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Temporal negotiations and injustices in the energy transition: Perspectives from a Spanish coal region

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ABSTRACT

The academic literature on energy transition often overlooks temporal dynamics. This study focuses on a traditional coal region in Spain, analyzing the temporal negotiation and confrontation processes that occur during coal phase-out, designed to expedite the energy transition. By examining 821 news articles from regional newspapers through discourse analysis, it assesses the actors involved, the influencing factors on temporal control (duration, pace, and trajectories), and the outcomes of temporal negotiation (interactional achievements). The key findings reveal tensions between differing perspectives on duration and pace, as well as conflicts between government management and local actors' demands regarding transition trajectories. Local actors perceive the coal phase-out as a lengthy, distressing, and unjust process primarily driven by the government and energy corporations. Despite the implementation of Just Transition Agreements (JTAs) aimed at involving affected communities and territories in shaping the energy transition's future scenarios, local actors have limited participation in deciding transition timelines. Instead, JTAs function as a tool for temporal governance that subtly perpetuates compensatory and continuist policies from the past. They promote resignation among the population and instill a sense of inevitability regarding certain strategic alternatives. In conclusion, the study reveals temporal injustices and tensions between the acceleration of the transition and the deceleration of territorial development after the phase-out of coal. It underscores that the construction of transformative local future scenarios necessitates considering local actors' perspectives and demands, not only in the careful planning of transition trajectories but also in addressing the duration and pace of the Just Transition.

1. Introduction

Despite being ever-present, time is insufficiently utilized as a conceptual framework in the study of coal phase-out and the energy transition. This observation extends to the broader field of social sciences, where space and time are often considered as equals, yet spatial concepts receive more attention and differentiation than temporal ones [1]. This dominance of "spatialized thinking" [2] over "temporalized thinking" in social research has led to an emphasis on understanding the economy and society in terms of spatial transformations rather than temporal dynamics.

Similarly, while it is commonly acknowledged that the energy transition impacts specific territories and contexts, resulting in spatial injustices [3,4], there is less recognition that energy transition involves a complex interplay of multiple temporal processes that can also give rise to temporal injustices. Additionally, the literature addressing this issue [5–9] is more recent. It is foreseeable that the "temporal turn" [10,11] observed in social research since the early 2000s will influence a

growing interest in exploring the temporal dimension of social and cultural phenomena in the energy transition. However, it remains a relatively underexplored area, which is intriguing considering that "transition" is fundamentally a temporal concept.

The energy transition entails shifting the current energy system, which relies heavily on fossil fuels, towards renewable and cleaner energy sources. Within energy transition studies, the technological dimension and structural change have predominantly prevailed, but further research is needed with a comprehensive approach encompassing spatialized and temporalized perspectives that address aspects of policy, economy, society, and culture. This latter approach requires grounding the analysis in specific local contexts.

The energy transition, within the broader process of decarbonization, can be understood as a socio-historical process with a beginning, development, and an ultimately unattainable but consequential end. It has profound implications for how people live and experience their territories (landscapes) and how they live and experience their temporal and social existence (timescapes). This is significant because the way

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communities perceive their past and present will mediate their actions in constructing future scenarios.

Coal, like other extractive resources and industries, articulates relationships and shapes landscapes and timescapes [12], making them enduring. However, when mining operations cease, entire social regimes are destroyed [13]. From a temporal perspective, phasing out coal involves changes at two levels. The first level is referred to as “Transition of the temporalities”, from mining temporalities [14] to post-mining temporalities; it relates to the shift in different ways of experiencing or conceptualizing time. The second level, which is the one analyzed in this paper, focuses on the specific temporalities that emerge during the energy transition process, known as “Transition temporalities”. The energy transition is considered as a profound, complex, and conflict-ridden phenomenon in which temporal concepts are central, so the duration, pace, and trajectories of the process are not irrelevant [15].

Furthermore, the justice-oriented framework is introduced as a second conceptual lens to further refine our research focus, emphasizing the importance of the concept of justice as a conceptual tool [16]. The notion of “just transition” (JT) [6,17–20] emphasizes that in the process of transitioning towards a low-carbon economy, workers and communities affected by the changes related to combating climate change should be treated fairly. Thus, the goal of the justice-oriented framework is to reconcile environmental and social concerns in fossil-fuel dependent areas that are particularly vulnerable to decarbonization [21], while taking into account specific moral dimensions, particularly those emphasized in the literature on energy justice within the framework of the “three tenets”: distribution, recognition, and participation [22]. The three-tenet framework of distributional, procedural, and recognition justice [23–25], is widely applied in the energy justice literature [16,26]. Its robust structure facilitates empirical research on energy justice, addressing challenges posed by climate change and clarifying terminologies to support effective implementation of energy policies [26]. This practical approach, designed to recognize and address justice issues arising from the energy system and its policy frameworks [27], is based on the premise that energy justice views energy systems as socially embedded, necessitating a morally informed response to decision-making [28] due to the presence of social disparities present throughout the energy lifecycle [29]. The concept aims to identify and rectify injustices through critical policy assessment, notwithstanding the tendency of governmental rhetoric to avoid engaging in discussions about justice [6,27].

However, a growing body of research acknowledges the need for improvement in the three-tenet framework, for example, by examining the interdependence of the three aspects [30], suggesting systemic frameworks that give greater relevance to structural and ideological components in the study of energy injustice [25], incorporating normative frameworks for a better understanding of disputes over core values in transitions [26], or giving more importance to the notions of space and time [6].

By focusing on the coal phase-out as part of the just energy transition policies in Spanish mining areas, this article contributes to the literature seeking to expand the conceptual and analytical foundation of the triad, specifically by deepening the connection between justice and the notion of time in coal phase-out. It is important to note that initially this study on energy transition in Spain, which began in the same year that the end of coal was scheduled (2020), aimed to address how local actors in the affected territories conceptualized and experienced (in)justice in the coal phase-out, using their manifestations in regional media as a basis. The relevance of the narrative “Justice is time” emerged as one of the initial findings of this research, a discovery rather than an intentional pursuit [31], which highlighted the centrality of the temporal dimension in the governance of a just energy transition and redirected the research focus towards time as a key analytical element.

The case of Spain can indeed be particularly instructive for studying the broader issue of phase-out policies. Most traditional European studies that discuss the decline of coal and its implications have focused

on the historically prominent coal producers in Europe, notably Germany and the United Kingdom. For instance, the German *Energiewende* has been presented as one of the clearest examples of a politically deliberate shift to accelerate the transition [32]. More recently, studies on European coal mining and carbon-intensive regions have proliferated under the auspices of joint European projects, with the case of As Pontes in La Coruña (Spain) being one of the most frequently analyzed [33,34]. Other Spanish coal mining areas currently under study include Asturias [35] and Aragón [36]. By examining the case of Aragón (Spain), its temporalities, policies, and the implications in terms of temporal (in)justices for the affected regions, this research offers a complement to the ongoing energy transition studies. Specifically, it contributes to studies on policy tools (politics of time) aimed at deliberately accelerating the decline of coal.

The article is structured as follows. Firstly, in Section 2, the theoretical framework is presented, which encompasses three key conceptual lines: coal phase-out, justice, and conflicting temporalities. Section 3 shows the contextual background, methodology, and materials. Section 4 presents the main research findings about temporal negotiation related to actors, purposes and outcomes. The tensions identified between different temporal perspectives and the limited involvement of local actors in shaping transition temporalities are discussed in Section 5 which concludes with some policy implications.

2. Theoretical-conceptual lines and analytical framework

The global push for faster decarbonization [37] and the efforts of countries to implement coal phase-out policies within their borders are two sides of a same social phenomenon that lends itself to at least two complementary analytical approaches in the sociological analysis of time [38]: the ‘macro-theoretical’ approach identifies one ‘homogenous’ trend (i.e., acceleration) across different social spheres; the micro level approach emphasizes the multiplicity, plurality, and heterogeneity of social temporalities. In the context of this duality, as observed by Torres, two problems addressed in the literature become evident: the lack of synchronization of times in action [39] and the conflict between temporalities [40]. Both issues have a clear political dimension that pertains to who controls time and how (politics of time). At this point, time can be conceived in two ways: as an “object of governance” and as a “governance tool” within specific timescapes [12,41].

In the academic literature, there are three complementary and necessary areas of discussion relevant for this study: a) destabilization and phase-out as the main concepts studied to understand the temporal dynamics related to the decline of coal, b) the deliberate policy of accelerating coal phase-out within a framework of justice, and c) the conflicting temporalities of the JT that arise during the phase-out process and the struggle among actors to control time. These theoretical-conceptual lines, represented in Fig. 1, form the theoretical and analytical framework, and are further elaborated upon below.

2.1. Coal decline-related concepts and temporal dynamics

Scholars show growing interest in two key concepts related to coal decline that open the door to considering temporal dynamics: destabilization [42,43] and phase-out [44].

The notion of “destabilization” has been central in theories of socio-technical transition that seek to understand the trajectory of technological innovations and their effects on the systemic, gradual, and complex reconfiguration of everyday life and society (technology, infrastructure, scientific knowledge, social and cultural practices) [17]. This analytical framework has been widely used in the literature on energy transition since the 1970s; it conceives sustainability transition [45] as a gradual and nonlinear process that involves not only the dissemination of new technologies but also policies, user practices, and cultural discourses [46]. Exploring ways to accelerate transitions has become an important topic in the sustainability transitions literature

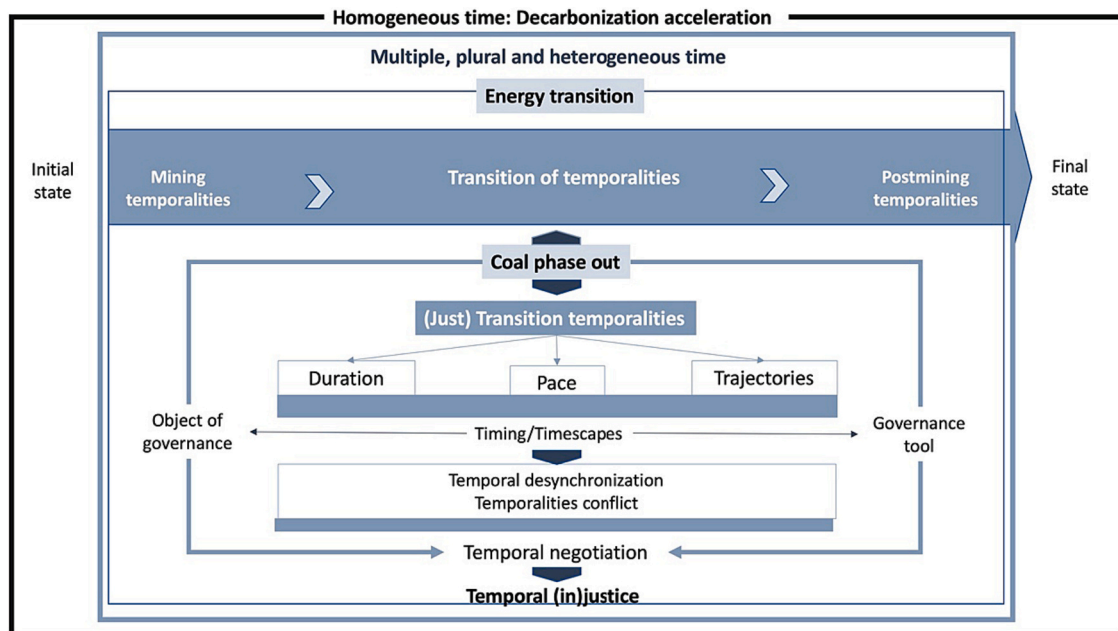


Fig. 1. Analytical framework.

Source: Own elaboration.

[47]. Numerous studies aim to explore the factors that contribute to the acceleration of change [42], such as the existence of crises or external shocks as opportunities for change [47], or the political-economic context and the development of solutions. In this latter group, aspects such as the importance of relationships between the public and private sectors [32], the need for coalitions of interest groups working together for the phase-out [48], negotiations with affected actors, and social acceptance as providing chances for legitimacy and successful phase-out decisions are highlighted.

Possibly, the notion of “destabilization” has been more focused on issues of sequence and timing, while studies on “phase-out” have started to explicitly pay more attention to temporal dynamics, highlighting governance aspects of decline and transformation [39,44] through politically deliberate changes [32]. In this sense, the phase-out of coal is understood as a political tool to deliberately accelerate the decline of raw materials, technologies, and processes related to the coal industry in order to contribute to addressing climate change [49]. Phase-out can involve abrupt policy interventions such as a ban, or a gradual down-scaling within a specified timeframe towards a final point. Generally, phase-outs grant time to develop alternatives and manage the timing to minimize resistance associated with the deliberate dismantling of industries [44].

2.2. Coal phase-out acceleration and justice

The acceleration of decarbonization carries the risk of shifting the debate towards CO₂-centric policies that overly focus on measuring CO₂ reduction, neglecting the well-being of individuals [50]. Hence, the relevance of adopting a justice-oriented approach in transition policies [51] becomes apparent.

The justice-oriented literature builds upon the popular environmental justice framework [52] which has extended into various fields, such as climate justice and energy justice, with recent attempts at conceptual integration such as the proposal of climate-energy-environment justice (CEE) by McCauley and Heffron [6]. CEE adds the notions of time and space to the three common justice principles (distributional justice, procedural justice and recognition justice), aligning with the trend towards the comprehensive and integrative frameworks of the JT [53]. Recent literature integrates new analytical elements such as spatial

justice to emphasize the geographies and places of the JT and analyze empirical cases of unjust or just transitions [18]. However, there are still relatively few studies exclusively focused on the analysis of temporal injustices.

One aspect to note in the existing studies is the attention given to temporal desynchronization and the need to align the timelines of elimination with the timelines of innovation [39] to ensure that notions of innovation, justice, and participation do not conflict [9]. Another relevant aspect is the connection between the acceptance or rejection of the JT [37] and temporal dynamics such as the speed of transitions [9] (duration and pace), or the direction of changes (trajectories). In this sense, there is a recent debate within the field of the just energy transition that highlights the need to shift from compensatory policies to comprehensive [54] and transformative policies. The notion of transformation has gained prominence in the debates to acknowledge that not all transitions are transformative in nature (e.g., processes of economic diversification) [55]. Pinker’s typology of JT approaches [19] distinguishes between transitions that maintain the current socio-economic system without modifications (status quo), those that only change rules and arrangements (managerial), those that introduce a justice-oriented framework to change the structural characteristics of the system (structural change), and finally, approaches that aim to fundamentally change the existing system.

Building upon the above, Wilgosh et al. [55] (drawing from Fraser’s justice theory [52]), distinguish between an affirmative (and limited) approach in the JT that seeks to remedy distributional injustices, and a transformative (and extensive) approach that aims to change the system that perpetuates injustices, giving significant importance to the participation of local actors as driving forces for future scenarios. Both approaches could be reformulated to be complementary (with all the political implications which that entails) so that, addressing distributional injustices, substantial changes are pursued. However, they come into conflict precisely on this second issue: the limits and depth of change. This analytical distinction is crucial in this proposal and serves as a tool to detect significant differences in how these processes of change are operationalized in the territory. Here, I will refer to an affirmative approach in JT visions of local actors when the essential goal is the redistribution of resources as a measure to reduce the negative impacts of the transition on affected groups and communities without

affecting the status quo [see also 56]. On the other hand, a transformative approach advocates a deeper structural and relational change and calls for immediate structural changes to the global energy system as a sustainability and justice imperative [57].

2.3. Struggle of temporalities in just phase-out and control of the narratives of time

Time manifests itself in various ways and exhibits a plurality of forms. Hence, the concept of “temporalities” is used here. Sociologists have utilized concepts such as duration, rhythm, trajectory, and cycle, each having different speeds, intensities, and scopes, to elucidate social processes in temporal terms (see, for example, the categorization by Lauer [58], or Aminzade [15]).

In recent decades, several studies have examined the diverse and heterogeneous temporalities associated with resources and the extractive industries [14]. These studies emphasize the power dynamics among social actors as they seek to control time and manipulate and (de) synchronize temporalities in alignment with their contingent and often conflicting strategic interests. In this context, deliberate policies aimed at accelerating the decline of coal can be seen as an exercise in governing time, specifically governing the future, through anticipatory actions that encompass calculations, modeling, performance, and actions over time [40]. The anticipatory actions of the most powerful actors in the process, such as governments and corporations, often provoke reactive responses from other actors, typically local communities. The interaction among these concerned actors becomes a temporal negotiation, where the control of time is contested based on strategic interests, ultimately shaping future scenarios aligned with those interests.

In the energy transition, actors operate within a context with temporal limits beyond their control and with windows of opportunity that are only understandable within the framework of global markets or international political frameworks. This could explain, for example, certain decisions by energy companies, such as the timing of closing a thermal power plant or when to transition completely to renewable technologies. However, this does not contradict the fact that some actors are better positioned to exercise control over time in the JT, and an imbalance of power in this time management can lead to the temporal dispossession of others, defined as the result of the “inability to plan, predict, or build futures in an incremental way” [59: 17]. Jaramillo and Carmona [40] refer to a “temporal enclosure,” which occurs when dominant actors, such as mining companies or governmental organizations, limit the range of possible outcomes to those that are favorable to them. These actors contribute to creating a politics of resignation [60] that culminates in a widespread sense of inevitability instilled in the population, leading them to accept certain strategic choices over others.

One of the ways in which actors exert control over time is through the manipulation of narratives. According to Ricoeur [61], narratives have the power to ascribe meaning to events and actions, and they are crafted with the audience in mind. From a constructionist perspective, Gamson and Modigliani [62] argue that the production and appropriation of narratives are central to the social construction of meanings. This underscores the critical link between public space and political communication [63], as well as the interplay between these factors and the perception and communication of time.

While actors who tell stories cannot fully control how their narratives will be received and interpreted by the audience [64], they still utilize storytelling to legitimize their perspectives on time and to further their strategic interests. Each actor has their own objectives and recognizes the influence they can exert through narratives, using them to shape the perception and control of time and action. The implementation of renewable energy sources serves as a relevant example. Studies such as Frederiksen and Himley [65] emphasize that presenting narratives and discourses that emphasize stability plays a significant role in exercising power, particularly in justifying capitalist operations that may involve conflicts.

Thus, in narrativity, we can uncover the legitimacy battles that accompany any process of innovation [66].

3. Context, method and materials

3.1. Context matters

3.1.1. Background of coal decline in Spain

Spain has been actively pursuing an energy transition aimed at phasing out fossil fuels, with a particular focus on the coal sector. Since 2018, the Spanish Socialist Government has integrated the justice framework into its climate and energy policy, placing significant importance on the participation of affected communities. This approach aligns with the principles of Green Keynesian Discourses, which advocate sustainable development through government intervention, regulation, social guarantees, and representative democracy [55].

The gradual reduction in coal production and consumption in Spain since the 1990s was exacerbated by the introduction of CO2 regulations by the European Union, such as Directive 93/76/EEC (1993) and Directive 2003/87/EC (2003), and especially by the implementation of Directive 2010/75/UE on industrial emissions [67]. Spanish coal production ceased in 2018, and most power plants stopped operating in the following years. As a result, there was a significant decrease in coal's share in the national energy mix, reaching only 1.9 % in 2021.

In parallel, there was a decline in coal mining employment in Spain, from 52,910 jobs in 1985 to its near disappearance following mine closures in 2018 and the closure of a significant number of thermal power plants in 2020. Support programs for the sector began in the 1970s, with utilities and power companies receiving subsidies for purchasing domestic coal until 2014.

As a direct response to the declining coal production in Spain, significant developments unfolded, including the signing of the “Agreement for a Just Energy Transition for Thermal Power Plants” on April 17, 2020. The Spanish government, unions, and power plant owners (Endesa, Iberdrola, and Naturgy) signed this agreement which outlined the commitments for compliance [68]. On March 24, 2021, the company EDP also joined the agreement, extending its coverage to all companies owning coal-fired thermal power plants in Spain. The parties involved made commitments to provide support to workers and vulnerable areas in five Spanish regions: Andalucía, Castilla y León, Galicia, Principado de Asturias, and Aragón in the northeastern part of the country [69]. The JTAs serve as the chief political instrument to advance JT policies in Spain [36].

3.1.2. Aragón as a space of JT coal phase-out

In Spain, the mining area of Aragón emerged as a focal point for the JT process due to the closure of mines and thermal power plants, a trend that has been unfolding since the 1990s. The last mine to close was Ariño in 2019, and the last thermal power plant to cease operations was in the town of Andorra (Aragón, Spain) in 2020. The government acknowledged its importance and actively implemented policies and agreements to support the affected workers and communities.

As expressed by Actor 125 (see Appendix A) in the news article 811 from the corpus, “the stakes are high in Aragón. The JT must go well, come what may.” (N811/A125). In the media, the government's discourse emphasized the importance of achieving a successful transition away from coal mining while promoting sustainable development and serving as an exemplary model for other regions.

The case of Aragón highlights significant aspects, such as the high contribution of renewables to the region's energy mix (77.4 % in 2021), which is 30 percentage points higher than the national system (Fig. 2).

Furthermore, Aragón, along with other traditional mining regions like Galicia, Castilla y León, and Asturias, is characterized as a high-generating/low-consumption region [4]. All these areas have historically played a crucial role in the country's energy systems; however, they have experienced population decline compared to similar non-

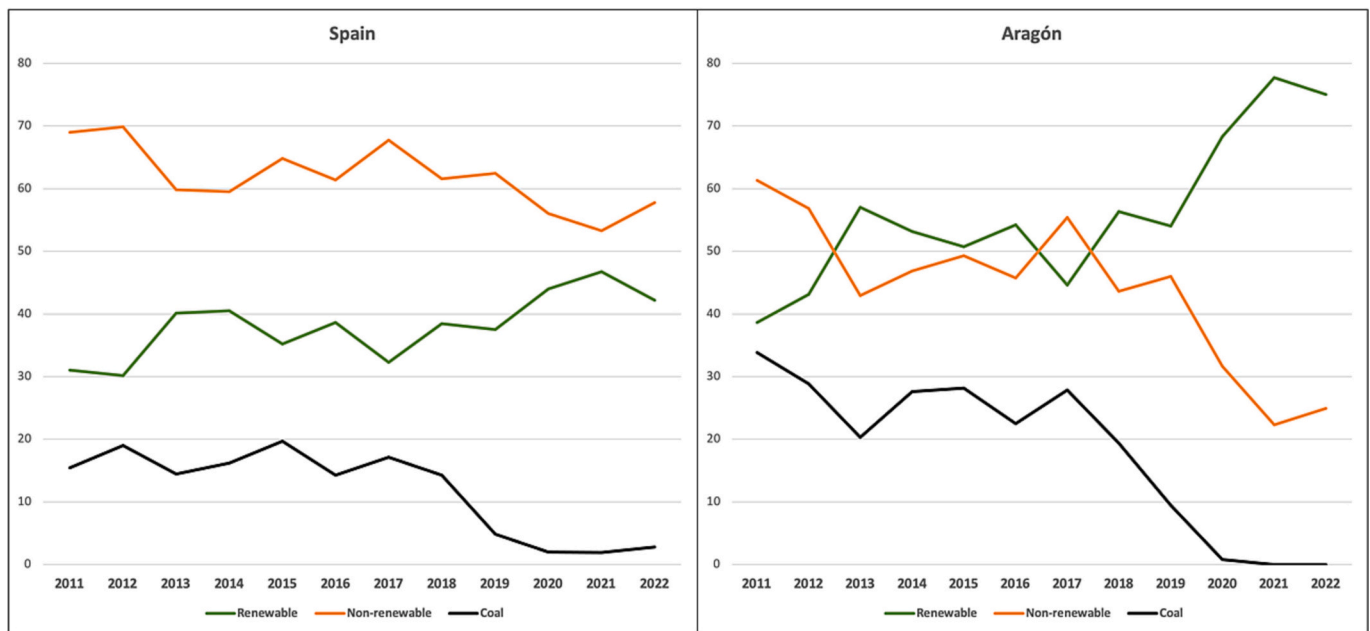


Fig. 2. National and regional electricity system evolution for energy generation based on coal, non-renewables (also including coal) and renewables. Source: Own after REE data (www.ree.es), 2022.

mining municipalities in Spain [67], contributing to the phenomenon known as “Emptied Spain” or, as some politicians have described it, “A wasted Spain” that “has less but deserves more” (N795/A73).

Regional actors and socioeconomic indicators have demonstrated the lack of effectiveness of public industrial restructuring policies in the last few decades, which has led to the destruction of wealth, industrial fabric, and jobs (a 62 % decrease between 2000 and 2019), depopulation (a 22.4 % reduction), and a great deal of skepticism [36].

3.2. Method and materials

3.2.1. Discourse approaches

Discourse plays a vital role in constructing meanings, establishing relationships, and shaping our shared understanding of the world, common sense, and legitimate knowledge [70]. In the realm of multi-disciplinary research on energy and policy transitions [71], discourse approaches are of significant value as they delve into how language and ideas influence our perception of reality. They also shed light on the power of discourse in legitimizing certain perspectives while marginalizing others [72]. These approaches have gained prominence in

Data collection: a news systematic mapping study	
Stage 1: Definition of scope and research question	<ul style="list-style-type: none"> • Crafting of explicit research questions • Establishment of a set of inclusion/exclusion criteria of both newspapers and newspaper articles
Stage 2: Search from multiple data sources	<ul style="list-style-type: none"> • Systematically searching the available news in <i>MyNews database</i> using “transición justa” and “carbón” as defined search terms in all aragonese regional media (print and digital) between 1996 and 2021 • Initial search produced 1201 relevant newspaper articles from 24 regional newspapers
Stage 3: Identification of relevance and corpus adaptation	<ul style="list-style-type: none"> • Screening process based on exclusion and inclusion criteria. • Final data set = 821 newspaper articles from 12 media outlets
Stage 4: Coding and production of a news systematic map database	<ul style="list-style-type: none"> • Elaboration and cleaning of an Excel database. Descriptive variables: publication, edition, section, link to the website, date, title, subtitle, author, images and content • Introduction of new sub dimensions or variables: centrality of JT discourse, main actor, position on coal, predominant vision on JT, and themes
Data analysis: Qualitative analysis inspired by CuDA	
Stage 5: First analysis performance and qualitative data synthesis	<ul style="list-style-type: none"> • Completing a simultaneous coding for in-depth insights (descriptive variables on the database) • Qualitative analysis of each article (sub dimension ‘content’ on the database) (MAXQDA22)
Stage 6: Final Three-fold analytical approach	<ul style="list-style-type: none"> • Thematic analysis (main discourses, arguments and views on JT/ key topics) • Chronological analysis • Analysis of social actors

Fig. 3. Methodological design for collecting and analyzing the media corpus. Source: Own elaboration.

environmental social sciences, including socio-technical transition studies [73–75], as well as research focusing on (in)justice issues [27,56].

3.2.2. Data collection and analysis: transition temporalities in the media

The methodological design includes a systematic mapping study for data collection, focusing on news sources. For the data analysis, we combine elements of Argumentative Discourse Analysis [76,77] and the approach proposed by Carbaugh and Cerulli [78] for the analysis of cultural discourses (CuDA) (see Fig. 3).

For our empirical corpus, we gathered statements from key local actors by conducting a systematic mapping study of news articles (N) published between 1996 and 2021, utilizing the MyNews database. The screening process, guided by both exclusion and inclusion criteria, yielded a final dataset comprising 821 newspaper articles from 12 different media outlets (Fig. 4).

Newspapers cover news at various levels. At the regional level (Aragón), the Heraldo de Aragón and the Periódico de Aragón have shown the most interest in the topic, both in their print and digital editions. At the provincial level (Province of Teruel), the Diario de Teruel, with both print and digital editions, is the media outlet with the most published news about the JT in the mining basins of Aragón. At the microregional level (local), the newspaper La Comarca is also well-represented in the media corpus. These sources represent 93 % of the analyzed media corpus.

The research focus has been on the arguments of the local actors. However, it is crucial to note that the expressions of the actors analyzed are not obtained directly from them (e.g., through interviews) but through the media. Hence, in approaching the analysis, a distinction has been made between: a) those literal expressions attributed to the actors, clearly and faithfully reported (usually in quotation marks), which have been analyzed as primary sources, on the understanding that they represent the opinions (“current views”) of the expressing actors, and b) those texts produced by journalists narrating events, arguments, or opinions of the actors (“perceived views”); in this latter case, we link the discourse to the journalist, and the medium becomes another relevant local actor.

Methodological caution is required considering that the media select the actors to whom they give a voice, emphasize certain arguments over others, and make editorial decisions. Moreover, the media share their

arguments within a specific frame, fulfilling four basic functions: problem definition, causal analysis, moral judgment, and remedy promotion [79,80]. These functions are connected to two main biases emphasized in the literature on media bias [81,82], and also in some studies on coal mining in the media [83,84]: the decision-making bias and the content bias. As regards to the former, Entman [82] speaks of the “influence of newswriters’ belief systems on the texts they produce” and suggests that “the media’s decision biases operate within the minds of individual journalists and within the processes of journalistic institutions, embodied in (generally unstated) rules and norms that guide their processing of information and influence the framing of media texts”. In this study, the intentional choice of analyzing the regional media was made in order to examine the arguments of local actors, given that the national or international press would hardly address local issues with the same degree of detail as the local media. The sampling decision to exclude national and international media, however, entails other weaknesses, such as the predictable news inclination of the local media. This same analysis, complemented with the coverage of the national and international media, which goes beyond the objectives of this paper at this moment, would allow a deeper understanding of the differences in JT coverage among media based on their territorial reach. However, this lies outside the scope of the present study.

Entman [82] describes content bias as the recurrent reproduction of patterns within the framing of mediated communication that helps certain actors prevail regularly over others. The author suggests distinguishing between bias and news inclination when the pattern is not recurrent over time and when it does not clearly contribute to attributing certain political power to specific groups, causes, or individuals.

All the articles were meticulously collected and organized within an Excel database. Within these articles, the various actors (see Appendix A) articulate their viewpoints and opinions concerning the decline and phase-out of coal. They also convey nuanced temporal dynamics that can be traced through significant keywords or phrases. The qualitative analysis we employ aligns with the CuDA’s methodology, involving the identification and coding of symbolic words and phrases or key terms. This interpretative analysis encompasses both replication (describing the meanings declared by the actors) and researcher-driven interpretation (uncovering cultural meanings and presenting premises and semantic dimensions).

The interpretative discourse analysis of the media corpus has

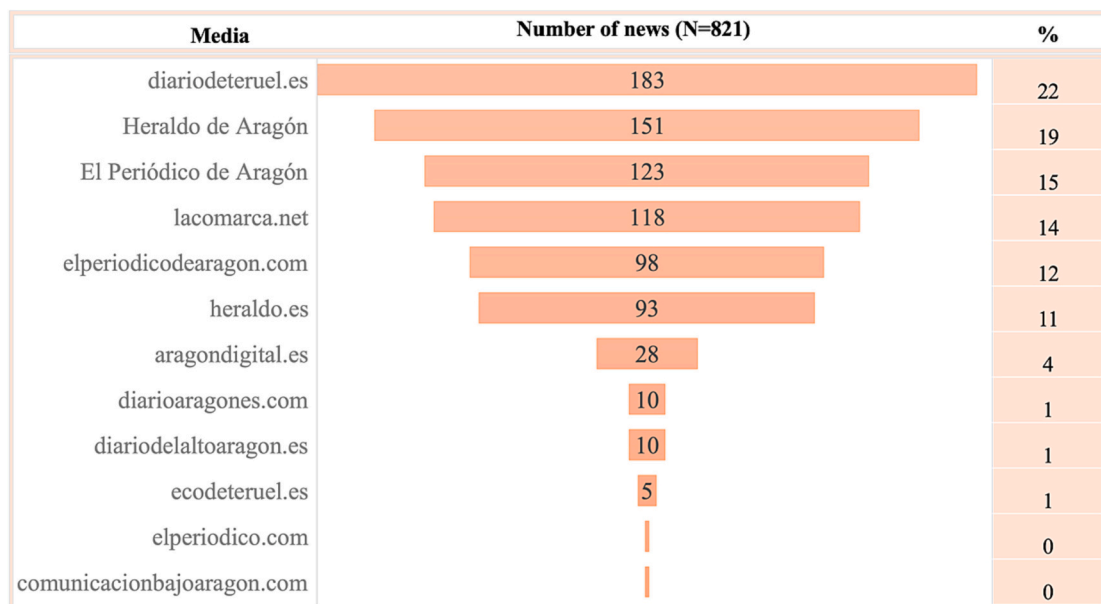


Fig. 4. List of media outlets and their significance in the study. Source: Own elaboration.

provided valuable insights into three relevant aspects for understanding the management (or manipulation) of time in the JT through narrativity, as suggested by the academic literature [61,62,64,66,78]. Firstly, it has allowed us to identify the key actors participating in the media debate. Secondly, it has unveiled the objectives or purposes of the actors in relation to the governance of time, and it has facilitated the identification of semantic dimensions that contribute to the temporal characterization of the JT within our specific context, (see Table 1).

Temporal semantic dimensions encompass primary dimensions such as duration, pace (when), and trajectories (towards where), as well as secondary aspects, including direction (where to), scope (how far), leadership (who), time horizon (until when), and depth (to what extent).

These dimensions involve the presentation of visions, which, when they interact (confrontation or coalition) through discourses, reveal disputes of legitimacy [45], exposing the areas in which local actors seek to exert influence by collaborating with other actors (discursive coalition) or confronting them with their visions (Table 1).

Ultimately, these factors collectively influence the outcomes of temporal negotiations among key actors, referred to as “interactional achievements”.

The results section provides comprehensive insights into all these aspects.

4. Results

Since 2010, the concept of the JT has rapidly gained prominence in Spanish political and academic discourses. The media has also engaged with the notion of the JT, often reproducing official discourses and the voices of key actors or formulating their own position in the debate (as an actor in the JT itself). Actors, including the media, are encouraged to express their views in response to certain events, which become significant milestones. The chronology within the qualitative analysis allows us to identify three distinct stages, as shown in Fig. 5. This figure also presents the temporal distribution of the media corpus.

4.1. Actors participating in the JT debate to control the time

The role of local actors, their purpose, and their interactive achievements vary in each of the three observed stages of the process. Table 2 focuses on the actors.

During the initial stage of the JT debate, which occurred between 2010 and June 2018, the regional media started acknowledging the concept of phasing out coal within the context of social justice. This marked the first reference to the idea of transitioning away from coal while ensuring fairness in the distribution of benefits and burdens. However, actor participation in the media during this period was largely characterized by resistance to change and a limited engagement with the

Table 1
Temporal semantic dimensions and competing visions in the JT.

Temporal semantic dimensions on JT		Competing JT visions
Main dimensions	Secondary dimensions	
Duration	Duration	Long-duration transition versus short-duration transition.
Pace	Rhythm Velocity	Rapid transition versus slow transition
Trajectories	Direction Scope	Assimilation versus substitution pathways Compensatory versus comprehensive trajectories
	Routemap	Transition from within versus transition from outside
	Time horizon	Short-term transition versus long-term transition
	Depth	Affirmative versus transformative transition

Source: Own elaboration.

concept of the JT. The discourse in regional newspapers predominantly supported the coal industry, with a few dissenting voices from environmental organizations and experts. At this stage, the JT was seen as a political construct tied to international strategies, lacking concrete legislative or prescriptive implementation in Spain. Trade unions and civil society, including workers and their families, were more focused on defending their way of life and denying the need for change rather than actively participating in a just phase-out of coal. Thus, the defining features of actor participation in the media during this stage included negating change, expressing concerns and uncertainties about the transition process, limited involvement in shaping temporal dimensions, and a relatively passive role in the discourse surrounding the JT.

In the second stage, known as the “delay phase,” a shift occurs in the negationist stance, and the JT debate expands and becomes more widely discussed. This period is characterized by increased reflexivity and interaction among actors, both internal and external to the region. Regional media, trade unions, and civil society become the most active participants in the discourse, forming a significant local coalition that is primarily focused on one objective: negotiating the temporal aspects to delay the transition. During this stage, the participating actors exhibit the following characteristics: a) advocating specific temporal aspects (e. g., pace, direction, duration) of the transition, b) greater participation in shaping temporal dimensions, and active engagement in the discourse on the JT. The confrontation of arguments and positions among these actors reflects a higher level of engagement and interaction, as they strive to influence and negotiate the temporal dimensions of the transition.

Moving on to the third stage, known as the “acceleration phase”, the regional media takes on a central role in narrating the process of change in the territory and emphasizes the urgency of attracting investments and implementing projects. The media shows interest in capturing the voices of the actors that truly determine the timing of the transition: the national government and the private sector (companies). Trade unions lose their prominence in the media, and other local actors such as local governments, associations, and civil society become spectators of a timing and timespaces that are shaped and designed by others. During this stage, the defining features of the actors’ participation evolve as follows:

1. The regional media assumes a leading role in shaping the narrative of the transition process.
2. Greater emphasis is placed on capturing the perspectives and actions of the national government and the private sector.
3. Other local actors, such as local governments, associations, and civil society, have a more passive role, observing and responding to the timing and decisions set by those with greater power and influence.

Overall, the three stages of actor participation in the media reflect a progression from limited engagement and denial of change to active involvement in shaping temporal dimensions and influencing the discourse.

4.2. Actors’ purposes and areas of influence

The actors participate in the JT media debate with the intention of influencing three main areas related to temporal dynamics (Table 1). They do so by presenting their contrasting visions of the JT in a discursive battle to legitimize transition temporalities.

4.2.1. Influencing the duration and pace of change: discourses of opposition, delay, and acceleration

Actors have voiced their contrasting views on the duration and pace that should be imposed on the transition, aiming to influence the governance of time or, in other words, how time is managed in policies. Additionally, some actors have used time as a strategic resource to control the transition time through the JT policies (governance by time).

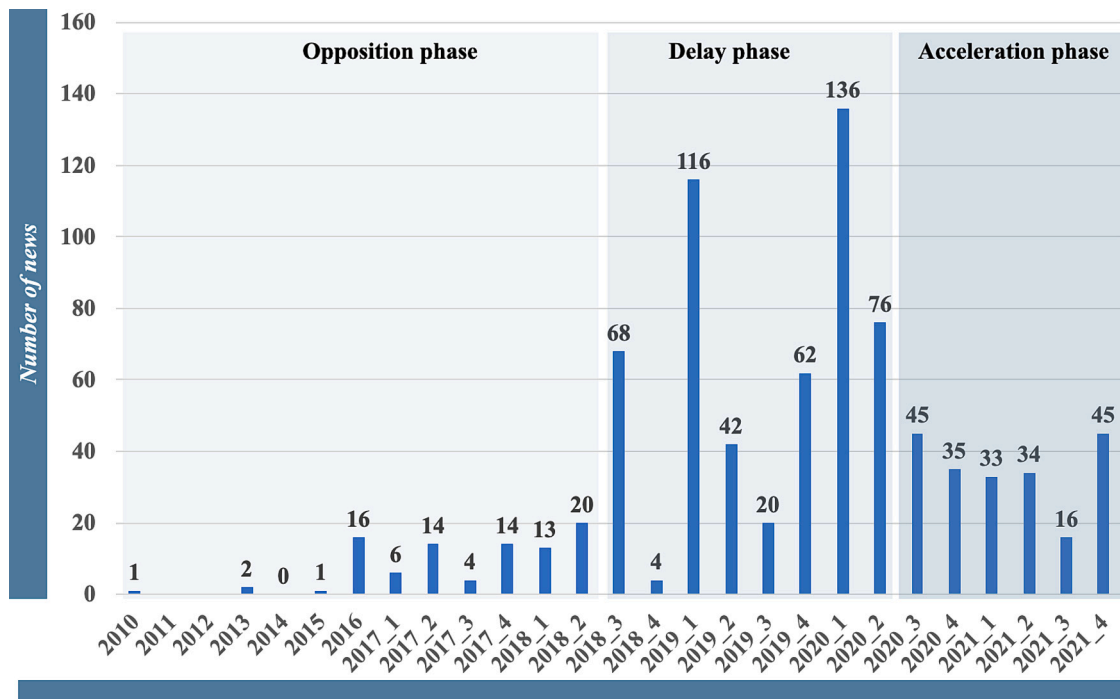


Fig. 5. Temporal distribution of the news and discursive phases. Source: Own elaboration.

Table 2 Participation of local actors in the JT debate in each stage.

Actors (description of analytical category)	Stages and defining characteristics		
	1st Stage Negation Phase 1996–June 2018	2nd Stage Delay Phase June 2018–June 2020	3rd Stage Acceleration Phase June 2020–December 2021
Actors leading JT discourse in the media (%)	Political parties (39 %) Government (38 %)	Trade unions (14 %) Political parties (14 %) Government	Regional press (40 %) Government
Other local actors (%)	<ul style="list-style-type: none"> National (8 %) Regional (9 %) Local (11 %) Associations (9 %) Experts (7 %)	<ul style="list-style-type: none"> National (14 %) Regional (15 %) Local (8 %) Journalists (16 %) Civil society (10 %) Companies (3 %) Experts (2 %)	Companies (8 %) Labor unions (6 %) Civil society (3 %)
Defining features of local actors' participation	Denial/ Distance Limited engagement Minimal involvement	Temporal negotiation Increased involvement Active participation	Temporal negotiation Assertive participation
Central issue	Coal legitimacy	Pace of transition	Trajectories definition
(In)Justice meanings	“Justice is coal”	“Justice is time”	“Justice is money” “Justice is memory”

Source: Own elaboration.

established temporal scenarios: firstly, local actors denied the change, creating an oppositional discourse in which “justice is coal”; secondly, they advocated a slow transition, forming a discourse of delay (“justice is time”); and finally, they called for a rapid transition (“justice is money”).

4.2.1.1. “Justice is coal”: legitimizing the use of coal. Until 2018, local actors did not conceive of a future without coal because they maintained a fundamentally backward-oriented vision (the legacy of coal). The notion of the JT is used to defend its use: “Justice is coal”, so few local actors dare to make their opposition to coal visible (Fig. 6).

The legitimizing (L) and delegitimizing (D) arguments for the continued presence of coal in the energy mix, which support these discourses, are presented in Fig. 7.

During the opposition stage, the dominant discourse legitimizing coal varies at different spatial levels. Globally, there are attempts to downplay the role of coal in pollution by shifting responsibility to other polluting sources and proposing alternative ways to meet environmental commitments without completely phasing out coal. Nationally, three significant discourses defend coal based on energy security, economic costs, and historical contributions of coal regions. The broader debate is situated at the local/regional level emphasizing employment and economic security, and highlighting coal as a socio-territorial support to prevent depopulation and socioeconomic decline. All these arguments are somehow associated with the persistent assertion of the failure or limited effectiveness of public policies aimed at revitalizing mining areas implemented since the 1990s.

Conversely, anti-coal arguments emphasize the global impact of fossil fuels on climate change, health, and the environment, as well as the economic infeasibility of the coal sector. On a national level these arguments also highlight the potential of renewable energy for job creation, reliable power supply, and competitive advantages in employment and economic development through a rapid energy transition.

The firm and unflagging support for coal in the early-stage discourses shifts to “a robust and clear defense of local coal (...) to ensure employment and economic activity linked to competitive mining” (L17/N354/A71) in the second stage.

Three main discourses stand out, accompanying the three

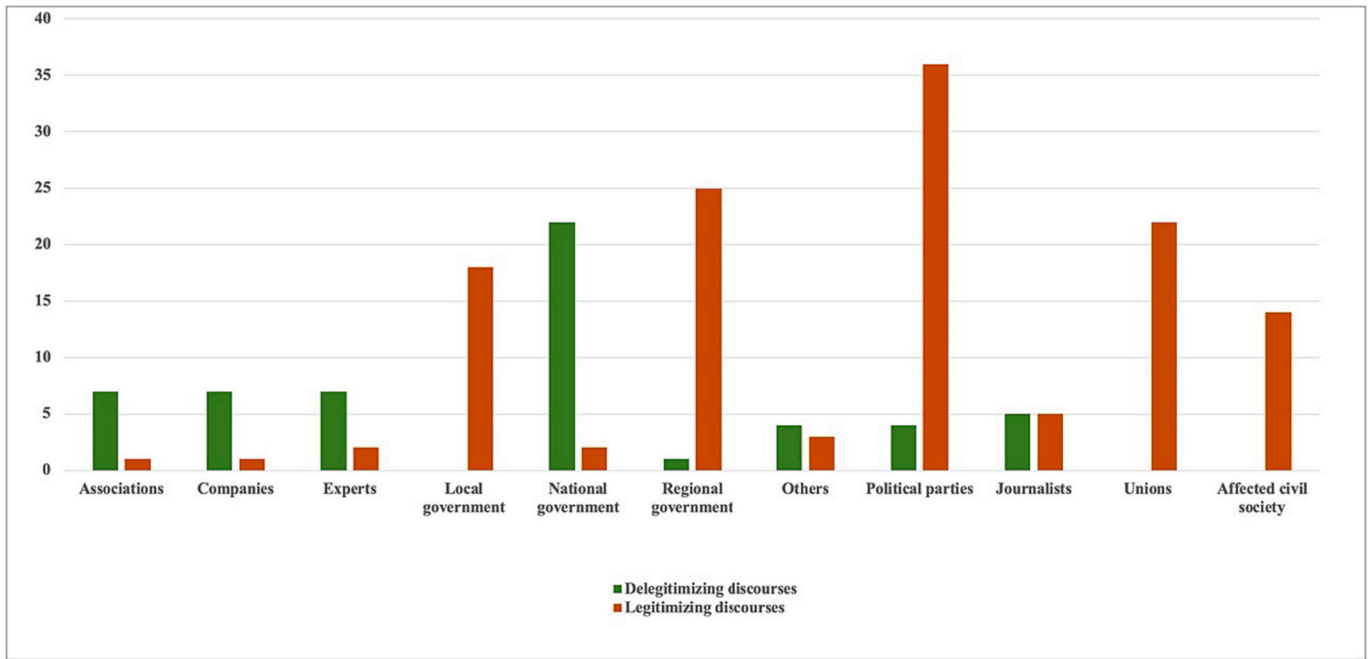


Fig. 6. Actors' discourses about coal legitimacy. Source: Own elaboration.

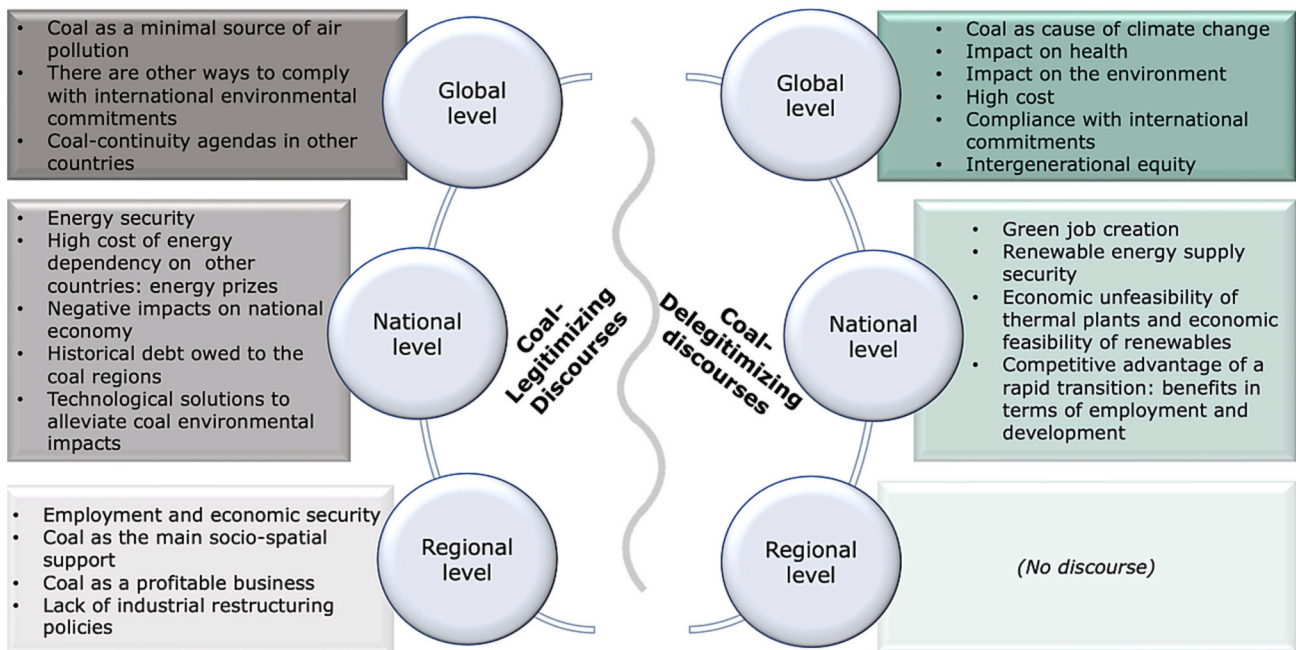


Fig. 7. Coal-legitimizing and delegitimizing discourse according to spatial scope.

Source: Elaborated by the author based on 34.5 % of the total corpus explicitly capturing the actors' positions on coal phase-out within a JT framework. For a detailed description, examples, and additional information contained in the 128 legitimizing articles compared to the 57 delegitimizing articles, refer to Tables B1 and B2 in Appendix B.

4.2.1.2. *“Justice is time”: delaying the transition.* The second discourse stage begins when the Spanish Socialist Party (PSOE) formed the government in June 2018. The new Ministry for the Ecological Transition and Demographic Challenge (MITECO) introduces a discourse that delegitimizes coal at the national level, triggering reactions from regional and local actors.

As a result, there is a shift from an opposition discourse to a discourse centered on delaying the transition. The temporal dimension becomes

significant in the discourse, and justice is defined as giving enough time for the affected territories to adapt to change. For example, an editorial article states, “If it is not possible to timely implement all the necessary measures to prevent an economic and demographic collapse in Andorra, it would be reasonable to postpone the closure.” (N328/A116).

The idea that a rapid transition would undermine justice gains unanimous support among actors, leading to a broad local discourse coalition advocating a delay in the transition, regardless of their political

ideology. This coalition calls for political, trade union, and social unity of action to save time and delay the transition process.

Discourses promoting delay often present arguments that legitimize the continued use of coal and highlight the perceived failures of public policies implemented since the 1990s to restructure the industry. They emphasize the potentially “disastrous” consequences of coal phase-out and argue that closing down mines at the present moment would be a tragedy (L24/N14/A43).

Furthermore, there are discourses advocating delay that do not explicitly mention coal but instead propose postponing the transition until technological solutions for renewable energy storage are developed (L12/N122/A71).

This stage of the discourse represents the broadest participation of actors in the media debate and is primarily focused on negotiating a delay in decision-making processes.

4.2.1.3. “Justice is money”. Accelerating the transition through the arrival of investments and projects. The thermal power station in Andorra closed down on June 20, 2020. It is at this point that the discourse of transition acceleration emerges, influenced by the idea of the competitive advantage of a rapid transition: “The faster the JT, which promotes social dialogue, takes place, the more benefits in terms of employment and development.” (N74/A54).

Local actors urge action in two areas. First, they demand that government measures be implemented quickly and funds be made available: “What we need is to know how many millions will be allocated to the area and how they will be invested.” (N516/A13). Second, they call for a review of the concept of justice and how it will translate into actual political areas of intervention, expressing their rejection by repeating: “It is not transition, it is treason” (N738/A162), and denouncing broken promises (N699/A35). The media voices the population’s skepticism regarding how late and misguided the JT is. The social discontent and visibility of an unjust transition are exacerbated by the slow pace of political action. The government promises justice and hope (N756/A59) and justifies the delay in its action (implementation and establishment of the JTA) by the desire to give a voice to all affected groups and territories. The trade unions are the most critical at this point, expressing how participation becomes an excuse for inaction.

4.2.2. Influencing transition trajectories

“Trajectories” are a temporal dimension that encompasses other significant and relevant sub-dimensions, such as direction, amplitude, and depth. These sub-dimensions are intricately interconnected and challenging to isolate. Within the context of the JT, temporal negotiations revolve around these aspects, giving rise to conflicting transition pathways.

4.2.2.1. Direction: confronting assimilation and substitution trajectories.

When the phase-out of coal is considered an inevitable fact, only a few local actors actively participate in expressing future scenarios, especially local governments and political parties.

Media discourses exhibit two basic patterns connected with different approaches to development models and transition pathways: an assimilation pattern and a substitution pattern.

The assimilation pattern follows an economic reproduction model, involving the evolution from a productive coal monoculture to a renewable energy monoculture. This pattern entails changes in jobs, sectors, technologies, and infrastructure but preserves existing structures, dynamics, and power relationships among actors. Actors in the mining-energy sector in Andorra, including trade unions, affected workers, and energy companies, favor this approach. They follow the path of industrial restructuring (N506/A131) and express a preference for major projects that create jobs and utilize the existing industrial infrastructure. The current regional emergency amplifies the legitimizing discourse of local renewable mega projects and overshadows

alternatives.

In contrast, the substitution pattern aligns with a socioeconomic development model based on economic diversification and local resources. This approach has garnered support from associations, including business associations, professionals, local companies, and experts. The town of Ariño in Aragón, where the last coal mines are located, has been implementing this roadmap for the post-coal period.

The stance of national, regional, and local governments has been inconsistent, influenced by ongoing conflicts and events. The assimilation model, aligned with the interests of major corporations, has been favored by various governments as it offers a quicker and more effective response to spatial requirements. This viewpoint has generated anticipation among the print media and a significant portion of the population for the arrival of large companies. The substitution model, although slower, is more sustainable in the long term; it is also driving wealth and employment while phasing out coal. The discourse of diversification is more inclusive, but it has received less media coverage.

In this context, minority identity discourses also emerge (from experts and some politicians) where the concept of justice takes on a cultural and identity dimension: justice is memory. The preservation of the thermal power plant as a symbol of collective memory becomes a trigger for arguments against its dismantling and demolition. “The legacy both mining and the power plant have left in Andorra should play a vital part in the JT process (...) Let’s stop trying to erase our past with the passing of time.” (N709/A163).

4.2.2.2. Amplitude: confronting compensatory vs comprehensive trajectories. The media corpus reveals the prevailing perspectives of the main actors, reflecting diverse viewpoints on political interventions in the formulation of JT policies (economic, technological, ecological, socio-labor, territorial, among others) (Fig. 8).

These perspectives have been expressed differently at different stages and in different ways by the actors. Journalists have played a significant role in shaping the JT narrative, much like other actors, primarily presenting an economic perspective (with a particular interest in attracting new investments), as well as socio-territorial and socio-labor perspectives.

Two minority views have emerged within the analysis: a political view emphasizing justice and suitable governance mechanisms, and an ecological view focused on sustainability and resource optimization to prevent environmental degradation.

In Spain, as in many other contexts, the JT has followed a model focused on compensating for job losses through social benefits such as unemployment benefits and retirement pensions, as well as through investments to attract new companies to the region, accompanied by training for new jobs, particularly in the renewable energy sector. However, this approach has primarily prioritized an economic perspective that is overly focused on the mining-energy sector, neglecting other workers and social groups. Efforts have been made to correct this trend by incorporating an economic perspective that values local resources, prioritizes technological research and innovation as drivers of economic growth and industrial development, invests in education and professional training for higher qualifications, and provides basic social services for the entire territory.

Integrating a more comprehensive view of the JT involves moving beyond the traditional discourse and model of compensation and replacing it with more holistic [54] and transformative strategies [20] that encompass the entire community.

4.2.2.3. Depth: confronting affirmative vs transformative trajectories. An examination of the descriptive variable “centrality” in relation to the notion of JT in the media corpus (see Fig. 3) reveals three levels of depth: rhetorical-aesthetic (merely a territorial application of the justice framework), transitional (primarily expressed as structural changes), and transformative (calling for substantial modification of the system).

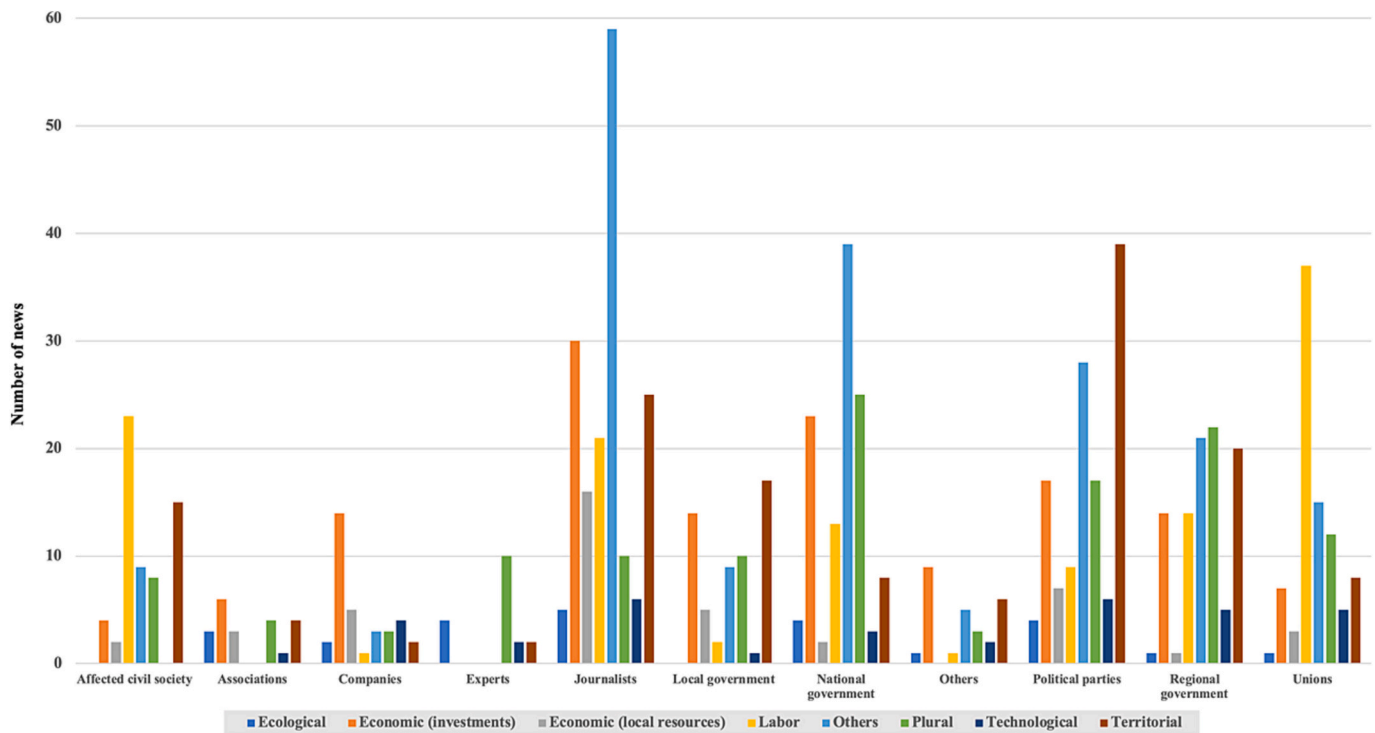


Fig. 8. Actors' views on the JT expressed through the media. Source: Own elaboration.

Although justice has permeated the discourses, only 26 % of newspaper articles (202) consider the concept of justice as a key element of a conceptual debate (high degree of centrality, H), explicitly defining or questioning its meaning, reality, operationalization in politics, and results.

Furthermore, when examining its centrality, the JT is described as a contextual framework (medium degree of centrality, M) in 279 articles (34 %), and as a discourse label (low degree of centrality, L) in 340 articles (41.1 %). This allows us to speak of a considerable rhetorical-aesthetic use of the concept of the JT especially by national political parties or governments, as emphasized in other studies that highlight governmental rhetoric often sidestepping justice discussions [6,27]. In contrast, the majority of local actors express the injustices of the transition, albeit with a more affirmative than transformative approach [52]. In this sense, a significant portion of the media coverage focuses on expressing the problems, injustices, and burdens of the JT (descriptive strategy) rather than providing solutions (prescriptive strategy). Only 152 news articles adopt an approach aligned with a prescriptive and transformative intention (including notions of project, future, and transformation).

Initially, the concept of deep transformation is introduced by two actors: ITACA (a local center for environmental studies) and Greenpeace. They emphasize a social shift in production and consumption. However, this meaning remains marginalized. From 2018 onwards, the EU representatives and the newly appointed minister for the ecological transition incorporate the concept of “economic structural transformation” into the official discourse. Regional and local political actors quickly adopt this expression to discuss energy sector reconversion and substantial investments (N523/A30).

In 2021, after a long slow participatory process driven by the Just Transition Institute, a total of 69 agents from the 34 considered municipalities presented 140 projects. The official discourse highlights the uniqueness of the Spanish JT model, while social actors criticize its effectiveness and its short-term nature. Critical issues associated with transformation include lack of anticipation, demands for immediate

results, bureaucracy, identity resignation, and growing rejection of renewables in rural areas. The community's resignation to an identity linked to an old industrial energy vocation is part of the energy transition and happens sooner or later, with varying degrees of social resistance. In any case, it is important for JT policies to take these issues into account in governance of time as part of recognition justice.

In the analyzed case, transformative proposals and prescriptive action are scarce at the local level, with prevailing Green Growth and Green Jobs Discourses [55] characterized as minimalist and reformist, which do not question power relations and productive structures. Certainly, in a transition process of an industrial district operating in a broader and established national and global economic context, with structured market characteristics and economic ownership patterns, the limited capacity of local actors to challenge established economic conditions and power relations and to find openings to design transformative alternative futures is understandable. This also includes actors less connected to the mining-energy industry working in other sectors.

4.3. Interactional achievements: results of temporal negotiation

In general, the interactional achievements and results of temporal negotiation include the social recognition of the need to address a JT (the issue has been put on the public, political, and media agenda), the (unequal) participation and dialogue among actors, the identification of areas of conflict and negotiation, the (im)possibility of innovative and transformative projects and solutions, and (non) progress in the implementation of fair policies and measures.

In his analysis of the “political productivity” of social movements, Castells [85] highlights two relevant areas that are useful for this discussion in which organized citizens can exert influence: the (de)legitimation of political action and the transformation of subjectivities. The latter refers to the ability of citizens to drive change in the perceptions, opinions, or beliefs of other actors or society in general regarding a specific issue or need. In this case, when expressing themselves in the media, local actors could have influenced transition pathways in both

areas, leveraging their capacity to (de)legitimize, their local knowledge, and their social engagement.

The legitimacy of change in a territory arises from the social perception of what is just or unjust. In the analyzed case, the phase-out of coal is seen by local actors as a process of injustice, whose implementation has been unstoppable, non-negotiable, and detached. The state's model for a JT, primarily focused on "creating the same jobs that were lost, providing services to retain and grow the population, and acknowledging the contribution of these territories" (N727/A125) is questioned by the local actors who have denounced in the media the complete lack of political listening and have reported the apparent invisibility of workers, families, and affected areas, highlighting their vulnerability and the injustices of the energy transition. In this context, it is challenging to achieve community legitimization of the change process and, consequently, to lead the change, especially when local actors feel like losers in the temporal negotiations in which they have actively participated.

The regional media has given voice to numerous actors in the region, providing a narrative that is close, committed, and empathetic. The media's emphasis on the issue of territorial vulnerability may have contributed to the transformation of subjectivities. Local actors have actively engaged in forming large regional discursive coalitions, whose main objective is not so much to exert power in order to define transition pathways and drive change towards a profound transformation, but rather to denounce various injustices in the process of coal phase-out, including temporal injustices. The visibility of temporal injustices may have been a highly cohesive strategy, but it was not effective in terms of its impacts, given the limited negotiating power that local actors had over transition timing. The first major local pro-coal discourse coalition, supporting the coal industry, was quickly overshadowed by the decision to phase out coal, which only involved the government, companies, and unions. The second major local discourse coalition focused on extending deadlines to prolong the use of coal, following the example of Germany and Poland, in order to delay the closure of mining-energy infrastructures until economic revitalization policies were implemented in the region. Despite the mobilizing and cohesive discourse and their social engagement, territorial actors were unable to prevent the closure of coal mines or the thermal power plant, delay the transition, or accelerate the implementation of JTAs.

5. Temporal tensions, policy implications and conclusions

Decarbonization roadmaps are subject to tensions between the global and the local due to the convergence of competing but simultaneous political interests and visions regarding two relevant issues: accelerating the fight against climate change and ensuring the preservation of the well-being of local groups and communities. Within this tension, the governance of time is a key aspect but a complex one when formulating concrete plans.

The temporal characterization of the JT within a specific context at the moment of coal phase-out reveals tensions in the temporal negotiation between two competing theoretical visions of the JT policies [55], one limited (based on the assimilation of models, compensation, short-term, and an affirmative approach) and the other extensive (substitution pathways, long-term, comprehensive, and transformative trajectories). The case under analysis leans more towards a limited vision of the JTP and reveals some lessons with political implications.

Firstly, it is necessary to incorporate greater reflexivity in decision-making at the national and regional political levels regarding the relevance of time governance in JT policies, despite the decision-making process constraints imposed by global market dynamics, financial conditions, or international political strategies.

Secondly, both in the design and implementation of JT public policies, all competing visions of the actors in three relevant temporal dimensions (duration, pace, and trajectories) [15] must be considered. The study identifies three phases that demonstrate different ways of

experiencing and governing transition temporalities, with tensions arising between duration and pace, as well as between governmental management and the needs of the population in the definition of transition trajectories. We highlight below some tensions articulated in the media and others that are relevant but invisible.

5.1. Duration, pace, and urgency

The duration of the transition, while seemingly objective and quantifiable, is subjective in the experience of social actors [15]. Local actors perceive the entire deindustrialization process since the '90s as a process that is too long and agonizing; however, they desire a long-duration transition, and in their temporal negotiation, they demand delaying the transition (second phase) arguing that the territories need time to find their new direction. However, the vision of local actors regarding the duration of the transition is adaptive and dynamic depending on contextual conditions; thus, faced with the inevitability of change (third phase), local actors call for a short-duration transition and an acceleration of the timeline of the transition.

One noteworthy finding here is the lack of local media engagement in the debate on the urgency of climate action, in line with the findings of previous studies [84]. This underscores the disconnection of the local discourse from the international discourse (for example, outlined in the Paris Agreement) concerning the urgency regarding the timeline of the transition. Additionally, the media silence on the few local actors advocating the delegitimization of the carbon arguments is notable. Their infrequent appearances in the press may reflect an intentional and voluntary desire to avoid media exposure during the phase of the greatest social resistance to the exit from carbon, or it could be a consequence of the news inclination [82] of local news media to align with the dominant voice in the territory. This highlights the need to reinforce ecological awareness actions in carbon exit processes and to give greater visibility to local actors committed to change.

5.2. Transformation trajectories, depth, and urgency

Other temporal tensions arise in the design and implementation of substitute territorial development plans (trajectories) for the coal monoculture. The local debate about the direction of change includes dialogues among actors on whether to support the industrial continuity model based on renewable energy or give more prominence to other productive sectors by rethinking the use of endogenous resources; these represent those "other possible futures" in the territory. Examples are the circular bioeconomy driven either by regional businesses focusing on the use of biological resources or, on a smaller scale, by entrepreneurs in the field of agroecology; sustainable tourism linked to the territory's potential and its natural and cultural heritage; or the care and social work sector, essential in a rapidly aging society.

The Spanish model, centered on JTAs [36], primarily focuses on fostering projects from within the territory, but the rapid acceleration of coal phase-out clashes with the time required to activate innovation dynamics that come from within the territory itself and which are also sustainable over time. This is another example of temporal tensions between urgency in political action and the slowness in the articulation of innovation niches [39] in vulnerable territories [21], due to the high dependence on resources external to the territory: capacities, investments, technologies, and people.

In this context, quick and continuous solutions seem to be the most viable strategic options, as in the case of large-scale renewable energy projects. At this point, local actors feel excluded and mostly question national and regional political decisions that have prioritized this route.

The central role of the national government in setting the time for the JT in Spain is clear, although its decisions must be understood within the two pillars already discussed: climate urgency and justice for the territories. The regional media does not reflect the government's discourse emphasizing the urgency of climate action, which again can be

interpreted as part of a news inclination [82] or as a sign of the complexity of fitting both urgency and justice into local political practice.

The prominent role of the national government in managing the temporal dimensions of the JT in Aragón has been especially questioned by local actors. Since 2018, the government has deployed a discourse highlighting the advantages of a rapid transition that attracts projects and investments to the territory amid the competition and pace that animates energy systems. This discourse has also emphasized the idea of stability and progress and encapsulated a pedagogy of the future, facilitated by JTAs, that reinforced the narrative of inevitability [40]. Some local actors, such as trade unions, accepted compensatory policies as the best strategy within a narrative framework sweetened by the promise of substantial investment, European funding, and the creation of a large number of green jobs. The population's skepticism and resignation are fueled by the memory of past events, recurring cycles, and the negative outcomes associated with previous historical moments. The lack of trust in transition policies is rooted in negative evaluations of past compensatory policies [36] with a more affirmative than transformative approach [19,52,55]. The urgency of compensatory action on the part of affected communities hinders the depth of JT policies.

5.3. Scope and time horizon

Finally, it is important to point out the unexpressed tension here regarding the temporal boundary in JT policies. The debate on JT policies in the media has been fundamentally short-term. This does not mean that the JT policies are short-term, but discussions of great interest, such as intergenerational justice or transformative future alternatives, are scarce or absent. This may be linked to the short-term motivations and interests of local political actors or the objective absence of future generations [8]. In the case under analysis, there is no representation of the young people of the territory in media debates, although pictures of schools, children, and young people appeared in the press in demonstrations against the closure of mines and thermal power plants.

The question of how current decisions about the transition affect future generations has been argued in two ways depending on the interests of the actors. Actors with resistance positions have claimed for future generations the right to continue living in the territory, assuming that the exit from coal and the transition deny this possibility. This discourse has overshadowed that of intergenerational equity in the JT, which appeared rarely in the media corpus. These two positions and discourses have not been connected or confronted at any time, so the theme of intergenerational injustice has also been silenced.

To conclude, if JT policies to deliberately accelerate decarbonization truly aim to be just, policymakers must pay greater attention to a more synchronized and participatory temporal governance, involving local actors not only in decisions about trajectories but also in discussions about the duration, pace, urgency, scope and time horizon of the JT.

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CRediT authorship contribution statement

Alexia Sanz-Hernández: Writing – review & editing, Writing – original draft, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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Appendix A. Supplementary data

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