

The impact of journal re-grading on perception of ranking systems: Exploring the case of the Academic Journal Guide and Business and Management scholars in the UK

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Abstract

The marked increase in the use of metrics, such as journal lists, to assess research has had a profound effect on academics' working lives. While some view the diffusion of rankings as beneficial, others consider their diffusion as a malicious development, which furtheracerbates a tendency towards managerialism in academia, and undermine the integrity and diversity of academic research. Using data from a large-scale survey and a re-grading of journals in a ranking used by Business and Management UK scholars—the Academic Journal Guide—as a pseudo-experiment, we examine what determines negative and positive perceptions of rankings. We find that the individuals who published in outlets that were upgraded were less hostile to the ranking than those who did not benefit from these changes, and that individuals were also less hostile to the ranking if outlets in their field had benefited from re-grading in the new list. We also find that the individuals who published in outlets that were upgraded were more positive to the ranking than those who did not benefit from these changes, and that individuals were also more positive to the ranking if outlets in their field had benefited from re-grading in the new list.

Key words: hostility to ranking systems; positive views of ranking systems; Academic Journal Guide; academic attitudes and behaviour; journal rankings.

Introduction

Although academic roles include responsibilities in terms of teaching, research, and administration (Tytherleight et al. 2005; Kinman and Wray 2016), research output is still one of the most prevalent measures of academic productivity (Dietz and Bozeman 2005), with relevant implications for career progression. For this reason, the way research outputs are assessed, such as through peer review, journal impact factors, and journal rankings, has become a focal point of debate (Newton 2010). Over time, in the evaluation of research quality, there has been a shift internationally towards the more extensive use of metric-based appraisal methods, which are often embedded in other forms of evaluation such as research

assessment exercises (Jappelli, Nappi, and Torrini 2017). Moreover, these lists and metrics have been integrated with many teaching-related and institutional ranking systems, inducing a range of possible effects on knowledge production and the daily practice of doing research (Rijcke et al. 2016).

Given this shift, there is a widely held perception that metrics and journal lists have become an invasive part in academic life, which has in turn led to critical scrutiny of these metrics and lists. Many authors have pointed to the limitations of journal impact factors, ranging from the effects of the different coverage of journals across time (Mañana-Rodríguez 2015) to the skew in the number of citations to papers in a journal, which make these measures unreliable guides to the 'quality' of outputs (Baum 2011). As a result, there has been a call for the use of

'responsible metrics', including the 'Leiden Manifesto' that proposes a set of guidelines about the use of metrics (Hicks et al. 2015). In that debate, particular attention has been focused on journal rankings. It has been suggested that the use of these lists, or ranking systems, is leading to a sort of 'list fetishism' in which the content of the paper assumes less importance than the journal it is published in (e.g. Willmott 2011; Mingers and Willmott 2013; Hussain 2015). Researchers have argued that journal lists influence the research of academics by limiting the diversity of methods and topics used and thereby restricting innovation and critical appraisal (e.g. Macdonald and Kam 2007; Lawrence 2008; Adler and Harzing 2009; Northcott and Linacre 2010; Alvesson and Sandberg 2013).

On the other hand, researchers have argued that journal lists can also provide benefits to individual academics by assisting them in obtaining recognition for their work and evaluating the work of colleagues within their own and other fields (Baden-Fuller, Ravazzolo, and Schweizer 2000; Morris, Harvey, and Kelly 2009; Morris et al. 2011). In addition, recent research has found that journals that are highly ranked are more supportive of interdisciplinary and innovative work, but they publish more quantitative methods in comparison to lower ranked journals (Vogel, Hattke, and Petersen 2017). Furthermore, it has been argued that lists provide decision makers with valuable information to be able to make efficient decisions about research quality, thereby aiding in activities such as promotions and hiring, resource allocation, and research evaluation exercises (Reinstein and Calderon 2006; Giles and Garand 2007; Voss 2010; Agrawal, Agrawal, and Rungtusanatham 2011; Beattie and Goodacre 2012).

Regardless of whether individuals manifest hostility or are positively inclined towards rankings, as Gioia and Corley (2002: 115) pragmatically point out 'we need to start with the premise: the rankings are not going away'. Moreover, these journal ranking systems can and do change, and these changes may in turn shape the way individuals view the ranking systems. Indeed, there is a question about whether changes in journal ranking systems themselves elicit greater hostility or whether they are more positively viewed by some individuals based upon the nature of these changes. We address individual's positive vs. negative views of rankings following changes in the rankings by focusing on the expectancy theory (Vroom 1964; Porter and Lawler 1968), which suggests that individuals expect a certain valued reward based on their performance. When individuals are over-rewarded they tend to experience less cognitive dissonance towards the system and more satisfaction (Pritchard, Dunnette, and Jorgenson 1972), than when they are under-rewarded. This leads us to the question: *Are individuals' views of ranking systems sensitive to changes that benefit (or damage) their own portfolio of publications?* Furthermore, we aim to investigate individuals' opinions when changes in the ranking do not affect them directly, but do affect their peers. We focus on social identity theory (Tajfel and Turner 1979), where social identification with one group is likely to help shape attitudes towards specific elements that may affect the group (Ashforth and Mael 1989) and try to answer the question: *Are individuals' views of ranking systems affected by changes impacting upon their research field?*

In order to address these questions, we use a pseudo-experimental approach exploiting the effects of an exogenous regarding of a journal ranking of individuals' publication outlets and journals in their respective fields. We use the context of faculty working at business schools in the UK, who are subject to a recurring national research assessment system, what is called the Research Excellence Framework (REF). The REF rewards research performance with funding, primarily on the basis of publications. Although the UK's REF is based on peer review, most UK business schools have adopted a journal list, the

Academic Journal Guide (AJG),¹ to inform their decision-making about the value of different research outputs, and have embedded the AJG in their workload, hiring, and probationary systems. The AJG was originally developed by the Association of Business Schools and has been updated in waves over the past 10 years. The AJG itself is based on a mixture of metrics and expert assessment. It attempts to offer a comprehensive list of journals for business and management schools ranked by the 'rigour, significance, and originality' of their outputs. The AJG 2015 included some 1,401 journals (ABS 2015).

Although the AJG list is one of a number of internationally available journal rankings for business and management, it is by far the most extensively used list among UK business schools, with over 89% of academics working in business schools in the UK indicating they use the AJG in their professional roles (Walker et al. 2018). The AJG is also used outside the UK: according to the publishers of the AJG, the Charter Association of Business Schools (CABS), US-based academics are the second largest set of users of the list.

To explore our research questions, we utilize five different sources of data, including information collated from websites, a large-scale survey of academics, data from the UK national research evaluation exercise, journal ranking information, and individuals' publication records in Scopus. We find that individuals who published in outlets that were upgraded were more positive/less hostile to the ranking, and were also more positive/less hostile if their field had benefited from re-grading in the new list.

Research evaluation in UK business schools

Business and Management is an important cognate area for research evaluations, as the large size of business schools relative to other university departments has led them to be subject to considerable pressure for enhanced performance by academic institutions (Piercy 2000). Business and management schools are also subject to many high-profile rankings, many of which primarily focused on teaching but also incorporate research. For example, the *Financial Times* ranking of MBA programmes relies primarily on the salary gains of graduates, but also on the number of papers produced by faculty in a proscribed list of journals. Furthermore, the use of journal lists has become a common tool utilized in research evaluation in Business and Management. Harzing (2018) maintains a regularly updated 'list of lists', consolidating rankings of journals in Business and Management used in variety of countries, including Australia, Denmark, and France among others.

Although subject to many international rankings, the UK context is a particularly appropriate setting for understanding attitudes to journal rankings as it has a relatively homogenous higher education system with a long history of research assessment (Collini 2008; Hicks 2012). Furthermore, concerns about the use of metrics have been consistently raised in the UK (Harman 2000; Ball and Butler 2004; Chatterji and Seaman 2006; Macdonald and Kam 2007; Broadbent 2010). At the institutional level, research in the UK is evaluated via publicly funded 'research selectivity exercises', collectively known as the REF, which have recently seen the introduction of impact assessment (Khazragui and Hudson 2014; Williams and Grant 2018). The outcomes of these exercises are published at the unit of assessment or subject level, such as 'Business and Management', where individuals' research outputs grades are aggregated. The REF is important to business schools as both a direct source of government research funding, and an indirect source of status and reputation.

Table 1. Evaluation of business school research in the UK

	Research Excellence Framework (REF) 2014	Academic Journal Guide (AJG)
Consists of	A national research assessment system organized by the UK government agency. The quality of research is assessed in terms of 'rigour, significance, and originality' based on the peer review panels	A journal list, based on a mix of metrics and expert assessment. Published in waves over the last 10 years by the Chartered Association of Business Schools (ABS) (independent/private)
Purpose	Rewards research performance with funding based on the quality of the publications (65%), research impact (20%), and research environment (15%)	Informs individuals' and Business Schools' decision-making about the value of different research outputs, influencing workload, hiring, and probationary systems
Level of assessment	By units of assessment, or subject level	By individuals, journal level to proxy individual's output quality
Timing	Once every 6–7 years	Updated every 3 years
Ranking	1–4 star	1–4 star

Note: Further details relating to the REF 2014 are found at <https://www.ref.ac.uk/2014/>. The methodology for AJG list and the list itself can be accessed at <https://chartereddabs.org/academic-journal-guide-2015/>.

Table 2. Comparison of output from institutions from the REF (2014) and RAE (2010) classified using the ABS (2010) ranking

ABS	Top 5 (%)	5–20 (%)	21–50 (%)	Greater than 50 (%)	Overall
RAE entry					
1-star	1.5	4.4	8.3	16.5	8.1
2-star	13.1	19.0	27.1	37.5	25.2
3-star	43.0	48.2	43.8	33.7	43.0
4-star	28.0	23.1	18.0	11.5	19.3
World Elite Journals	14.4	5.3	2.8	0.7	4.4
% of 4-star	42.4	28.3	20.8	12.3	23.8
N	1,136	3,783	3,545	2,436	10,900
REF entry					
	REF 2014				
1-star	0.9	1.0	0.9	3.2	2.0
2-star	3.3	5.7	12.0	16.4	12.2
3-star	25.4	57.4	61.0	58.1	55.9
4-star	41.1	35.8	22.7	22.3	24.3
World Elite Journals	29.3	10.5	3.5	5.0	5.6
% of 4-star	70.4	46.3	26.2	27.2	30.0
N	638	2,009	2,187	4,328	8,950

Source: RAE (2008) and REF (2014) returns classified using the ABS (2010) journal classification.

Note: RAE (2008) is composed to the Accounting and Finance and Business and Management units of assessment which were merged in the REF (2014). Comparison excludes non-journal outputs and those not captured by the ABS guide which equates to less 5% of the outputs submitted to the research evaluation exercise.

Within the REF, research performance is assessed at the institutional level, and therefore, in order to decide whether an individual's work is of sufficient quality to be entered into the exercise, business schools need to evaluate the quality of their own faculty. In an attempt to anticipate the decisions of the REF peer review process, institutions typically assess the quality of individual papers indirectly by evaluating the outlets in which they are published, making use of journal rankings. It is clear that in preparing their REF submissions, many institutions relied upon the AJG as a proxy for the sub-panel's likely assessment (By, Burnes, and Oswick 2013). Anecdotal evidence indicates that such an 'arm's length' appraisal process is now endemic in business schools for hiring, appraisal, and promotion decisions (De Rond and Miller 2005; Macdonald and Kam 2007; Willmott 2011; Agyemang and Broadbent 2015), which affords journal rankings an increasing degree of importance. Table 1 summarizes the key features of these two related systems (i.e. the REF and the AJG).

Over time, there has been a substantive fall in the number of staff submitted by UK business schools in the national research assessment,

indicating greater selectivity in determining who will be considered for the assessment. Indeed, between the 2008 and the 2014 assessment, the percentage of all eligible staff submitted fell from 95% to about 47%. This shift can also be discerned via the data provided from the two recent assessments: the RAE (2008) and REF (2014). Using information from the ABS 2010, the version of the academic journal list that was the last to appear before REF 2014, Table 2 highlights the shift towards AJG 3- and 4-star ranked outputs between RAE 2008 and REF 2014. The extent of the change is substantive and reinforces survey evidence linking the views of staff to the appreciation that the journal guide had a powerful role in determining which outputs and which individuals were submitted to the REF 2014.

Given the extensive use of the AJG and its impact on the lives of faculty, it is perhaps not surprising that it has been controversial, as some individuals view it positively, while others direct considerable hostility to it. Although the use of lists can help researchers obtain recognition for their work (Baden-Fuller, Ravazzolo, and Schweizer 2000; Morris, Harvey, and Kelly 2009; Morris et al. 2011) and it

may reward interdisciplinary and innovative papers (Vogel, Hattke, and Petersen 2017), the use of the AJG has been argued to generate a type of 'list fetishism' whereby the journal's rank is given prominence over the content of the paper (e.g. Willmott 2011; Mingers and Willmott 2013; Hussain 2015). Concerns that the list has explicit and implicit biases have also been raised in a series of studies (e.g. Findlay and Sparks 2010; Hussain 2011, Morris et al. 2011; Hoepner and Unerman 2012; Stewart 2005).

Despite these controversies, to date there has been little research examining attitudes to the use of lists by academics. Surveys of league tables and rankings have tended to focus upon the views of senior managers (see Hazelkorn 2007, 2008, 2009). Walker et al. (2018) suggest that lists are used more extensively by those individuals with strong positive or negative views about them.

As it stands, these prior studies have tended to treat journal ranking systems and attitudes towards them as fixed, yet these ranking systems do themselves change. These changes may emerge in response to external pressures and/or through incorporation of new information. As yet, there is little or no research on how changes in journal rankings may influence individuals' views about these systems. Are individuals sensitive to these variations, especially if they gain (or lose) from changes in the ranking system? Do such changes lead to more favourable views or feelings of greater hostility to the ranking system itself?

Hypotheses

Social justification, expectations, and attitudes towards the AJG

Given that the AJG plays a pervasive role in shaping the working lives of UK business and management academics, we rely on social cognitive theories and previous empirical findings in order to establish hypotheses regarding the main antecedents of views towards the list. One element that may influence academics' opinions about the AJG is a change in the ranking of a journal where they have published. The AJG was updated in 2015, meaning that a journal's position in the rank may have improved, worsened, or remained unchanged compared to the previous ranking: while several journals had a positive change in the ranking, for others there was a negative change. Individuals were able to examine the rates and compare these directly from the prior rankings as the list provides the most recent ranking alongside prior rankings. These changes may represent either an over-fulfilment or a breach of business academics' expectations.

According to the expectancy theory of motivation articulated by Vroom (1964), later expanded by Porter and Lawler (1968), individuals are motivated to choose a certain behaviour over other behaviours based upon what they expect the result will be. This theory has been applied to explain the main antecedents of individual performance in organizations (e.g. Bunderson and Sutcliffe 2002; Lepine, Podsakoff, and Lepine 2005) and employees' attitudes towards performance management and reward systems (Perry, Engbers, and Jun 2009). Expectancy theory has also been used to explain the research productivity of business faculty members, suggesting that where a high value is attributed to both intrinsic and extrinsic rewards, this leads to a higher research productivity (Chen, Gupta, and Hoshower 2006). We now address expectancy theory in order to explain academics' attitudes towards the AJG.

Expectancy theory has three components: expectancy, instrumentality, and valence. Expectancy consists of a belief that individual's

effort will lead to the attainment of desired performance goals; instrumentality represents the belief that if the performance expectation is met that person will be rewarded; and valence refers to the value the individual attributes to the rewards (Vroom 1964). When a business academic publishes a paper in an AJG ranked journal, particularly a highly ranked one, he/she is likely to perceive that his/her effort was rewarded, and that reward that may have an important valence for his/her career. If a journal's position in the ranking changes in their favour, business academics' careers may be benefited, meaning that one's intended effort to publish in a journal was over-rewarded. This may result in a more positive opinion of the AJG ranking. This assumption would be consistent with previous empirical evidence suggesting that individuals who are over-rewarded tend to experience less cognitive dissonance towards the system and more satisfaction (Pritchard, Dunnette, and Jorgenson 1972), with nuances depending on aspects such as their equity sensitivity (Allen, Evans, and White 2011) and on their perceived fairness and self-interest (Peeters and van den Bos 2008). In contrast, when there is a negative change in the ranking of a journal where they published before, business academics are likely to perceive that the initial reward for their effort was now taken away: the rules of the game changed, which may be considered unfair. In terms of valence, the downgrade of a journal on the AJG may have important repercussions in terms of the measurement of their productivity (Dietz and Bozeman 2005) and related career progression and employability. Given that the new 'rules of the game' are now less favourable to them, meaning that they were under-rewarded, they are likely to have more hostile opinions of the AJG.

H1: When there is a positive (negative) change in the ranking of journals where an individual has previously published then that individual is more likely to be more favourable (or more hostile) towards the ranking system.

Although a change in the ranking of a journal where a business academic has published in the past may shape their current attitudes, it is possible that a positive or negative change in the ranking of journals in the field where an academic is active may also influence his/her opinion about the ranking. In this particular case, the expectancy theory framework (Vroom 1964), suggesting that an individual is motivated to perform based on an expected reward with a high valence, can explain this rationale when combined with some ideas deriving from the social identity theory (Tajfel and Turner 1979). Social identification is a perception of 'oneness' with a group of people, which leads to activities that are consistent with the identity, support for institutions, or others who embody that identity. By frequently publishing in a specific field within the AJG ranking (e.g. Finance, International Business and Area Studies, Marketing, etc.), business academics may perceive themselves to be part of a group with shared interests (Ashforth and Mael 1989). Social identification with a particular in-group is likely to help shape attitudes towards specific elements that may affect the group. In the context of higher education in the UK, previous evidence suggests that there are individual and collective values central to academic identity, namely the primacy of the discipline (Henkel 2005), suggesting that academics are likely to perceive a specific field or discipline as an in-group. A change in the ranking of journals in the field affects the in-group they belong to, which may help shape their attitudes towards the AJG. Applying expectancy theory and the rationale developed for the previous hypothesis to an in-group/out-group identity context, we hypothesize:

H2: When there is a positive (negative) change in the ranking of journals in an individual's field, that individual is more likely to be more favourable (or more hostile) towards the ranking system.

Methods

Setting, data, and sample

Our setting is drawn from the UK business and management education sector, which is home to a large and diverse set of institutions. Some of these business and management schools have been operating for over 50 years, whereas others are relatively new. Typically, business and management schools emerged out of existing universities, but there are several 'stand-alone' institutions, such as London Business School. Almost all of the UK business schools are public, charitable institutions, with a core mission of education, teaching, and outreach. The average size of school is around 70 faculty, with the largest being Manchester Business School with 220 faculty. Funding for business and management schools is largely drawn from student fees, with research income providing only a modest share of total revenue. Over the past 20 years, these schools have seen impressive growth as a result of increased enrolments at undergraduate and graduate levels. The number of full-time equivalent faculty employed by the sector increased from 9,300 in 2004 to 12,300 in 2015.²

Faculty in these institutions are generally employed on traditional academic contracts, which in the UK context implies an open-ended contract after completing probation. Although these open-ended contracts are similar to tenure, they do not provide the same degree of permanence as North American contacts, as faculty are liable to be subject to significant performance reviews. Depending on the practices of each institution, 'poor' performance, especially with regard to research, may lead to re-contracting into a teaching or adjunct roles, or even in some cases redundancy.

Another key feature of the UK system is a high level of labour mobility between institutions. This is partly due to the homogeneity of the system as well as the transferability of the pensions. In addition, and particularly in the lead up to the national research assessment, there are often opportunities for individuals to better their personal circumstances by moving, bringing with them 'their' outputs to enhance their employers' REF submission.

In this context, the ABS list was initially developed as a list of all the journals that had three or more articles submitted to the Business and Management unit of assessment panel of the RAE in 2001. Further journals were then added following a comparison with alternative lists from six UK business schools (Morris, Harvey, and Kelly 2009). The original ABS list reduced the importance of institution specific lists by explicitly consolidating them and drawing upon the 'expert opinion' of scholars representing fields within business and management and metric information, with those experts being given access to citation-based metric information provided by methodologists.

Four versions of the guide were produced by the same editorial team prior to 2010. The 2010 ranking included 825 journals distributed across 22 fields, where journals were ranked between one and four, with the fourth and highest category distinguishing between four graded journals and elite so-called 'Journals of Distinction'. However, the new version, published in 2015, marked a major development of the list. In governance terms, the entire editorial board and all but two of members of expert advisory team who are

responsible for putting forward rankings the rankings were replaced. Furthermore, the expert advisory group grew significantly increasing from 12 to 33. The guide was re-titled AJG to reflect a less UK-based focus. The methodology used provided information on longer run citation information normalized within each of the newly defined 22 sub-disciplines and their associated ranking. In addition, subject specialists engaged in a process of examining journals in their fields. This, coupled with a call for journal editors to apply for incorporation of the list, saw the list grow by more than 40% to include 1,401 journals. The revision process led to 223 journal ranking changes, including 180 upgrades and 43 downgrades. These changes accounted for 16% of all the journals on the 2015 list and 27% of all journals on the 2010 list, indicating the re-grading exercise was substantive. The decision to upgrade and downgrade these journals was taken by the ABS list Scientific Committee with guidance from its subject matter experts, combining data provided by the methodologists and their own evaluation of journals based on their specific knowledge areas and via consultation from field experts. The final decisions were not communicated outside the ABS list Scientific Committee and methodologists, who retained the editorial responsibility for the list. Although subject-matter experts may have been consulted on some of these re-grading decisions, they were asked to not disclose any information about their part of the list prior to its final publication.

We focus on the population of academics working at UK business schools in the period immediately following the REF 2014. Along with information from the AJG itself, our research approach involves combining information from five independent sources: (1) websites of business schools; (2) results of the RAE/REF census; (3) individuals' publication data; (4) journal ranking information; and (5) a large-scale survey.

The initial stage of the data collection involved collating information from *universities' websites* on the faculty working in business schools in the UK, including their rank and gender. These details were gathered at three points in time—(1) immediately prior to the 2014 REF census at the end of 2013; (2) the following year at which time email addresses were also recorded; and (3) a final update in 2015, when all researchers' names and contact details were re-checked via websites to make sure that they were as accurate and current as possible. The second information source was the *REF census and outcomes*, which is published by the Higher Education Funding Council of England. These data include unit of assessment scores from the REF, along with individual research outputs. The third source of information captured individual-level faculty publication information that were compiled from *Elsevier's Scopus* and downloaded in July 2014. We used Scopus over other bibliometric databases due to the ease of its author search and its extensive coverage of business and management research. These data were manually checked before being further cross-checked using information from websites and other sources.

The fifth element in our study was a *large-scale survey*. The survey data used in this study come from a wider research project exploring business academics views of the journal lists that was conducted in 2015. The study involved administering an online questionnaire to all academics working in business schools who had participated in RAE 2008 with the addition of University College London. We focused our survey on those individuals who were likely to be 'research active' in their employment contracts, and therefore the sample included Senior Teaching fellows but excluded Teaching Associates/Teaching fellows as well as Honorary, Visiting,

Emeritus scholars. The final population comprised 8,002 academics, affiliated to 90 business and management schools in the UK.

The survey was designed using an iterative approach. We started by bringing together questions from prior research on ranking lists, before developing a bespoke set of questions. The initial draft of the survey was then piloted using more than 20 business and management academics, the majority of which were based outside the UK but had had recent experience of working at UK universities. In response to the pilots, we redrafted the text of the questions and then ran the redrafted pilots with a group of business school faculty. The survey was live for 1 month, and we asked non-respondents to participate three times during this period. The survey received 1,945 responses, generating a response rate of around 24%.

We carried out several tests of the population to check the reliability of the survey responses against potential sources of bias in our sample. First, we investigated if there was any difference in the typology of the university that respondents were affiliated to, compared to the rest of the sample: we performed a non-parametric test and found no significant differences. Second, we compared the ranks of respondents to the overall sample, separating institutions' ranking in the REF using their overall Grade Point Average (GPA). The sample has a slightly greater proportion of professors and a higher share of staff from the top 20 research-oriented institutions, due to the exclusion of teaching fellows from our wider sample. In order to check for non-response bias between the waves we tested whether there were differences in the responses between the early and late respondents but found no statistically significant differences (Van der Stede, Young, and Chen 2005). Finally, we checked the primary expertise of survey participants as a means to suggest a reasonable correspondence between participants and those who had been submitted to REF 2014. In order to do so, the proportion of REF outputs was compared to the primary expertise of participants who completed the survey using the subject classifications provided by AJG 2015. Overall, the sample was consistent with the outputs that had been submitted to the REF. Having excluded responses for non-item response and completing matching across the five sources of data, we were left with a sample of 1,409 to analyse.

Measures

Dependent variable

The survey had a number of questions enabling participants to provide their views of the AJG. Specifically, participants were asked to provide their level of agreement [using a five-point scale listing 1. 'Strongly Disagree', 2. 'Disagree', 3. 'Sometimes', 4. 'Agree', 5. 'Strongly Agree'] with the following negative statements derived from a systematic review of the literature whether the Academic Journal Guide/ABS list: 'Shifts research efforts away from debates that researchers would like to contribute to', 'Fosters a "research monoculture"', 'Encourages researchers to focus on issues that are only of interest to other academics rather than practitioners/policy-makers', 'Promotes "low risk" research', 'Leads to technically well-executed but boring research', 'Rewards journals that strive to "imitate a US-oriented model of scholarship"' (e.g. Stewart 2005; Findlay and Sparks 2010; Hussain 2011; Morris et al. 2011; Willmott 2011; Hoepner and Unerman 2012; Mingers and Willmott 2013; Hussain 2015). To ensure that participants did not tick down the list, they were also asked a number of neutral or positive statements such as whether the AJG 'Encourages academics to be more targeted in where they publish their research' and 'Helps researchers

to make judgments about the quality of research being undertaken by a researcher in their field'. This questionnaire design strategy is consistent with the recommendations of Podsakoff et al. (2003). We also utilized principal component analysis to derive the variables used in the analysis. Principal component analysis' results enabled us to test for the convergent validity of our set of used variables and discriminate them from the positively worded items. To derive the dependent variable, *negative views (hostility)*, we take the arithmetic mean of the negative items. Motivated by research conducted by Landis, Beal, and Tesluk (2000), we take the mean score across the seven categories to capture the hostility to the list. Reliability was also tested for using the Cronbach alpha ($\alpha = 0.87$). We take an analogous approach to derive *positive views (positively inclined towards)* using the Cronbach alpha ($\alpha = 0.84$).

In order to provide an initial examination of whether, and the extent to which, academics are hostile or positively inclined towards the AJG, Table 3 provides summary statistics for the dependent variables (with the five-point being simplified into three groups for expositional purposes). It highlights the degree of positivity vs. hostility to the AJG across different questions with the majority agreeing or strongly agreeing that the AJG is detrimental to scholarship (between 46.6% and 72.0% or 62.2 on average) and a significant minority being in disagreement (between 10.1% and 20.7%). In contrast, between 41.4 and 68.4 (or 50.9% on average) agreed or strongly agreed that the AJG was positive to scholarship, while a more substantial minority, between 10.9 and 35.1 (or 26.7%), disagreed or strongly disagreed.

Independent variables

Changes in rankings. The reclassification of the ABS list to the AJG list led to changes in ranking of journals and in individual subject areas across differing ranks. We classify shifts from 2- to 3-star ('New' 3), from 3- to 2-star ('Old' 3), from 3- to 4-star ('New' 4), and from 4- to 3-star ('Old' 4) for each individual creating count variables that capture the number of changes experienced.

Change in field. The AJG classifies journals into 22 subject areas and the reclassification had uneven effects on different fields. There was variation in the proportion of output classified in the AJG as being 4-star in the revision compared to the prior ranking (omitting the focal individual). For example, the Management Development and Education field, which had no 4-star outlets, upgraded *Academy of Management Learning and Education* from 3-star. Some areas were expanded with a number of new entries, such as Economics, which had five journals upgraded. Others, such as General Management, Ethics and Social Responsibility had no net gains with one journal being added, *Business Ethics Quarterly*, while another journal, the *Harvard Business Review*, was downgraded to a three. The impact at the level of the field has also differed, sometimes substantively. For example, in the field of Operations and Technology, seven times more papers were published by scholars in our sample in the *International Journal of Operations and Production Management*, a journal re-graded from 3- to 4-star, than the only other 4-star outlet in the area, *Production and Operations Management*. In order to identify the individual's field, we asked respondents to self-report with the option of choosing 'other' if they considered that their field was not represented. Perhaps reflecting the development of the list, and the fact that a key distinctive feature of its development has been to align to and consult a broad set of disciplines often linked to academic associations and bodies, only 20 (1.3% of that sample) of the 1,429 faculty chose 'other'.

Table 3. Hostility towards the Academic Journal Guide (proportion of responses on a five-point scale)

	Disagree/strongly disagree	Sometimes	Agree/strongly agree
Negative views (hostility)			
Shifts research efforts away from debates that researchers would like to contribute to	10.8	20.8	68.5
Fosters a 'research monoculture'	10.9	20.7	68.4
Rewards journals that strive to 'imitate a US-oriented model of scholarship'	10.1	17.9	72.0
Encourages researchers to focus on issues that are only of interest to other academics rather than practitioners/policy-makers	15.8	24.8	59.4
Promotes 'low risk' research	18.4	23.6	58.0
Leads to 'technically well-executed but boring research'	20.7	32.6	46.6
Positive views (positively inclined)			
Helps researchers to make judgments about the quality of research being undertaken by a researcher in their field	10.9	20.7	68.4
Helps researchers to make judgments about the quality of research being undertaken by a researcher outside their field	29.8	19.7	50.5
Helps research efforts to get recognized	31.1	25.6	43.3
Motivates academics to try to achieve higher research quality	35.1	23.5	41.4

Note: Five-point scale has been simplified into three groups for expositional purposes.

Using the publication data, we derive a *change in field* variable that captures changes within the field that the focal individual considers their primary field of expertise, to evaluate whether individuals whose fields benefited more greatly from the reclassification, by having a higher proportion of 3- or 4-star outputs after the reclassification. The survey asks individuals to identify their primary areas of expertise enabling us to align the changes in primary subject areas to individuals.

Control variables

Inclusion in the national research assessment exercise. An individual's inclusion in the national research assessment exercise (i.e. the REF) may shape their hostility to the AJG, as significant number of our respondents were not included in the REF by their institution. As a result, we included a variable that attempts to capture whether an individual was included in the national assessment. Although the REF results do not link individuals' names, they do provide sufficient information that has allowed us to do 'fuzzy matching'. This matching was done by careful manual checking by one of the authors in our team. Specifically, the REF provided information such as co-authorship, institution, in some cases research groups, and clustered individual's outputs. Using this approach, we were able to link publications to individuals in over 95% of cases.

Academic influence. We included a variable for individual researchers' academic influence using the total number of citations recorded by Scopus.

Academic rank. We asked respondents 'What is your current position?' and then generated three dummy variables *professor*, *associate professor*, and *lecturer* coded as 1 when respondents selected 'Professor/Chair', 'Associate Professor/Reader/Senior Lecturer/Senior Research Fellow/Principal Research Fellow', or 'Lecturer/Assistant Professor/Research Fellow/Research Associate', respectively. Where we did not have a response to this question, we took this information from the business schools' websites.

Gender. Using information on the business schools' websites, a dummy variable equal to 1 for male and 0 for female faculty was generated.

Academic age. Researchers' academic age was quantified as the years from their first publication.

Obtained PhD in North America. A dummy variable equal to 1 if the individuals were awarded their PhD from a US university and 0 otherwise was created. Our assumption was that North American trained scholars would have greater affinity to journal lists than those trained elsewhere, such as Europe, where such lists are a relatively new development.³

Alignment to the AJG. The AJG does not capture the full population of journals and so some individuals' research may be excluded from it. It is possible that individuals who have large proportions of their scholarly output excluded by the AJG may be liable to be hostile towards it. Thus, we controlled for individual's output that is published in outlets that are included in the AJG, measured from 0% to 100%.

Overall rank of institution in REF 2014. To control for the research intensity of the school where the individual was employed, we used the GPA of each institution that was computed from REF summary for Unit of Assessment 19—Business and Management.

Involved in construction of the AJG. We also capture whether survey participants were consulted in the construction of the AJG and therefore may be less hostile (or more positive) towards it. To do so, we included a variable on the survey focusing on the response to the question 'Were you involved in the consultation process for the construction of the latest Academic Journal Guide?'. Those who identify themselves as being involved in the process are coded as 1 and 0 otherwise.

Field. Field dummies are included to control for any field-level differences. On the survey, individuals were asked to declare their primary area of research using the main subjects listed in the AJG 2015, which covers 22 disciplinary areas.

Results

Descriptive statistics of the main and control variables are reported in Table 4. Table 4 shows that the majority of the respondents (58%) were male, and that all ranks of the academic ladder are represented in the sample. Fifty-four percent of our respondents were

Table 4. Descriptive statistics and correlation matrix

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 Mean (negative views)	3.74	0.83	1																	
2 Mean (positive views)	3.07	0.99	-0.42*	1																
3 'New' 3	0.15	0.36	-0.04	0.01	1															
4 'Old' 3	0.09	0.28	0.02	0.01	0.05	1														
5 'New' 4	0.18	0.38	-0.10*	0.08*	0.09*	0.11*	1													
6 'Old' 4	0.03	0.17	-0.03	-0.02	0.09*	0.13*	-0.01	1												
7 Changes <i>within</i> the field that focal individual considers their primary field of expertise	0.25	0.17	-0.05*	0.05	0.03	0.08*	0.01	0.08*	1											
8 Included in REF 2014	0.54	0.50	-0.08	-0.05	0.12*	0.15*	0.11*	0.23*	0.07*	1										
9 Citations	1.10	1.37	-0.09	0.02	0.03	0.21*	0.05	0.23*	0.14*	0.18*	1									
10 SNIP—publication over REF period	13.35	27.05	-0.18*	0.06*	0.19*	0.27*	0.10*	0.30*	0.17*	0.25*	0.43*	1								
11 Professor	0.34	0.47	-0.06*	0.02	0.12*	0.11*	0.15*	0.18*	0.10*	0.34*	0.38*	0.35*	1							
12 Associate Professor	0.36	0.48	0.03	-0.03	-0.02	0.01	-0.02	-0.07*	-0.02	-0.10*	-0.16*	-0.15*	-0.34*	1						
13 Lecturer	0.30	0.46	0.02	0.01	-0.11*	-0.13*	-0.14*	-0.12*	-0.08*	-0.25*	-0.22*	-0.20*	-0.37*	-0.49*	1					
14 Gender	0.58	2.77	-0.02	0.05	0.01	0.06*	0.02	0.07*	0.03	0.09*	0.13*	0.15*	0.17*	-0.08*	-0.09	1				
15 Academic age	12.20	8.50	0.03	-0.04	0.1*	-0.03	0.16*	0.05	0.02	0.05	0.2	0.38	0.41*	0.42*	-0.11	0.2*	1			
16 Obtained PhD in North America	0.06	0.23	-0.16*	0.02	0.04	0.03	0.03	0.04	0.05	0.06*	0.09*	0.11*	0.02	-0.03	0.02	0.06*	0.00	1		
17 Proportion of output published in journals included in the ABS/AJG lists	0.61	0.49	-0.03	0.00	-0.01	0.07*	-0.11*	0.01	-0.05	0.10*	0.08*	0.07*	0.11*	0.00	0.02	-0.02	-0.02	-0.05	1	
18 Overall Rank of Institution in REF 2014	35.03	24.33	0.09*	-0.04	-0.07*	-0.15	-0.03	-0.18*	-0.01	-0.19*	-0.20*	-0.25*	-0.12*	0.12*	0.00	-0.12*	-0.15*	-0.13*	-0.03	1
19 Involved in construction of ABS/AJG	0.06	0.24	-0.05	0.09*	0.01	0.05	0.04	0.09*	0.05	0.08*	0.17*	0.18*	0.24*	-0.10*	-0.14*	0.09*	0.03	0.03	-0.02	-0.07*

*Indicates a pairwise correlation is significant at the 5% level. Correlations between the field 22 dummies and other variables are omitted due to space considerations.

included in the national research exercise, which is slightly higher than the population.

The descriptive data also highlight that the proportion of outputs that were upgraded was greater than that which was downgraded. Eighteen percent of individuals in the sample benefited from the reclassification in 4-star papers ('New' 4), while only 3% had a reduction ('Old' 4). It was also the case that 15% of individuals had a paper in their portfolio that was re-graded from 2- to 3-star ('New' 3), while 9% had at least one reduced in rank ('Old' 3).

Pairwise correlations between the dependent variables *negative and positive views* and explanatory variables are also provided. The correlations between explanatory variables are not particularly high.⁴

Table 5 reports the results using a generalized least squares estimator calculating and reporting marginal effects on what determines hostility to lists.⁵ Before turning to the key hypotheses, Model 1 incorporates a set of controls. As might have been expected, we find that those who were included in the REF were likely to be less negative about the journal ranking than those who were not. Model 2 introduces lifetime citations; the findings do not suggest that the scholars with higher academic influence have a stronger view 'against' the AJG. We also find that women have a more negative view of the list compared to men. In addition, individuals who had obtained a PhD in North America have a substantially less negative view of the ranking, being over 40% less hostile than those trained elsewhere. Of note, participants who had been involved in the consultation process for the construction of the AJG did not show a stronger predisposition either for or against the list as implied by the insignificant coefficient. That finding did not change when we excluded individuals who were directly involved in producing the list [i.e. the Scientific Advisors (Subject Experts) or Committee Members].⁶ Nor do the results suggest that the institution in which individuals work influence views, after having controlled for individual's academic influence and other factors.

We turn now to the key hypotheses in Tables 5 and 6. Hypothesis 1 anticipated that business academics' views of the AJG were influenced by the extent of an exogenous change in the rank of the journals where they had previously published. A rise in a paper in an individual's portfolio from 2- to 3-star did not lead to individuals being more or less hostile to the journal rank. This may be related to the importance given to 4-star journals by university research managers, however, consistent with our expectations, business academics whose papers have experienced an upward shift in journal ranking from a 3- to a 4-star were less hostile (more positive) to the journal ranking than those whose papers kept the same position. We also found that a reduction from either 4- to 3-star or from 3- to 2-star in journals where they have previously published does not influence business academics' views of the ranking either positively or negatively. Hence hypothesis 1 was partially supported.

Hypothesis 2 anticipated that business academics' views of the AJG were influenced by the extent of an exogenous change in journal rank in journals within their field. This hypothesis was supported. Table 5 illustrated that the marginal impact of that upward shift in the focal field is that it leads members of that academic community to be about 4% less hostile to the journal list than those who work in other academic disciplines. Table 6 shows that the opposite is the case with respect to positively held views, and the coefficients are quite similar in magnitude to those reported in Table 5.

In order to examine whether the findings are robust to alternative measures of *academic influence*, we examined a different measure focusing on Scopus's Source Normalized Impact Factor (SNIP) journal impact ranking in models 2–5. We use the individual's SNIP Journal weighted outputs obtained from data from 2008 to 2012, the date that the data were last available prior to the REF process, and find this to be a more robust indicator. Given the highly skewed nature of citations, we break the variable into quartiles in Model 5. The findings suggest that there are substantive differences between researchers who publish in the top quartile of research output and those that do not.

It is the case that some fields are composites of distinct fields. The CABS field classified three areas that fall into this category, two because of their being broad areas—the General Management category that also combined ethics and CSR; Social Science that captured general journals in the social sciences that were not captured elsewhere in the list, such as in economics and 'sector' that combined public sector and health journals. It could be argued that because these areas have less well-defined boundaries than other fields, individuals within those composite fields may behave differently. To examine whether this was the case, Model 6 excludes these groups. The results do not suggest a material difference to the key findings.

Comparing the results in Tables 5 and 6 one can observe that the key findings are highly consistent, but oppositely signed. There are, however, a number of differences in the control variables implying substantive asymmetries. In general, the control variables were less likely to be determinants of positive views. For example, while being trained in North America substantially reduced hostility (Table 5) it did not have a statistically well-defined relation with positive views (Table 6). While participants who had been involved in the consultation process for the construction of the AJG did not show to be hostile to the list (Table 5), they were positive about it (Table 6). Excluding individuals who were directly involved in producing the list [the Scientific Advisors (Subject Experts) or Committee Members] did not qualitatively alter the findings.

Conclusions

Our analysis of what drives individual's attitudes towards rankings indicates that researchers who benefit from changes in rankings through the re-grading of journals where they have published are less hostile/more positive than those researchers who did not benefit from these changes. This is consistent with the idea that individuals who are over-rewarded tend to experience more satisfaction, when compared to those who are under-rewarded (Pritchard, Dunnette, and Jorgenson 1972). However, we found little evidence that individuals whose papers were downgraded in the ranking were more hostile/less positive to the list than those who did not suffer this outcome. This may arise from the fact that hostility among these individuals was already high and therefore a downgrade of their journals simply reinforced, rather than enhanced, their views.

Our results additionally suggest that individuals are less hostile/more positive to the ranking system when their field benefits from a positive re-ranking, which suggests some level of identity within a discipline (Henkel 2005) and shared interests (Ashforth and Mael 1989). The field of research as a proxy for group membership may reflect one of the multiple forms of commitment academics may have (Vandenberghe, Bentein, and Stinglhamber 2004; Kinnie and Swart 2012). Interestingly, we find that individuals are about two

Table 5. Generalized least squares regressions predicting negative views towards the Academic Journal Guide

Variables	1	2	3	4	5
Independent variables					
Changes in the ranking of journals where an individual has published					
'New' 3		0.021 (0.74)	0.021 (0.74)	0.022 (0.75)	0.028 (0.90)
'Old' 3		0.058 (1.53)	0.058 (1.53)	0.057 (1.50)	0.056 (1.48)
'New' 4		-0.075** (2.08)	-0.075** (2.08)	-0.076** (2.10)	-0.077** (2.08)
'Old' 4		-0.128 (1.47)	-0.128 (1.47)	-0.129 (1.49)	-0.143 (1.60)
Change in field output <i>within</i> the field		-0.128 (1.47)	-0.040** (2.14)	-0.035** (2.13)	0.034** (2.12)
Control variables					
Included in National Research Evaluation	-0.104** (2.08)	-0.095* (1.89)	-0.095* (1.89)	-0.081** (1.98)	-0.095* (1.85)
Academic influence	0.000 (1.45)				
(Ref. SNIP (age adjusted)—publication over REF period—Q4)		-0.006*** (3.35)	-0.005*** (3.24)	0.202** (2.36)	0.207*** (2.13)
Citations					
SNIP—publication over REF period—Q1				0.142* (1.85)	0.150* (1.89)
SNIP—publication over REF period—Q2				0.052 (0.50)	-0.054 (0.51)
SNIP—publication over REF period—Q3				0.083 (1.26)	0.067 (0.99)
Academic rank (Ref. Professor)	0.091 (1.37)	0.079 (1.20)	0.079 (1.20)	0.083 (1.26)	0.067 (0.99)
Gender (Ref. female)	0.157** (2.13)	0.148** (2.02)	0.148** (2.02)	0.155** (2.11)	0.144* (1.91)
Academic age	-0.147*** (3.18)	-0.145*** (3.15)	-0.145*** (3.15)	-0.145*** (3.16)	-0.157*** (3.31)
Obtained PhD in North America	0.015*** (4.01)	0.014*** (3.94)	0.014*** (3.94)	0.014*** (3.99)	0.014*** (3.81)
Alignment to list	-0.426*** (4.02)	-0.423*** (3.98)	-0.423*** (3.98)	-0.424*** (4.00)	-0.429*** (4.02)
Institutional environment					
Overall Rank of Institution in REF 2014	0.002 (1.68)	0.001 (1.47)	0.001 (1.47)	0.001 (1.50)	0.001 (1.41)
Involved					
Involved in construction of AJG	-0.068 (0.60)	-0.055 (0.48)	-0.055 (0.48)	-0.054 (0.47)	-0.072 (0.57)
Constant	3.840*** (32.82)	3.850*** (33.14)	3.887*** (31.98)	4.052*** (31.89)	4.073*** (31.30)
Field fixed-effects	YES	YES	YES	YES	YES
Log likelihood	-1438.17	-1432.80	-1432.80	-1346.88	-1260.19

Note: N = 1,409 for models 1–4 that include all fields, N = 1,085 for models 5 that excluded General Management, Sector, and Social Sciences. Coefficient reported. Z-statistics in parentheses. Significant variables in highlighted in bold, ***P < 0.01, **P < 0.05, *P < 0.1.

Table 6. Generalized least squares regressions predicting positive views towards the Academic Journal Guide

Variables	1	2	3	4	5
Independent variables					
Changes in the ranking of journals where an individual has published					
'New' 3		-0.029 (0.86)	-0.029 (0.86)	-0.045 (0.75)	-0.062 (1.60)
'Old' 3		-0.026 (0.53)	-0.026 (0.53)	-0.032 (1.50)	-0.026 (0.53)
'New' 4		0.075** (2.02)	0.075** (2.02)	0.061** (2.10)	0.058** (2.45)
'Old' 4		0.036 (0.75)	0.036 (0.75)	0.424 (1.49)	0.450 (0.76)
Change in field within the field			0.057** (2.31)	0.062** (2.13)	0.053* (1.88)
Control variables					
Included in National Research Evaluation	0.177** (2.95)	0.159*** (2.66)	0.159** (2.66)	0.142** (1.98)	0.123* (1.83)
Academic influence	0.000 (0.80)	0.005** (1.98)	-0.005 (1.43)		
(Ref. SNIP (age adjusted)—publication over REF period—Q4)					
Citations					
SNIP—publication over REF period					
SNIP—publication over REF period—Q1				-0.036 (0.40)	-0.007 (0.08)
SNIP—publication over REF period—Q2				0.108 (1.06)	0.123 (1.17)
SNIP—publication over REF period—Q3				0.311** (2.23)	0.323** (2.24)
Associate Professor	-0.019 (0.23)	-0.001 (0.01)	0.025 (0.01)	0.059 (0.70)	0.062 (0.71)
Lecturer	0.040 (0.44)	0.060 (0.65)	-0.009 (0.65)	0.186* (1.84)	0.222** (2.09)
Gender (Ref. female)	0.027 (0.44)	0.025 (0.41)	0.011 (0.41)	-0.021 (0.35)	0.006 (0.09)
Academic age	-0.009*** (2.04)	-0.009*** (1.95)	0.000*** (1.95)	-0.011*** (2.15)	-0.008*** (1.61)
Obtained PhD in North America	0.019 (0.17)	0.011 (0.10)	0.382 (0.10)	0.011 (0.09)	0.011 (0.09)
Alignment to List				-0.036 (0.55)	0.000 (0.01)
Institutional environment					
Involved	0.000 (0.35)	0.000 (0.22)	0.000 (0.22)	0.000 (0.03)	0.399 (3.34)
Constant	0.398** (3.64)	0.382*** (3.51)	0.382*** (3.51)	0.442** (4.00)	-0.072 (0.57)
Field fixed-effects	2.944*** (18.65)	2.934*** (18.48)	2.848*** (16.95)	2.887*** (15.74)	2.850*** (15.22)
Log likelihood	YES	YES	YES	YES	YES
	-1691.08	-1683.48	-1683.48	-1559.56	-1260.18

Note: N = 1,409 for models 1–4 that include all fields. N = 1,085 for models 5 that excluded General Management (including ethics) CSR, Sector, and Social Sciences. Coefficient reported. Z-statistics in parentheses. Significant variables in highlighted in bold., ***P < 0.01., **P < 0.05., *P < 0.1.

times less hostile/more positive if they are the direct beneficiaries of a re-ranking of one of their own outlets, rather than when it was their field that benefitted from the re-grading. Social identity thus appears to be of lower importance than the expected return of high personal valence in influencing perceptions of rankings. These findings are consistent with previous research, which found that commitment to an individual career may be more important than other forms of commitment (Briscoe and Finkelstein 2009), particularly for academics. This suggests that in the consideration of ranking systems, the personal (the individual) trumps the professional (the field) in terms of generating hostility or positive views towards the ranking systems themselves.

There are a number of limitations to our research approach. First, the study is based upon a survey of scholars in a single country. However, it needs to be acknowledged that the UK has been in the vanguard of developing research assessment systems over more than two decades (Hicks 2012). As such, the case of UK academics is useful to explore academics' attitudes towards rankings also in other contexts. Second, changes in the AJG were relatively modest in terms of journal upgrading and downgrading, and therefore many individuals were not directly affected by the changes. As such, our analysis is liable to be fairly conservative in the assessment of the impact on these changes on the attitudes of academics and should be viewed with caution. Moreover, we have very few downgraded journals and therefore we are not able to fully observe the potential hostility towards these decisions among our population. Third, while the AJG is well institutionalized within UK business schools, individuals who seek to publish in non-AJG journals may face exclusion. Although our study attempts to directly control for a possible weak alignment between an individual's research portfolio and the AJG itself, it may be that individuals who publish in non-AJG journals choose to relocate to other departments within their university. Fourth, we are unable to say how the changes in journal status shape changes in attitudes to the AJG, as we observe these attitudes at a single point of time. A future investigation with a longitudinal design would thus help address this question. Fifth, future research should explore how the critiques of the ranking system from strong disciplinary actors may help to alter the ranking system itself, reducing and mitigating the hostility to the ranking system among members of the aggrieved discipline. In effect, ranking systems are 'going concerns' that evolve in response to external and internal pressures. Greater research is required on the mechanics of these changes and how ranking systems seek to overcome hostility via change and alignment to the views of the people publishing in the journals they rank.

By bringing attention to how changes in a journal ranking system shape positive and negative attitudes by academics to the ranking system itself, we hope to help inform wider-ranging debates concerning journals lists and other forms of research assessment, and how these evaluation mechanisms are understood by the scholars upon which they are imposed. This debate is increasingly relevant as we observe a growing trend internationally towards utilizing more metric-based methods to evaluate the quality of research (Jappelli, Nappi, and Torrini 2017), with important implications for academics' careers. Satisfaction (vs. hostility) with a performance appraisal system has been shown to be an antecedent of actual performance (Kuvaas 2006). Although we do not claim that having more positive or hostile views of a ranking has implications on academics' performance, we do suggest that attitudes towards metric-based systems have implications on publication strategies in terms of chosen

journals, as well as wider implications in terms of within-field debates, which may eventually help shape future versions of these rankings.

Conflict of interest statement. None declared.

Notes

1. The AJG is widely known at the 'ABS list', but its name was formally changed in 2015.
2. Figures taken from HESA statistics, <https://www.hesa.ac.uk/services/heidi-plus>, accessed in May 2018.
3. Those trained in North America place a higher value on journal ranked on the list than others. In business and management research, the North American-based journals have traditionally held the strongest positions in journal rankings. Indeed, almost all of the 24 journals included in the UTDallas list, which is one of the main lists of top journals in the general field, are based in North America. The FT50 list of journals also has a strong North American emphasis. European (including the UK) research communities tend to have more diffuse and diverse sets of outlets. Our assumption is that those individuals trained in the North American system would have a stronger imprint of norms and expectations about journal lists than their European trained cousins, who trained in an environment with less clear hierarchies and norms about outlets. Indeed, as a personal aside, two of the authors in our team were trained in the UK during the 'pre-list era' and have little or no recollection of discussions or training in the specific hierarchies of journals in business and management during their doctoral programmes.
4. Correlations between the field 22 dummies and other variables are omitted due to space considerations, but note that the correlations between these and other field level variables were not significant, with the exception of two, which were not high. While we prefer to use these as controls the results are not affected if they are omitted.
5. To ensure the robustness of our finding we also transformed the independent variable using logs to account for it being skewed. However, the P-values and the effect sizes did not change qualitatively using this alternative approach.
6. Advised by a referee, we have also analysed the robustness of the finding to examine whether the behaviour of those individuals directly involved in the development of the list—i.e. Scientific Advisors (Subject Experts) or Committee Members—differed from those who were involved indirectly typically by being consulted on the ranking. To do so we identified the individuals and who meet this criteria in a separate file with identifiers then being merged back into the data removing them from the 'involved' group and creating a second binary variable 'CABs Decision Maker'. However, we did not find either variable was significantly ($z = 0.81$ for 'CABs Decision Maker' and $z = 0.54$ for 'Involved').

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