Exploring societal responses towards managerial prerogative in entrepreneurial universities

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Abstract: Society’s expectations for an increased role in science agenda setting and greater returns on public science investments shift university management practices. Entrepreneurial university, new public management, and sociology of science literatures inform the changing expectations about the roles and norms that govern university management and scientists’ behaviours but scholars have paid limited attention to societal responses when those changing roles and norms are employed. We examine societal responses towards managerial prerogative in managing scientists in public universities. Content analysis of media data from six cases of universities in Denmark and New Zealand demonstrates extended societal engagement regarding organisation-related topics, a division of opinion regarding organisation-related topics, a division of opinion regarding managerial prerogative towards sanction of scientists’ behaviours, and constrained ability of employers and employees
to engage in public debate due to employment law issues. Implications for researchers and university managers engaging with society and the role of communication competencies to achieve the third mission are discussed.

**Keywords:** entrepreneurial university; society; public understanding of science; research management; content analysis; science communication.


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Maja Horst is Professor and Head of Department of Media, Cognition and Communication at University of Copenhagen. She holds a Masters’ degree in communication and a PhD in Science and Technology Studies. Her research is focused on Public Understanding of Science, Science Communication, Research Management and scientific social responsibility. She has also been conducting experiments with research communication installations for which she has been awarded the Danish minister’s science communication prize. Among other places, she has published in Social Studies of Science; Science, Technology and Human Values: Public Understanding of Science; Science Communication and Science and Public Policy.

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## 1 Introduction

The last 30 years have seen radical changes in the expectations from society and science politicians towards universities’ ability to contribute to economic growth and solving
social problems as well as towards their accountability for public funds. These changes have received significant attention from scholars, practitioners and science politicians alike. Mode-II (Gibbons, 1999; Gibbons et al., 1994) and the entrepreneurial university (Etzkowitz et al., 2000) have provided crucial insights for understanding the role of the university in innovation and growing the knowledge-based society, and the fundamental changes in the ways universities are governed and managed.

While these literatures inform the society’s support for the overall idea of the entrepreneurial university as a driver for economic growth, and the particular management practices and the tensions that result from changes towards new structures and management styles, we know less about how societies react to the consequences of the implementation of these changes, such as the application of managerial prerogative to managing scientists. This leads us to ask: How does society perceive and react to university research management that deploys managerial prerogative and demands more corporate behaviour from individual scientists?

The research explores the publics’ views about the use of managerial prerogative to manage individual scientists in six cases that were identified by an expert panel. The cases, from Denmark and New Zealand, concern situations where managerial approaches in universities have resulted in conflicts between university management and its academic staff. Using content analysis, we investigate the prevalence of either the entrepreneurial logic or the more classic university Mertonian logic in the reactions of different groups in the society in each of the cases.

The remaining part of the paper is structured in the following way. The next section outlines the analytical framework of the study. Section 3 presents the methods we have utilised. This is followed by revealing the findings in Section 4 and a discussion and conclusion in Section 5.

2 Analytical framework

Under ‘Mode-II’ and Triple Helix headings, universities have been motivated to accept the new ‘third mission’ to produce knowledge that can bring value to the publics, firms, and non-governmental organisations, as well as to the academy (Nelson, 2012; Bercovitz and Feldman, 2006; Chang et al., 2009; Etzkowitz, 2003; Carayannis and Campbell, 2009). Pursuing the third mission universities have increased their attention towards entrepreneurial culture within universities (Fogelberg and Lundqvist, 2013) and the pursuit of commercial activities, including patenting (Geuna and Nesta, 2006), licensing (Thursby and Thursby, 2004), spin-offs (O’Shea et al., 2008) and consulting (Perkmann and Walsh, 2008). To implement successful technology transfer, many universities have established technology transfer offices, science parks, and business incubators (Hansson and Mønsted, 2008; Leisyte, 2011).

Universities that embrace the third mission have been associated with ‘new managerialism’ (Ernø-Kjølhede et al., 2001). To respond to pressure from society to become more relevant, accountable and entrepreneurial universities have introduced new management structures and mechanisms (Ernø-Kjølhede and Hansson, 2011) and have even adopted quasi-firm structures and behaviours (Etzkowitz, 2003; Gibb, 2007).

This new managerialism has some important consequences. One of them is the development of management structures that are typical for business corporations (Mainardes et al., 2011; Wong and Westwood, 2010), including the ability to deal with
the risk created by a tighter collaboration with the industry (Turpin et al., 2011). Another consequence is the change in the governance from implicit contracts within the academy to explicit contracts between universities and society (Bates et al., 2010; Hessels et al., 2009). Related to this, a more corporate behaviour is to a greater extent expected from scientists (Marcinkowski et al., 2014). A third consequence is university funding becoming increasingly channeled towards areas that are of strategic importance for society (Hansson, 2006; Bruun et al., 2005).

The potentially adverse reactions stimulated by increasing managerialism in universities are often underestimated (Hendriks and Sousa, 2013). The sources of tensions are wide-ranging and include the redefinition of academic autonomy, academic leadership, and conflicts around academic cultures and identities (Winter, 2009; Ylijoki, 2008; Debowski and Blake, 2007). Traditional Mode-I scientists are skeptical towards the increasing links between university and industry, while scientists of the ‘new school’ enthusiastically engage in commercial activities (Lam, 2010) and developing new science communication competence of scientists and the society (Mejlgaard and Stares, 2010; Trench and Miller, 2012). A common factor across these studies is the focus on intra-organisational issues.

This paper investigates whether intra-organisational tensions resulting from the introduction and use of managerial prerogative reverberate outside the university. The issue is relevant in at least two interconnected ways. First, existence of controversy surrounding the university management might cause a negative impact on entrepreneurial activity in the university (Philpott et al., 2011). Public and political support for managerial efforts to increase third mission activities and entrepreneurialism must therefore be seen as a positive factor for the success of these same efforts. This is particularly true in countries with high levels of public funding of universities where policy makers and publics as taxpayers serve as central stakeholders or even principals to science (Guston, 1996).

Secondly, the question of public reactions to the use of managerial prerogative in universities is important because it probes the apparent widespread societal support for the substantial changes to the objectives of universities introduced by the idea of the entrepreneurial university and Mode-II knowledge production. It has, for instance, been argued that one reason to move towards entrepreneurial universities is to secure the relevance of research undertaken for taxpayers money (Gulbrandsen and Smeby, 2005). It cannot, however, be taken for granted that the public automatically agree with this ambition and understand the need for new managerial structures and the use of managerial prerogative.

Large parts of the public have been socialised to a more classic view of science and the role of science in society through their education. A number of scholars have conveniently identified Merton’s (1973) norms of Communalism, Universalism, Disinterestedness, Originality and Skepticism (CUDOS) as a way of understanding the classic view (Etzkowitz and Leydesdorff, 2000; Dooley and Kirk, 2007). Following this line science and scientists should be decoupled from external interests and only be governed through self-regulation to create true value for the society. Following the Mertonian logic of the university there is limited role for university management because the CUDOS norms govern the actions of the scientific community ensuring that individual scientists behave according to the standards expected by their peers (Ziman, 2002).
Based on these lines of argument, we investigate two dominant logics as publics’ responses to the use of managerial prerogative and demands for corporate behaviour; the entrepreneurial logic and the Mertonian logic.

3 Method: content analysis of mass media data

Public policy interest in the entrepreneurial university is a widespread phenomenon that has led to explicit policy-induced top-down changes in many national innovation systems. As a distinct form of public discourse, media coverage can be used as a proxy for societal reactions, since it provides evidence of the kinds of public arguments and concerns that are voiced as reactions to the reported changes in university management structures. As an indicator of public reactions we study media coverage of cases where individual scientists have been in conflict with their respective employing organisations.

We focused on cases in Denmark and New Zealand as countries that have experienced these changes. Both countries, which are of similar geographic and population size and where universities are perceived by society as rather homogenous, have experienced public policy interventions to encourage the entrepreneurial university. These interventions were implemented around the same time. In Denmark, a 2003 law change affected the governance of university research. By 2006, the new legislation was fully implemented across the Danish university system. In New Zealand, a growth and innovation framework was launched in 2002. Policy instruments to support the framework were introduced during the 2003–2006 period and affected the New Zealand university system.

There are some differences between the countries in regards to R&D investment and cultures of debate too. Denmark has a strong industrial research tradition (1.9% of GDP) (OECD, 2012) and a culture of open and consensus-seeking debate (Jørgensen, 2002), whereas New Zealand has almost non-existent industrial R&D investment (0.4% of GDP) (OECD, 2013) and a culture of conflict avoidance (Goven, 2003). Given that institutional changes can take some three-to-five years to filter down and influence organisational practices (Meister-Scheytt and Scheytt, 2005; Kyvik, 2002), we focus on cases during a four-year period from January 2007 to December 2010.

One of the challenges to understanding how society at large views the development of the entrepreneurial university is to identify data that represent these views. We chose to use mass media data in the form of newspapers and electronic blogs. We choose to use newspapers because they are a traditional channel where the public can read to gain information to inform personal opinion and contribute by sharing their views (Bauer and Gaskell, 2002; Schäfer, 2009). We chose to use blogs because they are part of what Veltri (2012, p.4) refers to as “an information source and conversation enabler” that provides an electronic channel where readers can “get news on a broader set of scientific topics, to learn about the developments in other scientific fields, or to engage in conversations with like-minded colleagues and science bloggers” (Kouper, 2010, p.7). Also, by considering both newspapers and blogs we capture views communicated in different channels. Although newspapers and electronic blogs provide us with insights into the phenomenon we are interested in, we recognise that other channels, such as wikis and personal webpages, exist as data we have not used, and readers should view this as a limitation of our study. However, given that our study is exploratory we argue that our new insights are still theoretically interesting.
Our sampling of news cases from Denmark and New Zealand involved a two-step process. First, we used seven experts from Denmark and New Zealand with science-innovation policy or industrial relations expertise to identify news stories where actors in society had challenged a university’s use of managerial prerogative to reproach the behaviour of an individual scientist between 1 January, 2007 and 31 December, 2010. They identified seven cases between them; four in Denmark and three in New Zealand.

Second, we systematically searched daily national newspapers in each country using news reports, editorials and letters to the editor, and GoogleBlogs using blog entries for materials written about the seven cases using the search string [“scientist concerned last name” + “organisation’s name”]. New Zealand daily national newspapers were search via the ANZ Reference Centre database within EbscoHost since it provided all major daily newspapers (New Zealand Herald, Dominion Post, The Press, Otago Daily Times). Danish daily newspapers were searched through the Infomedia Database, which provides access to all major daily newspapers (Berlingske, Jyllandsposten, Politiken, Information, Kristeligt Dagblad, Børsen). Searching and collecting this information enabled us to confirm that news stories identified by the experts were relevant to the research question and provided the data for content analysis. One New Zealand case did not meet our criteria because it concerned the firing of a scientist at a public research organisation, not a university. Therefore, the case was omitted, leaving us with six cases and 174 publications about them. Each case was given a letter and number combination; DK for Denmark and NZ for New Zealand followed by a number. Individual scientists in each case are reported with letters Academic A, Academic B etc. (Summaries of the cases are presented in Table 1).

### Table 1  Case summaries

<table>
<thead>
<tr>
<th>Case</th>
<th>Central scientist(s)</th>
<th>Central university</th>
<th>Focus of managerial action</th>
<th>Number of actors counted in the debate</th>
<th>First appearance of issue</th>
<th>Last appearance of issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>DK1</td>
<td>Academic A</td>
<td>University 1</td>
<td>Corporate behaviour</td>
<td>11</td>
<td>9 March 2009</td>
<td>16 December 2009</td>
</tr>
<tr>
<td>DK2</td>
<td>Academic B</td>
<td>University 2</td>
<td>Corporate behaviour</td>
<td>65</td>
<td>8 May 2009</td>
<td>8 March 2010</td>
</tr>
<tr>
<td>DK3</td>
<td>Academic C</td>
<td>University 3</td>
<td>Content of research</td>
<td>33</td>
<td>6 May 2010</td>
<td>17 August 2010</td>
</tr>
<tr>
<td></td>
<td>Academic D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Academic E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DK4</td>
<td>Academic F</td>
<td>University 4</td>
<td>Corporate behaviour</td>
<td>36</td>
<td>28 November 2010</td>
<td>27 March 2011</td>
</tr>
<tr>
<td>NZ1</td>
<td>Academic G</td>
<td>University 5</td>
<td>Content of research</td>
<td>180</td>
<td>17 April 2007</td>
<td>7 March 2009</td>
</tr>
<tr>
<td>NZ2</td>
<td>Academic H</td>
<td>University 6</td>
<td>Corporate behaviour</td>
<td>148</td>
<td>2 August 2007</td>
<td>20 September 2008</td>
</tr>
</tbody>
</table>

### 3.1 About the cases

- DK1 related to the sanctioning of Academic A following criticism of a company that is majority owned by University 1. Academic A used the internal mail
system to question colleagues at University 1 as to whether they believed the company should continue to produce and sell a questionable product that have been banned by the European Union. Academic A’s use of the internal mail system was deemed by university management as inappropriate and was noted in the employment file.

- **DK2** concerned the formal warning and threat of termination made against Academic B following Academic B’s public criticism of management practices and a new research strategy introduced by a Department Director at University 2. Academic B had written a letter to the editor of a local newspaper and appeared in a television interview outlining the dissatisfaction among staff about changes being made and the approach used by the Department Director to implement these.

- **DK3** related to the redundancies of three tenured researchers – Academics C, D, and E – following the decision to discontinue the teaching of a discipline at University 3. Reasons given for the redundancies were University 3’s economic situation, including the need for individual researchers to secure external funding, and the prioritisation of other disciplinary and organisational activities.

- **DK4** concerned the sanction for publicly speaking against university management’s handling of a high profile case involving mismanaged research funding. Academic F publicly criticised University 4’s management of a situation that involved another professor who used a substantial amount of research money on personal expenses.

- **NZ1** related to research about the relationship between a migrant community and a country’s economic growth that was undertaken by Academic G from University 5. One year after the research was initially cited in the mass media, it was criticised by another researcher for posing questionable arguments, using old data, and failing to consult with the migrant community who were affected by the findings. Criticism came after a government department commissioned a peer review of Academic G’s study, and university management supported the outcome of the peer review.

- **NZ2** concerned the termination of employment of Academic H, from University 6 following an email he sent to Student X who requested an assignment extension for personal reasons. Academic H’s response that Student X did not have the ability to complete postgraduate studies, implied that Student X might be lying about the circumstances of the request, and that Academic H would not grant the request, which meant Student X would fail the course. Following Student X’s complaint Academic H’s tenured employment was suspended, and subsequently terminated.

### 3.2 Coding and analysis

Content analysis of media data has been used to understand a range of innovation and learning issues (e.g., Callagher and Husted, 2010; Choi et al., 2011; Carayannis and Campbell, 2009). Motivated by these prior approaches our content analysis techniques followed the principles outlined by Collis and Hussey (2003) which are to specify
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categories, allocate numerical codes for each category, code the data using the numerical codes, and then perform counts. The categories we devised were:

1. Since multiple actors could be identified in a single article and multiple actors could reply to blogs we coded each newspaper and blog entry because this enabled us to count the number of actors as well as the number of newspaper and blog items.

2. Actor type, recognising different actors in the society.

3. Nature of the claim made recognising there is likely to be variation in support of the university management’s actions.

4. Substantiation of claims, recognising that actors do not always justify their claims.

5. Content of the claim, recognising that Entrepreneurial or Mertonian logics could be employed in arguments to substantiate claims. Recognising that actors might use claims other than Entrepreneurial or Mertonian, we coded these as ‘other’. Recognising the content of the claim might not be clear to us, we coded these as ‘inconclusive’.

6. Year, month and day of the publication so that we could see how long the debate appeared.

Our next step was to code the data against the six attributes, which was performed by allocating number codes for the specific categories. Categories within each attribute and the numerical codes are available in Appendix 1. An excel spreadsheet was used to store the coding. The appearance of each actor per row in the spreadsheet represented one piece of data and the other attributes we coded numerically as described in Appendix 1. In the process of coding we identified three instances where the university management story was a peripheral issue. In these situations we omitted the items from the data. This left us with 171 items covering 473 actors for analysis.

Data were analysed using counts of categories within the attributes. The actor is used as the unit of analysis because it allowed us to investigate when multiple actors were reported in news reports and blog entries, the nature of actors’ claims, when claims were substantiated, and whether entrepreneurial or Mertonian logics were used in the justification. Using this approach we analysed counts of actors, nature of claims, content of claims and actor types, which we present in the next section.

4 Findings

4.1 Publics responses to new managerial practices in universities

The six cases provide empirical evidence that society does react to the use of managerial prerogative by universities to reproach individual scientists in some situations. The extent of the response can be seen in the number and types of actors who contributed their views in both newspapers and electronic blogs, and the amount of attention the issues attracted both in terms of the number of contributions and the timeframes of active debate. Together these data clearly demonstrate that societal reactions about the management of
scientists go beyond isolated one-way reporting, hence associated with contemporary media practices (cf. Gregory, 2003).

First, using the number and types of actors responding to an issue as indicative of the level of societal response, we find multiple actors and multiple types of actors responding in five of the six cases (See Table 2). The number of actors either responding directly or quoted by journalists or other writers varied between cases from 11 actors in DK1 to 180 actors in NZ1.

Recognising the traditional actors in the Triple Helix – Industry (university management in this study), University (scientists in this study), and Policy, and acknowledging what Carayannis and Campbell (2009, p.201) call the “the perspective of the media-based and culture-based public” – the public, we grouped actors into four types: academic, policy, publics and university management. Our findings found that all four actor types were reported to some degree in five of the six cases. Academic, publics and university management types were reported, ranging from two responses each from Academic-type actors in DK1 and Policy-type actors in NZ1, through to 88 responses from Publics-type actors in NZ1. The only actor type with no response was Policy-type actors in DK3. Overall, the number of actors as well as the range of actor types indicates that it is certainly the case that there can be widespread societal reactions to the use of managerial prerogative in universities.

Table 2  Responses by type of actor; percentage and count

<table>
<thead>
<tr>
<th>Case</th>
<th>Academic responses</th>
<th>Publics responses</th>
<th>Policy responses</th>
<th>University management responses</th>
<th>Total responses</th>
<th>No. of publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>DK1</td>
<td>18% (2)</td>
<td>27% (3)</td>
<td>27% (3)</td>
<td>27% (3)</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>DK2</td>
<td>18% (12)</td>
<td>62% (40)</td>
<td>3% (2)</td>
<td>17% (11)</td>
<td>65</td>
<td>52</td>
</tr>
<tr>
<td>DK3</td>
<td>36% (12)</td>
<td>36% (12)</td>
<td>0% (0)</td>
<td>27% (9)</td>
<td>33</td>
<td>23</td>
</tr>
<tr>
<td>DK4</td>
<td>19% (7)</td>
<td>36% (13)</td>
<td>3% (1)</td>
<td>42% (15)</td>
<td>36</td>
<td>16</td>
</tr>
<tr>
<td>NZ1</td>
<td>29% (52)</td>
<td>49% (88)</td>
<td>6% (11)</td>
<td>16% (29)</td>
<td>180</td>
<td>32</td>
</tr>
<tr>
<td>NZ2</td>
<td>30% (45)</td>
<td>52% (77)</td>
<td>1% (2)</td>
<td>16% (24)</td>
<td>148</td>
<td>38</td>
</tr>
<tr>
<td>Total responses by type of actor</td>
<td>27% (130)</td>
<td>49% (233)</td>
<td>4% (19)</td>
<td>19% (91)</td>
<td>473</td>
<td>171</td>
</tr>
</tbody>
</table>

All cases attracted debate in newspapers and on blogs. The amount of attention that each of the six cases received and the timeframe of active debate provide further evidence that external actors do take an interest in managerial action in universities sometimes. The nature of the comments demonstrate that some actors perceive the actions taken by a university as matters related to shifts in the role of the university and in the way that academics are managed. The range of perceptions is illustrated in the following four quotes:

1 “Offentligt ansatte har fuldstændig ubegrænset ytringsfrihed - og det har direktøren [individual and organisation name removed] ikke forstået”. (Translation: Civil servants have completely unrestricted freedom of expression – the director does not understand this) (DK1, Individual Scientist).
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2 “(Interest organisation A) ser med største alvorlighed på krænkelser af offentligt ansattes ytringsfrihed og finder det ekstra betænkeligt, at det finder sted på en af landets fremmeste uddannelses- og forskningsinstitutioner, hvor debat og ‘højtønkenkning’ bør være i højstæde” (Translation: Organisation A views violations of public employee’s freedom of expression with the greatest severity and finds it additionally concerning that it takes place at one of the country’s foremost education and research institutions, where debate and ‘high thinking’ should be a priority) (DK1, Stakeholder organisation).

3 “But I do not think that Academic H should have been sacked. This was an overreaction by University 6. The universities give a lot of autonomy to staff, but are notoriously bad at dealing with disciplinary matters. Both underreaction and overreaction are common” (NZ2, Editorial).

4 “Having read the e-mail which Academic H sent the Student X, I am shocked and amazed that so many Kiwi/New Zealanders are citing support for him. This country is known for its intolerance to racial or prejudicial discrimination, and for that Academic H was guilty… The University may look like it is putting profits above Academic H, but to me it is that they realise that such a person should not and will not teach on their staff” (NZ1, Individual citizen).

Quotes one and two illustrate comments that are very critical of university management actions, quote three illustrates a comment that it somewhat critical of university management actions, and quote four illustrates a comment that is supportive of university management actions.

The amount of attention varied considerably with DK1 attracting 11 responses in eight publications, whereas NZ2 attracted 121 responses in 32 publications (see Table 3). Furthermore, there was wide variation in the use of the two media with responses in newspapers ranging from five newspaper publications about DK1, to 28 about NZ1. Similarly, responses on blogs ranged from one entry with one string about DK1 to 20 blogs with 121 strings about NZ1. In terms of timeframe, debates ranged from 3.5 months (DK4) to 20 months (NZ1), providing further evidence about the extent of societal response.

4.2 The nature of external responses to university management

Having established that actors beyond the scientist and university at the centre of the cases do respond to the use of managerial prerogative by university management, we looked at the types of issues they responded to, the strength of the claims they made, and the arguments they used to back their claims.

To gauge the nature of responses to the managerial action in question we investigated the nature of the claim made, i.e., whether responses included claims that were either supportive or critical of university management. Results ranged from very positive to very negative. However, not all actor types were represented in the full range of claims.

We looked at whether the claims by different actor types were substantiated or not. Coding for substantiation with entrepreneurial university logic, Mertonian logic, ‘other’ logic, and not substantiated, we saw different patterns across actor types. For substantiated claims we continued to see the range of claims, however, no neutral claims were found when claims were unsubstantiated. Illustrations of the variety in views with substantiated claims are provided in Table 4.
<table>
<thead>
<tr>
<th>Individual Actor Categories</th>
<th>Merged Actor categories</th>
<th>Substantiated Claims</th>
<th>Unsubstantiated Claims</th>
<th>Total No. of claims by Actor category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Very and somewhat negative</td>
<td>Very and somewhat Positive</td>
<td>Very and somewhat negative</td>
</tr>
<tr>
<td>Central scientist</td>
<td>Academic</td>
<td>5.3% (8)</td>
<td>0% (0)</td>
<td>12.3% (7)</td>
</tr>
<tr>
<td>Professional body</td>
<td>Academic</td>
<td>17.2% (25)</td>
<td>40% (4)</td>
<td>1.3% (1)</td>
</tr>
<tr>
<td>Central organisation</td>
<td>Uni-mgmt</td>
<td>2.7% (4)</td>
<td>0% (0)</td>
<td>34.6% (28)</td>
</tr>
<tr>
<td>University</td>
<td>Uni-mgmt</td>
<td>2.7% (4)</td>
<td>10% (1)</td>
<td>17.3% (14)</td>
</tr>
<tr>
<td>Research centre/department</td>
<td>Uni-mgmt</td>
<td>2.7% (4)</td>
<td>0% (0)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>Government ministry</td>
<td>Policy</td>
<td>6% (9)</td>
<td>0% (0)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>Politicians in opposition</td>
<td>Policy</td>
<td>4.7% (7)</td>
<td>0% (0)</td>
<td>2.5% (2)</td>
</tr>
<tr>
<td>Individual citizen</td>
<td>Society</td>
<td>2% (3)</td>
<td>10% (1)</td>
<td>38.3% (31)</td>
</tr>
<tr>
<td>Stakeholder organisation</td>
<td>Society</td>
<td>17% (24)</td>
<td>30% (3)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>Public commentaries</td>
<td>Society</td>
<td>22% (31)</td>
<td>10% (1)</td>
<td>5% (3)</td>
</tr>
<tr>
<td>Individual citizen</td>
<td>Society</td>
<td>8% (11)</td>
<td>0% (0)</td>
<td>1.3% (1)</td>
</tr>
<tr>
<td>Pure outsider</td>
<td>Society</td>
<td>8% (11)</td>
<td>0% (0)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>No specified actors</td>
<td></td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>7% (10)</td>
<td>0% (0)</td>
<td>1.8% (1)</td>
</tr>
<tr>
<td>Nature of claim scale</td>
<td>Example of claim</td>
<td>Actor type</td>
<td>Data</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Very negative (this was a very negative action by the university)</td>
<td>The news article about the sudden dismissal of University 6's Academic H surprised me as the justification that has come to light does not seem to be adequate. The underlying facts have not been exposed if any. Yet the information that I have been able to obtain from the Scoop about him makes me feel that he must be an honest academic personality stressing on educational ethics and standards. Indeed, quality education demands not only the dedication and hard work of lecturers but also the responsible work of students.</td>
<td>Individual citizen</td>
<td>NZ2-082 “Feedback Flows In Support Of Academic H” (Blog)</td>
<td></td>
</tr>
<tr>
<td>Somewhat negative (this was a negative action by the university)</td>
<td>Apparently, Academic H has been a vocal critic of this practice and has in the past upset his bosses. The word is they were delighted when he stepped over the Ine, and couldn’t get rid of him fast enough. In his email he was very firm in advising the student she was wasting his and her time continuing her studies. But telling her this after she said she couldn’t meet the deadline because of the death of her father was clearly wrong. I’m sure he would concede he was grossly insensitive.</td>
<td>Individual citizen</td>
<td>NZ2-63 “United front is workers’ best action against ‘silly sackings’” (Editorial)</td>
<td></td>
</tr>
<tr>
<td>Neutral (this was neither a negative or positive action by the university)</td>
<td>An employment law expert, Hesketh Henry partner Jim Roberts, said Academic H’s actions were “up there” but it was a complex case and had a long way to run. “It’s clearly inappropriate but that’s always a matter of degree,” he said. “Did it justify dismissal? I think that goes on to look at the circumstances”</td>
<td>Other</td>
<td>NZ2-067 “Row over sacking of lecturer intensifies” (News article)</td>
<td></td>
</tr>
<tr>
<td>Somewhat positive (this was a positive action by the university)</td>
<td>For someone who says he has learned that his characteristic do not fit the academic world, one would think Academic H would have the common sense to realise the same fits for the Pentagon, the CIA or any other profession in the free world (December 2). Being “arrogant”, “bullying” and “undiplomatic” are only traits that would endanger him to like-minded individuals. And in contrast to his view that the US military and intelligence communities are like that, I am sure that New Zealand’s people in these career fields know different. My near 20 years’ service in the US army proved to me that his type were few and far between, especially those selected to work in the Pentagon.</td>
<td>Individual citizen</td>
<td>NZ2-052 “Academic H in minority” (Letter to the editor)</td>
<td></td>
</tr>
<tr>
<td>Very positive (this was a very positive action by the university)</td>
<td>Having read the e-mail which this man sent the girl, I am shocked and amazed that so many Kiwi/New Zealanders are citing support for him. This country is known for its intolerance to racial or prejudicial discrimination, and for that Academic H was guilty. Please do let me know if you like a copy of the e-mail, I have it sitting in my inbox at this very moment. The University may look like it is putting profits above this man, but to me it is that they realise that such a person should not and will not teach on their staff. Although he may be an excellent tutor, he has shown complete and utter disregard to the student involved.</td>
<td>Individual citizen</td>
<td>NZ2-082 “Feedback Flows In Support Of Academic H” (Blog)</td>
<td></td>
</tr>
<tr>
<td>No claim made (by central scientist or central organisation)</td>
<td>Academic H blamed his ill-health for the state of mind he was in when he wrote this email last May to Student X, a student from UAE who had requested an extension for an essay saying her father had died: “I say this reluctantly but not subtly: you are not suitable for a graduate degree”.</td>
<td>Central scientist</td>
<td>NZ2-051 “Academic H blames email on poor health” (News article)</td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Illustrations of the nature of substantiated claims illustrated using NZ2.
Given the small number of responses to somewhat negative, neutral, somewhat positive and positive, we merged negative and very negative to represent responses that reject the use of managerial prerogative and merged positive and very positive to represent responses that accept the use of managerial prerogative.

Table 5 presents how the different types of actors responded to the actions by university management. Most notably of all the academic actors it is only the specific organisation itself (central organisation) which was wholeheartedly accepting of the decision. Other universities and research centres share predominant rejection of managerial action. We cautiously note that numbers are small. Similarly, it is worth noticing that both government and opposition policy actors are predominantly negative towards the universities use of managerial prerogative. Also actors belonging to the more general category of publics appear critical. The category of individual citizens is large and it implies that many ordinary citizens without a specific relationship with universities have opinions about their management. It should however be taken into account that some of the actors coded as individual citizens can be, for instance, academics without this being stated in their public communication.

Table 5  Argument use of actor type; percentage and count

<table>
<thead>
<tr>
<th></th>
<th>Entrepreneurial</th>
<th>Mertonian</th>
<th>Inconclusive</th>
<th>Other</th>
<th>Total No. of claims identified by actor type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>29% (38)</td>
<td>60% (78)</td>
<td>1.5% (2)</td>
<td>9% (12)</td>
<td>27.5% (130)</td>
</tr>
<tr>
<td>Publics</td>
<td>33% (77)</td>
<td>53% (123)</td>
<td>2% (4)</td>
<td>12% (29)</td>
<td>49.3% (233)</td>
</tr>
<tr>
<td>Policy</td>
<td>198% (3)</td>
<td>63% (12)</td>
<td>0% (0)</td>
<td>21% (4)</td>
<td>4.1% (19)</td>
</tr>
<tr>
<td>University management</td>
<td>59% (54)</td>
<td>25% (23)</td>
<td>2% (2)</td>
<td>13% (12)</td>
<td>19.3% (91)</td>
</tr>
</tbody>
</table>

We investigated the arguments for either supporting or criticising the actions by university management. Results demonstrate the use of both entrepreneurial and Mertonian logics to support the claims made, although there was a predominance of the use of Mertonian logics, which accounted for 236 of the 473 claims (See Table 5). We considered other logics used and when the content of the argument was inclusive. 57 of the 473 arguments used a different logic from the Entrepreneurial or Mertonian ones. On closer inspection there is no clear pattern that could lead us to identify a third logic, thus we do not consider them in this part of the analysis but will return to them in the final section. In regards to arguments that were coded inconclusive, there were 8 of 473 arguments and these were disregarded in the analysis.

Furthermore, a pattern appears when use of arguments is considered in relation to actor type. Academic- and Publics-type actors were nearly twice as likely and Policy-type actors were three times more likely to use Mertonian logics in their arguments. In contrast, University Management was twice as likely to use Entrepreneurial logics in their arguments. These patterns suggest to us that a general consensus about the use of managerial prerogative to manage individual scientists is far from clear.

Taking into account the responses as acceptance or rejection, the actor types and the type of managerial action in the different cases, we find an interesting pattern in regards to the topics of the cases. Four cases concerned sanctioning – to the extent of termination
Exploring societal responses towards managerial prerogative

of employment in two cases – of individual staff as a result of a specific behaviour, which was deemed inappropriate by university management. All of these four cases can be seen to make explicit the new demands for corporate behaviour from scientists. The stories imply that scientists should not criticise university strategy or decisions by their management in public and they should behave in a particular fashion towards students (and others) so as not to damage the university’s image and reputation. The remaining two cases were concerned with the content of the scientists’ research agendas, thereby demonstrating a form of university management where strategic decisions could be seen to threaten the freedom of research. Within the two groups there seems to be different patterns.

There seems to be general rejection of the use of managerial prerogative to influence the content of research, whereas the issue of corporate behaviour seems to be more contested with patterns of both acceptance and rejection (See Table 6). While the pattern of rejection by Academics and acceptance by University management might be expected, the differences in views of other social actors are noteworthy. Although the numbers of policy actors are rather limited, it is interesting that they seem to be at least as critical of management prerogative as other university-external actors.

<table>
<thead>
<tr>
<th>Actor type</th>
<th>Corporate behaviour</th>
<th>Content of research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>Accept 1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Reject 60</td>
<td>56</td>
</tr>
<tr>
<td>Publics</td>
<td>Accept 29</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Reject 68</td>
<td>119</td>
</tr>
<tr>
<td>Policy</td>
<td>Accept 2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Reject 9</td>
<td>6</td>
</tr>
<tr>
<td>University management</td>
<td>Accept 36</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Reject 216</td>
<td>0</td>
</tr>
</tbody>
</table>

5 Discussion and conclusion

We set out to explore the extent to which society is willing to accept the consequences of applying managerial prerogative and implementing new management structures for individual scientists and science. The analysis of six empirical cases from Denmark and New Zealand demonstrated that actors in society certainly respond to the use of managerial prerogative in universities in at least these six cases, and that the responses are more often rejection than acceptance. Moreover, when actors substantiate their claims their arguments draw upon entrepreneurial as well as Mertonian logics, but actors external to the universities predominantly draw upon the latter. In this section we address the implications of our findings, limitations, and opportunities for future studies.

Considering the distribution of criticism between different actor groups in the context of the shift towards a more managerial approach in the entrepreneurial university (Bates et al., 2010; Hendriks and Sousa, 2013; Lam, 2010), it is perhaps not surprising that actors associated with university management are the most positive and academics very
negative towards the new management practices. It is, however, striking that neither policy-makers nor the general public seem to support the use of managerial prerogative by university managers. This is even more surprising considering that in both Denmark and New Zealand science policies encourage universities to pursue the ‘third mission’.

Given the importance of the scientific competence of citizens to participate in debates (Mejlgaard and Stares, 2010; Mejlgaard, 2009), and recognising that individuals who are intellectually ill-equipped to find and use information are slower to engage in public debate about science compared to those in the academy (Gregory, 2003), it is possible that the actors who respond publicly to the use of managerial prerogative in universities are actors who are predominantly critical towards the more general move towards the entrepreneurial university. However, if this is the case, it is interesting that supporters of entrepreneurial universities in some situations do not think it is necessary to take part in the public discussion. The conclusion to our analysis is that university managers have good reasons to feel un-supported in their ambitions to change management practices in universities in Denmark and New Zealand.

One implication of our analysis is that the diverging opinions about university management in the context of the entrepreneurial university require closer attention from scholars investigating the movement towards new university management models. While it should be taken as a positive factor that societal actors actively engage in the discussion about universities and their management, the general legitimacy of these models is not a trivial issue. Our analysis implies that the evolution from traditional to entrepreneurial university is not as simple as some scholars suggest. While society can be in general supportive of the norms of the entrepreneurial university and the Mode-II research agenda (Leydesdorff and Etzkowitz, 2003), there are boundaries as to how far those changes are currently accepted by the society. Our study demonstrates that just as parts of the academy retain Mertonian norms regarding the role of the university, so do parts of the Danish and New Zealand society regarding university management of individual scientists.

A second implication of our study is that scholars and practitioners might do well to look specifically at the media through which societal actors engage in a discussion about universities and their management. Of the 473 responses, the majority of views were expressed by individual citizens (30%), followed by the central organisation in the cases (17%), and, the central scientist in the stories (14%). Interestingly, 68% of individual citizens’ views were blog replies. This indicates university managers’ attempts to handle relationships with individual citizens require closer attention. For scholars these blogs are a powerful source of information in their attempts to try to understand societal views on universities management. Scholars recognise the role of media in the innovation system (Carayannis and Campbell, 2009; Callagher and Husted, 2010; Choi et al., 2011) and we are inclined to suggest that print and social media be included in future studies about societal demands on and responses to university governance and management.

This leads to a third implication of our study that concerns competing societal expectations towards university research management. On the one hand, societal expectations of change infer that there is support for university management using managerial prerogative to set and guide the strategic direction of research as we outlined in Section 2. On the other hand, there are clear societal expectations of stability in regards to the traditional role of the individual scientist as the public intellectual. These are two somewhat contradictory expectations and as yet it is not clear how research managers can
influence their organisations toward the entrepreneurial university without applying managerial prerogative to influence individual scientists’ behaviour.

Based on our analysis of the six cases we see that there is a clear need for both policymakers and university managers to address these competing expectations and to take into consideration all relevant stakeholders in society (cf. Carayannis and Campbell, 2009; Leydesdorff and Etzkowitz, 2003). In the entrepreneurial university model industry actors have been understood as important, but our analysis demonstrates that other actors can seriously affect research organisations’ license to operate. It is therefore pertinent that policymakers and research managers realise that the legitimatisation of an entrepreneurial university needs careful attention as well as resources and development of specific communication skills. Just as executives of private companies have had to evolve strategies for corporate communication, research managers need specific competencies in this area, and appropriate training accordingly (Marcinkowski et al., 2014; Trench and Miller, 2012).

One particular problem in this area is that universities usually have limited room to manoeuvre when it comes to comment on specific employment cases. In our analyses, we regularly saw the ‘no comment’ strategy at play. While this can be legally sustained, and probably the only viable route when management finds itself in the midst of a heated controversy about a specific employee, it can also be a problematic strategy since it constrains the university management from engaging in debate with the society about the direction for and intentions of the organisation. Further research into the strategies and tactics that universities can utilise in such circumstances would offer useful guidance for research managers.

While our paper provides new insights into the tensions of managing the complex relationship between the entrepreneurial university and society, we acknowledge the limitations of our study and in doing so suggest how these might offer further research opportunities. First, despite our systematic sampling process, the number of our cases is limited. The six cases were identified through the use of experts, but we do concede that other cases might have occurred during the timeframe. In addition, we sampled national newspapers in each country, which does omit views offered in regional newspapers. To counterbalance this particular limitation, we considered insights from participants whose views can be missed in traditional print media through social media data.

Our choice of data meant that it was often impossible to identify the multiple roles that actors do play. For instance, when was an individual citizen also a scientist and what role was she or he in when she or he participated in the debate? We recognise that academics can and do debate organisational matters in public forums, however we also recognise that scientists are also citizens (Irwin, 2001), which makes the views of these multiple identities relevant and legitimate in the debate. A related point is our choice of a deductive research design that focused on the Entrepreneurial and Mertonian logics. Public understanding of science (PUS) scholars recognise a wider range of public opinions in regards to science. While we found no empirical papers that use such typologies to understand public opinion towards university management, we see value in future research of utilising PUS typologies to provide more nuanced insights into the breadth and nature of opinion.

Finally, our study focused on the entrepreneurial university-society relationship in Denmark and New Zealand only. Our focus on these two countries was driven by several factors, most notably by their explicit attempts to develop entrepreneurial universities. Yet caution remains; readers must be careful in restricting themselves to theoretical
generalisations only as empirical generalisations about tensions between universities and societies in contexts beyond the studied ones would be unreliable. Having said that, what would be fruitful is comparative studies university responses within the same institutional contexts to identify organisational-level variation in university-society relations.

References


Exploring societal responses towards managerial prerogative


Note

1We thank Reviewer 2 for drawing this to our attention.