, and of exploitation”. In the same way as a gift could be both experienced as a genuine act of generosity and observed as an act of self-interest, labor has a ‘twofold truth’. There is a ‘subjective truth’ of personal and psychic investment in one’s work. This had its own psychic or purely symbolic reward. But, for Bourdieu, this subjective truth did not only obfuscate or legitimate, *post hoc*, the ‘objective truth’ of employment and its material inequalities but contributed, *ex ante*, to that reality. In this way, Bourdieu might recognize, as Alexander (2011:480) argues, that people’s subjective, social meanings do influence markets with their material inequalities, not (only) the other way around.⁶

⁶ Alexander reads Bourdieu as reducing culture to the dynamics of capital and rejecting culture’s autonomy and independent effect on the economy. Much of Bourdieu’s notoriously imprecise writing can

Still, Bourdieu regretted the interpretation of culture as a form of human capital in the microeconomic model.⁷ When asked by Wacquant how his model of human behavior differed from ‘bounded rationality’, the psychological foundation of Becker’s behavioral economic ‘revolution’, Bourdieu replied, “[t]o speak of habitus is to assert that the individual, and even the personal, the subjective, is social, collective. Habitus is a socialized subjectivity” (Bourdieu and Wacquant 1992:126). Habitus is not an individual, nor purely cognitive and conscious, phenomenon. As a result, cultural capital is durable, not easily acquired or accumulated (nor lost or diminished) by the individual.

Also, in contrast to human capital, while cultural capital was somewhat fungible or exchangeable for monetary resources, it was never completely or unconditionally so. The psychic investment of oneself in one’s labor, Bourdieu (2000:205) suggests, functioned in part as a “commitment not provided for in the employment contract”. Bourdieu thought the connection between self-subjectivity and objective economic rewards would be greater at the competitive margins within particular workplaces or occupations. Yet, he allowed, “the effect of these structural factors obviously depends on the workers’ dispositions” (ibid) – or individuals’ particular level of self-entrepreneurialism.

Self-entrepreneurialism, then, could, as a cultural capital, be productive and rewarded at work. But, its economic value would – as organizational sociologists have argued of “skills” in general – be relational, relative, and contextual (Avent-Holt and Tomaskovic-Devey 2014; Tomaskovic-Devey and Avent-Holt 2019; Vallas 1989; Vallas and Cummins 2014). It could – as feminists brought to the fore with a focus on the emotional aspects of labor – justify the lower

be read in this way, but I focus on his ideas as he latterly expressed them, often with specific reference to work and human capital theory, in *Pascalian Mediations* and in conversation with Wacquant.

⁷ Lamont and Lareau (1988) have long recognized the problems with such an interpretation.

material rewards of gendered care and service occupations (England 2005; England and Dunn 1988; Hochschild 2003). For Bourdieu, a cultural or symbolic idea or ideal worked – diffused and sustained itself – through its partial, subjective, or personal and objective economic truth. The individuals’ personal control over some aspects of their work – or entrepreneurialism – would distract from their lack of control as an employee (Burawoy 2012). A marginal effect of self-entrepreneurialism on earnings within social and class groups would allow people to misrecognize or mistake the major, enduring economic inequalities *between* social and class groups.

Self-Entrepreneurialism and Earnings Inequality in the Current Employment Context

In specific corporate contexts, Bourdieu’s theory that an employee’s self-concept corresponds to earnings inequality has found empirical support. In unionized manufacturing in the mid-1970s, Burawoy (1979) observed an ‘internal state’ among workers that reflected an internal labor market. A degree of control and real material incentives led employees to see work as a competitive game between them – and therefore to accept the fundamental rules of the game.⁸ Employees’ absorption and acceptance of dominant culture, as ethnographers Burawoy and Vallas (2006), observed, was less complete than Bourdieu’s theory often implied. Still, as the ‘heterodox’ economists, Bowles, Gintis, and Osborne (2001) corroborated econometrically, employees with personality traits that complemented the incentive structures within the workplace indicated a willingness to play the game and accept the organizational structure of rewards and were rewarded with higher earnings.

⁸ As Burawoy (2010) discusses, Bourdieu does at times emphasize culture as a deeply internal psychology but at others describes people as players in a game, whose culture is formed in response to external stakes and constraints.

Yet, the subjectivity or personality that would be rewarded at work was, for Burawoy and Bowles and Gintis, clearly an orientation to delayed gratification in the future or general self-discipline, application, effort, and conscientiousness. Yet, like Whyte, with his (2002 [1956]) ‘organizational man’ too conformist to pursue individual entrepreneurial activity, they are thinking of the large corporate firm, with its long-term interest in ‘human relations’ and ‘human resource management’, which dominated much of the twentieth century (Dobbin and Sutton 1998; O’Connor 1999). What is more, rather than being independent of occupation and education factors, the rewarded personality traits were, on the contrary, an important part of what schooling and occupational professionalization and training developed. But since then, the structure of employment – and its compensation or reward in the form of earnings – has changed considerably in a way that might support a more specifically entrepreneurial self-concept with a more direct relationship to earnings.

Macro processes of financialization, deregulation, and automation that accelerated since the 1980s have restructured employment and labor markets more in line with the human capital model.⁹ Internal labor markets have largely been replaced, through subcontracting, with external ones (Weil 2014). The line between employment and self-employment has blurred with the erosion of labor rights protections, collective bargaining, and the rise in non-standard employment contracts (Kalleberg 2009; Katz and Krueger 2016, 2017; Western and Rosenfeld 2011). Automation and outsourcing have meant jobs involve more social interaction and more direct contact with clients or customers than they did in the past (Deming 2017; Fuller and Smith 1991; McCammon and Griffin 2000). All this indicates that ‘human resources’ or capital,

⁹ Historical and comparative analyses of labor market policies and management theories and practices suggest these macro processes were themselves influenced by prevailing economic and psychological ideas, including of the employee as an entrepreneur of himself (Boltanski and Chiapello 2005; Callon 2007; Dardot 2013; Fourcade and Healy 2017; Illouz 2007; Rose 1990).

including its social-psychological aspects, is less something firms manage corporately (or the state nationally) and more – as Becker theorized it – something workers manage individually.

Over the same period, however, workers have become largely excluded from a role in the resource-generating and compensation-setting process (Lin and Tomaskovic-Devey 2013).

Outside the situation of an elite, where capital and labor earnings have blurred, employees have seen little earnings growth overall (Rivens and Mischel 2015). The introduction of performance-related pay at the individual level has actually led to lower wages, as pay gaps are justified on performance, and efficiency wages to elicit effort are substituted (Wilmers and Massenkoff 2021). Financialization and associated subcontracting and outscoring have meant that the scope to make relational claims across occupations or jobs within firms or workplaces has diminished. As a result, although *within-occupational* inequality – the variance in earnings between those within the same occupation – has grown in absolute terms over recent decades and largely reflects the expansion in general managerial occupations, differences in firm-level productivity and profitability, and local levels of economic development (Kim and Sakamoto 2008; Mouw and Kalleberg 2010; VanHeuvelen 2018).

Earnings inequalities *between* occupations, meanwhile, remain substantial. This is true even as occupational licensing and higher education have expanded (Horowitz 2018; Kleiner and Krueger 2010; Weeden 2002). Persistent between-occupational inequality reflects the relative growth of the care sector – a low-paid, long feminized, and racialized sector in which an entrepreneurial attitude to work might not be rewarded (Dwyer 2013; England 2005). With their related educational and training requirements, occupations strongly bind earnings trajectories over working life, limiting earnings mobility within individuals – both up and down – and

making inequality in earnings greater between individuals averaged over time than that measured at any one point in time (Cheng 2014; Katz and Autor 1999).

Likewise, while between individuals over time, earnings inequalities are larger than in the past, reflecting different earnings growth trajectories, these remain largely governed by occupation (including its educational requirements), observed at labor market entry and unobserved individual-level factors (Cheng 2014). Earnings trajectories are largely stable at the individual level, with cross-sectional earnings in the US actually being better predictors of lifetime earnings than occupations (Kim, Tamborini, and Sakamoto 2018).

Self-entrepreneurialism and earnings inequality in existing empirical work

Perhaps reflecting these contradictory institutional shifts in the employment context, existing empirical analyses of what the predominant ‘entrepreneurial’ self-concept is and how it might relate to earnings inequality are inconsistent. In line with Giddens’ and Beck and Beck-Gernsheim’s theories of individualization, Boltanski and Chiapello (2005) and Sennett (2011) emphasize a short-termist self, orientated to flexibility, opportunism, independence, and autonomy. However, more in line with Foucault, Illouz (2007, 2008) and Rose (1990) trace more recent, popular texts and techniques on the self back to older forms of management practices. They read them as aligning new ideas of self-understanding, development, and growth with a long-standing focus on a rational, disciplined, directed, and future-orientated self.

Micro qualitative accounts of people’s talk of self (rather than written text and policy techniques) are also inconsistent. Some suggest a self-entrepreneurialism specific to a professional or artistic, if not financial, elite, where earnings for labor and capital are uniquely blurred (Godechot 2017; Scharff 2016). Neff and colleagues indicate that more ‘self-

entrepreneurial' individuals are orientated to greater risk and could be more likely to select – or be selected for – more innovative and higher-paying firms, even within the same occupations (Neff 2012; Neff, Wissinger, and Zukin 2005). Other qualitative accounts, however, suggest a self-entrepreneurial subjectivity is strong, if not strongest, among newly precarious, working-class, younger, women, and minority workers (McMillan Cotton 2017; Silva 2013; Vallas and Christin 2018).

For Fischer (2010), a 'mentality' of 'self-conscious self-fashioning' was progressively democratized in America over the twentieth century – in line with objective measures of personal control and economic wellbeing. Recently, across income levels, Americans do describe their higher or lower earnings as reflecting their personal effort, including their psychological effort or mindset (Cooper 2014; Pugh 2015; Sherman 2017). But, as Lamont (2000) and others stress, self-concepts or identity are often developed in distinction from or as a claim against other racial and social groups (Lamont, Beljean, and Clair 2014). A self-entrepreneurial concept, it is therefore thought, would justify inequality, *post hoc*, against economic realities (Boltanski and Thévenot 2006; Lamont 2019).

Sociological social psychologists see a sense of self-mastery or an internal locus of control, as well as optimistic future expectations, as reflecting social roles and advantages but also affecting individual's economic trajectories (Hitlin and Johnson 2015; Johnson and Hitlin 2016; Lewis, Ross, and Mirowsky 1999; Ross and Mirowsky 2013; Stets and Burke 2003b). Recent sociologies, though, cast doubt on the role of personal culture or self-expectations in stratification; college and career *aspirations* have risen widely across the US population – while, of course, educational and occupational attainment has not (Goyette 2008; Lizardo 2017; Reynolds et al. 2006). We also know from studies on *non-psychological* or self-related skills that

although pay premiums to skills remain, skill differentials do not satisfactorily explain earnings patterns and, in particular, those that persist between occupations (Autor, Katz, and Kearney 2008; Liu and Grusky 2013; Murphy and Oesch 2016; Weeden and Grusky 2014).

Bourdieu's theory of the partial subjective and objective effects of culture at work demands a full analysis of workers' self-concept and its relationship to earnings. With multiple measures of self-concept, for a nationally representative sample, I identify in what senses self-entrepreneurialism is – and is not – a shared subjectivity. Then, with multiple models, I show on what scales it is – and is not – associated with objective earnings. Through this combined approach, we get a clearer picture of how culture 'works' at work.

DATA

A large-scale survey, *Midlife in the United States* (MIDUS), enables me to connect detailed individual-level information on self-concept with occupational and socio-economic characteristics.¹⁰ With personality psychologists among its principal investigators, MIDUS uses multiple questions and scales that were developed and validated by psychologists to measure self-concept. The questions were self-administered to reduce social desirability bias (Ryff et al. 2016). MIDUS also allows me to access economic data that can speak to the mainstream American workforce from the mid-1990s to the mid-2010s.¹¹ The survey began in 1995-6 with a randomly selected, nationally representative sample of American adults aged 25 to 74 (N=7,108). A second ('refresher') sample, also representative of working-age Americans, was surveyed between 2011 and 2014, with most surveyed in 2012 (N=3,577).

¹⁰ Before 2017, the study was called the National Survey of Midlife Development in the United States.

¹¹ Like almost all large-scale surveys, it excludes those who do not speak any English, those who are institutionalized, and, as I discuss in the measurement section, those with the very highest, and very lowest earnings.

Joining these two *cross-sectional* samples, with 18 years and the 2008 financial crisis between them, allows me to consider self-entrepreneurialism and its relation to earnings between and within micro-level *occupations*. Questions about the self were asked in a self-assessment questionnaire, completed by most (83%) of the sample. This gives me a sample of 8,486 for descriptive analyses. Of the two cross-sectional samples, 65% were in paid civilian employment and were under the age of 65, giving me an analytic sample for the relationship between self-entrepreneurialism and earnings of 6,664. Missing data for this in-work sample were multiply imputed using expectation maximization and an imputation model of 60 covariates to reduce associated bias (Blackwell, Honaker, and King 2017).¹²

For the first (1995) sample, *longitudinal* data is available; the survey was repeated once before the 2007-9 Financial Crisis and Recession (in 2005-6) and once afterward (in 2013-4), with a 75% and 77% retention rate, respectively. Joining the three longitudinal surveys of the first sample allows me to consider the relationship between self-entrepreneurialism and earnings between and within *individuals* over working life. Most of the longitudinal sample age-out of employment, particularly by the third survey wave, but 1,866 individuals were in paid work and under 65 for at least two of the three waves, giving 4,845 observations for panel analysis.¹³ But before testing self-entrepreneurialism's predictive or criterion validity against earnings, I test its construct validity and ask: is there a specifically entrepreneurial self?

¹² For all measures used in the analysis, there are no statistically significant differences between the imputed and non-imputed samples (Appendix table B4). Of those in work, 20% are missing earnings data and 17% at least one measure of self. For 90% of those who are missing data on any measure of self it is because they did not participate in the Self-Assessment Questionnaire. All the descriptive and regression analyses of the with cross-sectional data are weighted using MIDUS's post-stratification weights to be representative of the working-age population.

¹³ For those within work in at least two of three waves, 8.7% of observations are missing data on earnings, and 5% are missing data on the self. As with the cross-sectional data, this longitudinal panel was multiply imputed to reduce associated bias.

IS THERE A SELF-ENTREPRENEURIAL SUBJECTIVITY AMONG WORKERS?

As noted in the background, multiple ideas of what self-entrepreneurialism involves are evoked in popular and academic psychology, management, and economics – and in social theory.

MIDUS measures many of these through established self-report psychological scales:

- **Self-Mastery** is the sense of having control over one's self and life (Mirowsky and Ross 2007). It includes the statements, "*I can do just about anything I really set my mind to.*" and "*Whether or not I am able to get what I want is in my own hands*".
- **Self-Constraints**, reverse-coded, are typically combined with mastery to indicate a locus of control over one's life that is internal to the self, as opposed to externally constrained (Bandura 1986; Gecas 1989). A representative statement is, "*What happens in my life is often beyond my control*".
- **Self-Directedness** is the degree of planning, intentionality, and goal-setting done for the self (Prenda and Lachman 2001). It speaks to a rational, strategic self; for example, "*I find it helpful to set goals for the near future*".
- **Self-Growth** is the sense that one can develop and improve (Ryff 2013). Individuals are asked, for example, to rate the degree to which they disagree with the statement, "*I gave up trying to make big improvements or changes in my life a long time ago*".
- **Self-Foresight** is the sense with which one positively anticipates and calculates the future (Prenda and Lachman 2001). Linked to conscious life management, it includes the statement, "*I can sense when an opportunity is coming my way*".

- **Self-Sufficiency** relates to independence or individualism and is measured in opposition to seeking social support from others, with statements including “*I don’t like to ask others for help unless I have to*”.
- **Self-Flexibility** is measured in terms of strategies in choosing, pursuing, and adapting goals. Respondents are asked to choose the degree to which they are more opportunistic and open, as opposed to persistent and focused. For example, in reaching their goals, the more flexible self would have a strategy more like “*I do best by seizing on opportunities I find*” than “*I work hard at practicing and learning the necessary skills*”.¹⁴

To see how these seven measures of self-concept relate to each other, I conduct a form of hierarchical exploratory factor analysis that allows factors to correlate, omega. McDonald’s omega compares the variance in a set of measures that are associated with a common factor, as opposed to subfactors. Unlike the more commonly used Cronbach’s alpha, it is model-based and produces more reliable and conservative estimates of uni-dimensionality (Revelle 2019).¹⁵ This inductive analysis of the seven traits, the output of which is shown in **Figure 1**, finds self-flexibility and self-sufficiency to be distinct from other aspects of self-concept. It also endorses self-mastery, constraints, directedness, growth, and foresight as what psychologists would call a general reflective latent trait. For these five measures, assuming three correlated subfactors, the total omega, encompassing subfactors, is 0.8. The general factor omega, the amount of variance associated with the variance common to all the measures, is 0.61, and the subfactor omega, the

¹⁴ Itemization and descriptive data of all constructs is provided in the Appendix, Tables B1 and B2.

¹⁵ For a set of variables, omega finds lower-level factors (three is the minimum for which omega is uniquely defined) and transforms them obliquely (allows them to correlate). The correlations between these factors are then factored into one general factor. Omega partitions the variance of the items into a general variance (associated with all the measures), group variance (associated with just some of the measures), and a residual variance.

amount of variance specific to subgroups, is 0.11. The Explained Common Variance (ECV) – the ratio of the variance explained by a general factor to that explained by subfactors – is 0.62.¹⁶ Psychometricians demonstrate this to be a good indicator of a general factor saturation or the uni-dimensionality of a scale (Revelle 2019). It supports a construct *reliability*: how accurately one can predict an individual's relative standing on the latent variable common to all the scale's indicators based on his or her observed scale score.

This analysis also indicates a construct *validity*: showing an internal structure to five measures of self-concept that, informed by theory, we can call self-entrepreneurialism. The sense of self-growth, foresight, and directedness does correlate with and add to measures of self-mastery and a perceived lack of constraints in defining self-concept. However, working-age Americans who score themselves highly in these five measures of self are no more likely to be flexible or opportunistic and adapt to circumstances than they are to be persistent and focused.¹⁷ They are no more inclined to consider themselves self-sufficient as opposed to seeking help from others. This all reinforces the idea of an entrepreneurial self as future-orientated, purposive, and calculative, as well as self-efficacious.

[Figure 1]

Averaging individuals' scores across these five measures indicates that self-entrepreneurialism is high across American adults. Overall, self-entrepreneurialism varies by a

¹⁶ These figures are from a confirmatory factor analysis (CFA) with maximum likelihood estimation. Using minimum residuals, the general factor omega is higher, at 0.65, and the subfactor omega is smaller, at 0.12, with an ECV of 0.7. This structural model is shown in Appendix Figure A1. For all seven measures, the general factor omega was 0.54.

¹⁷ In an exploratory model assuming two rather than three subfactors, flexibility is negatively related (by 0.21) to an otherwise general, entrepreneurial, self-concept. A Principal Components Analysis (PCA) of the 7, and 5, measures, supports this same structure of self-concept, as visualized in Appendix Figure A2.

factor of about 24%.¹⁸ Three-quarters of Americans score between 4.25 and 5, with a maximum score of 5.8. That said, levels are higher among those with college degrees and men. Black men and women report slightly higher levels than whites, although, given the limited sample of minorities, this is significant only at the 95% level. **Figure 2** displays the mean self-entrepreneurialism by occupational group. Self-entrepreneurialism is above-average in masculine occupations requiring higher levels of education. The difference, though, is slight on the original scale, with those in Food Preparation and Serving jobs having the lowest levels, at 4.25, and those in Executive and Managerial roles the highest, at 4.78.

[Figure 2]

Self-entrepreneurialism does appear to be higher in more recent cohorts or generations, but this largely reflects the age at which people were surveyed.¹⁹ Overall, there is no difference in the mean or variance of self-entrepreneurialism between 1995 and 2012. That said, self-entrepreneurialism did decline significantly among those without college degrees (a group that declined substantially as a proportion of the employed working-age population, from 57% to 35%, between the two surveys), and this decline is clearest among white men (**Figure 3**).

Between the mid-1990s and mid-2010s, self-entrepreneurialism became more sharply stratified by class – specifically, by a college degree – with gender and age becoming relatively less important (Appendix figure A4). Unfortunately, we lack sufficient data to precisely estimate trends among Black men and women, but on average, they reported higher levels of self-

¹⁸ That is, the standard deviation of the log of self-entrepreneurialism is 0.238.

¹⁹ Self-entrepreneurialism was lower in 2012 than in 1995 among those born in the 1960s, or ‘gen X’, which could reflect their experience of Great Financial Crisis of 2007-8, and/or age. The pattern is shown in Appendix Figure A3.

entrepreneurialism than whites in both periods.²⁰ In the longitudinal sample of those in paid work at each survey, a widening of the class and gender gap over working life is apparent (in the appendix, Figure A9). But again, it is marginal, with only men without college seeing a decline of more than a fifth of a standard deviation. Self-entrepreneurialism, therefore, could be said to represent a common culture among American workers. How does this culture ‘work’ in the workplace?

[Figure 3]

IS SELF-ENTREPRENEURIALISM OBJECTIVELY REWARDED AT WORK?

Whether self-entrepreneurialism is rewarded at work, as discussed, can be understood in different ways. I estimate four major quantities: earnings inequality (i) *between occupations* (ii) *within occupations*, with the cross-sectional data and with the longitudinal data, earnings differences (iii) *between individuals*, and (iv) *within individuals* over their working life. For each major quantity, I show the association between self-entrepreneurialism and earnings conditional on age and period, race and gender, and the standard economic indicators of human capital: education, experience, working hours, and seniority. Although presented sequentially, these models are not increasingly robust, but rather, as discussed in the background, speak to qualitatively different quantities or theories of inequality (Lundberg, Johnson, and Stewart 2019).

²⁰ MIDUS also lacks sufficient sample size for comparisons between other racial or ethnic groups.

MEASURES

Earnings. Earnings are measured in MIDUS as personal income from wages in the past 12 months. Respondents indicated their earnings group in increments of about \$5,000, from which I take the mid-point. I adjust for inflation based on the Bureau of Labor Statistics' (BLS) Consumer Price Index (CPI) and take the natural log of earnings within each survey period.²¹ The log transformation of earnings normalizes the skewed earnings distribution, giving less weight to outliers and allows us to interpret the estimated coefficients straightforwardly as an approximate percentage of mean earnings.

I use earnings are rather than wages because working hours are not always chosen by employees. If they are, they could be mechanisms through which self-entrepreneurialism is associated with income inequality. We know that long hours and schedule inflexibility contributes to wage disparities by gender (Cha and Weeden 2014; Goldin 2014), that job applicants accept lower wages in return for regular, standard work schedules (Mas and Pallais 2016), and that even with higher levels of education, African Americans and women are more likely to be unsteadily employed (Branch and Hanley 2017).²²

²¹ Appendix, Table B4 gives the mean and median nominal earnings in the (imputed) MIDUS data and, as a benchmark, in the Community Population Survey (CPS) used by the Bureau of Labor Statistics (BLS). The figures are similar, with slight differences likely reflecting that the CPS data averages only those in full-time, year-round employment. The 'top-coding' of earnings, and voluntary nature of the survey, means that, like all researchers except those accessing restricted administrative tax data (data that lacks information on individual skills or psychology), I cannot speak to trends at the very top of the earnings scale.

²² I focus on those in the paid labor market to contain an already wide scope of analysis. Lower self-entrepreneurialism is only slightly associated with lower probability of non-zero earnings among men. In 1995, a man with average self-entrepreneurialism had a 93% chance of positive earnings, while a man with one standard deviation lower self-entrepreneurialism had a 90% chance. Labor market participation for women reflects complex patterns of unpaid work and caregiving as well as unemployment, and so demands its own theory and analysis.

Self-Entrepreneurialism. As in the descriptive analysis above, I use a continuous (that is, relative rather than absolute) measure of self-entrepreneurialism standardized (normalized with mean 0 and standard deviation 1) around the 1995 mean.

Occupations. Occupations are classified as in the American Community Survey or Census, using respondents' answers to questions about the kind of business or company they work in, their job title, and their most important activities or duties. I harmonized the occupational titles across all the surveys using the 2010 scheme as the reference, noting the 5.4% of the 2012 sample in new occupations. The cross-sectional sample represents 429 occupations. The number of observations in each occupation ranges from 1 to 602, with an average of 15. Confirming the advantage of modeling occupations as a level, or the multilevel model as a partial-pooling approach, the Empirical Bayes estimates for earnings by occupation 'shrink' those produced from Maximum Likelihood at both extremes (Figure A5) (Gelman and Hill 2007). The longitudinal panel has information on 217 occupations, with a mean of fewer than three observations in each. Therefore, in the longitudinal analysis, I just model the major occupational groups, which have 12 to 276 observations in each, as a factor or 'dummy' variable.

Age and Period. F-tests find no significant difference in self-entrepreneurialism or earnings variance between the two periods. Therefore, I simply model period as a covariate. In the longitudinal analysis, the between-individuals model averages any period effects out, while tests for stationarity (unit roots) confirm the similarity of changes occurring between waves 1 and 2 and those between waves 2 and 3. Log-earnings peak in the late 40s, then decline, and so I include age in years and its square (this better fits the data than using age group). In the

longitudinal data, the mean age is 41, 51, and 58 for each of the three waves, respectively. There is some range of age in each wave (Figure A7), and earnings patterns by age are slightly different from those by wave, which also reflects the pre- and post-recessionary period that the survey took place (Figure A8). Therefore, I adjust for age in the between and within-individual models, too.

Race and Gender. Earnings are lower for African Americans compared to all other racial groups, and so adjustment for being **Black** is introduced to the cross-sectional models. Regrettably, because minorities were not oversampled in the main MIDUS survey, an analysis of inequalities by race, ethnicity, or immigrant status is not statistically possible. Earnings are lower for women at and within the occupational level, and so I adjust for **female** in the cross-sectional models. This means the main coefficients reported relate to non-Black men. However, interactions between race or gender and self-entrepreneurialism on earnings were not significant, within-occupations or not (Appendix Table B7).²³ Among women, there is greater variation in experience and working hours over working life. Therefore, the between-individual models are fitted separately for men and women, as well as without adjustment for gender, and the within-individual models include an interaction between female and self-entrepreneurialism.

Education and Experience. Earnings vary by **education** independent of occupations and within them, so separate models condition on five categories of education: less than high school, high school qualification, some college, college, and advanced degrees, with ‘some college’ being the

²³ The coefficient does indicate a negative interaction within-occupations whereby Black people are less rewarded for self-entrepreneurialism, and its lack of statistical significance could well reflect the small sample of minorities in this data. Unfortunately, the data that would allow for a better-powered analysis of within-occupational earnings inequalities by race do not measure self-concept.

base, middle category.²⁴ **Self-employment** varies within occupations, but as the interest is in the entrepreneurialism of employees, I adjust for it. Following earnings models in economics, I also include **experience**: the log of the years employed, which does not fully correspond to age.

Hours and Seniority. Separate models also condition on **hours**: the log of usual hours worked weekly, and the log of how often the individual works overnight, yearly. To reflect seniority or management responsibilities, I include whether the worker supervises others and the log of the number of people supervised.²⁵

MODELS AND RESULTS

Earnings Within and Between Occupations

Mixed multilevel models simultaneously estimate earnings inequalities between and within occupations. The ‘between’ quantity refers to the variance of the intercept (the random effect) or the mean earnings for each occupation. The ‘within’ quantity refers to the slope – the increase in earnings associated with increased self-entrepreneurialism, relative to mean earnings in that occupation (the fixed effect) (Gelman, Hill, and Yajima 2012). A variance-components model for log earnings tells us that occupations accounted for 25% of the variance in earnings in 1995 and 18% in 2012. The 23 major occupational groups alone account for 20% of the variance in log-earnings in 1995 and 12% of that in 2012. Consistent with evidence from aggregate,

²⁴ Education could be considered continuous, involving ongoing training as well as attained credentials. ‘Some College’ captures much of this, and in the models that follow, using a standardized scale of the full 12 levels of education does not meaningfully change the main estimates (see appendix, Table B8).

²⁵ Appendix, Table B3 provides descriptive data, including tests for differences between periods, for all measures used in the cross-sectional analysis. Table B6 provides the descriptive data for the longitudinal sample, including tests for differences between waves.

macro data, then, the within-occupations variance in *log* (that is, relative) earnings is greater than that between occupations and has increased over recent decades.²⁶

i. Within-Occupations

The results reported in **Table 1** confirm occupations' continued role in structuring earnings in the labor market. Under Ordinary Least Squares (OLS) regression, which pools occupations, the average association between a standard deviation of self-entrepreneurialism and log-earnings, adjusting only for age and period, is 0.17 (model 1). Adjusting for race and gender (model 2) reduces this by two percentage points. Fixing on occupations, however, nearly halves the average association (model 3).²⁷ In other words, those with self-entrepreneurialism one standard deviation above the mean have about 8 to 10% higher earnings than the average in their occupation.²⁸ This association is substantial and robust, and at the overall mean, represents (in 2020 US dollars) over \$5,250 in 1995 and over \$6,000 in 2012. Still, it is less than half the size of a standard deviation higher level of education, which is associated with 20% higher earnings within occupations.

Model 5 additionally adjusts for education and experience, and model 6 also adds work hours and seniority. These adjustments reduce the coefficient on self-entrepreneurialism by about 1.5 and 2.5 percentage points, respectively. Models 4, 6, and 8 are the same as 3, 5, and 7, but additionally allow for the *slope* as well as the intercept of the association between self-

²⁶ I do not have information on firms but analysis of aggregated data finds that the wage premiums to certain firms or workplaces are strongly, and increasingly, aligned with those on occupations (Wilmers and Aepli 2021).

²⁷ Completely unpooled, the coefficient is 0.098, confirming the benefit of the multilevel model as a partial-pooling approach (Gelman and Hill 2007).

²⁸ An elasticity, or log-log model, that considers instead a percentage change in self-entrepreneurialism finds a 10% increase in self-entrepreneurialism is associated with a 5.5% increase in earnings.

entrepreneurialism and earnings to vary across occupations (Bell, Fairbrother, and Jones 2018). They confirm that the slope on self-entrepreneurialism does vary substantially across occupations, the average effect having a standard deviation of over 0.09 even with the full set of individual-level controls, indicating substantial unobserved occupational effects on earnings. The random and fixed effects are negatively correlated, indicating that in occupations with higher earnings for workers with average self-entrepreneurialism, the premium on individual self-entrepreneurialism is lower. On average, conditional on a full set of standard measures of human capital, including hours and management responsibility, the premium associated with self-entrepreneurialism remains significant, accounting for nearly 5% (at least 3.7%) of average earnings within occupations.

Figure 4 plots the unadjusted relationship between self-entrepreneurialism and earnings for the 23 major occupational groups (429 slopes being impossible to visualize). Despite the random effects allowing the slope to vary by occupation, and the difference in slopes, in most cases, the lines do not intercept. An individual's self-entrepreneurialism seldom overcomes the bounds placed by occupation on earnings. One can also see the slope – on this log scale – is steeper for lower-paying occupations.²⁹ As a percentage of earnings, the premium on high entrepreneurialism – or the penalty on low entrepreneurialism – is greatest in the feminized and racialized occupations with the lowest average earnings: Personal Care and Services.

[FIGURE 4]

²⁹ For log hourly wages (Appendix Figure A6) this pattern is in fact more pronounced, with flat lines for higher paying the legal and medical professional occupations, indicating that this is not driven by greater part-time or seasonal work in the lowly-paid feminized and racialized occupations.

ii. *Between-Occupations*

In a multilevel model, the standard deviation on occupation measures the amount of overall earnings variance (or inequality) that is *between* occupations (or, put differently, accounted for by occupations). **Table 2** reports the figure for models with and without adjustment for self-entrepreneurialism, showing a reduction of between 3 and 4 percent depending on other covariates. In a model with age and period only, adjusting for self-entrepreneurialism, as a fixed and random effect, reduces the amount of earnings variance explained by occupations, adjusting for age and period only by 1.6 percentage points. Likelihood ratio tests between the models confirm that self-entrepreneurialism does help account for the earnings variance between occupations, but this degree of magnitude is small.³⁰ As we saw in **Figure 3**, there does appear to be some selection into higher-paying occupations based on self-entrepreneurialism – and/or cultivation of self-entrepreneurialism in such occupations – but it is not substantial.

Earnings Between and Within Individuals

With the longitudinal data, we can also model the earnings variance between and within individuals *over time*. In a null variance-components model, 13% of the variance in log earnings taken over two or three periods of working life can be attributed to the major occupational group level and 44% to the individual level (which includes their occupation).³¹ These numbers represent the correlation in log earnings between two people in the same occupational group and between two measurements on the same individual in the same occupation, respectively. Less

³⁰Adding self-entrepreneurialism to a model that also conditions on individuals' continuous, standardized level of education actually increases, by 4%, the degree to which occupation accounts for earnings inequality (shown in appendix Table B8).

³¹ As expected, using the full minor occupations represented in the longitudinal data (appropriate only in this model without other covariates), the occupational level accounts for slightly more, 17%, of the earnings variance and the individual level essentially the same, at 45%.

than 1% of the earnings variance between individuals is attributable to the survey wave (a combination of period and age).

iii. *Between individuals*

The between-individual estimator differs from the preceding cross-sectional analysis in that it uses data for three ages of working life. **Table 3** summarizes eight models for the between-difference in log-earnings between individuals associated with a standard deviation in self-entrepreneurialism, demeaned of time effects. As the time effects are negligible, the results of these models are similar to those in the within-occupational models (Table 1). Model 1, unadjusted, shows a standard deviation in self-entrepreneurialism is associated with 17% of the earnings variation between individuals, averaged over working life. Conditional on age, in model 2, the association is, in fact, slightly greater. Conditioning on the major occupational group (there being an insufficient longitudinal sample to use the minor occupations) in model 3, however, significantly reduces the coefficient on self-entrepreneurialism to 0.11, as it increases the variance explained (R-squared) from 5 to 27 percent. Model 4 conditions additionally on education resulting in an average coefficient self-entrepreneurialism of about 0.09, as in within-occupational models. Adjusting for experience (model 5) reduces this to about 0.08 and adding hours to this (in model 6) makes little difference while adjusting for seniority reduces it by a percentage point. Adjusting for the major occupational group and the standard suite of human capital measures, then, self-entrepreneurialism still accounts for an average of about 7% of earnings inequality between individuals.

What, though, if we consider earnings differentials separately between men and between women? We know gender continues to structure earnings differentials even within an

occupational group, and earnings variance is lower among women. Table 4 reports the results from the models 2, 3, 5, 6, and 7 specified above separately by gender. Comparing the odd-numbered models for men with the even-numbered models for women shows consistently larger and more robust associations on self-entrepreneurialism for men than for women. For women, the coefficient becomes significant only at the 95% level with the inclusion of occupational group (model 4). With the inclusion of education and experience, the association between self-entrepreneurialism and earnings for women (at 6%, Model 6) becomes about half that for men (12%, model 5).

ii. Within individuals

The final quantity of interest is earnings variance **within individuals** over their working life. This gives the average association between a standard deviation *change* in self-entrepreneurialism and a change in log-earnings over approximately 10-year periods. I estimated this quantity with and without conditioning on time-varying factors: age (models 1 and 2), years employed full-time (model 6), working hours (model 7), and seniority (model 8). I also considered an interaction between gender and self-entrepreneurialism (in models 3 and 5, and that occupations could vary (in models 4 and 5). Regardless of the model, **Table 5** shows, self-entrepreneurialism has no association with earnings within individuals that reaches a magnitude of 0.05 or is significant at the 99% level or higher.³²

The individual longitudinal sample also allows me to consider *reverse causality*. Theoretically, an increase in earnings over working life could lead to a greater sense of self-entrepreneurialism. However, for the mainstream American workforce of this period, this was

³² First-difference models, which compare earnings in one survey only with the preceding one, also yield null effects.

not the case. A model regressing self-entrepreneurialism on earnings, and allowing for two-way effects, finds no significant associations (appendix, table B10). Interpreted alongside the substantial between-individual and within-occupation associations, these within-person results tell us that self-entrepreneurialism captures durable individual-level factors that are associated with higher earnings.

The within-individual estimator is estimated only from those whose level of self-entrepreneurialism actually changes over working adulthood (Bell et al. 2018; Mummolo and Peterson 2018). Self-entrepreneurialism, as mentioned, is relatively stable at the individual level, at least over working age. We could think of change in self-entrepreneurialism as a percentage rather than a standard deviation. But models for the elasticity, using the log self-entrepreneurialism instead, also estimate that a 10% increase in self-entrepreneurialism is associated with a 2-4% increase in earnings, an association that is, at best, significant only at the 95% level (shown in Appendix Table B11). An exogenous shock could induce a change in an individual's self-entrepreneurialism that is greater than the 'natural' or observed level of variation in these models. Still, the within-individual coefficient – of zero – is a better estimate of the causal treatment effect of self-entrepreneurialism on earnings, in partial equilibrium, than the other estimates. It tells us that even if an organizational or policy intervention effectively and substantially increased adults' self-entrepreneurialism if all else remained the same, it would likely not alter their earnings trajectory.

DISCUSSION

In 1979, the human capital theory of earnings inequality, with its entrepreneurial employee, which Foucault identified as 'American neoliberalism', was only a theory. Since then,

changes to the institutional context of employment have certainly made the theory more plausible. Like human capital theorists, sociologists could hypothesize that in the contemporary US context, employees are generally self-entrepreneurial, and those with higher self-entrepreneurialism do earn more. But we did not know what was and was not meant by self-entrepreneurialism or in what way it would or would not relate to earnings inequality.

My extensive and somewhat inductive analysis finds that, in one sense, a self-entrepreneurialism is a shared subjectivity and, on one scale, it is objectively economically rewarded. My results highlight and help specify the difference between a Beckerian human capital – an individually engendered, easily augmentable, and absolutely productive skill – and a Bourdieusian cultural capital, understood as a collectively created, durable, and inherently relational currency.

In human capital theory, employees are entrepreneurs of themselves, in control of their subjectivity, objective economic outcomes, their mindset, and earnings. Self-entrepreneurialism itself can be seen as a skill, both augmentable and productive. Consistent with this, I find that there is a broadly shared subjectivity that involves a strong sense of self-mastery, self-growth, self-directedness, and self-foresight of the future, and a perception of a lack of external constraints on the self. What's more, this self-entrepreneurialism is meaningfully associated with higher earnings *within occupations*, the level at which earnings inequalities have grown in absolute terms and as a proportion of aggregate inequality – and largely as a reflection of external labor markets or selection into different firms (Wilmer and Aeppli 2021). As a proportion of earnings, the premium on self-entrepreneurialism is greater in lower-paid occupations. Within occupations in the cross-section and between individuals averaged over working life, the association between self-entrepreneurialism and earnings is somewhat

independent of education and experience, working hours, and supervisory responsibilities or seniority.

Yet, I also observe where the entrepreneurial employee departs in practice from that assumed in human capital theory and in some social theories. I find that the otherwise ‘entrepreneurial’ self is not more self-sufficient nor more flexible. Those orientated toward self-mastery, directedness, growth, and foresight of the future are not, as Beck and Beck-Gernsheim (2002) and Boltanski and Chiapello (2005) suggested, more likely to be independent or autarkic as opposed to seeing others as a source of help. If anything, contrary to Giddens’ (1991) and Sennett’s (2006) depictions, the self-entrepreneurial are *less* likely to be opportunistic, adaptive, or short-termist. The closed-ended questions I rely on to assess a large, nationally representative sample and measures of economic outcomes may not accurately reflect the actual presentation or practice of self (Srivastava and Banaji 2011; Vaisey 2009). However, the same scales are used regularly not only in academic psychology but in hiring and human resource management in many industries (Illouz 2007; Rose 1990). As a latent reflective and institutionally recognized self-concept, self-entrepreneurialism deepens rather than departs from self-control as effort, planning, persistence, or delayed gratification. In this way, as the Foucauldian thinkers Illouz and Rose suggest, the self-enterprising self *is* a self-disciplined self.

Self-entrepreneurialism, defined as a composite of subjective self-mastery, growth, directedness, and foresight of the future, is widespread among American workers. But this, paradoxically, means that levels of self-entrepreneurialism do vary enough to substantially account for enduring inequalities in earnings. Self-entrepreneurialism does almost nothing to account for the disparities in earnings that exist between (gendered and racialized) occupations. Degrees of self-entrepreneurialism do not even vary in the expected direction to account for

inequalities between whites and African Americans that persist even within occupations. The within-occupational earnings premium associated with self-entrepreneurialism does not transcend the upper or lower bounds on earnings set by the major occupational groups. What is more, changes in self-entrepreneurialism over working life are not sufficient to alter earnings trajectories *within* individuals. After labor market entry, at least, a sense of self-mastery and development is rarely mastered and developed to the extent that it would result in higher earnings.

Self-entrepreneurialism, then, is better thought of as a cultural capital, a collective currency, than an individual-level human capital. It is cultural capital that, as Burawoy suggested of self-control, applying Bourdieu and Bowles and Gintis, is better understood as an acceptance of the ‘rules of the game’ of work than as a major determinate of who wins the game.

Some people, of course, do not play the game. My analysis speaks only of those employed, and self-entrepreneurialism could affect the propensity to be so, as opposed to, for example, engaging full-time in unpaid caregiving. If it does, it will understate the effect on overall income inequalities, particularly by gender and race. Other people play the game of work, but not by the rules. Qualitative research consistently finds employees who reject and resist dominant or prevailing workplace cultures (Kunda 1992; Turco 2012; Vallas 2006; Vallas and Christin 2018). My analysis adds that within occupations, if not within firms, they face monetary penalties for doing so. Even conditional on standard human capital measures and social-demographic characteristics, employees indicating low self-entrepreneurialism do have meaningfully lower (log) earnings than the average in their occupation – and particularly employees in low-paid occupations.

The elite might play a different game. It is at the very top of the earnings distribution, in finance and in innovative firms or new industries, where much of the growth in earnings inequality has occurred and where individuals negotiate earnings tied to their own profit generation (DiPrete, Eirich, and Pittinsky 2010; Godechot 2017; Hanley 2011; Kunda 1992; Neff 2012; Piketty and Saez 2006). These very highest earners are not represented in my data. However, for the vast majority of the workforce, the ‘entrepreneurial employee’ is a contradiction. Earnings are largely unexplained by the full suite of employee characteristics, including, as this analysis adds, their social-psychological characteristics, which alone account for only around one percent of the earnings variance. Even about half of the within-occupational association between self-entrepreneurialism and earnings reflects longer working hours and greater managerial responsibilities.

A culture of self-entrepreneurialism may be peculiarly American. But if it is, it reflects the peculiarity of America’s economic institutions, not only its ideals. A ‘self-conscious self-fashioning’ can be traced, as Fischer (2010) has done, to liberal-republican ideals at America’s founding. But so too can the employment laws that assume the independent agency of the employee (Steinfeld 1991). The microeconomic theory of human capital emerged in the US context and was more influential there than in Europe (Fourcade 2009). We know from cultural psychology that individualism is more prevalent among Americans than among the Japanese (Markus and Kitayama 2010). But we also know from comparative political economics that levels of within-occupation and between-individual earnings inequality are greater in the US than in other rich nations (Thelen 2004; VanHeuvelen 2018).

For the US at the turn of the twentieth century, this analysis highlights the difference between the main microeconomic theory and the mainstream practice of economic inequality at

work. It affirms the need for a ‘post-liberal’ theory of stratification that can account for observed patterns of economic inequality – unlike the human capital model even in its expansions into the non-cognitive, cultural domain – and appreciate the economy as a site of conflict as well as consent (Jackson and Grusky 2018). At the same time, it provides an insight into culture as capital, that is, how culture works materially to structure economic inequalities, not only to legitimate them ideologically. The fact that different levels of self-entrepreneurialism can help account for earnings inequality between people within the same occupation and overall between individuals could cause people to misrecognize the enduring structural constraints on individuals’ agency at work and causes of economic inequalities. We do not know how far these findings are specific to the US in this period. But if a culture that sees employees as entrepreneurs of themselves does diffuse globally or persist in the US, it will be because the idea is, as Bourdieu once quipped, ‘partial, and partially effective’: in one sense subjectively and on one scale objectively true. A self-entrepreneurial culture works materially at work, even as it mistakes *how* culture works.

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FIGURES

Figure 1: Exploratory Factor Analysis (EFA) of self-concept measures

Note: Omega hierarchical of seven measures of self-concept, assuming three subfactors (the minimum to be uniquely identified). Self-flexibility and self-sufficiency were negatively correlated, as well as self-constraints, with other measures, as indicated by the minus sign, but not part of the general or subfactor solution. Sample includes those answering at least 5 of the 7 the self-questions, $n=8,866$.

Figure 2: Self-Entrepreneurialism by Occupational Group

Notes: Data is for all adults aged 24-74 in 1995 and 2012 combined (the average for those not in the labor force is also presented). The dashed line is the overall mean in 1995, and data points are out of a scale maximum of 6. I present men and women's averages combined because many occupational groups overlap strongly with gender. The 2012 sample, for instance, observes no men in Health Support occupations and no women in Installation and Repair occupations. Error bars reflect varying sample sizes, but data is weighted using post-stratification weights to be nationally representative of US adults, n=8,866.

Figure 3: Self-Entrepreneurialism by Race, Class and Gender, 1995 and 2012

Note: Error bars reflect varying sample sizes, but data is weighted using post-stratification weights to be nationally representative of US adults aged 25-74. n=8,866.

Figure 4: Self-Entrepreneurialism and Earnings Within Occupational Groups

Note: Lines represent the unconditional association between self-entrepreneurialism and log-earnings from models allowing for the slopes as well as intercepts for the association to vary by major occupational group. The darker the line-shading, the lower average earnings in the occupation. The log scale range, from 9.5 to 11.5, is from approximately \$13,300 to \$98,700 in 2020 real US dollars.

TABLES

Table 1: Self-Entrepreneurialism and Earnings within Occupations

	LOG EARNINGS							
	<i>OLS</i>		<i>linear mixed-effects</i>					
	1	2	3	4	5	6	7	8
Self-Entrepreneurialism (std.)	.166*** (.011)	.145*** (.011)	.088*** (.010)	.084*** (.014)	.072*** (.010)	.067*** (.014)	.052*** (.009)	.049*** (.012)
Constant	8.442*** (.194)	8.906*** (.184)	8.972*** (.174)	8.969*** (.174)	9.036*** (.174)	9.034*** (.174)	6.301*** (.177)	6.304*** (.177)
Age and Period	✓	✓	✓	✓	✓	✓	✓	✓
Race and Gender		✓	✓	✓	✓	✓	✓	✓
Education and Experience					✓	✓	✓	✓
Hours and Seniority							✓	✓
Occupations			429	429	429	429	429	429
sd(Occupation)			0.385	0.383	0.317	0.314	0.247	0.241
sd(Occupation, Self-Entrep'm)				0.103		0.102		0.094
Observations	6,644	6,644	6,644	6,644	6,644	6,644	6,644	6,644
Log Likelihood			-9,032.271	-9,019.262	-8,864.321	-8,852.461	-8,206.630	-8,191.789
Akaike Inf. Crit.			18,082.540	18,060.520	17,758.640	17,738.920	16,451.260	16,425.580
Bayesian Inf. Crit.			18,143.750	18,135.340	17,860.660	17,854.550	16,580.490	16,568.410

Notes: * P < .05, ** P < .01, *** P < .001

Table 2: Self-Entrepreneurial and Earnings Between Occupations

	1	2	3	4	5	6	7	8
Self-Entrepreneurialism (std.)		.097*** (.011)		.084*** (.014)		.067*** (.014)		.049*** (.012)
Age and Period		✓	✓	✓	✓	✓	✓	✓
Race and Gender		✓	✓	✓	✓	✓	✓	✓
Education and Experience					✓	✓	✓	✓
Hours and Seniority							✓	✓
sd(Occupation)	0.455	0.439	0.4	0.383	0.324	0.314	0.251	0.241
% Reduction		3.5		4.3		3.1		4.0
Occupations	429	429	429	429	429	429	429	429
Observations	6,644	6,644	6,644	6,644	6,644	6,644	6,644	6,644
Log Likelihood	-9,247.696	-9,206.694	-9,039.191	-9,019.262	-8,844.644	-8,852.461	-8,162.879	-8,191.789
Akaike Inf. Crit.	18,507.390	18,427.390	18,094.380	18,060.520	17,717.290	17,738.920	16,361.760	16,425.580
Bayesian Inf. Crit.	18,548.200	18,475.000	18,148.790	18,135.340	17,812.510	17,854.550	16,484.180	16,568.410

Notes: *P < .05, **P < .01, ***P < .001

Table 3: Self-Entrepreneurialism and Earnings Between Individuals

	LOG EARNINGS						
	1	2	3	4	5	6	7
Self-Entrep'm (std.)	.168*** (.022)	.176*** (.022)	.110*** (.020)	.095*** (.019)	.082*** (.019)	.084*** (.017)	.074*** (.017)
Age		.079*** (.020)	.067*** (.018)	.069*** (.017)	.021 (.017)	.005 (.015)	.010 (.015)
Age ²		-.001*** (0.000)	-.001*** (0.000)	-.001*** (0.000)	-.0000** (0.000)	-.000 (0.000)	-.000 (0.000)
Education (ref=Some College)							
Advanced Degree				.504*** (.062)	.484*** (.059)	.480*** (.054)	.452*** (.054)
College Degree				.136* (.055)	.149** (.052)	.163*** (.048)	.149** (.047)
High School				-.083 (.057)	-.076 (.054)	-.067 (.049)	-.065 (.049)
Less than High School				-.150 (.119)	-.109 (.113)	-.150 (.103)	-.159 (.102)
Years Employed FT (log)					.440*** (.032)	.242*** (.031)	.228*** (.030)
Hours (log)						.765*** (.040)	.696*** (.041)
Supervisor							.215*** (.045)
Num. Supervise (log)							.058*** (.014)
Constant	10.782*** (.019)	9.146*** (.492)	9.948*** (.450)	9.738*** (.443)	9.868*** (.421)	7.675*** (.402)	7.673*** (.396)
+ Occupational Groups?			Yes	Yes	Yes	Yes	Yes
Observations	1,866	1,866	1,866	1,866	1,866	1,866	1,866
R ²	.030	.051	.279	.315	.380	.483	.497
Adjusted R ²	.029	.049	.268	.304	.369	.474	.488

Notes: *P < .05, **P < .01, ***P < .001

Table 4: Self-Entrepreneurialism and Earnings Between Men, and Between Women

	LOG EARNINGS									
	1	2	3	4	5	6	7	8	9	10
Self-Entrep'm (std.)	.185*** (.027)	.155*** (.030)	.129*** (.024)	.093** (.029)	.117*** (.024)	.061* (.027)	.119*** (.023)	.057* (.024)	.113*** (.023)	.048* (.024)
Age	.078*** (.023)	.127*** (.030)	.079*** (.021)	.089** (.028)	.052* (.023)	.047 (.026)	.036 (.022)	.026 (.023)	.038 (.021)	.029 (.023)
Age ²	-.001*** (0.000)	-.001*** (0.000)	-.001*** (0.000)	-.001*** (0.000)	-.001** (0.000)	-.001* (0.000)	-0.000* (0.000)	-0.000 (0.000)	-0.000* (0.000)	-0.000 (0.000)
Advanced Degree				-.253***	-.357*** (.065)	-.250*** (.076)	-.340*** (.062)	-.238*** (.068)	-.335*** (.061)	
College Degree					-.404*** (.080)	-.568*** (.093)	-.394*** (.076)	-.584*** (.082)	-.366*** (.075)	-.567*** (.082)
High School					-.304 (.157)	-.640*** (.169)	-.390** (.150)	-.672*** (.149)	-.395* (.147)	-.657*** (.148)
Less than High School					-.317*** (.077)	-.501*** (.089)	-.324*** (.074)	-.517*** (.079)	-.310*** (.072)	-.490*** (.078)
Years Employed FT					.193** (.071)	.373*** (.039)	.103 (.068)	.158*** (.037)	.106 (.067)	.146*** (.037)
Hours (log)							.551*** (.057)	.864*** (.055)	.476*** (.057)	.816*** (.056)
Supervisor									.168** (.062)	.205** (.064)
Num. Supervise (log)									.084*** (.019)	.028 (.021)
Constant	9.412*** (.572)	7.843*** (.720)	9.708*** (.525)	8.921*** (.742)	10.187*** (.528)	9.382*** (.693)	8.551*** (.530)	7.162*** (.631)	8.533*** (.521)	7.154*** (.626)
+ Occupations?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	943	923	943	923	943	923	943	923	943	923
R ²	.074	.067	.290	.238	.314	.343	.378	.485	.402	.493
Adjusted R ²	.071	.064	.270	.216	.291	.320	.356	.466	.380	.474

Notes: *P < .05, **P < .01, ***P < .001

Table 5: Self-Entrepreneurialism and Earnings Within Individuals

	LOG EARNINGS								
	1	2	3	4	5	6	7	8	9
Self-Entrep'm (std.)	.028 (.019)	.037* (.019)	.047* (.024)	.029 (.019)	.040 (.024)	.038* (.019)	.034* (.017)	.027 (.017)	.024 (.017)
Age		.151*** (.009)	.151*** (.009)	.145*** (.009)	.145*** (.009)	.135*** (.009)	.108*** (.008)	.091*** (.009)	.086*** (.009)
Age ²		-.002*** (0.000)	-.002*** (0.000)	-.001*** (0.000)	-.001*** (0.000)	-.001*** (0.000)	-.001*** (0.000)	-.001*** (0.000)	-.001*** (0.000)
Self-Entrep'm*Female			-.026 (.038)		-.026 (.038)				
Advanced Degree (ref =Some College)							.118	.123 (.076)	
College Degree								.057 (.053)	.053 (.052)
High School								-.127 (.066)	-.129 (.066)
Less than High School								-.143 (.130)	-.143 (.129)
Years Employed FT (log)						.122*** (.030)		.082** (.028)	.076** (.028)
Hours (log)							.670*** (.029)	.651*** (.029)	.626*** (.029)
Supervisor								.066* (.027)	
Num. Supervise (log)									.038*** (.008)
+ Occupations?				Yes	Yes			Yes	Yes
Observations	4,845	4,845	4,845	4,845	4,845	4,845	4,845	4,845	4,845
R ²	.001	.096	.096	.119	.120	.101	.235	.254	.263
Adjusted R ²	-.625	-.471	-.471	-.444	-.445	-.464	-.245	-.225	-.213

Notes: *P < .05, **P < .01, ***P < .001