

## EVIDENCE OF AN 'END OF HISTORY ILLUSION' IN THE WORK MOTIVATIONS OF PUBLIC SERVICE PROFESSIONALS

---

GREGG G. VAN RYZIN

The 'end of history illusion' refers to the tendency of people to underestimate change in their future values and preferences. Could this cognitive bias apply to the work motivations of those in public service? To examine this question, a sample of public service professionals was asked about their current work motivations and then randomized to be 'reporters', who recalled their work motivations 10 years ago, and 'predictors', who forecast their work motivations 10 years from now. Predictors expected much less change in their work motivations over time than reporters actually experienced. Specifically, predictors underestimated the importance of helping others and of working independently, and they overestimated the importance of income. Thus, public service professionals, who are often assumed to have unique prosocial motivations, seem to be subject to an 'end of history illusion' when making decisions about what job characteristics will matter to them over the course of their careers.

### INTRODUCTION

People make decisions relatively early in their lives that can have a profound influence on their career trajectories. Even as children, people playact work roles that they want to assume when they grow up (teacher, doctor, firefighter). Adults routinely ask children, 'What do you want be when you grow up?' – encouraging them to imagine their future working selves. Then as people grow into adolescence (high school) and enter young adulthood (college), they engage in a variety of academic and other activities that prepare them in different ways for the world of work. The accumulation and consolidation of these many work-related expectations and decisions, made relatively early in life, profoundly shape our job opportunities, sectors of employment, and work-related satisfaction as we mature into middle age and beyond. But do our younger selves really know what we will value in our work as we grow older?

This question may have particular relevance to public service, which is an area of employment that many have claimed attracts people with prosocial work motivations (Perry and Hondeghem 2008). But do these motivations change over the course of a person's career? More generally, what job characteristics do people predict will be important to them in their future work lives – and how accurate are their predictions? The answers to these questions have potentially important consequences because of the long-term, prospective, and often deterministic nature of most people's education and career decisions in life. If people's predictions regarding work motivations are biased, this could have profound implications for organizations and for the well-being of individuals.

### WORK MOTIVATIONS

Work motivations have been the focus of a very large and long-established body of theory and research in the general management literature (Pinder 2008; Kanfer *et al.* 2012).

---

Gregg G. Van Ryzin is at the School of Public Affairs and Administration, Rutgers University, USA.

Indeed, some even define the essential task of management as drawing out and directing the internal motivations of workers toward accomplishing the mission and goals of an organization (Herzberg *et al.* 1993; Gagné and Deci 2005). In the field of public management, work motivations have also been the focus of much theorizing and empirical research (Perry 2000; Perry and Hondeghem 2008), with particular attention paid to the notion of a unique set of public service motivations (Wright 2001; Perry *et al.* 2010; Wright and Grant 2010; Vandenabeele *et al.* 2014). This focus on public service motivation can be seen as public administration's response to the broader question of the relative importance of extrinsic motivations (such as pay, benefits, and career advancement) versus intrinsic motivations (such as meaningfulness, purpose, and interest) as factors affecting job performance and other organizational behaviours (Perry *et al.* 2010).

Work motivations are important because evidence suggests that they influence basic processes in the labour market and in the performance of organizations. The attraction-selection-attrition framework (Schneider 1987) provides a useful way to consider how work motivations matter in the public sector (Perry *et al.* 2010; Wright and Christensen 2010). Specifically, studies have shown that public service motivation and other work motivations influence people's attraction to and choice of sectors (Houston 2000; Vandenabeele 2008; Wright and Christensen 2010) or jobs with public service features (Christensen and Wright 2011). And work motivations seem to play an important role in person-organization fit (Bright 2007; Steijn 2008; Wright and Pandey 2008), and thus also job satisfaction (Taylor 2008) and ultimately job performance (Andersen *et al.* 2014). Finally, public service motivation and other work motivations also appear to influence organizational commitment (Crewson 1997) and turnover intentions in the government workforce (Naff and Crum 1999). In sum, the evidence from studies of public service motivation and other work motivations in the public sector suggests that motivational factors constitute important determinants of job attraction, selection and attrition. However, much of this work rests on an implicit assumption that people fully understand their own motivations and, moreover, can make accurate projections about the importance to them of various work motivations in the future.

There is debate about the extent to which public service motivations and work motivations more generally are stable traits engrained in people or whether they are more malleable states, susceptible to change and influence (Wright and Grant 2010). Some evidence indicates that work motivations are grounded in early socialization experiences and personality structures and thus remain relatively stable (Perry 1997). Other evidence suggests that work motivations can be influenced by processes of adaptation and socialization that take place over time in a person's workplace or professional associations (Moynihan and Pandey 2007). If so, this implies that work motivations may develop or change as a person matures and gains work experience and interacts with the people and culture of an organization.

An interesting question, especially given an ageing workforce in many nations, concerns the extent to which work motivations change more generally over the life span (Kanfer and Ackerman 2004). In a large meta-analysis of studies involving age-related changes in work motivations and values, Kooij and colleagues (2011) found a number of interesting patterns over the life span. Specifically, they report age-related increases in the importance of accomplishment and achievement, job security, doing interesting work (self-actualization), helping people or contributing to society, and especially autonomy on the job (Kooij *et al.* 2011, table 4). These meta-analytic findings clearly suggest the possibility of a number of

systematic changes in work motivations over the life span. But if changes occur, do people see this coming – do they anticipate age-related changes in their work motivations over time?

### END OF HISTORY ILLUSION

Psychology has shown that human beings are inherently susceptible to various cognitive illusions, systematic errors in reasoning and judgement that can distort important decisions (Kahneman 2011). In a study published in *Science*, psychologists Quoidbach *et al.* (2013) report on a range of findings that support what they call ‘the end of history illusion’, that is, the tendency of people to predict that they will change very little in the future, even though they report having changed a great deal in the past. Using data from many thousands of respondents recruited online, their method essentially involved asking half the sample to report on their past (the reporters), while asking the other half to predict their futures (the predictors), and then making a comparison. Their study specifically examined personality (the Big Five personality traits), personal values (the Schwartz values inventory), and preferences (a person’s favourite music, food, vacation, hobby, and friend), and in all these domains they found consistent evidence of an end of history illusion. The predictors in the study anticipated less change than reporters said they experienced in their personalities, personal values, and preferences. ‘People, it seems’, remark Quoidbach *et al.* (2013, p. 96), ‘regard the present as a watershed moment at which they have finally become the person they will be for the rest of their lives.’

These authors suggest two possible psychological mechanisms that might account for this end of history illusion. First, people tend to admire their current selves, which they believe they understand well, and thus seek confirmation of their own self-worth by projecting their current values and preferences a long way into the future. Second, people confuse the cognitive difficulty of forming an image of how they might change with the probability that such change will occur. When a cognitive task is difficult, people rely on what information is most readily available, or they substitute an easier task in place of the more difficult one (Kahneman 2011). These mechanisms of availability and substitution could explain why people tend to simply project the present when asked to predict the future. Another possible mechanism is status quo bias, which is the tendency to over-value the present state of affairs and is related to the endowment effect and loss aversion (Samuelson and Zeckhauser 1988; Kahneman *et al.* 1991). It is important to note that the end of history illusion has consequences: people make many important decisions in life, such as career choices, based on what they predict their values and preferences will be many years into the future.

Could this end of history illusion apply also to work motivations? In particular, do people entering public service make good predictions about what will matter to them later in their work lives? Answers to these questions have potentially important implications for work motivation theory in public administration as well as the practices of recruiting, training, managing, and retaining people in the public and nonprofit sectors.

### STUDY DESIGN AND PARTICIPANTS

To examine these questions, a sample of 220 public service professionals of various ages recruited online were all asked about their current work motivations and then (following the method of Quoidbach *et al.* 2013) randomly assigned to two groups: reporters, who were asked to report their work motivations 10 years ago; and predictors, who were asked

to predict their work motivations 10 years from now. Specifically, all participants were first asked to rate, on a scale of 1–10 (from 1 = not at all important to 10 = extremely important), the importance to them of the following motivations (based on items from the International Social Survey Program, Work Orientation III), with the order of presentation randomized for each respondent:

- job security
- high income
- good opportunities for advancement
- a job that allows someone to decide their times and days of work
- a job that allows someone to work independently
- an interesting job
- a job that allows someone to help other people
- a job that is useful to society

It should be noted that the last two items, relating to helping others and being useful to society, have been used as proxies of public service motivation in several prior studies (Taylor and Taylor 2011; Taylor and Westover 2011; Jin 2013; Houston 2014).

Next, those who were randomly assigned to be reporters were asked how important these same motivations were to them 'looking back 10 years ago', using the same 1–10 scale. The randomly assigned predictors, in contrast, were asked how important they thought these motivations would be to them 'looking ahead 10 years from now'. Differences from the present were computed for each motivation; so, for example, respondents' current rating of the importance of an interesting job was subtracted from their future (for predictors) or past (for reporters) importance rating of this same work motivation.

Finally, two direct questions were asked at the end of the survey of both reporters and predictors: 'Thinking about what you personally value in a job ... how much has this

TABLE 1 *Profile of study participants*

	Percent		Percent
Gender		Education	
Male	50.00	Graduate degree	75.24
Female	50.00	College	21.43
		Less than college	3.33
Race		Geographic location	
White	71.56	Northeast	33.33
Black	13.27	South	20.95
Hispanic	5.21	Midwest	17.62
Asian	4.27	West	19.05
Other	5.69	Non-US	9.05
Age		Employment	
Under 20	0.00	Public sector	64.62
20–29	9.55	Nonprofit sector	17.92
30–39	17.73	Private (for-profit) sector	6.13
40–49	25.00	Student/retired/unemployed	5.66
50–59	29.09	Other	5.66
60–69	10.91		
70–79	7.73		
80 or more	0.00		
		Obs = 206 to 212	

changed for you in the last 10 years? ... [And] how much do you think it will change for you in the next 10 years?' (The response categories were 1 = not at all, to 5 = a great deal.) A basic descriptive comparison of these direct questions provides another, general way to gauge the end of history illusion with respect to work motivations.

Participants were members of the Public Service Research Panel, an online access panel of public service professionals recruited from professional associations and related social networks mostly in the US (see PSRPanel.org). Table 1 presents the demographic and geographic profile of participants in the study, which was conducted online in January 2013. As the table shows, respondents were a balance of males and females, predominantly white, and of varying ages. All participants under 30 were assigned to be predictors, while all those over 60 were assigned to be reporters. The participants mostly have graduate degrees, as would be expected in a group of professionals, and over 80 per cent work in the public or nonprofit sectors. Geographically, they come from across all major regions of the US as well as a few from other countries (less than 10 per cent, mostly Canada and Europe).

## ANALYSIS

Regressions were estimated to compare the predicted change in work motivation of those  $X$  years of age with the reported change of those  $X + 10$  years of age. For example, the predicted change of a 37-year-old was compared to the reported change of a 47-year-old. Following the method of Quoidbach *et al.* (2013), this involved constructing a variable, *Decade*, that was coded 1 for an 18-year-old predictor and for a 28-year-old reporter, coded 2 for a 19-year-old predictor and a 29-year-old reporter, and so on. Another variable, *Viewpoint*, was coded 1 for predictors and 0 for reporters, which captures the difference between predicted and reported change in work motivations.<sup>1</sup> Finally, an interaction (*Decade* × *Viewpoint*) was included to capture age-related differences in the gap between predicted and reported change. The formal equation is as follows:

$$y = a + b_1Decade + b_2Viewpoint + b_3(Decade \cdot Viewpoint) + \varepsilon$$

In a first set of regressions, the dependent variable  $y$  is defined as the absolute change in a given work motivation over the decade (so that  $y$  is always a positive number). These regressions parallel the approach of Quoidbach *et al.* (2013) and estimate change of any kind, without regard to direction. The absolute change in each individual motivation is assessed and also the sum of the changes in all eight motivations. In a second set of regressions, the dependent variable  $y$  is defined as the directional change over the decade and thus can be either positive (a gain in importance) or negative (a loss in importance), which allows for an examination of whether people tend to overestimate the future importance of some work motivations while underestimating the future importance of others.

## RESULTS

Table 2 presents the results of the regressions of absolute change in each individual motivation, as well as the sum of all eight, showing both unstandardized and  $y$ -standardized coefficients as a measure of effect size.<sup>2</sup> The coefficient on *Viewpoint* is the main coefficient of interest, as it indicates the difference between predictors and reporters. *Decade* indicates the overall time trend, and the interaction (*Decade* × *Viewpoint*) reflects how the difference

TABLE 2 *Regression analysis of absolute change in work motivations and their sum*

Importance of . . . (1 = not at all, to 10 = extremely)	Viewpoint			Constant	R-squared	Obs (n)
	Decade	(Condition)	Interaction			
job security	-0.029** -(0.019)	-1.922*** -(1.294)	0.058*** (0.039)	2.064***	0.074	203
high income	-0.018* -(0.017)	-0.478 -(0.446)	0.010 (0.010)	1.530***	0.035	205
good opportunities for advancement	-0.022* -(0.015)	-1.068** -(0.723)	0.062*** (0.042)	1.513***	0.077	200
a job that allows someone to decide their times and days of work	-0.051*** -(0.315)	1.792*** -(0.509)	0.045** (0.375)	3.236***	0.100	206
a job that allows someone to work independently	-0.022 -(0.029)	-1.174** -(1.016)	0.025 (0.026)	1.905***	0.045	203
an interesting job	-0.028*** -(0.024)	-0.755* -(0.632)	0.021 (0.017)	1.569***	0.052	204
a job that allows someone to help other people	-0.033*** -(0.028)	-1.391*** -(1.177)	0.042*** (0.036)	1.799***	0.078	204
a job that is useful to society	-0.035*** -(0.026)	-1.134** -(0.839)	0.036** (0.027)	1.782***	0.053	205
Sum of all 8 job characteristics	-0.233*** -(0.036)	-9.656*** -(1.472)	0.294*** (0.045)	15.331***	0.125	206

Note: Dependent variable is absolute-value of change in the importance of a work motivation over the decade. Table shows results of OLS regressions, with unstandardized coefficients in the main rows and  $y$ -standardized coefficients in parentheses (as a measure of effect size). Two-tailed statistical significance indicated as follows: \* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

between predictors and reporters changes with age. Focusing on the main column of Viewpoint coefficients, they are all negative and statistically significant, as expected given the end of history illusion, except for a job with a high income. These negative coefficients indicate that participants consistently predicted less change in the importance of these work motivations in the future than they reported experiencing in their actual work histories. The largest discrepancies between predictors and reporters are for security, working independently, flexibility (deciding times and days of work), and a job that allows someone to help other people. Again, for each of these work motivations, predictors expected significantly less change in the importance of these motivations 10 years in the future than reporters said they had experienced. Moreover, the magnitude of the underestimation of change is relatively large, as measured by the  $y$ -standardized coefficients, with predictors underestimating change in several of the work motivations by a standard deviation or more.

Considering the sum of all eight motivations (bottom row of table 2), predictors clearly underestimated the degrees to which their preferences would change 10 years into the future. On average, reporters experienced nearly 10 more units of change in importance across the eight motivations (each on a 1–10 scale) than predictors expected would occur. In  $y$ -standardized form, this effect represents an underestimation of change across work motivations of about 1.5 standard deviations. The interaction term is also highly significant, indicating that this underestimation of change by predictors is especially pronounced for younger people but attenuates as a person grows older. To illustrate these results, figure 1 shows projections of the predicted and reported change in the overall

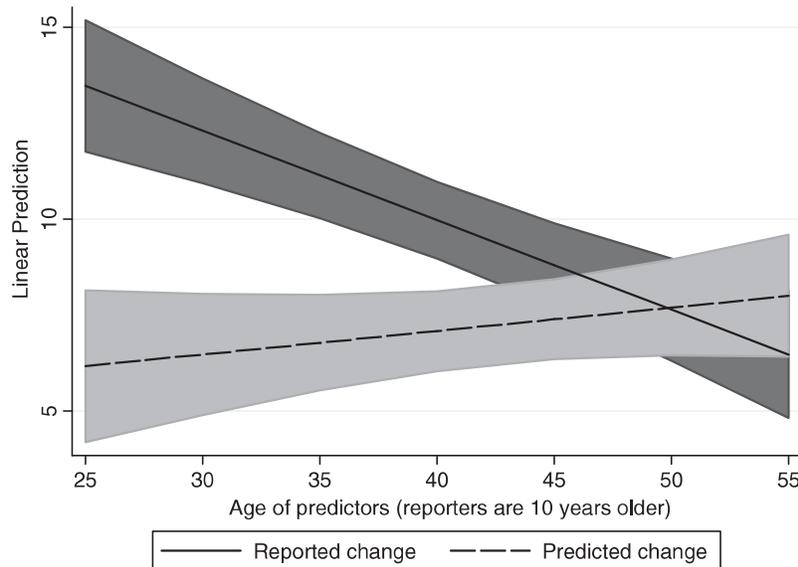


FIGURE 1 Predicted and reported change in the sum of eight work motivations (absolute change)  
 Note: Lines are projections based on coefficients in the bottom row of table 2; shaded area represents the 90 per cent confidence interval.

importance of all eight job characteristics, based on projections from the unstandardized coefficients in table 2. The wide gap between reported and expected change in work motivations can be seen for those in their 20s and early 30s, with the gap essentially disappearing by about 50 years of age (after which point predicted and reported change converge).

Table 3 presents the regressions of directional change, or in other words whether each work motivation became more or less important over time. Interestingly, the pattern is quite different from that in the analysis of absolute change. There is no systematic directional bias in predictions about the importance of job security, for example, despite the fact that predictors substantially underestimated overall (absolute) change in this motivation over time. In contrast, there is a strong directional bias in the predicted importance of working independently, with predictors expecting this factor to be much less important than reporters say it has become. Figure 2 illustrates the regression graphically, and it can be seen that the underestimation of working independently remains quite large across the age span. Predictors also underestimate the future importance of doing a job that allows them to help other people, compared to what reporters say about how this factor became more important to them. Figure 3 illustrates this regression graphically, which shows that the underestimation of helping others is especially pronounced among those in their 20s and early 30s. Thus, even among a sample of public service professionals, this proxy of public service motivation is predicted to be less important than it turns out to be later in their work lives. Finally, predictors somewhat overestimate the future importance of job income, compared to the importance that reporters give to income.

Finally, it is worth examining the descriptive results from the two questions at the end of the survey that directly asked both reporters and predictors to assess how what they value

TABLE 3 *Regression analysis of directional change in work motivations*

Importance of . . . (1 = not at all, to 10 = extremely)	Decade	Viewpoint (Condition)	Interaction	Constant	R-squared	Obs (n)
job security	-0.052*** -(0.028)	-0.594 -(0.318)	-0.002 -(0.001)	1.782***	0.132	203
high income	-0.006 -(0.004)	0.951* (0.655)	-0.012 -(0.008)	-0.136	0.057	205
good opportunities for advancement	-0.027* -(0.014)	0.139 (0.074)	-0.053** -(0.028)	0.848**	0.224	200
a job that allows someone to decide their times and days of work	-0.018 -(0.008)	-0.574 -(0.248)	0.022 (0.010)	1.185**	0.004	206
a job that allows someone to work independently	-0.020 -(0.011)	-1.794*** -(0.961)	0.027 (0.015)	1.581**	0.103	203
an interesting job	-0.017 -(0.012)	-0.727 -(0.513)	0.011 (0.007)	0.771**	0.042	204
a job that allows someone to help other people	-0.016 -(0.012)	-1.164** -(0.817)	0.026 (0.018)	0.962***	0.047	204
a job that is useful to society	-0.022* -(0.016)	-0.867 -(0.550)	0.006 (0.004)	1.137***	0.083	205

Note: Dependent variable is directional change in the importance of a work motivation over the decade. Table shows results of OLS regressions, with unstandardized coefficients in the main rows and  $y$ -standardized coefficients in parentheses (as a measure of effect size). Two-tailed statistical significance indicated as follows: \* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

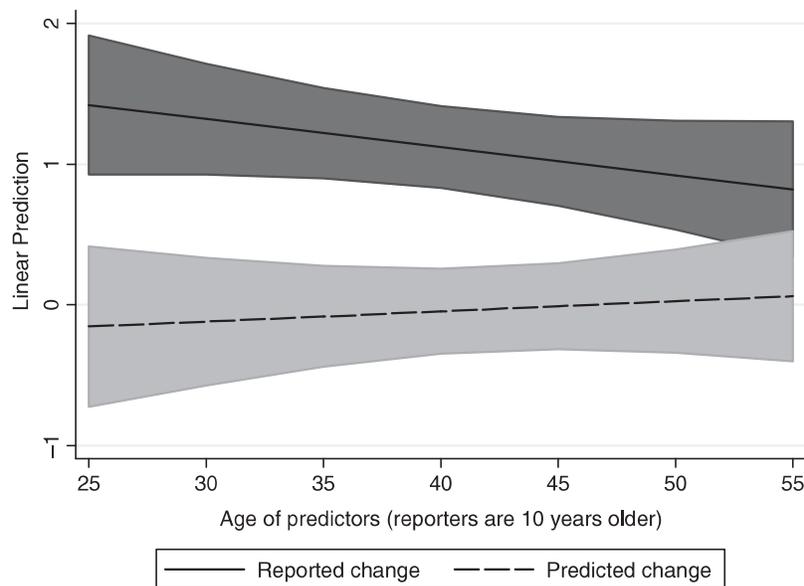


FIGURE 2 *Predicted and reported change in importance of 'a job that allows someone to work independently'*  
Note: Lines are projections based on coefficients in table 3; shaded area represents the 90 per cent confidence interval.

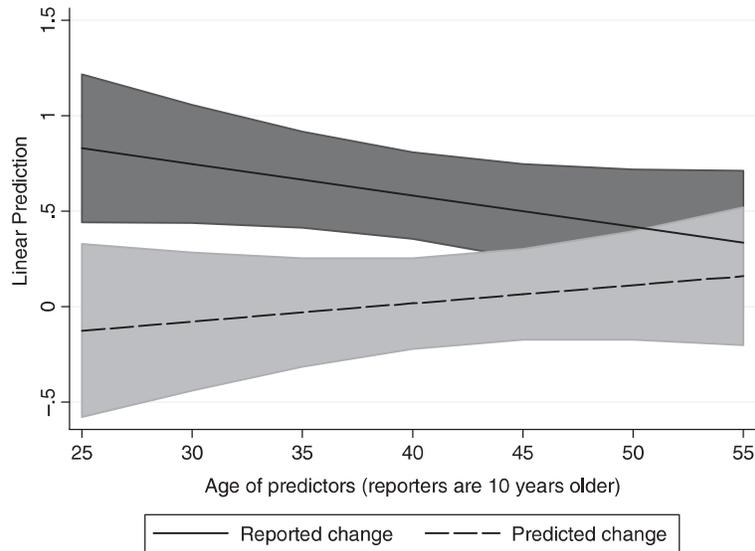


FIGURE 3 Predicted and reported change in importance of ‘a job that allows someone to help others’  
 Note: Lines are projections based on coefficients in table 3; shaded area represents the 90 per cent confidence interval.

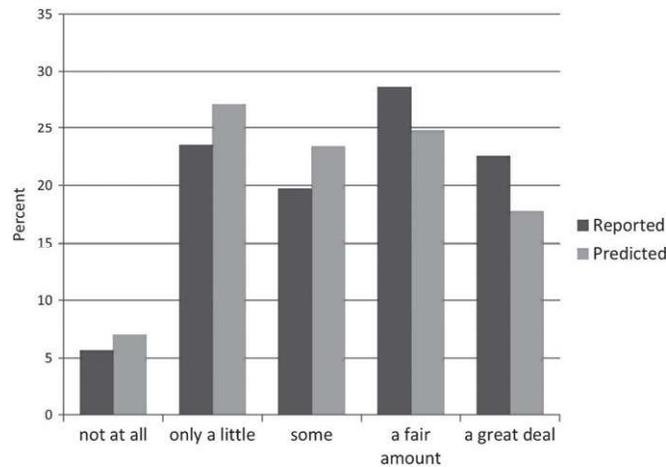


FIGURE 4 Direct question about change in work motivations  
 Note: Thinking about what you personally value in a job ... how much has this changed for you in the last 10 years? ... how much do you think it will change in the next 10 years?

in a job has changed over the last 10 years, and how much they think it will change over the next 10 years. As figure 4 shows, respondents tend to predict less change in the values that matter to them in a job, compared to how much change they say they have experienced. Thus, the end of history illusion is evident even when asking direct questions about past and future change in work values and motivations.

## DISCUSSION

Consistent with the end of history illusion hypothesis, results of this study show that public service professionals predicted much less change in their work motivations over time than they reported experiencing in their actual work histories. In particular, they underestimated the importance of helping others and of being able to work independently; and they somewhat overestimated the importance of income. These results have implications for the growing body of research on work motivations in the public and nonprofit sectors, as they suggest that people entering public service may have systematic biases when making decisions that anticipate what job characteristics will matter to them over the course of their professional careers. The results also have implications for the study of work motivations more generally. But before discussing these implications, it is important to point out a few important methodological limitations of this study.

Although the sample used in this study is diverse and includes public service professionals of various ages from across the US (as well as some from Canada and Europe), it is not a probability sample and therefore not strictly generalizable to the population of all US public service professionals. Indeed, the participants were part of a voluntary panel that signed up to participate in research about public service and thus may have higher public service motivation than a more representative sample. Another limitation is that the method, although involving random assignment, is more observational than experimental and thus does not provide clear proof of cause and effect. Specifically, the matched predictors and reporters are people of different ages viewing different decades. Ideally, it would be better to conduct a panel study and follow the same people over time to observe how each individual both predicts and, 10 years later, reports on their work motivations. But this kind of longitudinal research is quite difficult and time-consuming to undertake, and thus the method used here provides a rough yet arguably still useful approximation.

Given these caveats, the study's findings still suggest several potentially important implications for theory and practice. To begin with, the findings of this study imply that the end of history illusion, identified by Quoidbach *et al.* (2013), applies to work values and motivations. Indeed, in the present study, people substantially underestimated the absolute amount of change in the importance of a variety of job characteristics and values. Moreover, this end of history illusion seems to mislead people most when they are in their 20s and early 30s, precisely the stage of life in which they are most likely to choose a course of professional study and begin heading off on a career path. This finding perhaps has implications for colleges and universities, which may wish to consider ways to encourage young adults – not only to discover their current interests and passions (as most colleges already emphasize) – but also to imagine how these interests and passions may evolve and change in the years after college, for example by inviting older professionals or alumni to talk about their experiences. Similar issues and approaches would be useful even in professional schools of public policy, business, law, and other areas that train people for careers in public service.

The findings of this study have implications for the theory of public service motivation, as they suggest the need to take into account that people appear to suffer from fundamental biases in decision-making based on work values and motivations. This suggests a more complex picture of how such motivations guide, or even misguide, long-term choices about sectors and jobs. Specifically, the results of this study imply that people tend to underestimate the importance of helping others, which is a key dimension of public service

motivation. And it is noteworthy that this finding appeared even in a voluntary sample of public service professionals who are likely to have a high level of public service motivation to begin with. In a more general sample of working people, the underestimation of public service motivations may appear even more pronounced, although additional studies are needed to confirm this speculation. If it were confirmed, this finding might help shed light on the phenomenon of mid-career switches from the private sector to jobs in government and the nonprofit sector (Mainiero and Sullivan 2006; Perry *et al.* 2010). It may also help explain job shifts from government to the nonprofit sector, which some studies suggest satisfy especially high prosocial motivations (Rotolo and Wilson 2006; Gregg *et al.* 2011).

The strongest finding was that people in the study underestimated the importance of a job that would allow them to work independently. This finding is consistent with the meta-analytic results of Kooij and colleagues (2011) of a strong positive relationship between age and the importance of job autonomy, and it suggests several interesting interpretations. As people grow into middle age, of course, they tend to have children and other family responsibilities that likely make working independently (such as working from home) more valued. This could be part of the effect observed here. In addition, given that the majority of those in the study worked for government, this finding could reflect an underestimation of the frustrations caused by the bureaucratic culture and red tape that tend to characterize many public organizations (DeHart-Davis and Pandey 2005). Certainly, the pronounced underestimation of work autonomy observed in this study deserves further investigation in both public and private sector contexts.

Finally, the fact that people in this study tended to overestimate the importance of a high income has several interpretations. To begin with, this finding could well reflect the fact that people early in their careers tend to earn less, but as time brings more work experience, raises and promotions, they increasingly satisfy their income-related expectations. As a result, a high income may matter less later in life simply because it has been achieved, reducing its salience relative to other work values and motivations. Still, people may genuinely overestimate how important income will be to them in their future jobs. Indeed, the meta-analysis by Kooij and colleagues (2011) found that, in general, intrinsic motivations become more important over the life span, while extrinsic motivations such as income become less important.

In sum, the results of this study suggest that the end of history illusion applies to work motivations in public service and, most likely, in the work world more generally. To the extent that people choose education programmes, sectors of employment, and specific job opportunities based on their predictions of what values will be important to them in the future, these decisions may be distorted by systematic biases. It is certainly worth additional exploration of this end of history illusion in future studies of work motivations in both the public and private sectors. And it is also worth being aware of this end of history illusion when making one's own career and job choices.

## NOTES

The data and Stata commands used in this study are available from the author upon request.

<sup>1</sup> In Quoidbach *et al.* (2013), this variable is labelled Condition (as in experimental condition) and effect coded (−1 for reporters, +1 for predictors). I chose to use ordinary dummy variable coding so that the regression coefficients in tables 2 and 3 would be more directly interpretable as the difference in *y* between predictors and reporters. It should also be noted that the random assignment of respondents to reporting or predicting is not actually an experimental design, since there is no intervention; hence my preference for the label Viewpoint rather than Condition.

<sup>2</sup> The  $y$ -standardized coefficient represents the standard-deviation change in  $y$  associated with a one-unit increase in  $X$ . For the main variable of interest, Viewpoint, which is a dummy variable, the  $y$ -standardized coefficient represents the standard-deviation difference in  $y$  between predictors and reporters.

## REFERENCES

- Andersen, L.B., E. Heinesen and L.H. Pedersen. 2014. 'How Does Public Service Motivation among Teachers Affect Student Performance in Schools?', *Journal of Public Administration Research and Theory*, 24, 3, 651–71.
- Bright, L. 2007. 'Does Person–Organization Fit Mediate the Relationship between Public Service Motivation and the Job Performance of Public Employees?', *Review of Public Personnel Administration*, 27, 4, 361–79.
- Christensen, R.K. and B.E. Wright. 2011. 'The Effects of Public Service Motivation on Job Choice Decisions: Disentangling the Contributions of Person–Organization Fit and Person–Job Fit', *Journal of Public Administration Research and Theory*, 21, 4, 723–43.
- Crewson, P.E. 1997. 'Public-Service Motivation: Building Empirical Evidence of Incidence and Effect', *Journal of Public Administration Research and Theory*, 7, 4, 499–518.
- DeHart-Davis, L. and S.K. Pandey. 2005. 'Red Tape and Public Employees: Does Perceived Rule Dysfunction Alienate Managers?', *Journal of Public Administration Research and Theory*, 15, 1, 133–48.
- Gagné, M. and E.L. Deci. 2005. 'Self-Determination Theory and Work Motivation', *Journal of Organizational Behavior*, 26, 4, 331–62.
- Gregg, P., P.A. Grout, A. Ratcliffe, S. Smith and F. Windmeijer. 2011. 'How Important is Pro-social Behaviour in the Delivery of Public Services?', *Journal of Public Economics*, 95, 7, 758–66.
- Herzberg, F., B. Mausner and B.B. Snyderman. 1993. *The Motivation to Work* (Reprint edn.). New Brunswick, NJ: Transaction Publishers.
- Houston, D.J. 2000. 'Public-Service Motivation: A Multivariate Test', *Journal of Public Administration Research and Theory*, 10, 4, 713–28.
- Houston, D.J. 2014. 'Public Service Motivation in the Post-Communist State', *Public Administration*, 92, 4, 843–60.
- Jin, M. 2013. 'Public Service Motivation: A Cross-Country Study', *International Journal of Public Administration*, 36, 5, 331–43.
- Kahneman, D. 2011. *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux.
- Kahneman, D., J.L. Knetsch and R.H. Thaler. 1991. 'Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias', *Journal of Economic Perspectives*, 5, 1, 193–206.
- Kanfer, R. and P.L. Ackerman. 2004. 'Aging, Adult Development, and Work Motivation', *Academy of Management Review*, 29, 3, 440–58.
- Kanfer, R., G. Chen and R.D. Pritchard (eds). 2012. *Work Motivation: Past, Present and Future* (Reprint edn.). New York: Routledge.
- Kooij, D.T.A.M., A.H. De Lange, P.G.W. Jansen, R. Kanfer and J.S.E. Dijkers. 2011. 'Age and Work-related Motives: Results of a Meta-analysis', *Journal of Organizational Behavior*, 32, 2, 197–225.
- Mainiero, L. and S. Sullivan. 2006. *The Opt-Out Revolt: Why People Are Leaving Companies to Create Kaleidoscope Careers* (1st edn.). Mountain View, CA: Nicholas Brealey America.
- Moynihan, D.P. and S.K. Pandey. 2007. 'The Role of Organizations in Fostering Public Service Motivation', *Public Administration Review*, 67, 1, 40–53.
- Naff, K.C. and J. Crum. 1999. 'Working for America: Does Public Service Motivation Make a Difference?', *Review of Public Personnel Administration*, 19, 4, 5–16.
- Perry, J.L. 1997. 'Antecedents of Public Service Motivation', *Journal of Public Administration Research and Theory*, 7, 2, 181–97.
- Perry, J.L. 2000. 'Bringing Society In: Toward a Theory of Public-Service Motivation', *Journal of Public Administration Research and Theory*, 10, 2, 471–88.
- Perry, J.L. and A. Hondeghem. 2008. *Motivation in Public Management: The Call of Public Service*. Oxford and New York: Oxford University Press.
- Perry, J.L., A. Hondeghem and L.R. Wise. 2010. 'Revisiting the Motivational Bases of Public Service: Twenty Years of Research and an Agenda for the Future', *Public Administration Review*, 70, 5, 681–90.
- Pinder, C.C. 2008. *Work Motivation in Organizational Behavior* (2nd edn.). New York: Psychology Press.
- Quoidbach, J., D.T. Gilbert and T.D. Wilson. 2013. 'The End of History Illusion', *Science*, 339, 6115, 96–8.
- Rotolo, T. and J. Wilson. 2006. 'Employment Sector and Volunteering: The Contribution of Nonprofit and Public Sector Workers to the Volunteer Labor Force', *Sociological Quarterly*, 47, 1, 21–40.
- Samuelson, W. and R. Zeckhauser. 1988. 'Status Quo Bias in Decision Making', *Journal of Risk and Uncertainty*, 1, 1, 7–59.
- Schneider, B. 1987. 'The People Make the Place', *Personnel Psychology*, 40, 3, 437–53.
- Steijn, B. 2008. 'Person–Environment Fit and Public Service Motivation', *International Public Management Journal*, 11, 1, 13–27.
- Taylor, J. 2008. 'Organizational Influences, Public Service Motivation and Work Outcomes: An Australian Study', *International Public Management Journal*, 11, 1, 67–88.
- Taylor, J. and R. Taylor. 2011. 'Working Hard for More Money or Working Hard to Make a Difference? Efficiency Wages, Public Service Motivation, and Effort', *Review of Public Personnel Administration*, 31, 1, 67–86.
- Taylor, J. and J.H. Westover. 2011. 'Job Satisfaction in the Public Service', *Public Management Review*, 13, 5, 731–51.

- Vandenabeele, W. 2008. 'Government Calling: Public Service Motivation as an Element in Selecting Government as an Employer of Choice', *Public Administration*, 86, 4, 1089–105.
- Vandenabeele, W., G.A. Brewer and A. Ritz. 2014. 'Past, Present, and Future of Public Service Motivation Research', *Public Administration*, 92, 4, 779–89.
- Wright, B.E. 2001. 'Public-Sector Work Motivation: A Review of the Current Literature and a Revised Conceptual Model', *Journal of Public Administration Research and Theory*, 11, 4, 559–86.
- Wright, B.E. and R.K. Christensen. 2010. 'Public Service Motivation: A Test of the Job Attraction–Selection–Attrition Model', *International Public Management Journal*, 13, 2, 155–76.
- Wright, B.E. and A.M. Grant. 2010. 'Unanswered Questions about Public Service Motivation: Designing Research to Address Key Issues of Emergence and Effects', *Public Administration Review*, 70, 5, 691–700.
- Wright, B.E. and S.K. Pandey. 2008. 'Public Service Motivation and the Assumption of Person–Organization Fit: Testing the Mediating Effect of Value Congruence', *Administration & Society*, 40, 5, 502–21.