# Between offensive and defensive mediatization. An exploration of mediatization strategies of German science-policy stakeholders

**Andreas M. Scheu**

**Abstract**   The study contributes to mediatization research. Mediatization is understood as a process during which individual and collective actors adapt towards the demands of publicity and public attention. The manuscript introduces a differentiation of mediatization strategies, ranging from defensive to offensive strategies. This conceptual differentiation is applied empirically regarding relevant stakeholders within the German science-policy constellation from politics, science, and science funding. Results are based on 35 in-depth interviews with decision makers. The results section deals with similarities and differences considering the mediatization of organizations, and introduces a typology of science-policy stakeholders based on the conceptual differentiation of mediatization strategies.

**Introduction**   In recent years, science and science-policy in Germany have undergone profound structural changes in accordance with the neoliberal concept of New Public Management [Marcinkowski, Kohring et al., 2014]. Part of such change are the processes of standardization, internationalization, and implementation of (external) evaluative criteria, as well as competitive funding [Auranen and Nieminen, 2010; Whitley and Gläser, 2007]. External stakeholders demand that scientists leave the ivory tower and engage with the general public. German science organizations — mainly universities and non-academic research institutions — increasingly orient themselves towards the concept of entrepreneurial organizations, under pressure to legitimize themselves. At the same time, competition between scientific organizations is increasing [Borchelt and Nielsen, 2014; Etzkowitz et al., 2000; Fähnrich, 2013; Marginson, 2004; Winter, 2012].

Connected to changes in science and science-policy, it is impossible for science today to "not 'have a relationship' with society" [Glerup and Horst, 2014]. In this

context, access to public attention can be regarded as a resource to cope with arising challenges. With respect to decision makers, journalism is the main source of providing public attention [Kepplinger, 2007]. Empirical evidence [Scheu et al., 2014] suggests that German decision makers regard traditional journalistic mass media as the most relevant access to public attention, and they perceive that important stakeholders within the science-policy constellation are influenced by journalistic media [Friedrichsmeier et al., 2013]. Particularly in times of change, when actors (organizations as well as individuals) have to cope with new demands that affect their performance in unforeseeable ways, it seems important to mobilize all available resources to protect against risks and seize chances. In this context, media publicity can be regarded as a resource, and stakeholders therefore adapt towards media logic and what they perceive to be the mechanisms of public attention [Altheide and Snow, 1979; Hjarvard, 2018; Nölleke and Scheu, 2018].

Such adaptations (in various social fields) are usually discussed in reference to the concept of 'mediatization' [e.g., Marcinkowski, 2014; Marcinkowski, Kohring et al., 2014; Meyen, Thieroff and Strenger, 2014; Strömbäck, 2008; Strömbäck and Esser, 2014]. In this research tradition, mediatization is understood as the repercussions of journalistic mass media [Rödder, Franzen and Weingart, 2012; Weingart, 2012] in other social fields.

Former research indicates that stakeholders within German science-policy differ, in terms of both the extent of adaptations implemented in the course of mediatization as well as their strategy (i.e., defensive versus offensive mediatization) [Scheu et al., 2014]. For example, certain organizations within the science-policy constellation follow offensive mediatization strategies and proactively advance structural adaptations, while others take a more passive/reactive and defensive approach [Scheu et al., 2014; see also Strömbäck and Van Aelst, 2013]. This paper provides a typology of science-policy actors. Ultimately, the study aims to explain the differences between the extent of adaptations and the strategies of mediatization.

By exploring the mediatization of German science-policy stakeholders, this study considers media-related actions on the one hand, and structural characteristics and adaptations to the logic of journalistic news media on the other. Both aspects are investigated from the perspectives of decision makers in the German science-policy constellation from the fields of politics, science, and science funding (cf. methods section).

| Theory | Science and science-policy are changing in many Western democracies. The direction of change points away from the notion of the university as a "republic of scholars" and towards the concept of "stakeholder universities" [Bleiklie and Kogan, 2007, p. 478] that compete for resources in complex stakeholder constellations within so-called quasi-markets [de Boer, Enders and Schimank, 2007]. These changes are in accordance with a "wave in public sector organizational change" towards the neoliberal concept of New Public Management that can be defined by three themes, "disaggregation, competition, and incentivization" [Dunleavy, Margetts et al., 2005]. Within science, such change includes processes of standardization, internationalization, and implementation of (external) evaluative criteria, as well as competitive funding [Auranen and |

Nieminen, 2010; Whitley and Gläser, 2007; for a critical assessment see Boden, Cox and Nedeva, 2006; Dunleavy and Hood, 1994].

In this context, it also seems plausible that, accordingly, media publicity and access to journalistic mass media gain importance: "The media not only influence public perceptions but also shape and reflect the policy debate. Few decisions are made by policymakers and stakeholders without the media in mind" [Bubela et al., 2009, pp. 515–516]. In science-policy constellations, media publicity might influence decisions about allocation of resources, funding decisions, or investments in emerging technologies (e.g., genome research, nanotechnology). In this context, science stakeholders are "just some of many voices in the political sphere" [Scheufele, 2014, p. 13587] that want to be heard and strive for attention, e.g., to build agendas, prime attitudes, and frame debates [Scheufele, 2014]. From a governance perspective, the increasing importance of mass media in science-policy can also be linked to the emergence of the concept of "anticipatory governance" of science (especially in regard to emerging technologies) that is closely related to engaging the public and to managing public attention and discourse [Guston, 2014].

To be clear, however, this does not mean that classic modes of interaction suddenly become obsolete; actors within the science-policy constellation surely will continue to directly observe, influence, and bargain with each other [Schimank, 2007]. However, in the context of the aforementioned changes, indirect modes of observation, influencing, and bargaining via mass media and publicity are gaining importance.

The analytical focus of this paper is decision makers within organizations. Organizations and professional roles within organizations adapt to what they perceive as the logic of journalistic mass media [Nölleke and Scheu, 2018], in order to increase or preserve their performance [Marcinkowski, 2014]. On the one hand, adaptations to journalistic news media logic are being implemented within organizations; on the other hand, organizations continue to represent the logics of their social fields, as well as other fields to which they relate. In this process, media logic(s) are not internalized unaltered but are being translated and re-constructed within organizations [Fredriksson and Pallas, 2017]. Therefore, organizations offer the possibility to witness transformations and conflicts that result from an increasing orientation to journalistic news media logic. Decision makers within organizations are experts on their organizations, as well as attentive observers of decision-making processes, structural changes, and adaptations within their social fields. Their status as experts on the mediatization of organizations, however, is problematic; because decision makers also hold professional roles, they are not only observers but also objects of mediatization.

Science-policy can be described as a "multistakeholder process" [Crozier, 2007, p. 3], meaning that collective and individual stakeholders from different social fields interact and pursue their respective interests [Benz, Kuhlmann and Sadowski, 2007]. Within the constellation of science-policy, the study at hand focuses on stakeholders from politics, science, and in between (e.g., science funding). Decision makers within those fields follow various goals; observe, influence, and bargain with other stakeholders; and take part in policy processes and decision-making [Ansell and Torfing, 2016; Benz, Kuhlmann and Sadowski,

2007; Crozier, 2007; Donges, 2007; Jansen, 2010]. The aim of this study is to explore differences in mediatization strategies and structural repercussions of journalism (mediatization) within organizations:

> *RQ: What differences characterize the mediatization and mediatization strategies of various organizations within the German science-policy constellation?*

To answer the first part of this question, the study differentiates *structures of expectations* and *structures of interpretations* [Schimank, 2007, pp. 125–127]. Structures of expectations integrate formal and informal norms, roles, and scripts [Schimank, 2007, pp. 125–126]. Most important for this paper are normative expectations, regulations, roles, programs, and organizational structures. As an example, the mediatization of normative expectations might entail implementing normative demands about the public engagement of scientists. Establishing processes for approving interviews with journalists is an example for the mediatization of regulations. The integration of media literacy into role profiles of managerial staff is indicating the mediatization of roles. The mediatization of programs can be illustrated by funding programs that require publicly communicating research findings. Extending PR departments is an example for the mediatization of organizational structures.

Structures of interpretations [Schimank, 2007, p. 126] refer to evaluative and cognitive orientations as well as to orientation horizons. The mediatization of scientific orientation horizons entails adaptations of motivations and objectives of stakeholders. This would be the case if scientific decisions (e.g., research design, formulation of hypotheses, or discussion of results) were made according to media-related considerations, such as speculations about what measures increase public attention. Cognitive orientations are accumulated in the inventory of knowledge, and can be described as mediatized when they are complemented by knowledge about mass media and journalism. Evaluative orientations consist of all kinds of values. The fact that "universities have believed for several years now that there simply cannot be enough public attention" [Marcinkowski and Kohring, 2014, p. 5] indicates the mediatization of evaluative orientations of universities.

With regard to the second part of the research question, the study assumes different mediatization strategies. Generally, mediatization is conceptualized as a pull process [cf. Esser and Strömbäck, 2014]. 'Mediatization of science-policy' describes stakeholders adapting to the media in order to reach strategic objectives [Marcinkowski, 2014]. As the strategic objectives of science-policy stakeholders vary, the mediatization strategies of stakeholders differ, too. Mediatization strategies, above all, serve to *control* and *manage* media attention. In order to do so, processes of mediatization have to imply both, rather offensive and defensive adaptations. Offensive adaptations are meant to increase media attention and to magnify chances, e.g., to set the science-policy agenda, to influence attitudes towards science-policy issues, or to frame science-policy discourse. Offensive mediatization strategies are implemented by stakeholders who believe that media attention supports their respective strategic objectives [Strömbäck and Nord, 2006].

If media are believed to impede the performance and strategic objectives of stakeholders, they would instead want to avoid media coverage and implement

defensive strategies [Strömbäck and Van Aelst, 2013]. Defensive mediatization strategies aim to avoid media attention and risks, e.g., the risk of losing autonomy by adopting media logic into science [Marcinkowski and Kohring, 2014; Weingart, 2012]. Measures like media boycotts serve as examples that societal stakeholders and organizations can also opt for defensive reactions to protect against public attention [Esser and Strömbäck, 2014]. Some existing research on mediatization already hints at "measures... for shielding against media resonance" [Marcinkowski, 2014, p. 13] and at attempts "to avoid unwanted media attention" [Strömbäck and Van Aelst, 2013, p. 350] referring to defensive reactions and conscious non-adaptations [Donges, 2005]. Yet, defensive mediatization strategies have neither been systematically included into the theoretical conceptualization of mediatization nor into empirical mediatization research.

**Table 1**. Analytical categories.

|  | Offensive strategies | Defensive strategies |
|---|---|---|
| **Structures of expectations:** normative expectations, regulations, roles, programs, and organizational structures | *e.g., integration of norms related to science communication and to public engagement of scientists* | *e.g., establishing regulations for approval procedures for interview requests* |
| **Structures of interpretations:** evaluative and cognitive orientations, orientation horizons | *e.g., evaluation of science projects in regard to media publicity* | *e.g., sensitization of staff by media trainings in order to avoid pitfalls of media publicity* |

## Method

The study is based on 35 semi-structured interviews that were conducted in the context of a research project funded by the German *Federal Ministry of Education and Research.* [Table 2; for a clarification of the interviewee selection cf. Scheu et al., 2014]. These interviews were analyzed according to the analytical categories summarized in Table 1.

As described above, science-policy decision-making is seen as a complex multi-stakeholder process that includes interactions between political and science organizations as well as organizations in between those fields. The study focuses the most relevant organizations within those areas: political parties, political advisory boards, science organizations (universities, departmental, and non-academic research organizations), science funding organizations, and disciplinary associations from a broad variety of scientific cultures. Interviewees are decision makers within those organizations: (vice-)presidents, (vice-)directors, heads of departments and/or board members. There are only two exceptions from this selection procedure. An interviewee from the field of universities worked as assistant to the president, and an interviewee from a funding organization worked at the level of middle management. Both interviewees took over in place of the original interviewees at short notice.

The selected decision makers were interviewed, mostly by phone, between May 2012 and March 2013. The interviews were conducted using interview guidelines that contained operationalizations of the analytical categories summarized in Table 1. The interviews were re-analyzed with regard to these analytical categories. Although the interview guidelines were constructed from theory, the questions were formulated openly, to provide room for thoughts that were not accounted for

**Table 2**. Interviewees.

| Professional roles and organizations of interviewees | *n* |
|---|---|
| **Policy** | 5 |
| Members of German parliament, Committee on Education, Research and Technology Assessment, Council of Science and Humanities | |
| **Research funding** | 7 |
| Heads of departments of three different German funding organizations | |
| **Departmental research organizations** | 5 |
| Presidents/directors of five departmental research organizations from different scientific traditions | |
| **Universities** | 8 |
| Presidents/vice-presidents of eight universities from different federal states in Germany | |
| **Non-academic research organizations** | 3 |
| Board members/directors of three important German non-academic research organizations from different scientific traditions | |
| **Disciplinary associations** | 7 |
| Presidents or vice-presidents/members of management/board members of seven disciplinary associations representing various scientific traditions | |

in theory and existing research. Furthermore, the interview guidelines were individualized according to available information (e.g., websites) about the decision makers and organizations, as well as according to results from a quantitative content analysis of science-policy coverage [Summ and Volpers, 2016].

The interviews were recorded and transcribed. Since the focus lay on the expert knowledge of the interviewees, neither pauses in conversation, dialects or other contextual information was transcribed. Instead, the transcripts have been edited for readability. Citations within this paper have been translated from the edited German transcripts.

The comparisons of the extent of mediatization, as well as offensive and defensive strategies of organizations, resulted in a typology of the science-policy stakeholders within this sample. The interviews have been coded thematically, using Atlas.ti [Gibbs, 2013]. The process of data analysis involved both a deductive and inductive aspects [Reichertz, 2014]. Deductive logic has been applied to identify relevant citations within interview transcripts according to categories listed in Table 1 [Schreier, 2014]. Afterwards, the relevant text passages have been interpreted inductively. In a first step, the interviews have been indexed individually concerning the reported extent of structural adaptations ("low = 1" to "high = 5") and the strategy of mediatization (on a continuum from "mainly defensive = 1" to "mainly offensive = 5"). Coming from this first approach towards a typology, the interviewees have been arranged and re-arranged in relation to each other during several repeated interpretative readings and discussions with colleagues.

**Results**

All interviewees report structural transformations that are related to journalistic news media logic. Decision makers in the field of science-policy agree on a "lowest common denominator" of media logic [Nölleke and Scheu, 2018] tending towards negative news values [cf. also Karidi, 2017; van der Meer et al., 2018]. Adaptations in the course of mediatization involve structures of expectations and structures of

interpretations. These results (elements of adaptations to media logic) have been published elsewhere [Scheu et al., 2014] and will therefore only be summarized briefly below (cf. also Table 3).

Table 3. Adaptations to media logic of science-policy stakeholders.

| Structures of expectations | • Integration of media skills into competence profiles |
|---|---|
| | • Establishment of media policies in organizations |
| | • Establishment of rules and regulations concerning media contacts |
| | • Professionalization/extension of media and PR departments |
| | • Orientation to perceived journalistic practices concerning external communication (e.g., simplification, dramatization, etc.) |
| Structures of interpretations | • Establishment of an inventory of knowledge about journalism (cognitive orientations) |
| | • Only sporadic adaptations of evaluative orientations |
| | • "Third-person-effect" concerning medialization of evaluative orientations |

Note. Summary based on Scheu et al. [2014, p. 721].

Interviewees perceive a slight shift of the power structure within the science-policy constellation, which they assume is due to publicity and public attention. Media publicity strengthens traditionally less-influential actors. Most adaptations are reported for structures of expectations. Norms, regulations, and organizational structures are being adapted and extended to meet the demands of mass media. In contrast, most interviewees perceive no or only slight adaptations of structures of interpretations.

Decision makers regard adaptations of evaluative orientations — e.g., motives or objectives — as isolated and dysfunctional exceptions. However, there seems to be some kind of third-person effect concerning the mediatization of structures of interpretations. Respondents rate the media orientation of actors from other fields much higher than their own; they only perceive rather marginal influences of mediatization on the core functions of their own organizations [cf. also Donges, 2005; Rödder and Schäfer, 2010], but they identify such influences on actors from other fields.

Besides these commonalities, science-policy stakeholders differ in terms of the extent of mediatization and the mediatization strategy of organizations.

*Types*

Generally, interviewees differ in their perceptions of the extent (more or fewer adaptations) and the strategy (offensive or defensive) of mediatization. Theoretically, this results in a rather simple matrix consisting of four ideal types. Of course, the empirically-identified types do not fit exactly into this ideal matrix. In fact, none of the interviewees report only offensive adaptations and do not mention risks of mediatization (and the other way round). Moreover, transitions are smooth between few and extensive adaptations within organizations, as well as between defensive and offensive strategies.

**Type 1: "Opposing mediatization".** This is the smallest of the identified groups. The group "opposing mediatization" consists of only three interviewees, working
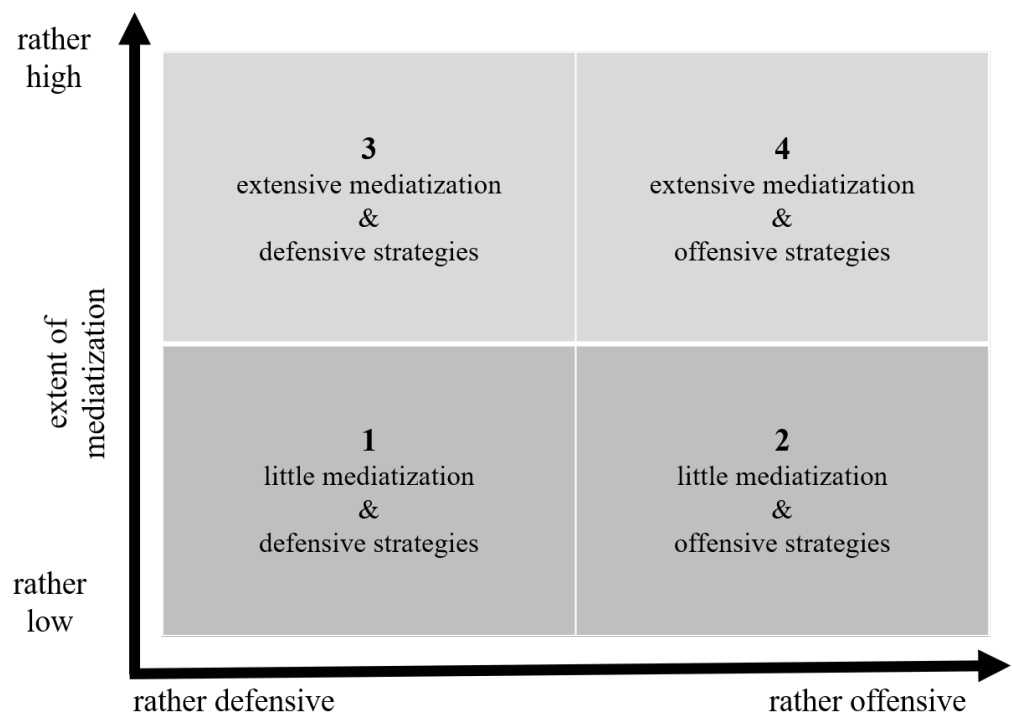
**Figure 1**. Ideal types of mediatization.

with a university (U8), a funding organization (F5), and a disciplinary association (D2). They must be regarded with caution, due to the fact that the interviewees from the university and the funding organization are exceptions in the sample. Neither interviewee could be located at the managerial level, as they took over in place of the original interviewees at short notice. From this point of view, it is questionable if this type will reproduce as a discrete group in further studies. In comparison to the other types, the data even suggests that decision-makers do not see 'opposing mediatization' as an option, at all. The question rather is, which strategy of mediatization to choose.

The three interviewees are relatively critical towards journalism and mass media. In addition, they assume that mass media are not important for the fields of science and science-policy. The employee of a funding organization believes that "the influence of mass media is overrated" (F5), while a university representative even claims that "mass media are completely irrelevant considering science-policy issues" (U8). Furthermore, the stakeholders "opposing mediatization" do not believe their organizations are able to influence media coverage: "Realistically, I think our actual chances [to influence media] are rather low" (D2).

Accordingly, this group only report few and marginal adaptations. The interviewees exclusively refer to adaptations of public relations and do not observe organizational adaptations of structures of interpretations at all. If anything, adaptations should serve to protect the work, services, and performances of organizations, as well as to legitimate costs towards taxpayers and other stakeholders, respectively: "In the end it all comes down to public funding. This makes it only fair to publicly demonstrate how the money has been spent" (D2).

From the perspective of interviewees "opposing mediatization," the extent of mediatization is low; moreover, they only accept defensive mediatization strategies as legitimate.

**Type 2: "Working towards mediatization".** The second type, "working towards mediatization," is also not extensively mediatized. But in contrast to the type "opposing mediatization," this type evaluates mediatization much more positively and in particular perceives opportunities and benefits arising from mediatization. However, the level of mediatization of these stakeholders is clearly limited by external factors, above all lack of resources — as the president of a disciplinary association states:

> I think that we should use the media much more to reach our goals than we do now. … All our colleagues think this would be good, but they are just too busy with research and teaching, that's why they don't have any free resources. (D4)

The respondents claim that they would prefer to implement further adaptations to media logic, but that they lack the money. This type consists of four presidents of disciplinary associations (D1, D3, D4, D6) and a party politician (P3) who is responsible for science-policy issues.

The interviewees in this group perceive the influence of mass media on science-policy decision-making to be relatively high, even "massive" (P3). Presidents of disciplinary associations presume that funding decisions are increasingly dependent on media coverage and that funding organizations strongly orient towards media. This advances the mediatization of science in general and of disciplinary associations in particular:

> It has gotten more important because the, let's say "fight over the distribution of resources" got more difficult. (D1).

They also warn against the mediatization of science funding, which may have the side effect that "many colleagues choose research fields they are only marginally interested in" (D4) but promise to be of interest to the public. Another main reason for mediatization in the eyes of these respondents is the increased relevance of public legitimization:

> Science-funding, and the fact that we spend money for research projects that the general public does not understand, is a communicative challenge. … This means that we have to communicate to the public why we need it, what the societal benefits are. … It has become much more important to generate public acceptance. (D1)

The respondents assume their organizations' influence on mass media and journalism is rather low, and that their organizations' position in the field of the science-policy constellation is rather weak. In this context, these stakeholders hope that advancing offensive adaptations to journalistic media logic will help improve their organizations' influence and position within the constellation of German science-policy. However, they only report a low level of mediatization because they cannot afford more extensive adaptations.

**Type 3: "Defensive mediatization".**   The third group reports more extensive adaptations to journalistic news media logic. The group, labeled as "defensive mediatization," consists of three decision makers from non-academic research institutes (R1, R2, R3), three presidents of departmental research organizations (DR2, DR3, DR4), and a university president (U3). In comparison to the other respondents, the level of mediatization of these actors lies in between. They strongly focus on defensive strategies with regard to mediatization. Major motives for mediatization are legitimization, averting perceived dangers, and securing autonomy. Furthermore, mediatization seems necessary to this group because other stakeholders in the field of science-policy are presumed to be influenced by media publicity. Therefore, adaptations to media demands of this group can be regarded as reactions to presumed media influences on other actors, e.g., "because politics is very strongly oriented towards the media" (D3). However, offensive mediatization is not regarded as a valid strategy, primarily because reliable access to media publicity seems volatile: "This can't be controlled" (D2).

What is more, the "defensive mediatization" type is confident about their own position within the science-policy constellation. They claim to hold a relatively strong position, to be taken seriously as science-policy stakeholders, and to be financially well-off. This coincides with an autonomous self-image. The "defensive mediatization"-stakeholders emphasize their autonomy and tend to stress that they have no interest in influencing others via mass media:

> Some actors try to cooperate closely with the media in order to influence science-policy. This is of no interest to me because my focus is scientific research. (R3)

In this context, Rödder [2012, p. 173] proves that particularly research-oriented scientists distance themselves from colleagues that are publicly visible in the mass media.

The main motive for stakeholders who fit in this group seems to be the need to present oneself as a useful, interesting, and socially-relevant organization to the general public, or to be more precise, to the taxpayer. "After all, we are an organization that uses taxes and that, therefore, is under pressure to justify its usefulness" (D2). The respondents from non-academic research institutes, too, are aware that they use "state money, therefore the taxpayers should know how their money is used" (R3).

The autonomous self-conception of stakeholders within this group, combined with their acknowledgment of other stakeholders' media orientation, seems to promote defensive mediatization strategies that sustain autonomy.

**Type 4: "Balanced mediatization".**   The type "balanced mediatization" is the largest group; it consists of four decision makers from science funding organizations (F1, F2, F3, F4), four presidents/vice presidents of universities (U1, U2, U4, U7), the president of a disciplinary association (D5), the president of a departmental research organization (DR1), and a member of the Council of Science and Humanities (P5).

In comparison to the previous types, this group of actors reports rather extensive mediatization, including adapting norms and role profiles; implementing media-specific regulations; and systematizing, accumulating, and transferring knowledge about journalism within organizations.

These respondents regard media publicity as an important "interface between science and the general public... that has certainly gained importance over the last ten years" (F1). Some respondents, like the head of a funding organization, even feel that the media "play a central role in determining if and how specific research projects and funding are realized in Germany" (F1).

The respondents report about relatively extensive structural adaptations of their organizations, which they trace back to a perceived rise of the importance of journalistic mass media: "Public relations is the most important thing you can do" (F4). In addition, roles and demands of managing staff are transforming. Part of this is to offensively cultivate relations to journalists and media representatives:

> [As a university president, you] have to initiate interviews with certain journalists that you know. You try to influence issues with the help of such interviews and other media coverage of these journalists in a way you think the issues should be discussed on a national level. However, this only works in cooperation with journalists that you know and vice versa, who appreciate you. (U2)

In contrast to interviewees of the previously mentioned types, the respondents within this group also report adapting structures of interpretations:

> I actually would confirm that research projects that are presented in a positive way by the mass media might be perceived to be better — even though this does not necessarily guarantee the success of a follow-up research proposal. (F2)

Others are more critical. They disapprove of the media orientation of funding organizations, which, from their point of view, goes too far. Media orientation of funding organizations would lead to the effect "that funding often is spent for projects that are not always the most scientifically relevant but that are 'sexy'" (U1).

The interviewees perceive the chances as well as the risks of media attention: "It's almost at the same level as the media relations of celebrities: you are playing with fire" (U4). Media publicity "has become more relevant and at the same time more risky" (U7). One of the most important chances of offensive mediatization, is seen in the potential to improve their organizations' position within the field of science-policy — often coupled with the aim to "put pressure on political actors" (P5). At the same time, respondents assume strong media orientation of politicians and funding organizations:

> We obviously... depend on the interest and goodwill of politics and politicians, and politicians of course very closely read the press." (F3)

Besides the perceived media orientation of others (particularly politicians), the mediatization of the type "balanced mediatization" is also motivated by the need

to publicly legitimize organizational costs. "Science has to legitimize to the general public, because science is lavishing public money" (P5). All in all, this group of stakeholders is implementing a balanced strategy of mediatization — consisting of both offensive and defensive adaptations. They try to simultaneously protect core functionalities of their organizations and increase access to media publicity in order to influence other stakeholders.

**Type 5: "Offensive mediatization".**    The last type, "offensive mediatization," represents stakeholders that view journalistic mass media as substantial part of science-policy. Respondents perceive journalism to be very influential, and they use media publicity very offensively. Accordingly, they also report the most extensive adaptations. The areas that involve adaptations coincide with those of the "balanced mediatization" type. The "offensive mediatization" type consists of two decision makers within funding organizations (F6, F7), two university presidents/vice presidents (U5, U6), and three representatives of political parties/members of the Committee on Education, Research and Technology Assessment (P1, P2, P4).

The respondents in this group are self-confident, perceive their organizations as important science-policy stakeholders, and position themselves near the political pole of the field of science-policy. They assume strong media effects and see journalism as a relevant stakeholder within the constellation.

> We live in a world of visuals and media. It does not matter at all if you like this or not. If you want to responsibly manage an organization like this one, you have to accept . . . certain facts. And today, this means: if you are not publicly visible, you don't exist." (U6)

The interviewees observe a strong media orientation of political actors. The president of a university knows from experience:

> Politicians very closely observe the media coverage of universities [within their regions], as I learn from reactions of a colleague within the ministry. . . who always calls and offers feedback to certain activities. (U5)

Respondents from political parties confirm this impression. "The media are part of political everyday life" (P2). In addition, the often-mentioned presumption that media set the science-policy agenda is also confirmed:

> The media are able to interfere. When something goes wrong, when I get informed by mass media about things not running smoothly, then this will be discussed in parliament. (P4)

This group strongly focuses on offensive mediatization. They implement adaptations to optimize their influence within the constellation and to increase access to media publicity. "Generally, we want to push our own agenda" (U5). Adaptations to media logic and media-related actions serve as resources in the competition for funding and to influence science-policy decisions.

> We certainly use [journalistic media publicity] as a resource. We do not only react. On the contrary, we handle media in an offensive way and are happy about every report about us — even when it's not positive. (U6)

This corresponds with the respondents observing of other stakeholders:

> The fight over funding results in a competition to present oneself in the best way possible. Everybody knows: you have to be able to successfully sell yourself. Then you have better chances with funding organizations. (P2)

A very strong focus on offensive mediatization, however, might even endanger the autonomous functionality of stakeholders. In this regard, self-reports of respondents differ from the observations of others. Only a few interviewees report adaptations of structures of interpretations within their own organizations. For example, a funding organization decision maker, reported to consider the potential for media publicity when designing new lines of funding (F6). In addition, a university vice-president observes a trend within universities, "leading to scientists trying to make their work look increasingly spectacular" (U5). These self-reports are complemented by many respondents across the identified groups, reporting alarming adaptations of other stakeholders within the science-policy constellation. Respondents from research and funding organizations, for example, observe far-reaching adaptations to journalistic logic when talking about policy organizations. Stakeholders from the fields of policy and research, suspect that funding organizations allocate funding according to the attractiveness of projects to the mass media.

To sum up, stakeholders within the group of "offensive mediatization" report the most extensive adaptations in course of mediatization, and also represent the most offensive strategies of mediatization.

**Discussion**

This study investigated the mediatization, different mediatization strategies, and dynamics that influence the mediatization of stakeholders within German science-policy.

*Mediatization*

Even though the statements of the respondents cannot ultimately prove structural adaptations of organizations, it seems plausible that they are valuable indicators for the way organizations adapt towards journalistic news media. With this limitation in mind, the results show that all respondents — even the least mediatized — report adaptations to journalistic media logic. Actually, most of the cases can be assigned to types that are regarded as rather extensively mediatized. What is more, the weakly-mediatized type 1 cannot readily be compared with the other types because the interviewees occupy lower positions within their organizations than the other respondents; moreover, the other rather weakly-mediatized type 2 reports that further adaptations would gladly be implemented if the necessary resources were at hand. From this point of view, it seems that the question for decision makers within the science-policy constellation is not if they should adapt towards media publicity, but which strategy of mediatization to choose.

*Mediatization strategies*

It is apparent that some decision makers strongly rely on journalistic news media to observe and influence each other and therefore offensively advance processes of mediatization, while others only carefully deal with mass media and guard themselves against media influences (defensive mediatization). The paper sheds light on these differences and develops a typology of science-policy stakeholders, their mass media relations, and perceptions of mediatization. The typology differentiates five types of stakeholders and, by comparison, identifies factors that influence attitudes of stakeholders towards the role of mass media within science-policy and towards chances and risks of mediatization. Hereby, the differentiation of offensive and defensive mediatization strategies has been very useful and helps to further understand processes of mediatization.

Processes of mediatization within science-policy constellations in Germany can be linked to changes towards the neoliberal concept of New Public Management. Such change might push, accelerate or intensify processes of mediatization. It seems understandable that adaptations towards media demands are being implement by stakeholders because media attention offers possibilities to influence decision-making, gain competitive advantages, and cope with new challenges. Offensive mediatization strategies are used to gain access to media publicity and thereby indirectly set or build the science-policy agenda, influence attitudes of stakeholders, and frame science-policy discourse. Defensive mediatization strategies, on the other hand, respond to perceived risks such as loss of autonomy, erroneous trends, or even unintended consequences linked to offensive mediatization. Defensive adaptations serve to control or avoid media attention. In the end, however, both offensive and defensive mediatization strategies aim at sustaining or increasing the performance of stakeholders.

*Influences on mediatization*

The main motive that advances mediatization is the perceived need for public legitimization. All respondents refer to the legitimization of financial costs towards the taxpayer [cf. also Franzen, Weingart and Rödder, 2012, p. 7]; other aspects of public legitimization concern the social relevance and performance of organizations. This is complemented by rather defensive strategies, such as protection from dysfunctional external influences (e.g., negative media coverage, loss of autonomy) or fear of competitive disadvantages. Other strategies are more offensive: improvement of performance, competitiveness, creation of acceptance within the general public, enhancement of reputation among decision makers, and influencing social discourses and political decision-making.

A comparison of the identified types shows, that decision makers who favor offensive strategies of mediatization to increase their influence within the constellation also report more extensive structural adaptations within their organizations and are proud to actively advance adaptation processes themselves. On the contrary, respondents that favor defensive strategies seem more careful about adaptations within their organizations. Type 2 must be regarded as exception that can be explained due to a lack of financial resources, which impedes structural adaptations.
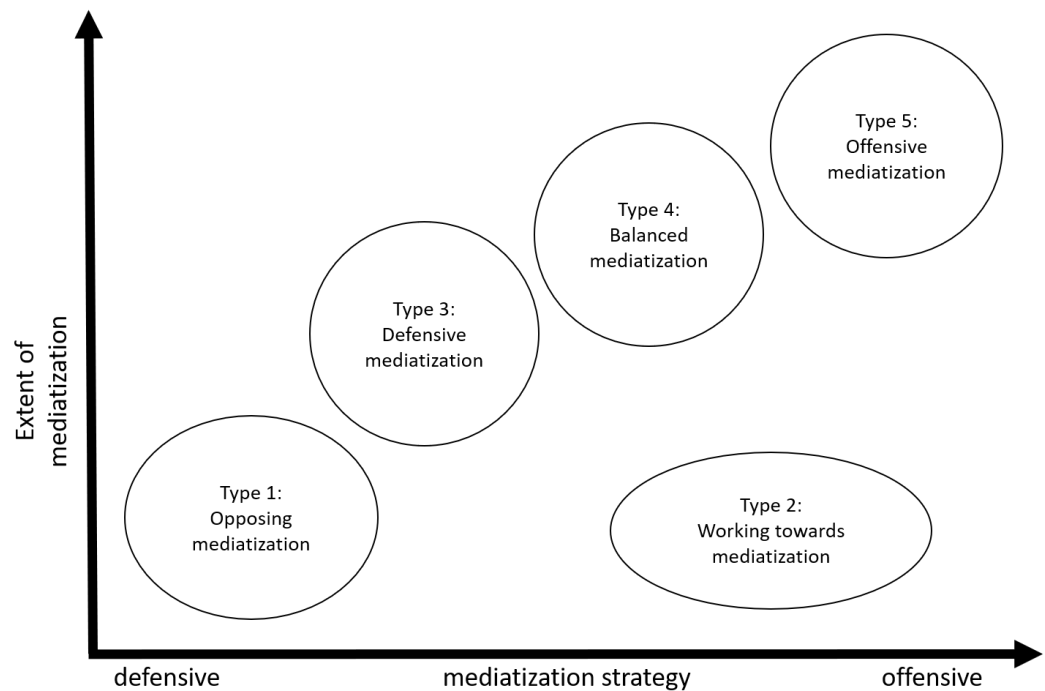
**Figure 2**. Typology of decision makers regarding mediatization of organizations.

The perception of and attitude towards mediatization also seems to be influenced by the positioning of respondents, either towards the scientific or the political pole within the field of science-policy. For example, decision makers in universities that hold a rather political self-conception seem to rely more strongly on media publicity than do those who primarily see themselves as scientists. Respondents that have been assigned to the type "offensive mediatization" (most positive towards mediatization, most extensive adaptations, offensive strategies) also hold the most political self-conceptions. This finding also supports the observations of Fredriksson, Schillemans and Pallas [2015], that the type of management influences mediatization of organizations as well as the findings of Horst [2013] on different types of actors representing science.

Another catalyst of mediatization seems to be the perceived media orientation of other decision makers and presumed media effects within the constellation [cf. Cohen, Tsfati and Sheafer, 2008; Tsfati, Cohen and Gunther, 2011].

*Outlook*

The interrelations presented above are based on self-reporting. Further research should complement the data using other sources (e.g., archival documents, external experts) and methods (e.g., quantitative surveys). What is more, documents (e.g., media guidelines, organization charts, minutes of meetings, etc.) could be analyzed over time to verify the adaptations reported by the respondents of this study. With the help of a representative surveys, it would be possible to prove or disprove the theses developed above.

Nonetheless, the study serves to more fully understand mediatization. Especially the conceptual and empirical differentiation of offensive and defensive mediatization strategies as well as the identification of dynamics that influence processes of mediatization help to advance the concept of mediatization and offer benefits for further research on mediatization of various social fields, collective and individual actors, the level of structural changes as well as actions.

The main benefit of the study might be that the results presented above show the potential of a line of mediatization research that no longer solely focuses on the extent of mediatization of different stakeholders but refocuses on differences in mediatization strategies, and their respective chances and risks. What is more, this approach also provides insights for science communicators. From the perspective of most decision-makers, mediatization seems unavoidable. The differentiation of defensive and offensive strategies introduced in this study sensitizes towards (often short-term) benefits and (often long-term) risks of mediatization. Communication practitioners within organizations in the science-policy constellation have to address such benefits and risks. In order to proactively regulate and control processes of mediatization, communicators will have to reflect on short- and long-term, intended and unintended consequences of mediatization — and develop productive strategies that balance offensive and defensive mediatization.

**References**

Altheide, D. L. and Snow, R. P. (1979). Media logic. Beverly Hills, CA, U.S.A.: Sage.

Ansell, C. and Torfing, J., eds. (2016). Handbook on theories of governance. Cheltenham, U.K.: Edward Elgar Publishing Limited. https://doi.org/10.4337/9781782548508.

Auranen, O. and Nieminen, M. (2010). 'University research funding and publication performance. An international comparison'. *Research Policy* 39 (6), pp. 822–834. https://doi.org/10.1016/j.respol.2010.03.003.

Benz, A., Kuhlmann, S. and Sadowski, D. (2007). 'Governance — a political science perspective'. In: New forms of governance in research organizations. Disciplinary approaches, interfaces and integration. Ed. by D. Jansen. Dordrecht, The Netherlands: Springer, pp. 3–29. https://doi.org/10.1007/978-1-4020-5831-8_1.

Bleiklie, I. and Kogan, M. (2007). 'Organization and governance of universities'. *Higher Education Policy* 20 (4), pp. 477–493. https://doi.org/10.1057/palgrave.hep.8300167.

Boden, R., Cox, D. and Nedeva, M. (2006). 'The appliance of science? New public management and strategic change'. *Technology Analysis & Strategic Management* 18 (2), pp. 125–141. https://doi.org/10.1080/09537320600623941.

Borchelt, R. E. and Nielsen, K. H. (2014). 'Public relations in science: managing the trust portfolio'. In: Routledge Handbook of Public Communication of Science and Technology. Ed. by M. Bucchi and B. Trench. 2nd ed. London, U.K. and New York, U.S.A.: Routledge, pp. 58–69. https://doi.org/10.4324/9780203483794.

Bubela, T., Nisbet, M. C., Borchelt, R., Brunger, F., Critchley, C., Einsiedel, E., Geller, G., Gupta, A., Hampel, J., Hyde-Lay, R., Jandciu, E. W., Jones, S. A., Kolopack, P., Lane, S., Lougheed, T., Nerlich, B., Ogbogu, U., O'Riordan, K., Ouellette, C., Spear, M., Strauss, S., Thavaratnam, T., Willemse, L. and Caulfield, T. (2009). 'Science communication reconsidered'. *Nature Biotechnology* 27 (6), pp. 514–518. https://doi.org/10.1038/nbt0609-514.

Cohen, J., Tsfati, Y. and Sheafer, T. (2008). 'The influence of presumed media influence in politics: do politicians' perceptions of media power matter?' *Public Opinion Quarterly* 72 (2), pp. 331–344. https://doi.org/10.1093/poq/nfn014.

Crozier, M. (2007). 'Recursive governance: contemporary political communication and public policy'. *Political Communication* 24 (1), pp. 1–18. https://doi.org/10.1080/10584600601128382.

de Boer, H., Enders, J. and Schimank, U. (2007). 'On the way towards new public management? The governance of university systems in England, the Netherlands, Austria and Germany'. In: New forms of governance in research organizations. Ed. by D. Jansen. Dordrecht, The Netherlands: Springer, pp. 137–152. https://doi.org/10.1007/978-1-4020-5831-8_5.

Donges, P. (2005). 'Medialisierung der Politik — Vorschlag einer Differenzierung'. [Mediatization of politics — proposal for differentiation]. In: Mythen der Mediengesellschaft — the media society and its myths. Ed. by P. Rössler and F. Krotz. Konstanz, Germany: UVK, pp. 321–339.

— (2007). 'Governance und Steuerung — zwei theorieansätze im Vergleich'. [Governance and regulation — comparing two theoretical positions]. In: Von der Medienpolitik zur Media Governance? Ed. by P. Donges. Köln, Germany: Herbert von Halem, pp. 67–84.

Dunleavy, P. and Hood, C. (1994). 'From old public administration to new public management'. *Public Money & Management* 14 (3), pp. 9–16. https://doi.org/10.1080/09540969409387823.

Dunleavy, P., Margetts, H., Bastow, S. and Tinkler, J. (2005). 'New public management is dead — long live digital-era governance'. *Journal of Public Administration Research and Theory* 16 (3), pp. 467–494. https://doi.org/10.1093/jopart/mui057.

Esser, F. and Strömbäck, J. (2014). 'A paradigm in the making: lessons for the future of mediatization research'. In: Mediatization of politics. Ed. by F. Esser and J. Strömbäck. Basingstoke, U.K. and New York, U.S.A.: Palgrave Macmillan, pp. 223–242. https://doi.org/10.1057/9781137275844_12.

Etzkowitz, H., Webster, A., Gebhardt, C. and Terra, B. R. C. (2000). 'The future of the university and the university of the future: evolution of ivory tower to entrepreneurial paradigm'. *Research Policy* 29 (2), pp. 313–330. https://doi.org/10.1016/s0048-7333(99)00069-4.

Fähnrich, B. (2013). Science Diplomacy. Strategische Kommunikation in der Auswärtigen Wissenschaftspolitik. [Science diplomacy. Strategic communication in external science-policy]. Wiesbaden, Germany: Springer VS. https://doi.org/10.1007/978-3-658-02905-0.

Franzen, M., Weingart, P. and Rödder, S. (2012). 'Exploring the impact of science communication on scientific knowledge production: an introduction'. In: The Sciences' Media Connection – Public Communication and its Repercussions. Ed. by S. Rödder, M. Franzen and P. Weingart. Vol. 28. Sociology of the Sciences Yearbook. Dordrecht, The Netherlands: Springer, pp. 3–14. https://doi.org/10.1007/978-94-007-2085-5_1.

Fredriksson, M. and Pallas, J. (2017). 'The localities of mediatization: how organizations translate mediatization into everyday practices'. In: Dynamics of mediatization. Transforming communications — studies in cross-media research. Ed. by O. Driessens, G. Bolin, A. Hepp and S. Hjarvard. Cham, Switzerland: Palgrave Macmillan, pp. 119–136. https://doi.org/10.1007/978-3-319-62983-4_6.

Fredriksson, M., Schillemans, T. and Pallas, J. (2015). 'Determinants of organizational mediatization: an analysis of the adaptation of Swedish government agencies to news media'. *Public Administration* 93 (4), pp. 1049–1067. https://doi.org/10.1111/padm.12184.

Friedrichsmeier, A., Geils, M., Kohring, M., Laukötter, E. and Marcinkowski, F. (2013). *Organisation und Öffentlichkeit von Hochschulen. Forschungsreport 1/2013 des Arbeitsbereichs Kommunikation — Medien — Gesellschaft*. [Organization and publicity of universities. Research report 1/2013 by the study area Communication — Media — Society]. Münster, Germany: IfK der Universität Münster.

Gibbs, G. R. (2013). 'Using software in qualitative analysis'. In: The SAGE handbook of qualitative data analysis. Ed. by U. Flick. London, U.K.: Sage, pp. 277–294. https://doi.org/10.4135/9781446282243.n19.

Glerup, C. and Horst, M. (2014). 'Mapping 'social responsibility' in science'. *Journal of Responsible Innovation* 1 (1), pp. 31–50. https://doi.org/10.1080/23299460.2014.882077.

Guston, D. H. (2014). 'Understanding 'anticipatory governance''. *Social Studies of Science* 44 (2), pp. 218–242. https://doi.org/10.1177/0306312713508669.

Hjarvard, S. (2018). 'The logics of the media and the mediatized conditions of social interaction'. In: Media logic(s) revisited. Transforming communications — studies in cross-media research. Ed. by C. Thimm, M. Anastasiadis and J. Einspänner-Pflock. Cham, Switzerland: Palgrave Macmillan, pp. 63–84. https://doi.org/10.1007/978-3-319-65756-1_4.

Horst, M. (2013). 'A Field of Expertise, the Organization, or Science Itself? Scientists' Perception of Representing Research in Public Communication'. *Science Communication* 35 (6), pp. 758–779. https://doi.org/10.1177/1075547013487513.

Jansen, D. (2010). 'Von der Steuerung zur Governance: Wandel der Staatlichkeit?' [From regulation to governance: transformation of statehood?] In: Handbuch Wissenschaftspolitik. Ed. by D. Simon, S. Hornbostel and A. Knie. Wiesbaden, Germany: VS Verlag für Sozialwissenschaften, pp. 39–50. https://doi.org/10.1007/978-3-531-91993-5_4.

Karidi, M. (2017). Medienlogik im Wandel: Die deutsche Berichterstattung 1984 und 2014 im Vergleich. [Changing media logic: a comparison of German news 1984 and 2014]. Wiesbaden, Germany: Springer VS. https://doi.org/10.1007/978-3-658-15781-4.

Kepplinger, H. M. (2007). 'Reciprocal effects: toward a theory of mass media effects on decision makers'. *Harvard International Journal of Press/Politics* 12 (2), pp. 3–23. https://doi.org/10.1177/1081180x07299798.

Marcinkowski, F., Kohring, M., Fürst, S. and Friedrichsmeier, A. (2014). 'Organizational Influence on Scientists' Efforts to Go Public: An Empirical Investigation'. *Science Communication* 36 (1), pp. 56–80. https://doi.org/10.1177/1075547013494022.

Marcinkowski, F. (2014). 'Mediatisation of politics: reflections on the state of the concept'. *Javnost — The Public* 21 (2), pp. 5–22. https://doi.org/10.1080/13183222.2014.11009142.

Marcinkowski, F. and Kohring, M. (2014). 'The changing rationale of science communication: a challenge to scientific autonomy'. *JCOM* 13 (3), 1–8. URL: http://jcom.sissa.it/archive/13/03/JCOM_1303_2014_C01.

Marginson, S. (2004). 'Competition and markets in higher education: a 'glonacal' analysis'. *Policy Futures in Education* 2 (2), pp. 175–244. https://doi.org/10.2304/pfie.2004.2.2.2.

Meyen, M., Thieroff, M. and Strenger, S. (2014). 'Mass media logic and the mediatization of politics'. *Journalism Studies* 15 (3), pp. 271–288. https://doi.org/10.1080/1461670x.2014.889459.

Nölleke, D. and Scheu, A. M. (2018). 'Perceived media logic: a point of reference for mediatization'. In: Media logic(s) revisited. Modelling the interplay between media institutions, media technology and societal change. Ed. by C. Thimm, M. Anastasiadis and J. Einspänner-Pflock. Cham, Switzerland: Palgrave Macmillan, pp. 195–216. https://doi.org/10.1007/978-3-319-65756-1_10.

Reichertz, J. (2014). 'Induction, deduction, abduction'. In: The SAGE handbook of qualitative data analysis. Ed. by U. Flick. London, U.K.: Sage, pp. 123–135. https://doi.org/10.4135/9781446282243.n9.

Rödder, S. (2012). 'The Ambivalence of Visible Scientists'. In: The Sciences' Media Connection – Public Communication and its Repercussions. Ed. by S. Rödder, M. Franzen and P. Weingart. Vol. 28. Sociology of the Sciences Yearbook. Dordrecht, The Netherlands: Springer, pp. 155–177. https://doi.org/10.1007/978-94-007-2085-5_8.

Rödder, S., Franzen, M. and Weingart, P., eds. (2012). The Sciences' Media Connection – Public Communication and its Repercussions. Vol. 28. Sociology of the Sciences Yearbook. Dordrecht, The Netherlands: Springer. https://doi.org/10.1007/978-94-007-2085-5.

Rödder, S. and Schäfer, M. S. (2010). 'Repercussion and resistance. An empirical study on the interrelation between science and mass media'. *Communications* 35 (3). https://doi.org/10.1515/comm.2010.014.

Scheu, A. M., Volpers, A.-M., Summ, A. and Blöbaum, B. (2014). 'Medialization of research policy: anticipation of and adaptation to journalistic logic'. *Science Communication* 36 (6), pp. 706–734. https://doi.org/10.1177/1075547014552727.

Scheufele, D. A. (2014). 'Science communication as political communication'. *Proceedings of the National Academy of Sciences* 111 (Supplement 4), pp. 13585–13592. https://doi.org/10.1073/pnas.1317516111.

Schimank, U. (2007). 'Handeln in Konstellationen: Die reflexive Konstitution von handelndem Zusammenwirken und sozialen Strukturen'. [Acting within constellations: The reflexive constitution of cooperative action and social structures]. In: Journalismustheorie: Next Generation. Soziologische Grundlegung und theoretische Innovation. Ed. by K. .-.-D. Altmeppen, T. Hanitzsch and C. Schlüter. Wiesbaden, Germany: VS Verlag für Sozialwissenschaften, pp. 121–137. https://doi.org/10.1007/978-3-531-90401-6_6.

Schreier, M. (2014). 'Qualitative content analysis'. In: The SAGE handbook of qualitative data analysis. Ed. by U. Flick. London, U.K.: Sage, pp. 170–183. https://doi.org/10.4135/9781446282243.n12.

Strömbäck, J. (2008). 'Four phases of mediatization: an analysis of the mediatization of politics'. *The International Journal of Press/Politics* 13 (3), pp. 228–246. https://doi.org/10.1177/1940161208319097.

Strömbäck, J. and Esser, F. (2014). 'Mediatization of politics: transforming democracies and reshaping politics'. In: Mediatization of communication. Ed. by K. Lundby. Berlin, Germany: De Gruyter, pp. 375–403. https://doi.org/10.1515/9783110272215.375.

Strömbäck, J. and Nord, L. W. (2006). 'Do politicians lead the tango? A study of the relationship between Swedish journalists and their political sources in the context of election campaigns'. *European Journal of Communication* 21 (2), pp. 147–164. https://doi.org/10.1177/0267323105064043.

Strömbäck, J. and Van Aelst, P. (2013). 'Why political parties adapt to the media: exploring the fourth dimension of mediatization'. *International Communication Gazette* 75 (4), pp. 341–358. https://doi.org/10.1177/1748048513482266.

Summ, A. and Volpers, A.-M. (2016). 'What's science? Where's science? Science journalism in German print media'. *Public Understanding of Science* 25 (7), pp. 775–790. https://doi.org/10.1177/0963662515583419.

Tsfati, Y., Cohen, J. and Gunther, A. C. (2011). 'The influence of presumed media influence on news about science and scientists'. *Science Communication* 33 (2), pp. 143–166. https://doi.org/10.1177/1075547010380385.

van der Meer, T. G. L. A., Kroon, A. C., Verhoeven, P. and Jonkman, J. (2018). 'Mediatization and the disproportionate attention to negative news'. *Journalism Studies*, pp. 1–21. https://doi.org/10.1080/1461670x.2018.1423632.

Weingart, P. (2012). 'The Lure of the Mass Media and its Repercussion on Science'. In: The Sciences' Media Connection – Public Communication and its Repercussions. Ed. by S. Rödder, M. Franzen and P. Weingart. Vol. 28. Sociology of the Sciences Yearbook. Dordrecht, The Netherlands: Springer, pp. 17–32. https://doi.org/10.1007/978-94-007-2085-5_2.

Whitley, R. and Gläser, J., eds. (2007). The changing governance of the sciences: the advent of research evaluation systems. Dordrecht, The Netherlands: Springer. https://doi.org/10.1007/978-1-4020-6746-4.

Winter, M. (2012). 'Wettbewerb im Hochschulwesen'. [Competition within higher education]. *die hochschule* 2, pp. 17–45.

**Author**

Andreas M. Scheu is Principal Investigator of the research project "Mediatization of Organizations" funded by the German Research Foundation (DFG). He graduated 2010 at the Department of Communication Studies and Media Research of the Ludwig-Maximilians-University in Munich, Germany. Since then, he worked as postdoctoral researcher at the Department of Communication at the University of Muenster, Germany. Since 2014, Andreas is also managing the editorial office of the journal Studies in Communication and Media (SCM).
E-mail: a.scheu@uni-muenster.de.