



A paradigm shift in German family policy: Applying a topic model to map reform and public discourse, 1990–2016

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Abstract

This article explores the newspaper discourse surrounding a paradigm shift in social policy. The case at hand, Germany, is a prime example of a welfare state that was particularly resistant to reform. Hence, the rapid paradigm shift in German family policy since the late 1990s is puzzling. This study seeks to resolve this puzzle by drawing on the insight that public discourse is crucial for policy change. Politicians have to promote reforms prior to their implementation. The main channel for communication with the wider public is the mass media. I use newspaper coverage from 1990 to 2016 to analyze whether the media is responsive to reform initiatives. I use topic modeling, an innovative method from the computational social sciences (CSS), to identify dominant themes and shifts over time in a large corpus of newspaper articles ($N = 1,459$). The analysis shows that public discourse was responsive to the parliamentary debate. The article also clarifies the role of critical events and identifies discursive strategies.

KEYWORDS

critical events, discourse analysis, early childhood education and care (ECEC), family policies, topic models

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1 | INTRODUCTION

It is widely acknowledged that the German family policy system and, in particular, its early childhood education and care (ECEC) system has experienced an unexpected paradigm shift since the late 1990s (Ostner, 2010, Seeleib-Kaiser, 2016, p. 225; Pfau-Effinger & Smidt, 2011, p. 224). In 1998, future German chancellor Gerhard Schröder spoke rudely of his colleague and later federal minister for family affairs Christine Bergmann as being “responsible for women and all that other stuff” (Klinkhammer, 2014, p. 228, translated). Shortly after, however, it was recognized that “family policies and education belong to the most important areas of investment” (Brettschneider, 2008, p. 26).

This change is even more surprising given that the family is a highly normative and sensitive concept (Blum, 2010). Moreover, the German Bismarckian welfare state was once seen as notoriously difficult to reform (Ostner, 2010, pp. 214–215; Seeleib-Kaiser, 2016) and as such “a critical case for the study of welfare state change” (Fleckenstein, 2011, p. 546). Even today, explanations for the rapid political and discursive shift in the institutions surrounding families and childhood are contested among scholars (Ostner, Betz, & Honig, 2017; Seeleib-Kaiser, 2016).

In this article, I intend to address this issue by analyzing the public discourse that accompanied the reform initiatives. Some scholars have noted that public discourse is a crucial element in explaining policy reform, as it might create windows of opportunity for change (Ostner, 2008, p. 58; Schmidt, 2002). In democratic states, the private sphere is, at least to a certain extent, protected from governmental interventions. This also holds for Germany where the “principle of subsidiarity” shields families from governmental intervention (Seeleib-Kaiser, 2002, p. 27). Consequently, the German family policy landscape has been described as “locked-in and hard to overcome” (Knijn & Ostner, 2008, p. 88). In such settings, communication and timing are crucial for successful reform initiatives (Mätzke & Ostner, 2010, pp. 470–471; Ritzi & Kaufmann, 2014, pp. 100–101; Schmidt, 2002). The main communication channel for politicians and the wider public is the mass media (Koch-Baumgarten & Voltmer, 2009, p. 306).

In the following, I use articles published in four German national newspapers and magazines (*Süddeutsche Zeitung*, *Die Zeit*, *Spiegel Magazine*, *Frankfurter Allgemeine*) to analyze whether their reporting was responsive to the political debate, reforms, and critical events. In particular, I use two core themes in the debate on ECEC in Germany, namely “early childhood education” and “early support,” to create a data corpus, which is analyzed using the innovative method of topic modeling (Blei, 2012). This dataset allows a detailed mapping of the change in policy and public discourse over time, which enables me to pin down the temporal order of shifts in public discourse and policy implementation.

2 | BACKGROUND

In the following sections, I provide an overview of the German family policy landscape from 1990 to 2016 in order to clarify the paradigmatic nature of change in German family policy. In the subsequent section, I will highlight why public discourse matters for reform initiatives and what we can learn about it by studying newspapers. Throughout, I will refer to Figure 1, which provides information on family policy legislation.

The figure also includes critical events that have been discussed as enabling political reform (Schmidt, 2002). They are defined as “sudden, relatively rare events that spark intense media and public attention because of their sheer magnitude, or sometimes because of the harm they reveal” (Birkland, 2016, p. 215). Following the literature, I regard the debate on the crisis of the welfare state

(Brettschneider, 2008, pp. 30–31) and the “PISA shock” (Augustin-Dittmann, 2010; Maas, 2016, pp. 63–64) as critical events. I included these events, because scholars regularly refer to them in order to account for the rapid shift in German family policy (Ostner, 2010, p. 224). Yet, they rarely analyze how such critical events pan out and support policy change. In my analysis, I will empirically scrutinize whether they actually played a decisive role.

2.1 | Policy Background

The (West)² German family policy system was mainly put in place to stabilize the division of labor known as the male-breadwinner model (Fleckenstein, 2011; Stiller, 2010, pp. 183–184). This model rests on the assumption that (married) women should prioritize childcare above labor once they have children (Klammer & Letablier, 2007, p. 674). Consequently, social policies were tailored toward a mother as a primary caregiver. A case in point is the long but low paid parental leave scheme that kept the primary care-giver—almost always the mother—dependent on the breadwinner (Pfau-Effinger & Smidt, 2011, p. 222). This dependency was amplified by the lack of public childcare. The legal entitlement to public childcare for 3-year-olds was not in force until 1996 (Klinkhammer, 2014, p. 184).

In general, the German welfare state relied “on the family, that is, the housewife, as a provider of social services” (Seeleib-Kaiser, 2002, p. 27) and was, hence, characterized by a high degree of “familialization” (Ostner, 2010, p. 220). Moreover, family policy concerns were “traditionally weak in national political debates” (Clasen, 2007, p. 138; Kaufmann, 2002, p. 463).

The rhetoric surrounding the male-breadwinner model changed considerably during the 1990s, and in particular when the Social Democrats and Greens entered government in 1998 (Klinkhammer, 2014, pp. 223–229). In the late 1990s, a perceived crisis of the German welfare state highlighted shortcomings in different social policy areas, including family policy. While monetary expenditures in the form of marriage-related tax allowances and benefits were comparatively high, they came to be seen as offering extremely poor value for money (Ostner, 2010, pp. 221–224). What is more, those cash-intensive policies were identified as major obstacles to mothers’ employment and fertility (Ostner, 2010, 224). At the same time, the family policy system was criticized for its inability to adapt to “new social risks” such as child poverty and lone parenthood (Bonoli, 2005; Marten, Neyer, & Ostner, 2012). In sum, rather than mitigating the crisis of the welfare state the German family policy system came to be seen as exacerbating demographic issues and labor market shortages.

The social investment paradigm was identified as a possible solution by reformers inside the German social democratic party (SPD) (Brettschneider, 2008, pp. 32–35; Klinkhammer, 2014, pp. 216–217). In light of this perspective, it was said that “family policies and education belong to the most important areas of investment” (Brettschneider, 2008, p. 26) and children became a primary target group (Esping-Andersen, 2008; Olk, 2007). The social investment paradigm emphasizes that “social policies should be seen as a productive factor, essential to economic and to employment growth” (Morel, Palier, & Palme, 2012, p. 2). The main goals of social policy are then to create human capital and to stimulate continuous female labor market participation (Morel et al., 2012). The public provision of (high-quality) childcare became a major instrument to achieve these ends. Public childcare was seen as a prerequisite for mothers’ swift return to the labor market and a cost-effective way to invest in children’s human capital (Klinkhammer & Riedel, 2018, pp. 49–51).

The Schröder administration (1998–2005) followed this approach by emphasizing gender equality, work-life balance, and an extension of ECEC during the election battle and later in their coalition agreement (Klinkhammer, 2014, pp. 223–229). Still, the policy change during their first term was rather modest (Blum, 2017, pp. 321–322). This changed with the onset of the “PISA shock”

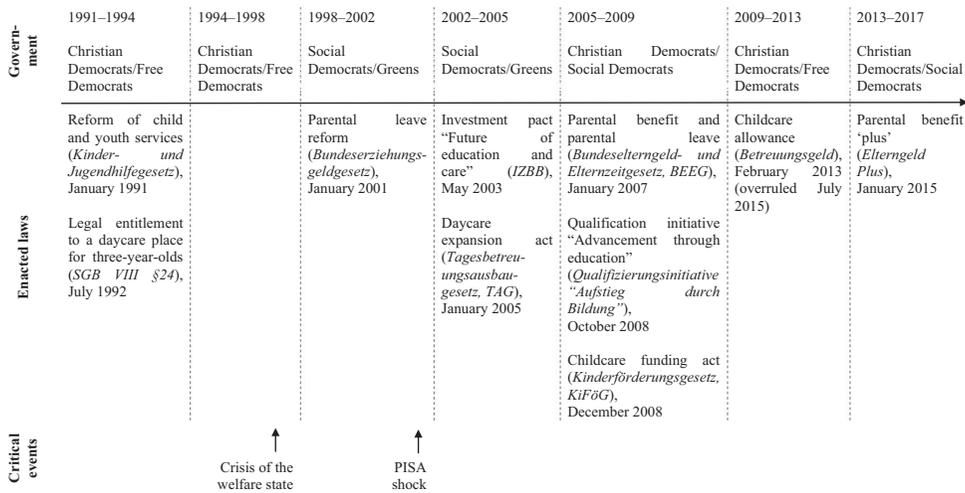


FIGURE 1 German government, family-policy output, and critical events¹

(Klinkhammer, 2014, p. 253). The low scores obtained by German school students in the Programme for International Student Assessment (PISA) spawned a heated reform debate and became a critical event in the German debate (Augustin-Dittmann, 2010, p. 63; Klinkhammer, 2014, pp. 253–258; Ostner, 2010, p. 224); this issue was also covered extensively by the press (Koch-Baumgarten & Voltmer, 2009; Maas, 2016, p. 312). While the “PISA shock” highlighted issues of the educational system, it also instigated the reform debate of German family policy (Augustin-Dittmann, 2010; Ott, 2002).

Both narratives, the social investment paradigm and the failure of the German educational system, gave politicians leeway to propose sustainable family policies (“nachhaltige Familienpolitik”) as a possible solution (Klinkhammer, 2014, pp. 353–355). Sustainable family policies set out to increase the low fertility rate, ensure the fast (re-)integration of mothers into the labor market, and expand ECEC provision (BMFSFJ, 2006; Gruescu & Rürup, 2005). Policies in line with this approach were legitimized with reference to “the economic charm of family” (“der ökonomische Charme der Familie”) (Ristau, 2005), clearly echoing arguments from the social investment paradigm (Ostner, 2008).

A case in point is the parental benefit and parental leave for childcare (“Bundeselterngeld- und Elternzeitgesetz”, BEEG) of 2007 which aimed to increase fertility rates by lowering the associated opportunity costs and ensure a fast re-integration of mothers in the labor market (Bujard, 2013, p. 140). It replaced the flat-rate benefit with a wage-related component of 67% of previous earnings (capped at €1,800 per month), which is paid for 12 months (up to fourteen months when the partner takes at least two months of leave) (Blum, 2017, p. 325). This policy instrument supports “the idea of the working mother who only interrupts work for a short period after childbirth” (Klammer & Letablier, 2007, p. 688) and can be described as “de-familializing” (Ostner, 2010, p. 219). Together with the massive expansion of ECEC facilities for under-threes (“Kinderförderungsgesetz”, KiFöG) the parental benefit and parental leave for childcare constitutes a distinct “break with the traditional family policy guided by the male breadwinner ideology” (Fleckenstein, 2011, p. 553).

The ideas and narratives of sustainable family policies were also maintained when the first grand coalition entered government in 2005 (Henninger & von Wahl, 2010). In fact, Ursula von der Leyen, the Christian Democratic minister for family affairs even accelerated the implementation of such policies (Henninger & von Wahl, 2010). However, the modernizing trajectory of

German family policy also prompted a backlash among conservative actors that is apparent in the debate on the German childcare allowance (“*Betreuungsgeld*”) (Henninger & von Wahl, 2015). The childcare allowance was a highly controversial policy initiative by the Federal Government (CDU/CSU and FDP) that provided monetary subsidies for families that raise their children at home without use of public daycares (cash-for-care benefit). The childcare allowance was included in a “package deal” in order to meet demands by the Bavarian CSU (Henninger & von Wahl, 2010, p. 373). Conservative politicians argued that a case-for-care benefit is necessary in order to establish a true “freedom of choice” for parents. In their understanding, parents should be able to choose between the dual-earner and the more traditional male-breadwinner model (Klinkhammer, 2014, pp. 240–247). Already discussed in 2007, the law was not passed until November 2012. In July 2015, the Federal Constitutional Court scrapped the policy.

In sum, German family policy experienced a phase of modernization and high political activity from 2002 to 2009. The guiding principle of a male-breadwinner was replaced by the dual-earner model, while family-centered childhood gave way to the “scholarized” childhood (Klinkhammer, 2014, pp. 517–543). One could also speak of a “de-familialization” of German family policy (Ostner, 2010). However, regional differences in the availability of public childcare still persist between eastern and western Germany (Mätzke, 2019). What is more, old “familialized” policies such as a family-based taxation have not been fully replaced by de-familializing measures (Ostner, 2010, p. 237). Notwithstanding this fact, the German family policy system underwent a paradigmatic change (Seeleib-Kaiser, 2016, p. 225). Not only did new policies evolve and their rationale change (for an overview: Blum, 2017); the way we think and talk about families and children also changed (Betz & De Moll, 2013; Klinkhammer, 2014). After 2009, most policies and debates still centered on achieving sustainable family policy goals, however, policy output leveled off during the second and third term of Angela Merkel's administration (2009–2017).

2.2 | Public discourse and policy reform

Having established that Germany experienced a paradigm shift in the field of family policy, I now review studies that address the role of public discourse in welfare state adjustment. Most social policy studies have emphasized that welfare states are rather resilient in the face of external pressure to reform (Stiller, 2010, pp. 10–14). In fact, Germany “was long considered the example *par excellence* of institutional and political resilience to change” (Stiller, 2010, pp. 9–10, emphasis in original). As such, Germany constitutes a critical case for explaining welfare state adjustment (Fleckenstein, 2011, p. 546).

However, as previously discussed, far-reaching reform did eventually occur. Recent studies seeking to explain this change have underscored the role of discourse (Schmidt, 2002; Schmidt & Radaelli, 2004). In this research, scholars have studied which “discursive strategies” (Gerhards, 1992, p. 310) increase the probability of successful reform. They stress that reform initiatives are more likely to succeed when they are presented as cognitively reasonable *and* normatively sound (Brettschneider, 2009, pp. 190–119; Schmidt, 2002, p. 170, 1). More specifically, Gerhards (1992) identifies five dimensions of political discourse that can be used by policy-makers to influence public opinion. This occurs when political actors (a) manage to frame a topic as a social problem, (b) identify the cause and origin of their issue, (c) refer to an agent capable of inducing change, (d) interpret their concern as likely to succeed, and, finally (e) present themselves as a legitimate actor in the field (Gerhards, 1992, p. 308, see also: Knijn & Ostner, 2008, pp. 82–83).

These strategies can be used to influence public opinion. The precondition for their use, however, is public attention (Gerhards, 1992, p. 307). It is more difficult to politicize an issue that is of low

salience than it is to use the momentum of a critical event. Such “events can lead (...) members of the public to pay attention to new problems or pay greater attention to existing but dormant (...) problems” (Birkland, 2016, p. 216). In short, they are “important mobilization opportunities” (Birkland, 2016). Consequently, the timing of reform initiatives constitutes another crucial ingredient in successful policy change (Mätzke & Ostner, 2010, pp. 470–471).

“Discourse, in short, matters” (Mätzke & Ostner, 2010, 190) for welfare state adjustment. This is particularly applicable in the family policy field, where discourse matters not only for reform initiatives but is also key in changing family's attitudes (Knijn & Ostner, 2008, p. 80). Yet, scholars studying discourse often limit themselves to analyzing parliamentary debates (Klinkhammer, 2014) or political documents (Betz, de Moll, & Bischoff, 2013). Whether or not citizens are knowledgeable about these sources is debatable at best. These sources can instead be regarded as a part of the coordinative discourse among policy elites. Hence, I argue that newspaper coverage is a better way to explore the relationship between public discourse and policy reform.

In general, journalists are expected to observe how other societal systems, such as politics, operate. Their function is the “constant generation and processing of irritation” (Luhmann, 2000, p. 98). In his opening statement, Luhmann (2000) even goes as far as to say that “[w]hatever we know about our society, or indeed about the world in which we live, we know through the mass media” (1). Hence, newspaper coverage plays a key role in mediating between politics and the wider public (Koch-Baumgarten & Voltmer, 2009). Journalists distribute preconstructed frames, which they then contrast with opposing views, but they rarely follow their own agenda (Martin, 2017, pp. 199–200). Citizens receive information on the political system primarily from the mass media (Gerhards, 1999, p. 148).

In line with this, empirical studies indicate that newspaper coverage is sensitive to societal and political change (DiMaggio, Nag, & Blei, 2013; Gerhards, 1999; Schröder & Vietze, 2015). Nonetheless, the relationship between mass media and politics is still a rather under-researched topic (Koch-Baumgarten & Voltmer, 2009, p. 314). This might partly be explained by the fact that media archives were not digitized and easily accessible until very recently (Schröder & Vietze, 2015, p. 44).

3 | RESEARCH QUESTIONS

In the following, I analyze whether public discourse, as measured by media coverage, was responsive to the parliamentary debate. More specifically, I explore which discursive strategies are used in the public discourse and how they helped policy-makers to legitimize their reform initiatives in the field of family policy. In order to address this question, I apply Gerhards (1992) work on the dimensions of political discourse as a heuristic to scrutinize discursive strategies. Moreover, I assume that reform-related topics are more prevalent in the run up to major reforms and legislation. Finally, I expect critical events such as the PISA shock to drive public discourse (Klinkhammer, 2014, p. 253; Koch-Baumgarten & Voltmer, 2009, p. 312).

4 | DATA, METHODS, AND MODEL EVALUATION

4.1 | Selection of articles

In this section, I introduce my database, method, and model evaluation strategy. In order to analyze the public discourse accompanying political reforms, I gathered newspaper articles that were published in print issues of the *Süddeutsche Zeitung*, *Die Zeit*, *Spiegel Magazine*, and *Frankfurter Allgemeine* (see

Table 1). I decided to include these newspapers and weeklies because they have a nationwide reach. Furthermore, as newspapers of record, they influence coverage by other media outlets.³ The sources also span the left–right political spectrum (Eilders, 2004).

Following the model of the two-step flow of communication as proposed by Lazarsfeld, Berelson, and Gaudet (1960[1944]), pp. 150–158), these newspapers and magazines can be expected to have an impact that exceeds their readership figures because they are disseminated by “opinion leaders”. Their model posits that “ideas often flow *from* radio and print *to* the opinion leaders and *from* them to the less active sections of the population” (Lazarsfeld et al. (1960[1944]), p. 151; emphasis in original). Thus, even in light of an unfolding “newspaper crisis” (Schnibben, 2013) with declining readership, newspapers and magazines are still a key factor in the formation of public opinion. Finally, all of them provide a digitized archive.

With respect to the research question, I selected two keywords. One was “Frühförderung” (early support) and the other “Frühk* Bildung*” (early childhood education), with both referring to social investment strategies.⁴ The search terms were also chosen because the expansion of ECEC facilities constitutes a core theme of several reform initiatives (Augustin-Dittmann, 2010; Clasen, 2007, pp. 163–164; Seeleib-Kaiser, 2016, p. 225). Even though both keywords are rather technical, the respective newspaper articles are connected to broader issues of family policy reform such as the reconciliation of work and family life (Clasen, 2007, pp. 164–165). Finally, more general search terms (i.e., “kindergarten,” “family policy”) provided results that were difficult to disentangle or left me with a large number of articles associated with other fields. My approach left me with 1,459 articles. The number of articles by keyword over time is depicted in Figure 2 below:

The graph shows that most articles using the search terms were published after 2001. In fact, no article before 2002 contained the keyword “Frühkindliche Bildung” (early childhood education) ($N_{\text{total}} = 781$). This term started appearing in 2002. After that, however, its prevalence increased continuously until 2008. In contrast, the prevalence of the search term “Frühförderung” (early support) ($N_{\text{total}} = 678$) varied little over time but was present throughout the observation period. This finding already indicates change concerning the discussion of ECEC.

In Germany, ECEC is a relatively new discourse that warrants further analysis. As the literature review has shown, early childhood and educational goals were relatively separate until the advent of the social investment paradigm. The first minor peak coincides with the election of the Social Democrats and Greens in 1998. However, the largest growth in articles on early support and early childhood education follows the publication of the results of the PISA study. This event has been described as one that enabled discursive (and political) change (Klinkhammer, 2014, pp. 253–279). Subsequently, the number of articles published on this topic grew steadily until the end of Chancellor Angela Merkel's first term in office. This period was characterized by high legislative activity, as discussed above. During her second term, however, the issue slightly declined in prominence before growing in relevance again. Recently, the number of articles has once again decreased.

4.2 | Identification of topics

The description of the sample has already shown that the attention ECEC attracted varied substantially from 1990 to 2016. However, keywords only provide tentative descriptive information on topic salience. For instance, the articles in the newspaper corpus may be only tangentially related to the keywords. Moreover, words derive their meaning from their context (DiMaggio et al., 2013, p. 578). A discussion of early support in relation to disabilities is quite different from one that regards it as a strategy to mitigate social inequalities. Hence, it is necessary to apply a more advanced modeling technique of textual analysis.

I used topic modeling to identify thematically coherent topics in the large text corpus (Blei, 2012). Topic models are part of a family of methods that have been labeled computational social sciences

(CSS) (Heiberger & Riebling, 2016). CSS provides a toolkit of methods aimed at processing large and often relatively unstructured data, as is the case with newspaper archives (Heiberger & Riebling, 2016). The underlying algorithm known as latent Dirichlet allocation (LDA) (Blei, Ng, & Jordan, 2003), data preparation, and my model evaluation strategy are described in Appendix S1.

The particular model used to identify topics in the newspaper corpus is known as the structural topic model (STM) (Roberts, Stewart, & Airoldi, 2016). It is an extension of the LDA algorithm developed by Blei et al. (2003) and allows for the incorporation of metadata into the modeling process (Roberts et al., 2016). The model has been used successfully to study beliefs on climate change (Mildenberger & Tingley, 2017) or respondents' understandings of the political left–right scale (Bauer, Barberá, Ackermann, & Venetz, 2017).

5 | RESULTS

In the following sections, I will describe the results produced by the topic model. The year of publication was included as metadata in order to model the prevalence of topics over time.⁵ Table 2 summarizes the results including the chosen labels, highly associated words and topic proportion over all documents. I provide “un-stemmed” words in column 3 to facilitate interpretation and readability. Frequently observed words in highly associated documents were used to achieve this task. In addition, the words were translated from German. At this level of abstraction (bag-of-words assumption), this approach is considered unproblematic (Lucas et al., 2015, p. 260).

At first sight, some topics seem to be closely aligned and many terms are present in multiple topics (i.e., *child*). This, however, is a common feature of topic models and is a strength rather than a weakness as it makes it possible to “disambiguate different uses of a term, based on the context (other terms) in which it appears” (DiMaggio et al., 2013, p. 578).

5.1 | Topics in the German debate on ECEC over time

In the remainder of the section, I will describe the resulting topics and their prevalence throughout the observation period. The section is meant to provide an overview of the public discourse that surrounded the policy shifts. However, I will exclude topics that are unrelated to my research question and relate to miscellaneous themes. This is the case for topic 2 “Event notes in newspapers” and topic 5 “Business news”. Note that these topics are also the least prominent ones (see last column of Table 2).

TABLE 1 Main characteristics of the sample

Newspaper	Type (issued)	Data availability	Sold editions (4th quarter)		Political leaning
			1990	2016	
Spiegel Magazine	News magazine (weekly)	1990–2016	1,087,304	777,877 (–39.77%)	Center-left
Süddeutsche Zeitung	Daily newspaper (Mo–Sat)	1992–2016	383,392	367,579 (–4.30%)	Center
Frankfurter Allgemeine (incl. Sonntagszeitung)	Daily newspaper (Mo–Sun)	1990–2016	342,721	253,883 (–34.99%)	Center-right
Die Zeit	Newspaper (weekly)	1990–2016	487,191	504,331 (+3.39%)	Center

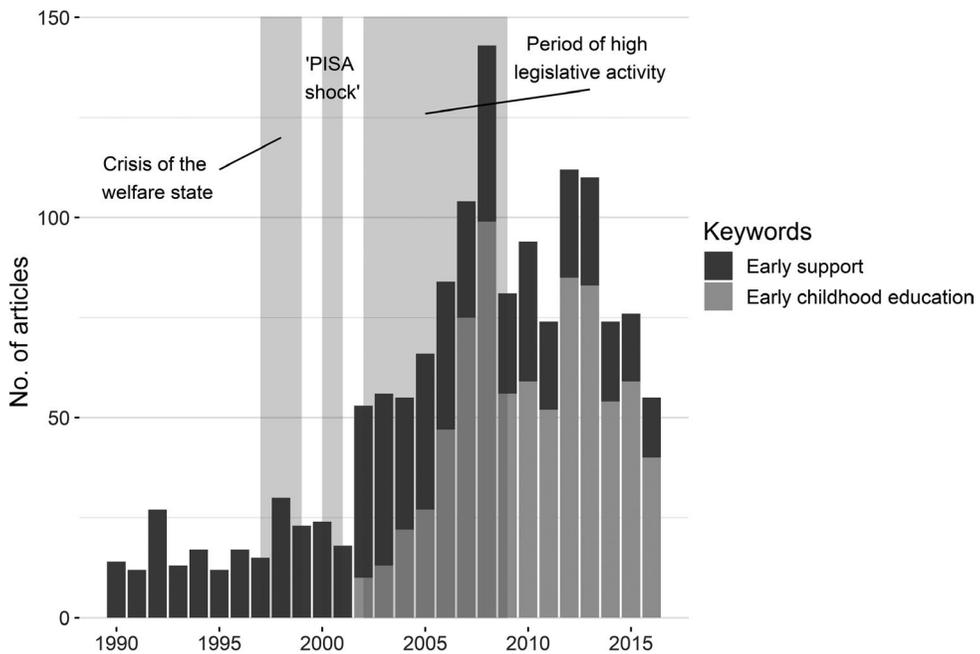


FIGURE 2 Number of articles by keyword over time

In order to facilitate the presentation of my results, I arranged the remaining topics in two groups (see Table 3). One group consists of topics that are more or less unrelated to governmental action while the second group of topics connects to the role of the state. To be clear, this specific grouping of topics is an interpretive decision that was not forced by the model. Still, all the topics in group II feature terms that deal with state action (*state*, *coalition*, *Bund*); this connection is absent from topics in group I. Hence, even if the grouping is an interpretive decision, the model backs up my decision.

In sum, the topics in group 1 relate to the “classic” understanding of early support, which was put in place to provide services for families in challenging situations and disabled children (SGB VIII §10 (4), §35a). However, the significance of these topics decreased dramatically around the turn of the century as shown in Figure 3. This decline coincided with the advent of the discourse on early childhood education, as depicted in Figure 2.

Still, articles featuring early support did not vanish entirely from the press coverage. Instead, the term “early support” was no longer only applied to children with disabilities. Today, early support is a practice that is presented as suitable for any child. But before the turn of the century, early support was politically perceived as a less-than-ideal solution for families or children with “problems” (Klinkhammer, 2014, p. 518). This shift of meaning is illustrated in an article from 2010 in which a book critical of this development is reviewed:

The authors dispense with yet another myth: the idea of early support for healthy children. The expression alone pathologizes the free development of humans. Until age six, children need time to play, to move, and to explore the environment undisturbed (Rasche, 2010, p. 18, translated).

The article clearly shows that journalists and professionals working in the field also recognize this shift in meaning.

Next, I turn to the topics that presuppose governmental action. Their prevalence over time is displayed in Figure 4. In addition, I highlight critical events and the period between 2002 and 2009, which was characterized by high legislative activity.

The figure shows that the PISA shock marks the beginning of a period characterized by a renegotiation of childcare arrangements. Both the division of responsibilities between the federal government and German states (topic 6) and the role of parental and public childcare (topic 7) were discussed and re-evaluated. Moreover, education was presented as a possible solution to social inequality (topic 1). Finally, topic 3 discusses “investment in education in coalition agreements.” The “crisis of the welfare state,” however, does not appear to be a discernible marker, which might be explained by the fact that “socio-economic change does not typically translate ‘automatically’ into ideational and policy change” (Fleckenstein, 2011, p. 546).

It is interesting to note how closely the newspaper discourse followed parliamentary debates in the family policy field. For instance, the spikes that appear in topic 7 “Childcare between parental and public responsibility” in 2012 and 2015 can be traced back to the debate surrounding the introduction of the childcare allowance and the final ruling by the Federal Constitutional Court. Moreover, the period of high political activity between 2002 and 2009 clearly left its mark (Figures 4, S1 and S2).

Topic 6 is comprised of articles that discuss the division of responsibility for the expansion of ECEC between the federal states and the government. The topic was most prominent around 2003 and 2008. In both cases, the federal government debated or passed bills that brought about a massive expansion of public facilities for children and school students (2003: Investment pact “Future of education and care”; 2008: childcare funding act, KiFöG, see Figure 1). Both programs were criticized by the German states (*Länder*) as they feared the associated costs. At the same time, Annette Schavan, the former federal minister of education and research expressed her objection to a 2006 reform to Germany's division of powers that transferred responsibility for educational policy back to the federal states. In sum, this topic documents the significant political activity in these areas during the first grand coalition of CDU/CSU and SPD.

However, the individual topics do not overlap perfectly but rather follow their own trajectory to a certain degree. Topic 3, for instance, deals with coalition agreements and party manifestos that relate to early support and early education, even if some of these articles only discuss ECEC briefly. This topic was particularly prominent from 2005 to 2014. During that time, the grand coalition of CDU/CSU and SPD proposed and implemented major changes to the German family policy system. After this point, the topic still continued to score high on the newspaper agenda. This indicates that investment in early education continued to be a highly salient topic.

Topic 1, “Education as a solution to social inequality,” discusses the role of monetary investment in early childhood, which is presented as a solution to social inequalities. Most articles featured here were written by German economists such as Marcel Fratzscher, Ludger Wößmann, and Clemens Fuest. Even though they differ in their assessment of the extent of social inequalities, they agree that investment in early education is an instrument to mitigate them. The topic is one of the more prevalent ones today. The analysis hence confirms that economists not only became more important in the political debate but also in the mass media. Early childhood was revalued in light of economic factors.

5.2 | Discursive strategies in the debate on ECEC in Germany

Having established that the newspaper coverage was responsive to political debates, I now turn to the content of the topics. In particular, I scrutinize the “discursive strategies” (Gerhards, 1992, p. 310) apparent in the newspaper articles. I argue that a specific interpretive frame that was constructed in parliamentary debates helped policy-makers to pursue their reform initiatives. For this purpose, I randomly sampled two articles per year from topic 7 “Childcare between private and public

TABLE 2 Topics, topic labels, associated words, and estimated topic proportions

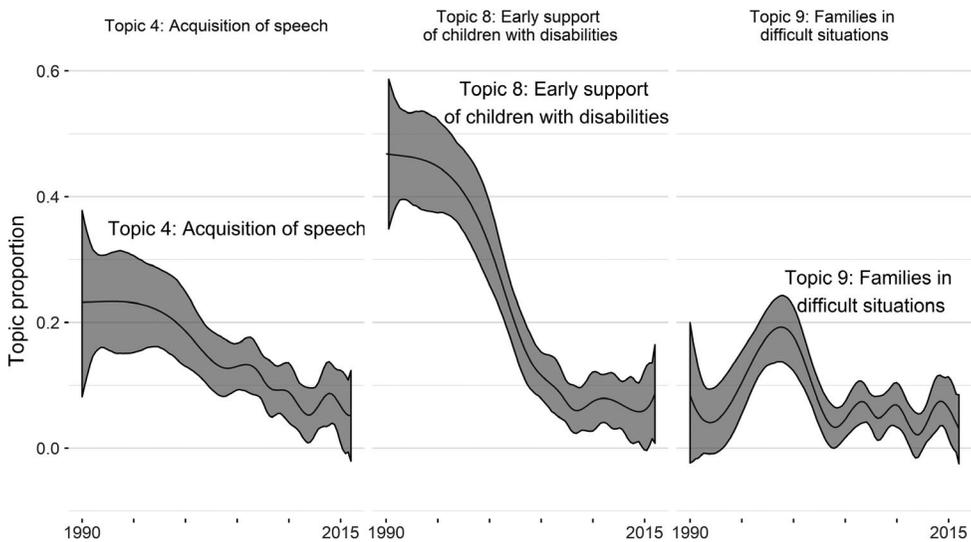
No.	Label	Associated words (fifteen highest)	Topic proportions (percent)
1	Education as a solution to social inequality	percent, Germany, German, state, education, person, increase, strong, social, child, young, youth, Merkel (Angela), inequality, study	7.1
2	Event notes in newspapers	time, child, old, new, city, school, huge, politics, music, culture, first, Munich, day, person	5.9
3	Investments in education in coalition agreements	CDU (Christian Democratic Union), SPD (Social Democratic Party), euros, FDP (Free Democratic Party), Die Grünen (The Greens), new, party, CSU (Christian Social Union), politics, million, education, state, percent, coalition, child	16.3
4	Acquisition of language	child, parent, school, teach, kindergarten, first, language, mother, early, old, new, early support, German, huge, possible	11.5
5	Business news	German, second, huge, school, new, young, PLC (public limited company), Germany, clever, percent, company, first, quarter, person, today	3.5
6	Educational policy between state and governmental responsibility	school, education, state, child, German, teach, Germany, new, Bund (federal government), educational policy, early childhood, percent, support, primary school, CDU (Christian Democratic Union)	19.8
7	Childcare between parental and public responsibility	child, parent, educate, family, education, kindergarten, percent, woman, Germany, care, early childhood, German, Euro, nursery teacher, crèche	15.8
8	Early support of children with disabilities	disabled, child, early support, Lebenshilfe (a charitable organization), new, person, society, D-mark, school, city, institution, foundation, million, work, mental	14.6
9	Families in challenging situations	child, mother, parent, family, woman, young, old, live, first, father, huge, physician, today, day, son	5.5

responsibility,” which is one of the most prominent topics. The sampling was restricted to articles that are highly associated with the topic in question (estimated topic proportion of at least 60%). This meant that I only sampled articles from 2002 to 2016. The resulting sample included 30 articles, which I read and coded in detail. This approach, which combines distant and close reading, has been termed “blended reading” (Stulpe & Lemke, 2016) as it uses “computers [to] *amplify* human abilities” (Grimmer & Stewart, 2013, p. 270, emphasis in original).

The coding scheme incorporated Gerhards’ (1992, p. 308) discourse dimensions, which have been discussed above. Moreover, I included actors that are mentioned in the articles (both persons and

TABLE 3 Grouping of topics based on the relation to governmental action

Group I	Group II
Lesser role of state action	Greater role of state action
(T4) Acquisition of language	(T1) Education as a solution to social inequality
(T8) Early support of children with disabilities	(T3) Investments in education in coalition agreements
(T9) Families in challenging situations	(T6) Educational policy between state and governmental responsibility
	(T7) Childcare between parental and public responsibility

**FIGURE 3** Topic prevalence of group 1 by date (including 95% CI), 1990–2016

organizations), (critical) events, the role ascribed to parents, and a code that was used to highlight country comparisons. Finally, the documents were grouped by their publication date in order to compare the discursive strategies from 2002 to 2016.

The main theme found in the close reading and coding of articles associated with topic 7 “Childcare between parental and public responsibility” is the role of formal education in early childhood. Associated issues include the quality of daycare facilities and the childcare allowance.

In the newspaper articles, the German system of ECEC is constructed as in urgent need of reform because of its poor performance as demonstrated by the low scores of German school students in the PISA study. The latter is clearly a critical event that served as a legitimizing concept in the reform of the German ECEC system. The study is directly mentioned in 7 of 30 articles (i.e., 23.3%). In Gerhards (1992) terminology, insufficient early childhood education is the *topic* that was identified as a *social problem* as a result of the PISA study. This interpretive scheme was maintained by a coalition of policy-makers and by scientists that are heavily featured in the press. These include economists, demographers, and educational researchers, some of which (i.e., Hans Bertram, Hans-Werner Sinn, Katharina Spieß) drew up reports for the government (Ostner, 2007).

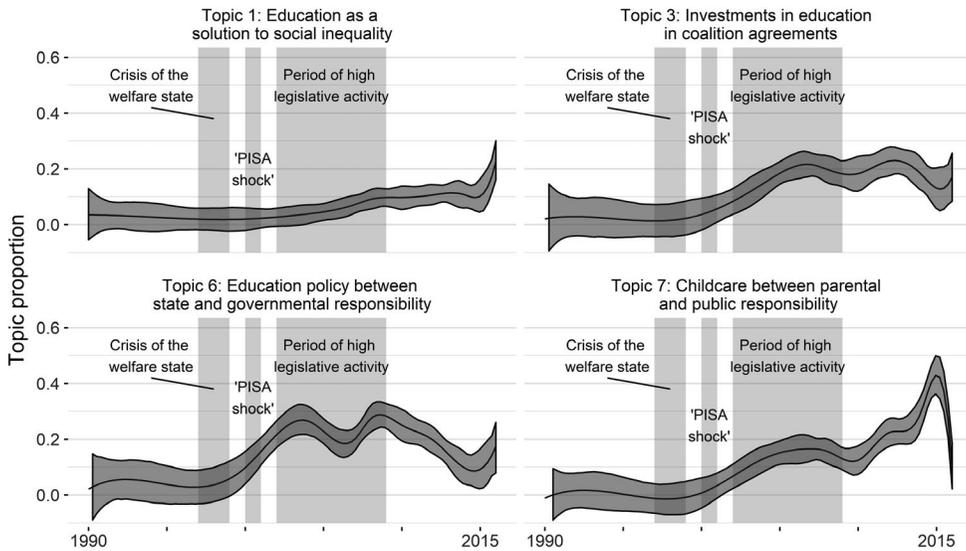


FIGURE 4 Topic prevalence of group 2 by date (including 95% CI), 1990–2016

The PISA study, however, was descriptive and did not include policy recommendations (Maas, 2016, pp. 231–232). The analysis shows that the newspapers reported on family policies in other countries in order to identify causes and policy innovations. Scandinavian countries were particularly prominent as examples of welfare states that manage to combine high female labor market participation and fertility rates. Identifying causes makes it more likely to engage the wider public (Gerhards, 1992, pp. 311–312). In one article, former federal minister Ursula von der Leyen is quoted as having said that.

[W]e should rather measure ourselves against countries that have had an excellent system of early childhood education and care for decades. For instance, children from Scandinavian countries scored better in educational comparisons than children from Germany; the fertility rates are also higher there (Berth, 2007, p. 1, translated).

Still, the suggested reasons for the PISA “debacle,” “disaster,” or “misery”—to name but a few of the terms used to describe it—varied to some degree. Recurrent issues raised in the reporting are the separation of the German kindergarten and elementary education system, the low uptake of formal childcare by parents, and the low childcare quality. Moreover, the family model is characterized as outdated and too restrictive. In this vein, one article from 2004 criticizes that

kindergartens in Germany are far from constituting the first level of the education system. Ultimately, the prevalent opinion here is that young children develop best when cared for by their mother (Melzer, 2004, p. 43, translated).

Arguments of this type were apparent until 2007. Afterward, the articles emphasized the need to include further disadvantaged groups in formal childhood education. Children at risk of not being educationally stimulated include those from migrant, poor, or low-educated families. Against this backdrop, the childcare allowance was seen as counterproductive as it may prevent the children who would benefit from early support from accessing it.

In recent years, the topic “Childcare between parental and public responsibility” has lost significance, as most articles have discussed the quality of formal childcare and the possibility to train daycare teachers at tertiary institutions. These articles also indicate that the expansion of ECEC facilities in Germany has been completed. This is expressed by one article that underlines: “The legal entitlement to a daycare place, to all-day care, until recently, this was nothing more than an SPD–Green chimera” (Henzler, 2013, p. 4).

Responsibility for implementing change is in all cases attributed to politicians and in particular, to the federal government. However, German states and municipalities are also included in some cases.

6 | DISCUSSION

These articles set out to examine the newspaper discourse accompanying a paradigm shift in social policy. The case at hand, Germany, has been described as a welfare state that is particularly hard to reform. Nonetheless, comprehensive reform in the field of family policy did eventually occur. This shift is still considered difficult to explain.

The analysis contributed to this attempt at explanation by considering that discourse and timing matter for reform initiatives. By combining innovative quantitative and qualitative textual analysis methods, I showed that newspaper coverage could be productively used to map discourse, critical events, and policy implementation.

The fine-grained analysis indicated that the PISA study was a critical event that enabled policy-makers to pressure for reform. In particular, the low scores of German school students in PISA allowed policy-makers to overcome the separation of early childhood, which was hitherto considered a private issue for families, and the education system. Further arguments that were important in the debate were women's comparatively low labor market participation and demographic considerations. Moreover, economic narratives were used to legitimize the reform. Many topics included research from economics and demography.

Solutions emerged through policy learning (Seeleib-Kaiser & Fleckenstein, 2007, pp. 439–440). The newspaper articles reported on country cases that were presented as success stories. The Scandinavian countries were taken as a case in point that managed to combine high rates of female labor market integration and higher fertility rates. This kind of coverage helped to connect policy initiatives with desired outcomes in a “causal” narrative. The experience from the former German Democratic Republic, which was characterized by a high level of ECEC provision and fertility rates, however, was largely absent in the articles.

Interestingly, the analysis also indicated that the meaning of certain concepts was also affected by paradigm shifts. The concept of “early support,” which previously referred to programs for disabled children, is now considered a practice suitable for every child. Further analysis should explore whether this change in meaning has had repercussions for the provision of early support and the way professionals such as social workers see their job.

Even though, I could confirm that “[d]iscourse (...) matters” (Schmidt, 2002, p. 190) there are still some open questions and research gaps: First, my sample was limited to high-brow newspapers and magazines. Following the model of the two-step flow of information developed by Lazarsfeld et al. (1960[1944]), I assumed that these newspapers have a significance beyond their actual readership numbers. However, it would be desirable to include cases from the tabloid media.

Secondly, the analysis provided a detailed account of public discourse and policy implementation. However, I cannot make causal claims. Other scholars have proposed explanations that stress ideational leadership (Stiller, 2010) or party competition (Blome, 2016). Still, this is partly due to the

multifaceted nature of paradigm shifts (Ostner, 2010). Further analyses should try to include these explanations to identify how different factors worked together to enable welfare state adjustment.

Thirdly, the analysis inevitably rests on the choice of keywords. Even though I explored further keywords, prospective research should gather additional data in order to investigate the robustness of my results. For instance, some scholars maintain that child poverty (Mierendorff, 2008) and several cases of severe child abuse (Eisentraut & Turba, 2013) were additional drivers of family policy reform. Further research is needed to assess the contribution of these events.

Finally, the article only featured the German case. A comparative approach could be a useful addition in order to disentangle how events such as the PISA study unfolded in other cases. This is especially relevant since welfare state adjustment did not only occur in Germany but was an event in different European states.

In sum, the article made a case for incorporating public discourse in explanations of social policy paradigm shifts. It has shown that newspaper articles are a useful source to explore public discourse and the framing of reform initiatives. In addition, it has demonstrated how innovative computational social science methods such as topic models can be applied to make large corpora manageable for social policy researchers without giving up on qualitative considerations.

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ENDNOTES

- ¹ The figure includes core family policies and critical events at the national level as discussed in Klinkhammer (2014), Olk (2007), and Blum (2017). However, Ostner and Stolberg (2015) also observe “a mushrooming of local model projects during the last fifteen years” (626), which are excluded here.
- ² In the following, I will not discuss the differences between East and West Germany in detail. Even though these are still apparent, my analysis focuses on the national level and discourses apparent in national newspapers.
- ³ This claim is substantiated by Weischenberg, Malik, and Scholl (2006) who report that the *Süddeutsche Zeitung*, *Spiegel Magazine*, *Frankfurter Allgemeine*, and *Die Zeit* are the press outlets most frequently used by German journalists.
- ⁴ The asterisk makes sure that different endings of the words are also considered and the quotation marks maintain that both words follow each other directly.
- ⁵ The variable was included using a B-spline with 10 degrees of freedom. This function is included in the *stm* package (Roberts, Stewart, and Tingley 2018).

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

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