The Role of University Managers for a Successful University Development

Marcel de Schrevel¹,³ and Tobias Jost²,³

¹Organization and Planning at the University of Hagen, 58084 Hagen, Germany; ²Organization and Planning at the University of Hagen, 58084 Hagen, Germany; ³Airbus CIMPA GmbH, 22607 Hamburg, Germany

Abstract: The objective of the University Freedom Act (Hochschulfreiheitsgesetz) in North Rhine-Westphalia is to achieve entrepreneurial universities that are to be steered by their presidents and vice-presidents – in other word, their managers. For this purpose, along with management, leadership is also important. This paper attempts to determine how university managers deal with those tasks. Interviews show that the universities have different rates of progression, but without exception are still far from the goal. The type of manager in university managements is of central importance on the road to the goal. The interviews illustrate the manager type that is required to develop a university into an entrepreneurial university.

Keywords: Germany, governance, higher education, leadership, management, organizational development, strategic management, university management.

1. INTRODUCTION

It was long ago in 1983, Clark showed with his triangle of coordination that impulses for steering the university could come from three different sides, namely, the market, the state, and academic oligarchies. The different national university systems can be located within the triangle. Clark classifies the British university system far away from the state in the middle between academic oligarchy and market, while the US system was placed at the tip of the market. In contrast, the German university system was characterized by state control and academic oligarchy and stands aloof from the market. However, in Germany this characterization is no longer legitimate. Today, the development of universities – and not only in Germany – is moving in Clark's triangle in the direction of the market, or competition, and thus in the direction of an entrepreneurial university [1, 2].

For German universities this transformation produced a fundamentally new conception of what they have to be and do. Above all, management and leadership to develop the university have become important through the reform. Especially the university leaders, who previous to the reform were not seen as managers, nowadays have to handle those tasks that are standard tasks for normal companies, but are new to them. However, it is uncertain how they cope with these new tasks and deal with problems that come along with them.

Following an introduction to the subject-matter of university reform, this article will show the results of explorative interviews, discuss manager types derived from this and highlight universities' development requirement. Keeping in mind that this transformation is not just a German phenomenon, university leaders from other countries that see themselves in the same movement, so becoming an entrepreneurial university, can benefit from insights being presented.

2. UNIVERSITY REFORM: NEW MODEL – NEW MANAGEMENT TASKS – NEW PROBLEMS

Today, to cope with the transformation of the higher education sector [3], and in order to position themselves in teaching and research on the global market, as well as to prevail against the competition, universities compete for professors, students and external funds [4]. In order to strengthen competitiveness political initiatives were taken and were a component of the reform of governance. The establishment of the new public management model led to different adjustment of the governance mechanisms in different countries [5]. German universities were traditionally characterized by a great deal of state regulation and academic self-organization, and by low external control, hierarchical self-organization and competitive pressures, and governance mechanisms were changed here as well in the framework of the establishment of the new public management model which led to “University corporatization” [6]. The legislature withdrew from detailed regulation and concentrated on agreeing general performance targets with the universities and on making their financing dependent at least partly on reaching targets. Universities are able to decide autonomously on the application of funds, whereby the corresponding decisions are not to be taken in university bodies (e.g. the senate), but by university managers. The latter decide on personnel and organizational matters of their universities, but have to comply with increased accountability [7, 8]. Due to the new gained autonomy, universities now just not have to make decisions about financial, organizational or personnel matters, but also about their strategic development [9]. That includes strategic
decisions about teaching and research profiles as well as mission statements in order to place the universities in (inter)national competition. This has become the most important topic, because through the changes, financial funds are dependent on performance to a certain degree now. Performance includes numbers of graduates, implementation of graduate schools and research clusters as well as third party funds. Because of that, universities have to position themselves in the competition to get the best students and researchers. Therefore, profiles and mission statements are needed to attract them. Because of the financing bottleneck, universities are also facing the demand of acting more economic. So, they ought to make strategic decisions about their teaching and research as well as service processes to make them more efficient [10, 11]. The university reform requires not least accounting and controlling systems, and thus parallel support systems (e.g. SAP). Reorganizations that result from this, lead to changes in existing structures and processes.

These changes are not only a topic for universities. The new public management first came up in the context of financial problems in the public administration [12]. The main goal was to get traditional public administrations that are more efficient and effective [13]. The adaption of the new public management model in several countries has been shown by various studies [14-16]. Beyond that, it has become a topic for schools [17] and the health sector [18]. In all of these organizations effective and efficient management as well as leadership are more important today. The managers all share (to a certain degree) an uncertainty of how to fulfill the new demands. But as German universities are special organizations the implementation of the new model cannot be easily copied.

The changes necessitated by reform are often not readily supported by professors, who are traditionally powerful in Germany, because the reform is aimed at university managers, who have a steering effect on teaching and research. These changes move the focus onto the university managers, who were hardly considered at all before the reform. Professors see in this a threat to their statutory autonomy in research and teaching, as well as to their powerful position in the university [19, 20]. It is obvious that this runs counter to professors’ self-image, and can result in problems of acceptance [21]. University managers then have to deal with resistance, which must be overcome.

Accordingly, it is not enough to manage a university. University managers must also ensure that the changes necessitated by reform are supported not least by the professors, because in the end they are in the center of the universities’ performance processes [22]. What is then required is not just management, but also guidance of behavior through leadership, because the still existing autonomy of the professors means that the university management cannot force a specific behavior on them. Instead, university managers must win over the professors for their targets by means of communication and persuasion.

As we have seen that universities face the need to position themselves in the competition and to use the financial resources in the best possible way, the university managers are now supposed to make strategic decisions about the development of their university and to ensure the implementation of those goals through leadership. Against this background the question arises whether and how, six years after the University Freedom Act came into force, university managers are succeeding in developing their universities and steering the behaviors of professors who are to a great extent exempt from taking directions.

3. METHODOLOGY

In order to follow this question up, eight explorative guided interviews were carried out with two presidents, two vice-presidents of financial and personnel administration and four vice-presidents from four universities in North Rhine-Westphalia in the framework of StratUM – a research project that deals with questions of strategic university management.

The interview partners were selected through a snowball-sampling [23]. There was a personal contact with the first interviewee, who recommended further interview partners. Complementary selection criteria were formulated. So, just recommended interview partners were selected, who worked in universities of a certain size, with a publicly documented development as universities and that are all both research and teaching oriented.

Guiding questions were formulated to guarantee the comparability of the interviews. These questions resulted from an analysis of the status of (inter-)national research and concerned in the first place the efforts of university managers to formulate (strategic) development targets for the purpose of profile formation and to develop the university by keeping those targets in mind. The interviews were recorded, transcribed, anonymized and analyzed, with the aim of condensing the contents of the answer.

The transcription was done by a member of the chair who did not participate in the interview- or analyzing process but knew about the project. The transcription was later checked by the interviewers with the recordings.

To analyze the interviews, there was a qualitative content analysis in accordance with Mayring [24], that “consists in a bundle of techniques for systematic text analysis” [25, p. 1] and can be defined “as an approach of empirical, methodological controlled analysis of texts within their context of communication, following content analysis rules and step by step models, without rash quantification” [25, p. 2]. In the center of this method is the category system. By putting text material into the categories, the interpretation can be described and checked. The category system consists of the following main categories that had various subcategories: “main management tasks”, “process, participants and information basis of target formulation”, “way of raising and kind of steering relevant information in

1 Pursuant to s. 15 Universities Act North Rhine-Westphalia, the following are members of the Board: 1. full-time: the president as the chair, the vice-president for the area of financial and personnel administration and, in accordance with the constitution, additional vice-presidents, and 2. part-time: the other vice-presidents, the numbers to be stipulated by the university council.

2 One of the 16 Länder in Germany. Each has an own Higher-Education-Law. In order to implement the new public management model, North Rhine-Westphalia has gone the farthest in giving the universities autonomy in financial, personnel, and organizational matters.
teaching and research”, “use of the information to steer faculties and professors”, “effectiveness of steering actions” and “acceptance problems”. The categories were named, defined and complemented with examples and coding rules in a code book [25].

In a first round going through the material, the category system and the code book were tested and revised. In the next round, the material was analyzed. For that, text passages that matched with a category were marked and put into the category through the computer software MaxQDA. Then, the material in the categories was shortened through paraphrasing, generalizing and twofold reducing the material [24]. Hereby, similarities and differences between the single interview partners could be found. This analysis was done by two members and later checked by a third project member.

The manager types were formed after the qualitative content analysis, so that the main analysis could not be affected by the typologization. The categories for the manager types come from the main and sub categories of the qualitative content analysis and were named to show important aspects of the new demands. Because of the previously coded text passages, matching passages with the manager type categories could be found. Those passages ought to show management actions, management thinking and leadership aspects. The matching of the mangers with the categories was done by two project members and checked by a third.

But some limitations of our typology must be kept in mind. For one, just eight university managers of one Land in Germany were interviewed. Moreover, the focus was on strategic university development, so that a successful university manager could be someone different for a different task.

In the framework of this paper, results of the qualitative content analysis are interpreted [26]. Results with regard to strategic development targets, their realization and above all the accompanying problems are given below.

4. TASKS AND PROBLEMS: THE POSITION OF UNIVERSITY MANAGERS

It was found that the university managers who were interviewed see themselves as being responsible above all, in view of the intensified competition between universities, for developing teaching and research profiles. In their opinion, not only must development targets be formulated for this purpose, it must also be ensured that professors align their behavior to these targets.

For this purpose, concrete performance targets have to be formulated for individual faculties and performance measures. Personnel and materials will then be awarded in part on a performance-oriented basis, whereby deans will have the task of distributing these to the professors in their faculties. The university managers in the survey are therefore relying on structural leadership [27], because in the end the professors’ behavior is not intended to be influenced directly by a person, but by means of financial incentives. However, the performance-oriented allocation of funds is not without problems.

The university managers in the survey already regarded measuring faculty performances as problematic, especially when it is a question of achieving qualitative performance targets. The indicators that are used can only measure performance quantities – with teaching performances, for example, the number of theses and examination papers corrected; with research performances, for example, the number of publications, differentiated in accordance with the ranking of the journals. These figures do not permit a clear conclusion of the performance quality.

Beyond the problems of measuring performance, many of the university managers interviewed pointed out that it was not clear just how far the behavior of professors can be directed anyway through financial incentives. Professors are characterized in the first place by an intrinsic motivation borne by their self-interest so that a few Euros more or less do not usually concern them. Some of the university managers in the survey saw instead the danger that professors experience their behavior as no longer borne by self-interest, but as being externally controlled, and could lose their intrinsic motivation if the allocation of funds is performance-oriented. In addition, professors’ resistance is to be feared if they have the feeling that they are externally controlled. This can then take the form of them mounting the barricades against the performance-oriented allocation of funds. Resistance to a performance-oriented allocation of funds is thereby not just due to a feeling of being externally controlled. Some of the university managers in the survey ascribe resistance above all to professors’ fear that they will be among the losers of a performance-oriented allocation of funds.

With regard to the problems that arise in the framework of the performance-oriented allocation of funds, the university managers in the survey come to the conclusion that at present it is only partly possible for them to direct the behavior of professors through financial incentives.

5. THE DISCOURAGED AND THE MOVER AND SHAKER: DIFFERENT PERCEPTIONS OF TASKS AND DIFFERENT WAYS OF DEALING WITH PROBLEMS

The interviews illustrate that the university managers see only a part of the tasks and problems in each case. This includes as well problems – mainly in connection with managing professors – that the legislature left out of the equation. University managers have an individual view of these tasks and problems. It is therefore not surprising that their procedure when carrying out the tasks and dealing with the problems is individual as well. In spite of the small population, a considerable bandwidth of differently acting university managers can be detected. We form university manager types in order to systematize these and focus here on two extremes: “the discouraged” and “the mover and shaker”.

The characteristics by means of which categorization typing took place resulted inductively from the interviews and are clarified in (Table 1). The description of the two types then follows. The characteristics point out the most important management and leadership tasks, that university managers have to handle now. We have seen in section two, that for the success of a university it is vital that its managers tackle the new demands, develop the university, implement
those development plans through leadership and deal with acceptance problems of the autonomous professors. As important leadership aspects, participation, motivation and communication have proven to be important for successful university managers [28, 29]. In 2011, the Financial Times Germany, together with the Centre for University Development (CHE), assigned the nominated presidents for President of the year to different types. Their winners saw university development as a key task and motivation and negotiation as important ways to succeed [30].

Table 1. Characteristics for the Typologization of University Managers

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dealing with Change and Complexity</td>
<td>The view of university managers of (reform-driven) changes and the way they handle them.</td>
</tr>
<tr>
<td>Perceived Autonomy to Set Development Targets</td>
<td>The university managers’ perception of their leeway for setting targets in different areas.</td>
</tr>
<tr>
<td>Planning of Development Targets</td>
<td>The university managers’ procedure for formulating targets.</td>
</tr>
<tr>
<td>Dealing with Resistance</td>
<td>The university managers’ manner of dealing with the resistance of those affected by changes.</td>
</tr>
<tr>
<td>Leadership Style</td>
<td>The university managers’ manner of leading those affected by changes.</td>
</tr>
</tbody>
</table>

Type 1: The Discouraged Manager

The discouraged manager intimates that he is partly unable to cope with having to deal with change – and he blames the legislature in the first place for this. The latter wants universities to be managed but fails to see that the behavior of professors cannot be automatically directed. Apart from this, the short half-life of higher education acts and the resulting target planning problems are criticized.

“[Higher education statutes] are constantly being amended. And when you simply see that in every single legislative period either targets are reset practically from outside or the boundary conditions are changed, you are sometimes not in a very comfortable position, because you then have to adapt what you’ve just set in motion once again to the new targets.” (Interview 2, para. 5, [author’s note]).

When it comes to the perceived autonomy to set development targets in the opinion of the discouraged managers, the university’s development targets are to all intents and purposes given, because financing for the university depends on the achievement of the targets agreed with the ministry.

“The university has no chance to contribute anything to the subjects of the target and performance development agreements. All we can do is fulfilling them.” (Interview 2, para. 11).

Hence it is not surprising that the discouraged university managers are virtually helpless in the face of the task of formulating development targets, and hope to be able to muddle through to formulations that will be accepted both by Deans and by the ministry. Moreover an involvement of professors does not happen to a sufficient extent.

“We have made two attempts by the rectorate to involve professors. (...) The result so far is not encouraging. (...) The conclusion from this: It will not work that way. We know this already. But how does it work? I don’t know.” (Interview 1, para. 45).

The consequence is a largely content-free development plan. Teaching and research profiles cannot be generated in this way.

Discouraged university managers are helpless in the face of resistance, but in the face of intensified competition are unable to avoid formulating teaching and research targets and to develop the university in accordance with these. However, they then have to avoid resistance to planned developments in teaching and research at all costs, which is why they above all follow the deans in the framework of target formulation, because

“(...) I can now develop target and performance agreements (...) behind closed doors, can sign them, but I can’t push things through today in the faculties as president” (Interview 2, para. 13),

and if a

“(...) dean says I can’t get my professors to do that, the university management will have a tough time of it” (Interview 1, para. 17) –

and the targets are then merely written down on paper (e.g. for the development plan).

Furthermore, the discouraged university managers do not know how to deal with problems that occur in the framework of the performance-oriented allocation of funds. Their shaping of (incentive) instruments [31] that are available in this context is insufficient. Only the teaching load is taken into account in the framework of financing formulas. Performance agreements with the faculties are based less on concrete performance targets than on general ones; ascertained failures to achieve targets are not sanctioned. It is therefore not surprising that a discouraged manager is unable to develop any behavior directing effects.

Other ways to direct behavior are alien to the discouraged, which is why they do not know how to overcome resistance from professors. In their opinion, they cannot expect any help from deans because:

“Deans do not understand that in the interests of the institution the interests of the faculty sometimes have to take second place” (Interview 1, para. 25).

University development cannot succeed that way.

Type 2: The Mover and Shaker

The other extreme type is the mover and shaker, who sees the reform as a chance and perceives the autonomy to set development targets because as he remarks:

“At present, I can’t say that I have the feeling that the ministry tries to persuade us too much.” (Interview 8, para. 12).
Accordingly, the mover and shaker sees the way for formulating targets and makes efforts to arrive at a clear concept of possible development targets for the university. For this purpose, he initiates an academic committee (advisory board), which is intended to analyze the university’s competitive situation and to support him in developing ideas.

“We have just been through a process in which we identified four so-called core profile areas in the university. We did this together with our advisory board, (…)” (Interview 8, para. 6).

The mover and shaker discusses initial ideas in the framework of individual discussions with selected professors in the university – and says to himself:

“(…) if I (…) get one negative reaction to an idea from five academics, it’s dead (…).” (Interview 8, para. 8).

Together with the advisory board the mover and shaker fleshes out ideas that are mainly positively received. Possible development targets for the university are pre-formulated in this way. These are then discussed with those affected (e.g. the dean and the professors of a faculty) in forums that are set up especially for this purpose, whereby the mover and shaker has the task of

“(…) structuring the discussion process, because otherwise it gets out of hand (…).” (Interview 8, para. 8).

It is not just a question here of creating awareness of the need for development and informing about the development target that is contemplated. Those affected should in fact demonstrate how far they want and are able to contribute to achieving the goal. Here, discards with the self-conception of those affected and the underlying financial and personal conditions are revealed.

The mover and shaker evaluates the discussion with the advisory board, in order to develop or reformulate the pre-formulated development target accordingly, and to feed it back to those affected. In this way, the mover and shaker generates acceptance for the development target that is finally written down on paper, because, in his opinion, this is the only chance that those affected will align their behavior to the target. To direct behavior he therefore relies in the first place on personal leadership and makes use of every opportunity to influence those affected directly. However, he is also aware that sometimes it is not sufficient to provide impulses for development but it is necessary

“(…) to push for a decision in one thing or another.” (Interview 8, para. 4).

“I forced these faculties to improve collaboration with the Max Planck Institute for the Study of Societies. I said I’ll stop the appointment if you don’t set up a chair that creates a connection. Because so much potential was just given away.” (Interview 8, para. 14).

However, the mover and shaker does not dispense with structural leadership. On the other hand, in the framework of financing formulas only a few indicators were taken into account along with the teaching load, and these were above all those that all faculties accept to an equal extent. He relies otherwise on target agreements. These permit him to negotiate teaching and research targets with the faculties. He regards negotiating target contents as being largely unproblematic, after all, the Dean and his professors had already taken part in formulating the development targets that now had to be put into concrete terms. He tends to see problems where the question is what target achievement is to be linked to and to what extent the appropriation of funds is made dependent on this. His negotiation skills are in demand in this context.

In addition, the mover and shaker makes use of the opportunity to stipulate not only teaching and research targets but also unloved tasks in the target agreements – an instance of this is the evaluation of teaching performances, for example, the

“(…) submission of the teaching report. For years we had to chase after this to get it. And then we just coupled it with money. 10,000 euros if it is submitted punctually. Nothing if arrives within a month after the deadline. Deduct 10,000 euros if it’s still not there by then. And what do you know – from then we had them all by the deadline.” (Interview 8, para. 6)

But the mover and shaker is aware, that the use of structural leadership has its boundaries:

“The incentives should not be overestimated. (…) You have to work in consensus with the intrinsic motivation of the people.” (Interview 8, para. 6).

In the end, the mover and shaker succeeds in developing his university. With his work momentum for a comprehensive university development was built, that resulted in becoming a winner of the German excellence-initiative [32].

Table (2) below shows a summary of the characteristic features of the two university manager types.

The types show that even six years after the reform, there is still not a mutual understanding of how to manage and lead in a university to develop it. The problem resulting from this is, that there is diversification not because of different profiles but because of different management skills. With this in mind it becomes inevitable that research shows the way to do university development. Moreover our types show that problems generally are the same, but the way they are dealt with is different and depend on the single university manager. In addition, the mover and shaker can be an inspiration for other university managers of how to develop their university successfully while the discouraged manager can be seen as an example of failure. University managers, who feel that their management- and leadership-actions are close to those of the discouraged manager, could see this as a point to change their way of thinking.

**DISCUSSION AND CONCLUSION**

The (remote) target of the university reform is entrepreneurial universities in which management and leadership are called for. Both are new for universities. Not only are management systems lacking (e.g. performance measurement systems), there is also a lack of management know-how. For example, which phases should be covered by a university planning process, and how these are to be shaped, is not clear to all university managers. Planning instruments specific to universities are in short supply. It is
For the development of the university to succeed, it is important that implementation of an orderly process of change is achieved. A concept for the university development process should be established. In the organizational (and individual) level, tackle the new tasks and do not move away from them and also develop a clear concept of the university's targets. Our typology illustrates, that university managers can be successful in different ways of dealing with management and leadership tasks of the two extreme types. Our typology illustrates, that university managers who regard the reform as an opportunity, recognize the need for development on an organizational (and individual) level, tackle the new tasks and do not move away from them and also develop a clear concept of the university development process. In the course of the development of the university the implementation of an orderly process of change is important. For the development of the university to succeed, it is inevitable that the professors are aware of the university as a relevant organization and also pursue the development targets of this organization. A major difference between the types that seems to be a key aspect is the participation of those affected by the development plans and as Clark pointed out in 1998 “… the underlying traditional academic culture cannot be ignored (…)” [39]. So participation orientation [35] in the planning stages by first generating awareness of the need for development and then giving those affected a share in formulating development targets, whereby the point is above all to harmonize the university’s development targets, the self-conception of those affected and the financial and personal framework conditions, will make the later implementation of the development targets easier, as less acceptance problems might come up.

For this reason, the university manager who most closely approaches the mover and shaker type by becoming an agent of change has the greatest chance of success.

However, it is alarming, that the success of the university development seems to depend on a single person, the president/rector, and his/her abilities. Hence, not just professionalization is important but at the same time, structures, processes, systems and instruments need to be developed that anchor management and leadership permanently in the university, because in the end a university should realize that developments no longer depend only on their top managers. Agents for change are required in all areas, e.g. in the departments [40]. Only with this type of university development can it be expected that universities will become (more) entrepreneurial.

**CONFLICT OF INTEREST**

The author(s) confirm that this article content has no conflicts of interest.

### Table 2. Characteristic Features of the Two Extreme Types

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>The Discouraged Type</th>
<th>The Mover and Shaker Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dealing with Change and Complexity</td>
<td>regards the university reform as not being thought through by the legislature, and therefore as a problem. has no idea how to deal with the changes</td>
<td>sees the university reform as a chance. tackles new complex tasks and does not shrink from them.</td>
</tr>
<tr>
<td>Perceived Autonomy to Set Development Targets</td>
<td>sees hardly any leeway for setting university targets. regards himself as a puppet of the ministry and does not develop any clear conception of the university's targets.</td>
<td>sees sufficient leeway for setting university targets. develops a clear concept of the university's targets.</td>
</tr>
<tr>
<td>Planning of Development Targets</td>
<td>has no idea of how to proceed with planning targets and tries to muddle through. does not include those affected by changes to a sufficient extent.</td>
<td>has a clear idea of how he has to proceed in terms of target formulation. includes those who are affected in the planning process.</td>
</tr>
<tr>
<td>Dealing with Resistance</td>
<td>sees hardly any chance of overcoming resistance. in his opinion cannot expect any help from the Deans</td>
<td>is aware of possible resistance but does not regard this as insurmountable.</td>
</tr>
<tr>
<td>Leadership Style</td>
<td>relies mainly on structural (indirect) leadership, but designs available instruments inadequately. never comes up with the idea of leading personally (directly) and pleases the Deans by leaving it up to them to influence the behaviour of the professors.</td>
<td>sounds out the possibilities and limits of structural (indirect) leadership. relies in the first place on personal (direct) leadership in order to create acceptance. does not leave direct influencing (solely) to the Deans.</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENT

We would like to thank the BMBF (Federal Ministry of Education and Research) and DLR (German Aerospace Center) for the financing of the project "Strategic University Management: Planning – Directing and Leading – Controlling (StratUM)", grant reference 01PW11016, in the frame of which this article was written.

REFERENCE

[35] Altvar P. Organisationsberatung im Hochschulbereich – Einige Überlegungen zum Beratungsverständnis und zu Handlungspf-


Received: March 04, 2013 Revised: May 01, 2013 Accepted: May 08, 2013

© de Schrevel and Jost; Licensee Bentham Open.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (http://creativecommons.org/licenses/by-nc/3.0/) which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.