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# 'Overwhelmed at first': the experience of career development in early career academics

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**ABSTRACT**

The higher education sector is undergoing considerable changes to its working conditions. From regular scrutiny of individual research and teaching quality, audits of individual academic performance, to growing expectations arising from the culture of 'student experience', it is widely recognised that higher education is a turbulent sector. Amongst Early Career Academics (ECAs), initial transitions into this sector of work can have considerable consequences for career development and willingness to remain within the higher education profession. Drawing on a mixed-mode survey exploring the experience of UK-based ECAs, we highlight distinct intrapersonal and experiential factors which relate to variations in the perceived potential for career development and wellbeing. The data suggest that it is not just situational factors such as the departmental environment and job security that relate to the 'imagined futures' of ECAs; it is also important to gain a deeper understanding of how intrapersonal dimensions, such as an individual's personality, shape the experience of the early stages of an academic career. Our qualitative data shed further light on the experiences that can influence the job satisfaction of ECAs. The findings are discussed in the context of a growing body of international research on ECAs, and the rapidly changing Higher Education sector in the UK.

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Higher education (HE) is a rapidly changing area of work. From greater levels of state scrutiny regarding research excellence, teaching quality, and value for money in education, scholars have argued that higher education is a very different sector than it was a generation ago (Fitzgerald, Gunter, and White 2012; Kenny 2017). The number of individuals gaining a doctorate has increased, but for those who choose to enter the academic profession, there has been no concomitant increase in the number of available academic posts (Maher and Anfres 2016). A high proportion of academic staff now enter the HE sector on a fixed-term contract with limited opportunities for full-time posts with greater job security (Kaplan 2010; Powell 2015). This precarious entry into HE has had a significant impact on early career academics (ECAs) who are a group identified as experiencing stress and anxiety (Olsen and Sorcinelli 1992; Olsen 1993), limited academic support and mentoring (Hardwick 2005), and high workloads (Austin, Sorcinelli, and McDaniels 2007). The combination of these and other work-related pressures may have an important bearing on career development, work satisfaction, wellbeing, and the likelihood of remaining in the profession. The

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Supplemental data for this article can be accessed here.

specific nature of these relationships in academic contexts requires further empirical investigation, in order to inform the provision of adequate support.

Early career academics (ECAs) are a diverse group, with contract types varying according to job focus (e.g. research only, teaching only, or a combination of teaching and research), and status (e.g. fixed term or permanent). Regardless of the variability, the commonality amongst all roles and contracts is that ECAs are all starting a new career in an academic environment, holding individual career aspirations whilst simultaneously managing performance against targets. The current study explores ECAs perceptions of their work environment along with their beliefs about their future career development, then explores relationships between these factors and intrapersonal personality dimensions. This study focuses on two Universities in England and aligns with a growing interest in the experiences of ECAs across multiple international contexts, including Spain (Castelló, McAlpine, and Pyhältö 2017), Australia (Bosanquet et al. 2017; McKay and Monk 2017), and Canada (Acker and Webber 2017), as well as the UK (Smith 2017).

## *Early career development in higher education*

The period of transition into a post-doctoral appointment is not always immediate, with some academics taking a career break after doctoral study, others experiencing research and contract work alongside their doctoral studies, and some entering academia at a later stage in the lifecourse after a previous career (Mellors-Bourne, Metcalfe, and Pollard 2013; Wellcome Trust 2014). In the 2017 Careers in Research Online Survey (CROS), 77% of the 7564 respondents aspired to an academic career; 43% were aiming for a research and teaching role, and 34% were seeking a research-only role within HE (Mellors-Bourne and Metcalfe 2017). The experiences of ECAs in the first five years of employment serve as an important marker of future academic rewards and overall success (Henkel 2004; Laudel and Gläser 2008), as well as dissatisfaction and exiting from the profession (Austin, Sorcinelli, and McDaniels 2007). In the UK, the appointment of most ECAs is subject to a three-year probationary period, during which ECAs are set a series of targets to achieve, including publications, teaching evaluations, research funding or taking on major administration roles. These targets can lead to significant stress and anxiety, alongside a feeling of 'surveillance' (Smith 2017).

Our theoretical stance is influenced by extant research examining ECAs as a specific group, where career development has been represented as a struggle in integration and assimilation, and where prior impressions of the nature of work can affect subsequent experiences. Crawford and Olsen (1998) draw on the concept of 'met expectations' (see Porter and Steers 1973) to explain work satisfaction and commitment. They argue that those with little experience of working in HE were more likely to set unrealistically high expectations of what life in academia would be like, and that where expectations of a role are not met, the likelihood of disengaging from the role increases. McAlpine and Turner (2012) exploring the 'imagined futures' of PhD students and Post-Doctoral researchers demonstrate that many PhD students hold unrealistic expectations about the nature of academic work, and likely markers of success and achievement.

More recent research has developed insights into predictors of successful career development, demonstrating different conceptions of success in different facets of the academic role. Across international HE contexts, ECAs believe success in research, as opposed to teaching, to be a stronger predictor of career development and success (Acker and Webber 2017; Bosanquet et al. 2017; Castelló, McAlpine, and Pyhältö 2017; Sutherland 2017). Furthermore, the ability to manage academic workload is perceived to predict success in research, but not teaching (Stupnisky, Weaver-Hightower, and Kartoshkina 2015). In a further study, Stupnisky, Pekrun, and Lichtenfeld (2016) reported that teaching produced more adaptive emotions, specifically enjoyment and pride, along with greater boredom. In contrast, research activity generated reports of anxiety, guilt and helplessness. Perceptions of greater academic control were related to self-reported success in both domains.

As well as the structural factors which determine successful adaptation of ECAs into HE, local factors associated with the departmental culture have also been identified as having a key role to play in ECAs' adaptations into HE (Trowler and Knight 1999). Smith (2010) found that academics working in a strong, collegial department were more likely to develop strategic and successful research careers. By contrast, academics working in less collegial departments viewed their probation as bureaucratic and unsupportive. These factors can have an important bearing on academic decisions to remain in either their own institutions (e.g. Johnsrud and Rosser 2002; Rosser 2004) or the profession altogether (e.g. Barnes, Agago, and Coombs 1998; Bosanquet et al. 2017). Even where opportunities exist for ECAs to engage in collaborative networks to assist career development and peer support, engagement can be restricted by the challenging conditions of work such as lack of time, high workloads, and isolation (Price, Coffey, and Nethery 2015).

As a result of recent high-profile reports of mental health difficulties in academics (Guthrie et al. 2017), exploration of wellbeing in ECAs is particularly important. Rates of mental health conditions in academics are substantially higher than those in other professional groups (Goodwin et al. 2013), and factors such as work-life balance, locus of control, job security, and support from managers and colleagues are reported to have an influence on mental health in the workplace (Guthrie et al. 2017). Job stress has been widely linked with adverse effects on employees' psychological and physical wellbeing in many occupational groups, including academics (Kinman and Jones 2003). In a study of nearly 10,000 UK academics, Kinman and Court (2010) found that many dimensions of the work environment in Higher Education fail to meet benchmarks set by the Health and Safety Executive, most notably job demands, management of change, perceived quality of interpersonal relationships, support from management and peers, and role stress.

The strain of the workload placed on many ECAs is frequently identified as problematic; Bosanquet et al. (2017) report that many of the Australian ECAs in their study used terms such as 'shattered', 'suffering', worn out', 'swamped' and 'stressed' to describe their experience. Studies across international contexts demonstrate that ECAs typically work over 50 hours per week, with some reporting 80 hours as the norm (Acker and Webber 2017; Bosanquet et al. 2017; Kinman and Court 2010). The burden of teaching and administration often limits time available for research (e.g. McAlpine, Amundsen, and Turner 2014); hence, ECAs see research activity as something which is necessarily relegated to weekends (e.g. McKay and Monk 2017).

The job demand-job control model of stress highlights the impact that job demand and job autonomy can have on employee wellbeing (Karasek, Baker, and Marxer 1981; Karasek and Theorell 1990). Furthermore, it recognises that emotional support, such as trust between colleagues and social cohesion, along with instrumental support, such as extra resources and assistance, can be protective from the physical and psychological effects of stress. Therefore, these domains are of relevance to understanding the experience of ECAs. In addition, intrapersonal characteristics of individuals might make them more or less susceptible to the impact of job demands on wellbeing; as stable dimensions of character and disposition, personality traits are common markers in this regard. Evidence suggests that high levels of neuroticism (characterised by anxiety, self-consciousness and vulnerability) can exacerbate the impact of job stressors on the experience of stress (e.g. Nasurdin, Ramayah, and Kumaresan 2005), and predicts burnout in teachers (e.g. Kokkinos 2007) and lecturers (e.g. Salami 2011). Furthermore, agreeableness (e.g. trust, compliance and tender-mindedness) is positively related to subjective well-being (e.g. Grant, Langan-Fox, and Anglim 2009), encompassing feelings of happiness and satisfaction (Deci and Ryan 2006). An individual's level of conscientiousness (e.g. orderliness, self-discipline and achievement-striving) is also important; low levels of conscientiousness coupled with high levels of neuroticism predict stress, ill health, job dissatisfaction and dysfunctional coping (Grant and Langan-Fox 2006), whereas high levels of conscientiousness are associated with greater use of adaptive coping strategies, such as problem-focused coping (Bartley and Roesch 2011).

Bringing together the potential importance of the work environment, wellbeing, intrapersonal characteristics, and future career perceptions, the primary aims of the present study were to

explore the experiences of ECAs in UK institutions, in relation to wellbeing and career development. Specifically, we aimed to answer the following research questions:

(1) How do features of the organisational climate, and individual characteristics, relate to perceptions of future career success and development?
(2) How does job satisfaction change over the first few years of an academic career?
(3) How do individual and situational characteristics relate to wellbeing in early career academics?

## Method

### Participants

ECAs were recruited via institutional mailing lists across two comparable higher education establishments in different regions of the south of England (N = 60). Both universities were research-intensive, and both were awarded Gold in the Teaching Excellence Framework in 2017. The final sample included data from 52 participants (31 females and 21 males); eight respondents were excluded as they did not classify themselves as an ECA. Respondents ranged in age from 24 to 47 years ($M$ = 32.77, $SD$ = 4.13). The majority of respondents worked in a social science discipline (N = 23) or a STEM discipline (N = 17); Arts/Humanities and Health/Social Care disciplines were less strongly represented (N = 7 and N = 5, respectively). Three respondents were employed on teaching-only contracts, 19 on a research-only contract and 30 on a teaching and research contract.[1] Due to the nature of the research, only basic demographic details were obtained to ensure participant anonymity.

### Design and materials

The survey was administered using Qualtrics online survey software. The survey employed a mixed-mode design, incorporating both open-ended and closed questions, alongside demographic items. The items in the survey consisted of previously-validated scales as well as newly-constructed items, reflecting four main dimensions: work environment; career perceptions; personal characteristics; and wellbeing.

#### Work environment

Four items were designed to reflect the quality of working relationships; respondents were asked to rate on a scale from 1 (very poor) to 6 (excellent) how they would rate the quality of their working relationships with faculty staff, research staff, administrative staff, and University management. Following confirmation of internal consistency ($\alpha$ = .71), the four items were summed to create a composite variable. The same four categories of colleagues were used to assess perceptions of respect; on a scale from 1 (never) to 5 (always), respondents were asked to indicate the extent to which they felt respected by each of the groups. Again, the four items ($\alpha$ = .81) were summed to create a composite variable. Change in levels of satisfaction since the beginning of their career was assessed using a single item, on a scale from 1 (decreased a lot) to 5 (increased a lot). This was followed by an open-ended item in which respondents were asked to explain the reasons for the change in their satisfaction with work. Finally, binary items (Yes/No) were used to assess whether respondents were proud of the organisation they work for, and whether they felt that their department was a friendly place to work.

#### Career perceptions

Two items were presented that asked respondents to rate on a scale from 1 (very unsuccessful) to 5 (very successful) the success of their research activity and teaching work to date. Respondents had the opportunity to tick 'not applicable' if they were only involved in one of these two elements of academic work. Perceptions of future career prospects were assessed using three individual items

reflecting imagined 'five-year futures'; respondents were asked to rate on a scale from 1 (definitely not) to 5 (definitely will) how likely they would: still be in academia in 5 years' time; be successful in gaining promotion in the next 5 years; and be happy in their career in 5 years' time. Respondents were also asked if they had any specific intentions to leave academia, on a scale from 1 (very unlikely) to 7 (very likely). Job security was assessed using a single item; in response to the question 'how secure do you feel your current position is?' respondents could answer on a scale from 1 (not at all secure) to 3 (very secure).

### *Personal characteristics*

Locus of control was measured using the Work Locus of Control Scale (Spector 1988), where a high score represents externality of locus of control, and a low score internality of locus of control. The scale consists of 16 items (α = .89) scored from 1 (disagree very much) to 6 (agree very much), with 8 items being reverse scored. In terms of personality, we focused specifically on the traits of neuroticism, agreeableness and conscientiousness, assessed using the Mini-IPIP Scale (Donnellan et al. 2006). Each trait is measured using four items, which had very good internal consistency in our sample (Neuroticism, α = .79; Agreeableness, α = .83; Conscientiousness, α = .74). Finally, stress was measured using the Perceived Stress Scale (PSS; Cohen, Kamarck, and Mermelstein 1983). This scale consists of 4 items, with very good internal consistency in our sample (α = .84).

### *Wellbeing*

Indicators of wellbeing were measured using four individual items. Respondents were asked to rate their current health using a measure reported by Idler and Angel (1990) on a scale from 1 (poor) to 5 (excellent). The other items in this section were developed for the purposes of this survey including: level of optimism about their future on a scale from 1 (none) to 4 (a lot); whether they were currently happy in their job (yes/no); and perceived work-life balance. The latter item was recorded by moving a slider on a scale from a starting position of 50 (representing equal balance between work life and home life) towards either a lower figure (representing work life dominating the balance) or a higher figure (representing home life dominating the balance).

## *Procedure*

This study received ethical approval from an Institutional Review Board. An invitation to participate was sent by email to all ECAs at two universities, containing a link to the online survey. The survey landing page provided information regarding the purpose of the study, details of the procedure, the rights to withdraw, and explained that the anonymity of all respondents would be preserved. If respondents consented to take part, they were invited to continue responding to the items within the survey which took around 30 minutes to complete.

## *Analysis*

All quantitative variables were screened to determine suitability for parametric analyses. Z-scores for skewness ranged from .07 to 4.01, and z-scores for kurtosis ranged from 0.11 to 4.91. Given the non-normality of many of our variables, we used Spearman correlation coefficients. For the open-ended questions, the qualitative data were explored using thematic analysis (Braun and Clarke 2006), which identifies, analyses, and reports patterns or themes within data. Transcripts were read and re-read with notes of initial thoughts and observations made. Codes were constructed with associated quotes then collated into a list of potential themes. Themes were reviewed through repeated reference to both the coded extracts and the entire set of responses. Themes were further refined throughout writing-up in a recursive process by adjusting themes and illustrative quotes.

## Results

### *How do features of the organisational climate and individual characteristics relate to perceptions of future career development?*

We focused on three indicators of career development: the likelihood of still working in academia in five years' time; the likelihood of being successful in gaining promotion in five years' time; and the likelihood of being happy in one's career in five years' time.[2] None of these three outcomes differed significantly according to gender, contract type or discipline area, so data were collapsed across these factors. As is often recommended for Likert-scale data, we ran non-parametric tests. Table 1 shows the Spearman correlation coefficients between the variables (with biserial correlation coefficients for binary variables).

In response to our first research question, these findings indicate that respondents' 'imagined future' in academia, in terms of the likelihood of being happy in their career in five years' time, is more positive where the environment in which they work is characterised by friendliness, respect, and high-quality working relationships, and where the individual has pride in the organisation for which they work. Notably, those with higher perceptions of their research success also hold more positive 'imagined futures' both in terms of future happiness and career development; the same was not found to be the case for perceived teaching success.

### *How does work satisfaction change over the first few years of an academic career?*

Of the 52 respondents, 28 reported that their job satisfaction had increased since they were first appointed, and 19 reported that their job satisfaction had decreased (5 reported that there had been no change in their job satisfaction). In order to address our second research question, and understand how the early years of an academic career are experienced, we explored respondents' open-ended explanations for an increase or decrease in their job satisfaction in the time since they were first appointed. Following thematic analysis of the responses, we identified four themes from explanations for why job satisfaction has increased, and four themes within explanations for why job satisfaction has decreased (see Table 2). We discuss these themes in detail below.

#### *Increases in job satisfaction*

***Finding your feet.*** Typical responses illustrating reasons for increased job satisfaction included having 'settled in' to the job role, or having 'found their feet', conferring a greater sense of control,

Table 1. Spearman/Biserial Correlation Coefficients.

| | Likelihood of being in academia in 5 years' time | Likelihood of gaining promotion in 5 years' time | Likelihood of being happy in career in 5 years' time |
|---|---|---|---|
| Perceived Research Success | .45** | .40** | .24* |
| Perceived Teaching Success | .12 | .18 | −.20 |
| Pride in Organisation | $.17_a$ | $.17_a$ | $.51_a$** |
| Friendliness of Department | $.14_a$ | $.22_a$ | $.40_a$** |
| Perceived Respect | .22 | .11 | .59** |
| Perceived quality of working relationships | .20 | .11 | .48** |

*$p < .05$ (one-tailed) **$p < .01$ (one-tailed)
$_a$biserial correlation for binary variables

Table 2. Themes for change in job satisfaction.

| Increase | Decrease |
|---|---|
| Finding your feet | Violation of expectations |
| Stepping up to challenges | Bureaucracy and culture changes |
| Variety | Losing confidence |
| Surviving stress | Workload and time pressure |

for example: *'I have settled in a bit, and started to feel like I am in control of what I do more.'*. This orientation confers a sense of confidence: *'I now feel more confident with what I have to do'*.

Respondents also expressed that time is needed in order to '*get better at being an academic, figuring out what it is you're supposed to do and how*'. This establishment of a professional identity as an academic seems to be an important part of the adjustment process of an ECA. Some respondents expressed that their satisfaction had increased because they now felt that they had developed collaborative partnerships, *'I have found my niche a little more and established some fruitful professional relationships'*, and were now able to recognise the outcomes of their efforts, *'I am being more productive and hear about the impact that I have and am having on other people'*.

***Stepping up to challenges.*** For some respondents, an increase in job satisfaction was conferred by opportunities to take on more significant roles and responsibility, for example *'I have been given extra responsibility which is a nice validation of my work effort'*. This appears to validate an emerging academic identity; for some respondents, satisfaction came from being given *'more challenging work and targets'*. These perspectives are important as much focus is placed upon the heavy workload during the early stages of an academic career, and here we see evidence that for some ECAs, it is important to feel that the nature of their work develops in line with their time within the profession. As seen above, being given greater responsibility can, for some, be seen as a validation of a successful start to their career.

***Variety.*** Respondents expressed a belief that a greater mix of projects and opportunities was preferable, as it conferred a greater sense of variety. For some, this increased perception of variety seemed to arise because they were now experiencing a good balance between teaching and research activities, where their prior role (perhaps a post-doc position, or even as a PhD student) was more limited in its focus as this respondent explains: *'My current contract (teaching and research) is what I had always aimed for. Glad I can do both, despite the difficulties'*. The opportunity to undertake both research and teaching roles confers *'more job satisfaction (despite workload)'*. For other individuals, the satisfaction stemming from greater variety reflected the fact that they had now built up a portfolio of different projects, and were enjoying working with different people, for example:

> 'I feel more satisfied with the mix of projects and colleagues/collaborators than when I started in my current role'.

Whilst it is clearly rewarding to have a mix of projects and experiences, it can take time to build the necessary networks, both within one's institution and externally.

***Surviving stress.*** For many participants, their job satisfaction increased because they had found the early stages of their career extremely stressful, and now gained a sense of satisfaction from having successfully negotiated this period: '*The first three years after my PhD were insane. I worked seven days a week every week and was stressed and unhappy. Now, I feel incredibly lucky to have survived it, and to be in a good position'*. For others, the workload and associated stress is still considerable, but with time has come a stronger routine, meaning that overall, satisfaction has increased: *'I was a little overwhelmed at first – starting a new job with a heavy teaching load with only 2 weeks preparation before I started teaching. I am working 6 days a week, but have got into a bit of a routine now'*. It is also clear from this example that some early career academics feel 'overwhelmed' at the start of their career, negotiating the need to understand new working practices, and prepare lectures with very little notice.

## Decreases in job satisfaction

### Violation of expectations

For many respondents who reported that their job satisfaction had decreased since the start of their career, they had experienced a violation of the expectations they held when coming into the profession, for example: *'I think I came here with too high expectations, and having realised how things worked here decreased my satisfaction'*. Another respondent explained how the discrepancy arose not because of their pre-existing expectations, but because of what they perceived to be misleading information provided by their interview panel: *'This job is not what I was led to believe it would be at interview'*.

### Bureaucracy and culture changes

For some respondents whose job satisfaction had decreased, experiencing heavy administration loads was a key factor, for example *'Too much time taken up by admin-type work*'. This workload is perceived to create additional stress and frustration, as one respondent describes:

> *There is much red tape and administration required in this job which prevent me from doing what I actually should be doing [to] fulfil my role properly. I feel I can never make targets, get anything done or finish a task satisfactory [sic] as I always have too many things to do, and keep getting given more to do.*

In other cases, the wider culture commonly reported to characterise academia led to a decrease in job satisfaction, for example:

> *my satisfaction with academia as a whole has decreased. The Machiavellian scrabbling for impact, publications and funding over and above the desire to do good work, or indeed have genuine impact … make for a very dispiriting work environment.*

Similar concerns are often reported by well-established academics; however, it is concerning that experiences of the common culture in higher education are leading new academics to experience a decrease in their job satisfaction.

### Losing confidence

There are often high expectations on early career academics, and the pressure to attract grant funding and achieve high-impact publications without the same support as they experienced during their PhD, can be difficult: *'Since finishing [my] PhD, much less support, much less positive feedback much less confidence in capacity to succeed when faced with article and funding applications rejections etc'*. It was also evident within respondents' perspectives that it can be challenging to 'recalibrate' one's expectations of success:

> *I have been unsatisfied with my progress, but given that I am 5 months in, starting in a relatively new field, I am combatting my personal expectations that I should understand everything and the reality that what I am learning takes effort, yes, but most of all time.*

### Workload and time pressure

One of the most common reasons for a decrease in job satisfaction was the nature of the workload in academia, which is perceived by some to be 'massive' and unmanageable, with one respondent describing: *'When I started my job things were difficult but I could keep most things contained within a working day. Now I have so much work that it consumes every minute of my life and feels unsustainable.'*

For those respondents who had entered their first academic post following a period as a postdoctoral researcher, the change in workload was keenly felt, with one respondent explaining that they felt *'Much more pressure on time/workload burden as lecturer than as postdoc.'* Another respondent explained the complexity of their new job role through reflection on their old position*: 'As a postdoctoral researcher, I got to do research. Now, I get to do admin and teaching, with research relegated to weekends, but I'm still judged solely on my research output. Extremely demoralising'*. It is

Table 3. Spearman Correlation Coefficients between individual and situational work characteristics, and wellbeing outcomes.

| | Stress | Health | Happiness | Optimism | Intention to leave academia |
|---|---|---|---|---|---|
| Work Locus of Control$_b$ | .55** | −.18 | −.61** | −.45** | .27* |
| Work-Life Balance$_c$ | −.25 | .23 | .000 | .13 | −.15 |
| Job Security | −.37** | .26* | .50** | .27* | −.39** |
| Neuroticism | .35* | −.23 | −.46** | −.47** | .38** |
| Agreeableness | .07 | .08 | −.30* | .01 | −.24* |
| Conscientiousness | −.29* | .27* | .35** | .33** | −.33** |

*$p < .05$ (one-tailed) **$p < .01$ (one-tailed)

$_b$a high value of this variable indicates greater externality of Locus of Control

$_c$a low value of this variable represents a poor work-life balance characterised by dominance of work over home life

also important to recognise that a heavy workload, with little opportunity to experience success, has the potential to create a sense of dissatisfaction that one cannot achieve what is desired in any of the areas of the role:

> *Limited time to actually feel like I can develop my teaching and deliver quality sessions and little support, guidance and advice on securing research grants (including writing) and in general for research (technically a third of my contract but something I rarely get to spend time on).*

### *How do individual and situational work characteristics relate to wellbeing in early career academics?*

Analyses explored the relationships between wellbeing outcomes (stress, health, happiness, career optimism, and intention to leave academia) along with individual and situational work characteristics (locus of control, self-efficacy, work-life balance, job security, neuroticism, agreeableness, and conscientiousness). There were no significant differences in any of the wellbeing outcomes according to gender, contract type or discipline area so data were collapsed across these factors. Table 3 shows Spearman Correlation Coefficients between the variables of interest.

In response to our third research question, these data indicate that the wellbeing of early-career academics is higher where individuals perceive to hold control over elements of their work environment, where they have a good work-life balance, and a perception of high job security. Our data also demonstrate that personality traits also relate to wellbeing outcomes; high levels of conscientiousness and high levels of neuroticism relate to superior and inferior wellbeing, respectively. Surprisingly, high levels of agreeableness were associated with lower levels of happiness in work.

## Discussion

The primary aim of this study was to explore the relationships between situational and interpersonal factors, and the wellbeing and career development perceptions of UK ECAs. The novelty of our approach lies in the consideration of individual differences in the early experiences of an academic career alongside environmental and interpersonal factors. Our mixed-mode survey enabled us to quantify relationships between factors of interest, whilst also gaining deeper insight into the nuances of ECAs' experiences. Increases in job satisfaction were expressed through experiences of 'finding your feet', stepping up to challenges, variety, and surviving stress. Individuals reporting a decrease in job satisfaction experienced a violation of their expectations, bureaucracy and culture changes, a loss of confidence, and challenges relating to workload and time pressure.

### *Career development perceptions*

Beginning with the influence of situational factors, our data illustrate that perceived respect from colleagues, quality of working relationships, and the friendliness of one's department relate

positively to respondents' 'imagined future' in terms of perceived happiness in their job, but not perceived likelihood of promotion, or intentions to remain in the profession. Previous research suggests that departmental collegiality may influence the process of integration and adaptation for ECAs (e.g. Trowler and Knight 1999), with a less collegial environment leading to feelings of isolation and disillusionment at the outset of an academic career (Smith 2010).

Whilst imagined future happiness seems to be related to features of the work environment, perceived likelihood of gaining promotion, and of remaining in the profession were related to intrapersonal factors. Our data demonstrate a perception that being successful in the research, but not teaching, is likely to influence promotion opportunities, as well as the likelihood of remaining within the profession and being happy in one's career. Our qualitative analysis suggests that for some individuals, the opportunity to engage in both teaching and research activities has been a source of job satisfaction. However, it appears that regardless of whether or not teaching is a source of enjoyment, doing well in this area of their role is not perceived to confer advantages in terms of career development. The perception that it is success in research that holds the key to career advancement resonates with findings from other international contexts (Acker and Webber 2017; Bosanquet et al. 2017; Castelló, McAlpine, and Pyhältö 2017; Sutherland 2017), and represents much current discourse about notions of academic success across the sector (e.g. Cadez, Dimovski, and Zaman Groff 2017).

It remains to be seen whether or not the traditional emphasis on research as a precondition of 'reward' and 'success' will remain in higher education. In particular, the financial pressures as a result of reduced research council budgets, and reduced European funding resulting from the UK's exit from the European Union, may require HE establishments to place greater emphasis on teaching excellence metrics in order to attract potential students (Havergal 2016). With regard to a global perspective, whilst the specifics of the accountability structure may differ (e.g. REF and TEF in the UK, or RAE in Hong Kong), most higher education systems have high levels of accountability with similar pressures encountered by their ECAs.

### *Wellbeing*

Features of the work environment related strongly to wellbeing outcomes. Perceiving security in one's position was associated with lower levels of stress, better self-reported health, higher levels of happiness with work, greater optimism about future career prospects, and less of an intention to leave the profession. This collection of findings resonate with those reported by Bosanquet et al. (2017) in an Australian context, where causal positions and a lack of job security were described as a significant stressor.

Our data also demonstrate strong relationships between perceived locus of control and wellbeing outcomes. The more an individual perceives the locus of control in their work environment to rest externally, the greater their stress, and the lower their levels of happiness with their current job, and their optimism about their future career. Furthermore, perceiving limited control over one's work environment is also associated with a stronger intention to leave the profession. Our qualitative analysis supports these findings; we see evidence of a perception of a managerialist performance culture and bureaucracy limiting career development via the effects of alienation and disempowerment. Many respondents discussed frustration with the fact that administration limited their ability to exercise agency over their day-to-day work activities.

Our correlational analyses did not reveal any significant relationships between work-life balance and wellbeing outcomes. However, the qualitative analysis indicates that difficulties managing their workload was a significant dimension of the experience of ECAs in our sample. Respondents discussed how the tension in managing the different elements of their role led to a sense of helplessness in achieving any outcomes to their satisfaction, and the time pressure associated with their workload was one of the most commonly described reasons for a decrease in job satisfaction. As in many other studies of the ECA experience across international contexts, these new academics

appear to be working very long hours, with weekends being the only time where meaningful research work can be achieved. One possible reason why we did not uncover any significant correlations between work-life balance and wellbeing might be that ECAs become acclimatised to this intensive working pattern, which becomes the 'new norm'. Thus, relationships with wellbeing outcomes might not be as strong as they would be for more 'acute' periods of intense work.

When exploring personality variables, our data shed light on those individuals who may be at greater risk of experiencing negative wellbeing outcomes as a result of navigating the stressors characterising the early stages of an academic career. Perhaps unsurprisingly given the strength of evidence in the literature (e.g. Salami 2011), those higher in neuroticism reported higher levels of stress, lower levels of happiness, lower levels of optimism, and a stronger intention to leave the profession. The study of Post-doctoral and doctoral researchers in the UK and Spain reported by Castelló, McAlpine, and Pyhältö (2017) indicated that perceived exhaustion was related to procrastination and perfectionism, both of which might be associated with high levels of Neuroticism. We also replicated the previously reported evidence that high Conscientiousness can be a protective factor against the effects of work stressors (e.g. Bartley and Roesch 2011); ECAs reporting higher levels of Conscientiousness reported lower levels of stress, better health, greater happiness with their job, greater optimism for the future, and were less likely to consider leaving the profession. In conjunction with our qualitative analysis, which demonstrates that for some ECAs, surviving stress can be a source of pride and satisfaction, it is important for future research to better understand how those high in Conscientiousness manage the pressures of the early stages of an academic career. Hall (2004) discusses resilience as an important factor in being able to manage setbacks and disappointments, such as the rejection of manuscripts and funding bids. Finding ways to support ECAs to adopt adaptive coping strategies is essential if the sector is to nurture the next generation of the academic workforce. Our qualitative data also show a mismatch between expectations of academic work and the lived experience of the role, which according to 'met expectation theory' (Porter and Steers 1973), can lead to role disengagement (Crawford and Olsen 1998) and unrealistic expectations of what it is like to work as an academic (e.g. McAlpine and Turner 2012); our data also indicate that inaccurate perceptions of what a particular role might entail can be portrayed at interview.

The relationships between the trait of Agreeableness and wellbeing outcomes are worthy of further discussion. Our data demonstrate that being high in the trait of Agreeableness (representing cooperation, modesty, sympathy and altruism) is associated with lower levels of happiness in work. This is interesting given that previous research demonstrates that those high in agreeableness experience greater subjective wellbeing (e.g. Grant, Langan-Fox, and Anglim 2009). When discussing their job satisfaction, our respondents spoke of 'Machiavellian scrabbling' for personal gain, which together with our correlational analyses, indicates that it perhaps does not 'pay to be nice' in what is a highly competitive and stressful sector. Our data also indicate that whilst those high in agreeableness might be less happy in their current work situation, they are also less likely to consider leaving. It has been suggested that those high in agreeableness are more likely to feel a sense of contractual obligation to their organisation (e.g. Maertz and Griffeth 2004), leading them to tolerate the more negative aspects of their work environment (Zimmerman 2008). Individuals high in agreeableness also experience greater 'job embeddedness' because of the positive relationships they often maintain with colleagues, which can also influence their tendency to remain in an organisation even if they are unhappy (e.g. Mitchell et al. 2001).

Taken together, how can these findings influence the ways in which institutions support the integration of ECAs into the early stages of an academic career? Several authors have highlighted the value of supportive mentoring for ECAs during the first few years of a post (Hardwick 2005; Muschallik and Pull 2016). We believe that mentoring is one method of providing support for ECAs from more senior academics, thereby helping provide more realistic guidance regarding the feasibility of achieving targets and work prioritisation decisions. Ensuring that departmental and institutional cultures are collegial and supportive is also likely to facilitate the integration of ECAs

into the working environment. For management, a carefully laid out plan for probationary periods or similar transition stages is key to empowering ECAs to complete and succeed in the roles and responsibilities assigned to them. This plan should encompass clear achievable targets to demonstrate expectations, with regular opportunities for mentoring support and constructive feedback as part of a collegial and supportive departmental culture.

The findings should be interpreted within the context of the limitations of the study design. We recognise that correlational analysis of a single survey cannot capture the nuances of the identity trajectory (McAlpine and Turner 2012) experienced by ECAs, and how past experiences influence present and future cognitions and expectations. Having established evidence of intrapersonal dimensions that may moderate the experiences of ECAs during the early stages of their career, assessment of *within individual* change using longitudinal narrative methods (e.g. McAlpine, Amundsen, and Turner 2014) might extend our understanding of not only how ECAs negotiate the challenges of developing an academic identity, but how this might be experienced differently by those with different trait profiles. Furthermore, the data represent two UK institutions with similar goals of research and teaching, in comparison to newer universities which have a stronger emphasis on teaching and learning. The sample size and number of institutions recruited limits the potential for more comprehensive disciplinary and institutional comparisons, and hence the generalisability of the data.

### *Conclusion*

Higher Education is a rapidly changing sector worldwide. The present study adds to a growing body of literature on the experiences of ECAs across different international contexts, by considering the relationships between intrapersonal dimensions as well as situational factors on 'imagined futures' and wellbeing outcomes. Whilst new challenges and requirements have an impact on those at all stages of an academic career, the fragile academic identity often held by ECAs (e.g. Archer 2008) can make this group particularly susceptible to adverse wellbeing outcomes and negative work experiences. Further understanding how an academic career is experienced by those with different trait profiles might enable those responsible for mentoring and supporting ECAs to anticipate how new initiatives or changing pressures might influence the chances of successful integration into the early stages of an academic career. Such an endeavour is essential to the sustainability of the academic profession.

## Notes

1. Exploratory analyses revealed no significant differences between participants' experience according to their contract type. Thus, we collapsed across this factor for our analyses.
2. Note that we have focused on conceptually- and theoretically-driven correlations rather than inflate Type I error rate by testing inter-correlations between all variables. As we made specific predictions about these relationships, one-tailed hypotheses were tested. Full details of intercorrelations between all variables can be found in the online supplementary materials.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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