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Do the Media Refuse Refused Knowledge?

Paolo Giardullo 

9.1 Introduction

To what extent do media narratives affect the shaping of social worlds such as refused knowledge communities (RKC)? How do the traditional media contribute to keeping these separate from, and in conflict with, science? Fieldwork on four RKC cases shows that the traditional media (newspapers, TV news and their digital versions) are often accused of being the ‘in-house organs’ of the scientific elites and attacked as such. The newspapers, and the media in general, are bitterly criticised by RKC as fundamentally corrupt and for reporting only the scientific perspective and that of the political establishment underlying it (Bory et al., 2023). Evidence of this sort calls for an enquiry into the media as part of a broader analysis of RKC. Accordingly, this chapter will examine refused knowledge coverage trends and narratives across the Italian press. The

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main objective of this analysis is to consider how the media contribute to the process by which refused knowledge and its opposite, the legitimate and accepted body of scientific knowledge, are defined.

Our starting point will be the role played by the media as a key player in assuring the public role, relevance, and legitimacy of the scientific institutions and professional researchers. According to the literature, the medialisation of science is a precondition, firstly, for its legitimisation and, secondly, for the political effectiveness of scientific expertise for governments (Peters et al., 2008). In this sense, science's political value in the media is a relevant entry point, and it further supplements analysis of the social world framework to cast light on its conflict with RKC's, particularly concerning the way the different social worlds are framed and constantly separated off from one another. The media are believed to be some of science's most loyal allies (Gieryn, 1999, p. 2000), and indeed, they accord wide coverage to science and technology issues. Research on science communication and scientific journalism scholarship provide evidence for this claim: on one hand, there is long-term evidence of media reporting of scientific content (Crabu et al., 2021; Summ & Volpers, 2016; Bucchi & Mazzolini, 2003; Gregory & Miller, 1998), especially biomedicine and health in general (Neresini et al., 2019). Scandals and misconduct stories (Ampollini & Bucchi, 2020), crises (Ungar, 2008), controversies (Lorenzet, 2013) and other potentially newsworthy events are undoubtedly widely covered as news stories. In addition to this interest in technoscientific topics by the media, scholars and researchers have also acknowledged that scientists and scientific/research institutions actively seek out the media spotlight (Bauer et al., 2018; Peters, 2013; Rödder et al., 2011).

The literature thus confirms that science and technology can easily be framed as connected in a symbiotic relationship with the media sphere (Besley & Nisbet, 2013; Peters et al., 2008). Taking stock of this symbiotic relationship, RKC analysis can be supplemented by considering a media-oriented research question asking specifically whether the media refuse refused knowledge and their communities. Addressing this research question can provide a more general, complementary perspective of refused knowledge studies and an alternative entry point such as this may complement the analysis of social worlds which polarise refused

knowledge and science. RKC's take part in a network of interactions in which they feel they belong to a 'social world', and the opposite is also true: scientific institutions like to feel part of different social worlds from those of RKC's. Thus, both sides believe the other to be wrong or, at best, biased. This supposed wrongness is also built, negotiated, and shaped through communication flows across the media, a process which can be interpreted as boundary work: RKC's self-identify as providers of alternative epistemologies making claims about health and citizenship (Morsello & Giardullo, 2022; Crabu et al., 2022).

In this general context, the (social) media play a significant role within the ecology of resources mobilised by RKC's, and media narratives perform an active role in shaping identity and supporting RKC's' discourses in the four cases analysed in this book (Bory et al., 2023). Digital ethnography shows that RKC experts act as influencers and thus catalyse (read accelerate) certain processes precisely through discursive practices identifying boundaries between communities: RKC's and scientific institutions (Ibid.). By claiming the epistemic validity of experiential knowledge through a repertoire of practices this identity-shaping process is explored widely and analytically throughout this book. Complementing this outlook requires exploring the flip side of the coin: how the media actively strengthen and politically legitimise science when they talk about refused knowledge.

As we will see in the following sections, both coverage and discourses embody a performative role that can be regarded as an element in boundary work contributing to separating RKC's and social worlds situated within the scientific universe of discourse. In this case, the relationship between the two seems complementary: RKC discourses would not exist without their counterparts, the health institutions and scientific experts. In this case, enquiring into the way separation between social worlds takes place encompasses the media domain, offering a supplementary outlook: who and what is accepted as scientific and, conversely, who and what is not.

Within this general context, I will analyse both the coverage of the four RKC's and the related narratives using the *Technoscientific Issue in the*

Public Sphere (TIPS¹) project platform. Rather than contributing to the analysis of each single case, the analysis aims to offer a broader view of the role of the media, namely the daily press, as regards refused knowledge in general. This analysis presents several implications addressed using a two-fold approach. Indeed, its examination of the quantitative presence of RKC in the media adopts a specific concept from media analysis, agenda-cutting, i.e. the omission of specific issues (Buchmeier, 2020). In addition to this coverage analysis, I will also examine the content of the articles related to the RKC at the core of this book. The framing and narratives characterising the discourses around RKC has the potential to enrich our understanding of the boundary definition and social world separation processes. Further analytical resources have been borrowed from media studies and communication scholarship, specifically from analysis of conspiracy theories, fake news, and debunking practices, often examined in new media, and on cases of pseudoscience and fraud. These accounts can offer a specific perspective on the main research question addressed here. Given the uneven distribution of coverage of the four RKC, I compared their framing and the features with other publicly contested and ostracised scientific claims and discoveries, such as the ‘Di Bella method’ and the ‘Stamina Protocol’ controversies.² To this end, the analysis considers a long-term timespan covering a period from 2010 to 2022 enabling comparison across time between the four RKC and their benchmark corpus contents.

Before moving on to the analysis, I will address the specific contribution of the media to reinforcing science’s authority. Evidence from the literature, as we will see, is made up of a nexus between the quantitative coverage dimension and the qualitative dimension regarding the narrative adopted in newspaper articles. Coherently, the analysis reports that

¹ <http://www.tipsproject.eu/tips/#/public/home>.

² The ‘Di Bella method’ and the ‘Stamina Protocol’ are two cases of medical fraud that drove media attention in Italy. The former had its momentum around 1997–1998 and was about a supposedly miraculous cure for spinal muscular atrophy as claimed by its inventor Dr Luigi Bella, a physician. The latter was about the opportunity to cure neurodegenerative diseases through stem cells; it was promoted by Davide Vannoni, a communication expert, in between 2009 and 2013. Both cases raised some popular consensus pushing health authorities in Italy to start an experimentation that eventually failed. ‘Di Bella method’ and ‘Stamina Protocol’ as discussed in Sect. 9.3 will be used as benchmarks for the analysis of media narratives of RKC under scrutiny.

both the coverage and the content vary from one case to another on the grounds of specific media style, in particular, as a representative of the media, the newspapers sometimes reject some RKC's more strenuously than others.

9.2 Public Communication of Science and Technology: Some of the Lessons Learned About Institutionalisation Trajectories via the Media

Interactions between journalists and scientists are frequent and eased by long-term contact. While research institutions and press offices play a significant role in the public communication of science (Peters et al., 2008), scientists and researchers learn about their colleagues through the mass media (Rödder, 2009). This state of affairs has prompted scholars to consider the public communication of science a functional necessity and a global phenomenon in democratic knowledge societies (Peters et al., 2008). The relationship between scientific research and media communication can be characterised by means of the media's twofold role: institutionalising the official research populating emerging innovation networks (Gibbons et al., 1994) and promoting a critical approach to science. These flip sides of the same coin are key to the symbiotic relationship existing between science and the media.

In exploring the key features of this relationship, we will examine past public communication of science trajectories and their narratives, as a feature of modern science since the early nineteenth century, taking a number of forms from itinerant lectures demonstrating scientific principles common in the United States (Lewenstein, 2016) to the public demonstrations widespread around Europe (Jackson, 2016). Scientists in France and Italy have long been writing for non-specialist audiences about astronomy and physics (Bucchi & Trench, 2014), but it was not until the early twentieth century that the people involved in public communication of science and technology, such as science journalists, became visible and their professional credentials publicly established. Two

features of the well-known deficit model of public communication of science have since developed and certain communicative patterns are still visible today: the need to inform audiences of recent developments in technoscientific research, assuming a knowledge transfer need, with such transfer needing to be tailored to the (hypothetical) requirements of a passive audience with (uniformly) limited, if any, ability to grasp its scientific contents. While this model would appear seriously limited, even inadequate, it has historically been a success story: downstream communication simplifying content for audiences (Hetland, 2014) is a rhetorical trait typical of science's public image across the news (Dunwoody, 2014) and seems to transcend varying innovation and scientific research regimes (e.g. the change from Mode 1 to Mode 2, Gibbons et al., 1994). Although it is generally agreed that diverse communication models may coexist, longitudinal examples of media analysis have recorded a trend to a specific kind of 'knowledge transfer' rhetoric. The prominence of this perspective is suffused by a key audience knowledge deficit assumption requiring knowledge transfer not only to inform—as with any content becoming news—but also to educate audiences.

This perspective gained momentum after World War Two with massive and structured funding for scientific research from national governments, the so-called social contract for science (Guston, 2000). Long-term analysis of science coverage in newspapers confirms increased attention to scientific content, at least until the early 2000s (Bauer, 2012; Pansegrau & Bauer, 2018) and subsequently remaining stable (Neresini, 2017).

In terms of narratives, a number of studies have noted a tendency to celebrate science and its role: from a diffusionist perspective of innovation, science is portrayed as a major force in steering innovation and thus generating well-being. A seminal work by Dorothy Nelkin for the US context (1996) highlighted a media portrayal of scientists as gifted problem-solvers, thus cultivating an image of science and research as a major tool for successfully addressing social needs. Bucchi and Mazzolini (2003) reported similar findings in the Italian context, with a tendency to represent science as uncontroversial and narratives depicting scientists and news with a problem-solving orientation, generally in neutral tones. Other researchers have confirmed this finding regarding the use of

promotional metaphors in stem cell research and the potential application of new genetic technologies (Rödder & Schaffer, 2010).

Schäfer (2011) called this narrative register ‘popularisation mode’, in accordance with what we have referred to as knowledge transfer. Such articles are frequently published in special sections and a scientific coverage boom, first in physics and then in health and biomedicine, was supported by this kind of narrative (Neresini & Lorenzet, 2019). Although scientists may criticise scientific journalism for being over simplistic and inaccurate, even sensationalist and alarmist, paying little attention to specific details such as experimental design (Dudo, 2015), this kind of narrative reflects a supposedly aseptic communication mode simplifying a register used among scientists themselves (Schäfer, 2011). An explanation for this may be found in the features of the medialisation process (31). To build public political legitimacy and successfully apply for funding, scientific research institutions (labs and universities and also firms) align to this media logic, increasingly equipping themselves with special facilities (i.e. press offices) with which to provide content for journals and other media outlets (Schäfer, 2011).

A different means by which media report news about science and research consists of scientific topics discussions going beyond merely summarising research/expert findings or tackling the role of scientific research in connection with broader issues (Summ & Volpers, 2016). Indeed, it is sometimes its political value which brings scientific content into the public debate, as with energy transition (Neresini et al., 2020), nuclear energy (Tollefson, 2020; Gamson & Modigliani, 1989), and other environmental crisis topics, such as climate change (Boykoff & Boykoff, 2007) and, more recently, the SARS-CoV-2 pandemic (Crabu et al., 2021).

This review shows that a twofold science reporting style such as this is homogeneously distributed across media outlets and cultural contexts. Coverage and celebrative rhetoric would seem to be constant across a range of countries, but what happens when the content of the topic is controversial, unproven, or even supposedly false, like refused knowledge? Recent scholarship has examined fake news and misinformation, for a better informed analysis of the treatment of refused knowledge in the media.

9.3 Alternative Knowledge in the Public Domain

Over this last decade, many science communication scholars have tackled the issue of fake news (Vargo et al., 2018) and misinformation (Wagner & Boczkowsky, 2019), including in connection with the concept of post-truth (Iyengar & Massey, 2019). Most, if not the entire, literature published on the issue has concentrated on the way content is shared, consumed, and, ultimately, circulated via social media, in an attempt to detect and gauge effects on its audience. On the strength of digital methods, scholars have tracked the dissemination of content across users' profiles, reconstructing networks of users coalescing around specific issues and generating what have been called echo chambers (Del Vicario et al., 2016). Although the fake news topic is not directly connected with the research presented in this book (see Introduction and Chap. 2 by Federico Neresini), a number of insights can, in any case, be distilled from analysing refused knowledge in public. Indeed, social worlds can be set up on the basis of the discourse disseminated by the media. As new media studies and internet studies have pointed out, media technologies, and more specifically ICTs, contribute to holding together social worlds (Maxigas & Latzko-Toth, 2020) which cross territorial boundaries (Couldry & Hepp, 2013). In the case of RKC, the role of influencers channelling content and counter-narratives helped to hold together groups and communities across Italy during the first year of the pandemic (Bory et al., 2023).

Echo chambers, and social bubbles, can be considered a relevant online example, consistent with the social worlds framework. In addition to media practices, specific content may also reinforce world views and then configure the separation of social worlds. Transposing these processes to the specific context of newspapers, more specifically, can provide insights into this same social world separation process. Indeed, the media offer a rhetorical set of images, metaphors, and labels for 'knowledge transfer', contributing to the institutionalisation of scientific research. As we saw in Sect. 9.2 of this chapter which outlined the main features of the 'regular narratives' contributing to building science as a separate social world

while opposing complementary RKC narrative frameworks. Currently, we are lacking a similar account of the general features of narratives on issues publicly marked as non-science, a fact which is particularly striking if we consider the well-known example of fringe science in the case of cold fusion. In this example a news outlet provided a narrative on Pons and Fleischman that leveraged a successful experiment rhetoric and mobilised resources for the two, including listing their scientific credentials (Gieryn, 1999). Only once Pons and Fleischman's public example had been disavowed did the media report it as a hoax, changing the tone and register used in relation to the two researchers.

Hence, to properly answer our main research question, investigating the narratives produced by the media may further inform this chapter's analysis. As the Pons and Fleischman example showed, the media are fully capable of endorsing and rejecting news at will, on the basis of what they consider true or fake. The cold fusion story also demonstrated media willingness to adapt their narratives about a single object and frame it in contrasting ways. To better understand whether, how, and to what extent the media refuse refused knowledge, I will first reconstruct features of two relevant Italian cases: the 'Stamina Protocol' and the 'Di Bella method'. Currently, these are closed controversies: both have been labelled fraud³ and non-science (Abbott, 2013), respectively, in the public debate, and accordingly disparaged.⁴ For this reason, the two cases constitute a benchmark with which to compare the framing of refused knowledge, casting light on the ways in which traditional media outlets rhetorically reject RKC by marking the difference between what is accepted as a science and what is not. This can be viewed as a form of public discrediting, but the two cases are in any case benchmarks for interpretations of media coverage of the four RKC examined here.

³The titles and texts of articles published in the Italian newspapers reported from here onwards have been translated into English by the author. "The country of saints and navigators [i.e. Italy, ed.] is now packed with misunderstood genius", published in *Il Giornale*, 24 June 2013; "Nature [the journal, ed.] against Stamina 'It should be stopped'" published in *La Repubblica*, 13 December 2013; "The Stamina method is a scientific fraud which endangers our health", published in *La Stampa*, 16 June 2015.

⁴"Charlatans in science", published on *Sole-24Ore*, 26 March 2018.

Working on content and narrative is crucial, but a further interesting line of analysis consists of the coverage of specific issues over time. Vargo et al. (2018) tracked the connection between issues at the core of fake news narratives, typically disseminated online, and the coverage of these same issues on other news outlets. Their research reveals a kind of agenda-setting effect derived from fake news creators propagating mainly across other online sources. Traditional media, such as newspapers (Ibid.), tend not to be influenced by so-called fake news providers. If they cover such issues, it is more likely to be part of a full-blown debunking campaign. Traditional news sources, such as the BBC for instance (Jackson, 2017), may be openly committed to combating fake news through debunking, but most media outlets, especially quality newspapers, avoid reporting them (Vargo et al., 2018). The hypothetical lack of coverage of RKC's can be explored by surveying newspaper coverage: low coverage by quality newspaper outlets about a certain issue would indeed indicate a certain degree of refusal. Buchmeier called this agenda-cutting (Buchmeier, 2020).⁵ Connected to the parent theory of agenda-setting, agenda-cutting is not merely its opposite, namely an absence of coverage, but rather entails the specific reasons why media do not cover a specific issue (issue-omission) or, rather, prefer to rank it low in their agendas (issue-diminution) or even, in the long term, stop covering it (issue-removal). This perspective complements the idea of the media's carrying capacity (Hilgartner & Bosk, 1988), according to which issues compete for inclusion in the media agenda over time. They succeed in this under certain conditions, such as when they can be related to other news stories (Neresini, 2000) or meet some relevance parameters (e.g. proximity, recency) that connect with audience interests (Scheufele, 2010) and thus become anchored (Giardullo, 2019). The concept of agenda-cutting enables us to analytically distinguish between different cases and explore hypotheses seeing the media as a primary supporter of science institutionalisation by omitting, diminishing, or even removing specific issues.

⁵The concept emerged well before Buchmeier's contribution but, until recently, it was undertheorised in media and journalistic studies. Moreover, as Buchmeier himself noted, although some scholars may have described or analysed omission, diminution or removal processes in the media they rarely made any reference to the concept of agenda-cutting.

In sum, the method adopted for the analysis combines the two approaches described so far (Table 9.1).

The analysis that follows builds on two main empirical approaches. The first is a quantitative approach that assesses topics' absence/presence or visibility/invisibility, thus indicating a primary level of rejection of refused knowledge. This is further informed by topic modelling (Blei et al., 2003) and contributes to characterising coverage by interpreting the agenda-cutting process. In the second approach, qualitative analysis identifies a secondary rejection level made apparent by means of openly discrediting/crediting such knowledge and the related social worlds, thus informing and qualifying the agenda-cutting process. For Buchmeier (2020, p. 4), performing an agenda-cutting analysis requires contrasting or comparing the absence of coverage (and how it may reduce over time) with some other evidence. Thus, researchers must be aware that something is happening if they are to ensure that a topic is not covered.

Thus, our data source was the TIPS project (Neresini et al., 2020, 2023; Crabu et al., 2021), informed by the research experience of the team that worked for an extended period on the four RKC. The TIPS project developed a purposed platform as a tool with which to survey the Italian media sphere by monitoring major daily newspapers. The platform offers a complete database of articles published since 2010 by the main Italian daily newspapers which allowed us to survey a significant share of the Italian media in a longitudinal way, in both coverage and article content terms. However, as we will see below, the two approaches tend to conflate, since some of the narratives are not independent of the coverage. Building upon the data provided by TIPS and comparing it with the analysis previously published by the research group, these two enquiry approaches analytically tackle the main research question regarding the role of the media in separating social worlds and verify the institutionalisation of science through media coverage and discourse hypothesis.

Table 9.1 Methodological approaches to uncovering media processes related to newspaper refused knowledge discourses and the related communities

Approach	Unit of analysis	Object	Process
Quantitative	Articles	Coverage and topic modelling	Agenda-cutting
Qualitative	Words	Narratives and framing	Discrediting

9.4 Refused Knowledge Communities in Italian Daily Newspapers: Coverage

To assess the presence of an ongoing agenda-cutting process, a query design procedure was implemented. The queries were based on the objects at the core of the four RKC: vaccination, five biological laws, 5G technology, and alkaline water. These objects were then matched with further keywords that emerged from the fieldwork by the research team. The outputs of this procedure consist of articles reporting on the issues and do not necessarily represent the four RKC. This is thus a dataset of use in understanding the narratives generated by sources other than the community itself. If coverage of the issues related to the four RKC at the core of this book are considered, it seems clear that they have been covered to entirely different degrees. Table 9.2 shows the queries used to extract the articles for the four RKC.

The differences in coverage between the four RKC are evident, but this is even more interesting if we examine distribution over time. Indeed, the time variable did not affect the coverage of the four RKC in the same way. Most of the research underlying this book was done during the pandemic, and three out of the four communities were in some way favoured by lockdown, and increased their supporter (Morsello & Giardullo, 2022; Bory et al., 2023) and even practitioner numbers (Crabu et al., 2022). The same was not true of the Italian daily newspapers. The impact was extremely low for articles that the four queries generated, if they are

Table 9.2 Number of articles for coverage and narrative analysis (2010–2022)

RKC	Query	Number of articles retrieved
Pro-vaccine choice ^a	+(‘free vax’ ‘no vax’ ‘no-vax’)+ vaccin*	8145
5BLs	‘metodo hamer’ ‘cinque leggi biologiche’ ‘5BL’ ‘nuova medicina germanica’	70
Stop-5G	(elettrosensibil* +5g) (‘No-5g’)	28
Alkaline water	‘acqua alcalina’ ‘dieta alcalina’ ‘benessere alcalino’	14

Source: Author’s own elaboration of TIPS project’s data

^aFor this case a broader query was launched: ‘vaccin*’, cf. below

compared with the total number of published articles over the same period. Alkaline water and Stop-5G issues were virtually absent from the media debate (with 0.0004% and 0.0006%, respectively, on average, from 2010 to 2022), while 5BLs' presence was higher, with an impact of about 0.0023%. These three RKC's were rarely reported in the news. Considering the growing number of social media users (Bory et al., 2023) only following content and the accounts of influencers related to these issues, or directly engaged in communities, an ongoing agenda-cutting process seems clear. Although relevant differences between the three communities do exist (see further details in the next section), the issues at stake were omitted to an almost equal extent. Considering variable time, by year, it was noticeable that although alkaline water was almost entirely omitted, 5BLs and Stop-5G coverage peaked in 2016 and 2020, respectively.⁶ After these peaks, coverage decreased markedly, dropping by more than half for 5BLs and almost entirely vanishing for Stop-5G. It must thus be inferred that a twofold agenda-cutting process was under way: the low coverage hints at issue-omission, as in the case of alkaline water, but this was further exacerbated by what may have been issue-removal by Italian newspapers for more controversial issues such as 5BLs and Stop-5G, which imply serious health risks and long-lasting debate and controversy over electro-sensitivity.

The pro-vaccine choice issue shows a completely different pattern: coverage was incomparably higher and definitely more constant over time (total articles published = 0.225% in the 2010–2022 period and 0.49% in 2017–2022), peaking at 5214 articles in 2021 (1.17% impact). For this case, it would seem to be hard even to consider an agenda-cutting hypothesis, both by comparing the pro-vaccine choice data to other issues and also in absolute terms. If time is taken into account, coverage can be observed to have increased after 2017 (Fig. 9.1).

The news articles reported vaccines and vaccination (2010–2016, N = 3627) as a medical resource and immunisation of subjects

⁶Peaks for the two RKC's issued considered are very small and limited across time: 24 articles for 5BLs in 2013, 14 articles in 2019 for Stop-5G.

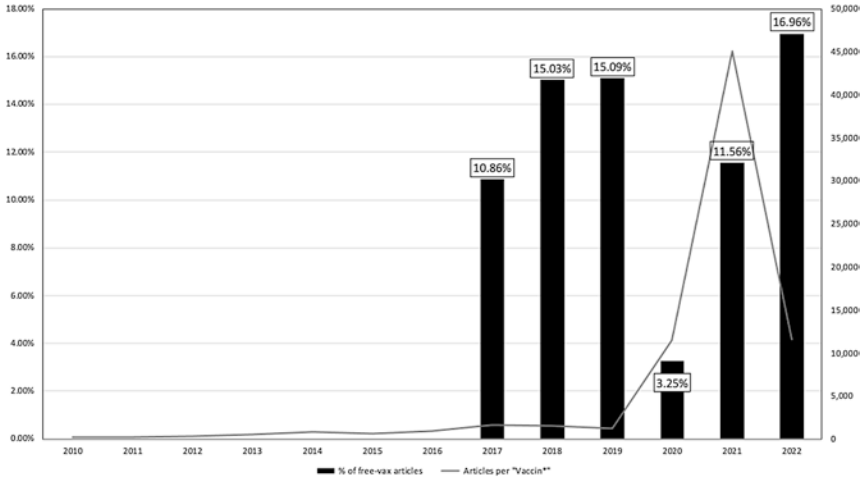


Fig. 9.1 Comparing trends: percentage of articles about the pro-vaccine choice RKC (black bars left hand scale) out of the total of vaccine-related articles (query 'vaccin*' N= 76,182, grey line right hand scale). (Source: Author's own elaboration of TIPS project's data)

potentially at risk, as in the case of new vaccines against meningitis⁷ and AIDS.⁸ This seems to support the celebrative science narrative. Although some articles about vaccine adverse reactions are sporadically to be found, these were mainly framed as cases of medical malpractice.⁹ In general, vaccination hesitancy was not on the agenda nor were the RKC. A marked increase in articles published during the pandemic years, especially from late 2020 onwards, was visible with numbers of articles doubling from 2019 to 2020 (from 179 to 373 articles) and further increasing thirteen-fold in 2021 (5194 articles). Looking at this data from an anchoring perspective (Giardullo, 2019) we might conclude that pro-vaccine choice received more coverage precisely because of the well-known COVID-19 vaccine controversy, the so-called AstraZeneca

⁷“A breakthrough vaccine prevents meningitis”, published in *Il Giornale*, 14 July 2013.

⁸“AIDS, Italian vaccine effective: the TAT supports antibody production”, published in *Il Messaggero*, 29 April 2015.

⁹“Our sister killed by a vaccine she should not have had”, published in *La Stampa*, 20 February 2013. In this case, according to articles reporting the victim's family's words, the physician gave her a jab even though she was ill, with flu symptoms.

Controversy (Sendra et al., 2023). Similarly, the pro-vaccine choice issue was included in the agenda more frequently because of restrictions on the non-vaxed designed to raise vaccination rates. As soon as restrictions on individual mobility and social distancing began to be lifted, the public relevance threshold was crossed. Indeed, a previous study found that protests in the country were often organised by supporters of pro-vaccine choice, with 28.6% of the rally and protest event total coinciding with the advent of vaccination campaigns in Italy and involving pro-vaccine choice groups (Della Porta & Lavizzari, 2022). The ‘no-vax’ label began being used widely in 2017 and prior to this no articles were published with this label in any of the eight daily newspapers monitored by the TIPS project. Although, historically, opposition to mandatory public vaccination is as old as vaccination policies themselves, this label emerged only in 2017, the year of great mobilisation against mandatory paediatric vaccinations in Italy, defined by the so-called Decreto Lorenzin approved in 2016. The reasons for this label are perhaps tracked in accordance with the ‘No-Movement’ brand, used as shorthand for local unwanted land use (LULU) movements (Bertuzzi, 2019).

Relevant indications for agenda-cutting analysis may emerge from a comparison of percentage trends for articles about pro-vaccine choice as a proportion of article totals on the subject of vaccines: there was considerable reference to pro-vaccine choice communities during the years of greatest mobilisation (2017–2019), during which research showed that the community reorganised and its political relevance increased as politicians brought the issue to the Italian Parliament (Bory et al., 2023; Morsello & Giardullo, 2022; Casula & Toth, 2018). On average, 13.66% of articles referring to vaccines reported pro-vaccine choice in a growing common trend. Interestingly, in the pandemic years (2020–2022), the two trends decoupled: a rapid growth in the number of articles about vaccines was not matched by articles about pro-vaccine choice (only 3.5%), while the political and scientific debate about the pandemic ramped up in the Italian press (Crabu et al., 2021). In 2021, the peak coverage of vaccines accounted for 15% of all articles published by newspapers monitored by TIPS. However, the share of articles about pro-vaccine choice was lower (11.56%) than the 2017–2019 period (average is 13.66%). In 2022, vaccine related article numbers dropped, whilst the

pro-vaccine choice article share peaked at close to 17%. Based on these figures, we might conclude that an agenda-cutting process took place during the gloomiest period of the pandemic, a period of great uncertainty during which most hopes were pinned on those working on vaccine technology development. If we apply Buchmeier's categorisation, such a decoupling of trends might indicate that some sort of issue-removal lasted right through 2020. There might be various reasons why the newspapers reduced coverage of pro-vaccine choice issues: a sense of responsibility, recommendations on limiting dispute and controversy during the critical phase of the pandemic, etc. The above data shows an agenda-cutting process that changed in 2021 and possibly even evolved into a new pattern in 2022.

Considering the full range of RKC cases under scrutiny, we might hypothesise that the agenda-cutting process did not apply equally to all four RKC. In the case of the pro-vaccine choice issue, it would even seem to work differently for the same issue in accordance with events. Attempting to characterise the four RKC, the time variable allowed some specific interpretation to be brought in, but it was content analysis which fleshed out the answer to our question about media coverage of refused knowledge.

9.5 Between Institutionalisation and Discrediting: Keeping Social Worlds Apart Discursively

While long-term trends in the public communication of science show that media outlets are frequently celebrative of research progress and success, according special value to experiment outcomes and reporting scientific papers, the media also pay particular attention to controversial cases. Public controversies in the media often highlight clashes between different actors, anchoring them to pre-existing political debates, as we have seen. Scandals and misconduct stories (Ampollini & Bucchi, 2020) are potentially newsworthy stories, but it is interesting to note that they are widely covered as news stories. What about the way certain topics are

framed? The contributions in this book have noted that mutual accusations of untrustworthiness are very frequent and criticisms are directed at methods (Morsello & Giardullo, 2022; Bory et al., 2023), conspiracies (Bory et al., 2023; Stop-5G, this book), and epistemic assumptions (Bory et al., 2023; Stop-5G and alkaline water, this book). Accusation and blaming are recurrent, but do they culminate in open public discrediting? This latter was reported, for instance, in analysis of the framing of protesters (Chen, 2019): in Canada, a grassroots movement of indigenous people against the implementation of looser environmental regulations was discredited publicly on the media through a denigration strategy against its leadership (Ibid., p. 149). Similar framing emerged for the two benchmark cases: ‘Stamina Protocol’ and the ‘Di Bella method’. Analysing the vocabulary characterising the articles about these two cases (N = 873) over 13 years (2010–2022), key elements emerge such as the use of specific terms such as ‘ciarlatano’ (quack) and ‘guru’ for Davide Vannoni and Luigi Di Bella, the two exponents of supposedly miraculous cures for spinal muscular atrophy, oncological as well as neurodegenerative diseases. Interestingly, for the benchmark corpus about the ‘Stamina Protocol’ and ‘Di Bella method’ cases, a trajectory by which they went from being portrayed as apparently miraculous therapeutic cures to hoaxes is observable. Indeed, both therapies were imposed on hospitals by ministerial decrees or by administrative courts as patient-demand-prompted experiments supported by the media.¹⁰

These discourses demonstrate an extremely negative media tone indicative of marked scepticism. I have already discussed the highly negative framing of the two cases, as well as the use of epistemic authorities outside the newspapers to reinstate the scientific community’s public image, such as the presence of influential journals (e.g. *Nature*), or celebrities from the world of biomedical research, such as famous researcher and senator Elena Cattaneo. In these cases, not only did the epistemic

¹⁰ Stamina protocol was a highly emotive issue as its patients were children suffering from muscular dystrophies. “*Little Sofia may be cured*”, published on *Il Mattino di Napoli*, 8 June 2013; “Stamina protocol, approved for Federico: judges give green light for the therapy”, published in *La Repubblica*, 18 March 2013. Similarly some journalists endorsed parents’ point of view and expressed their support for the protocol and the hope it offered, as in this case “Stamina, the rage and the cure, open letter to Minister Lorenzin” <https://blog.ilgiornale.it/locati/2013/07/04/la-rabbia-e-la-cura-lettera-al-ministro-lorenzin/> retrieved on 28 January 2023.

authorities move to limit the damage done by ‘quacks’ but they may also have worked to restore the scientific community’s reputation.

‘If in cases of scientific fraud Italy should develop serious restrictive measures, in cases of research excellence it is important that it increases funding and attention to science. In the light of the challenging conditions in which excellence emerges, I have been disappointed by the lack of interest and, dare I say it, the lack of competence shown by recent governments towards biomedical innovations’. This is explained by Alison Abbott, a long-standing author for the most celebrated scientific journal, *Nature*. (*La Stampa*, 15 April 2015)

The Stamina affair could become a new ‘Di Bella’ case: this is the concern expressed today by leading international stem cell experts, gathered at the Telethon conference taking place in Riva del Garda (Trento). [...] ‘Science—added Naldini—has set itself rules for clinical trials, to guarantee patient safety and research. Leaving the rules behind means jeopardising patients’ health and risking failing to see the potential effectiveness of the therapy. ‘It is not a matter of thinking one way or the other, but of looking for evidence,’ added Elena Cattaneo. In the case of the Stamina method, there is no evidence. This way of proceeding,’ he concluded, ‘is the antithesis of our usual working method’. (*La Repubblica*, 11 March 2013)

This narrative was designed to restore a scientific reputation tainted by full-blown hoaxes (the ‘Di Bella method’) or potentially new and as yet unproven methods (‘Stamina Protocol’). Can similar processes be detected for the issues related to the four RKC’s under scrutiny?

The four RKC issues are so heterogeneous that the narratives and rhetorical strategies marshalled by newspapers to frame these issues differed. To start with, analysis of the way these issues were framed clearly showed the primacy of the deviance frame in articles about 5BLs:

Against the defendant, the order (medical association) will also ask for compensation for damage to the decorum of the medical profession. The note sent by the organisation states that ‘by practising and spreading Hamer’s German New Medicine, Dr Germana Durando has discredited

the profession, adding to the very serious damage done to the patient who has been deprived of the care of official medicine and treatment of recognised effectiveness'. 'Unconventional medicine,' explains President Guido Giustetto, 'is complementary, not a substitute, for official medicine, as Article 15 of the Code of Medical Ethics clearly states. In addition, and this is the central aspect of the issue, the doctor must not remove the person being treated from scientifically founded treatment of proven efficacy and is therefore obliged to decide in good time when it is appropriate to discontinue any unconventional methods adopted and resort to official medicine, so as to guarantee the patient the most suitable conditions of safety and efficacy of treatment'. (*La Stampa*, 22 April 2016)

Who was Geerd Hamer? For medicine and the judiciary in many European countries, he was a quack, a dangerous pied piper who persuaded cancer patients to treat themselves with remedies that were not at all scientific, refusing surgery and chemotherapy, even in cases where there was a good chance of a cure. To his followers, including certain doctors, he was a persecuted prophet. He was soon struck off the medical register in Germany (in 1986), and in other countries, including Norway, where he took refuge and founded a university in 2010 in his house on the outskirts of Sandefjord. [...] What makes his theory denying the medicinal effects of chemotherapy clearly delusional—and, unfortunately, it must be said, more viral—is his attack on medicine, which he considered traditional and accused of being a Jewish conspiracy. On the German New Medicine website, he published a letter to Trump, in which he accused Jewish rabbis and doctors of saving their own people with the Hamer cure and using chemotherapy and administering morphine to kill non-Jews. (*Corriere della Sera*, 5 July 2017)

The two excerpts above show a deviance frame clearly supported by reference to victims who have turned to people following the dictates of the 5BLs. Many such cases include physicians or naturopaths whose patients died because they refused medical cures.¹¹ The deviance frame is further supported by some institutions, such as the Italian Medical

¹¹“Refuses treatment because follower of Hamer Method, another woman died in Rimini”, published in *Corriere della Sera* 3 March 2016; “Eleonora Bottaro, parents sentenced to two years in prison because they made her refuse treatment”, published in *La Repubblica*, 20 June 2019; “Manslaughter accusation for the doctor who endorsed his colleague’s decision to treat melanoma with homeopathy”, published in *Il Sole-24Ore*, 15 February 2022.

Association, which require physicians to follow ethical rules. In this sense, the frame is strong and cohesive and fits into a crime news framework. 5BLs disciples are also contextualised as examples of extremely dangerous individuals frequently compared to Vannoni and Di Bella, labelled witch doctors in search of patients to cheat.¹² In the case of public controversies about technoscientific issues false balance is commonly found¹³ in media reports; presenting opposing positions on a certain issue in the same way gives an erroneous impression of scientific uncertainty. This does not happen since there is agreement among scientists and across the media as well: the benchmarking cases would seem to suggest that when the scientific community unanimously labels a theory or approach deviant, the media tend to follow suit.

However, this is not the case for pro-vaccine choice where, besides reports of protests, a recurrent theme in the articles is blaming and stigmatising those against compulsory vaccinations. A subject which was less present during the 2017–2019 period, many stories were about people who had been hospitalised or died from diseases that could have been prevented by vaccines. This emerged strongly during the pandemic period as a recurring topic.¹⁴ Although deaths of no-vaxers were not celebrated, newspaper articles tended to report such news together with a call for vaccination by health authorities. The blaming frame would seem to be a sort of hidden flip side of the coin, appealing for responsible social communication campaigns and typically triggering fear as a persuasion strategy.

The Stop-5G narrative is different again: there are very few articles in the corpus and they are divided up into two groups: a small one relating

¹²“Alternative cures, urine and scorpion venom: this is how the latest witch doctors recruit patients on the web”, published in *La Repubblica*, 2 February 2016.

¹³According to Dixon and Clarke (2013) “while balance is considered a prominent journalistic norm (...), ‘false balance’ occurs when a perspective supported by an overwhelming amount of evidence is presented alongside others with less/no support and context—where the strength of evidence lies—is excluded (...) (pp. 359).

¹⁴“No vax killed by Covid at 62. He used to say: I am the last of the Native Americans”, published in *Il Mattino di Napoli*, 5 February 2022; “Ten-year-old child died from Covid: he was hospitalised at Bambin Gesù. Call for vaccination”, published in *Il Messaggero*, 12 February 2022.

to examples of local authorities diffident about 5G experimentation,¹⁵ and another group about the Stop-5G activists within the broader wave of protests against mobility restrictions and social mobility limitations in the summer of 2020.

On the railings delimiting the space around Dante's statue, signs were posted: 'Doctors and journalists, be dignified, tell the truth', 'It's not a pandemic, it's genocide', 'Deaths counted twice deserve riots', 'Autopsies forbidden, people killed', 'Your health care devastated, our freedom humiliated', are some of the slogans. Some brought carnival masks to mock wearing surgical or cloth ones. Among the demonstrators' placards was also one with the inscription 'No 5G'. (*Mattino di Napoli*, 11 July 2020)

I swear, it's all true! [...] Two other former 'grillini' [members of the 5 Star political party], Sara Cunial and Davide Barillari, have founded Vita, which, among other things, is Stop-5G and brings together the Mothers' People, the Sentinels of Liberty and other valiant people (...). Excuse me, but I've got a terrible headache: I'm going to get a vaccine. (*La Stampa*, 4 August 2022)

Taken together, these excerpts echo other analyses showing the way the Stop-5G RKC's were politicised in a drift towards a broader conspiracy-oriented attitude (Bory et al., 2023). It should be noted that the second excerpt betrays an ironic take on a political proposal that united RKC's. Although not widely reported in the press, it is a further perspective on RKC's that not infrequently supplements attempts at debunking.¹⁶

In the case of alkaline water, within a general context of virtually non-existent coverage, framing alternated between a presentation as perfectly normalised and fashionable to a more debatable one.

A more effective and costly option is a system which originated in Japan and is spreading throughout the world which consists of additional cleans-

¹⁵"Sagliano, 500 ask to stop 5G experimentation", published in *La Stampa*, February 2020; "Reggio Calabria 'stop 5G' During Covid municipalities against antennas skyrocketed" published in *Corriere della Sera*, 7 July 2020.

¹⁶"Pendants "against" 5G, actually radioactive: Dutch authorities ban 10 products", published in *Corriere della Sera*, 20 December 2021.

ing and sanitising action, a highly effective method that oxygenates and energises water, making it alkaline. Alkaline water thoroughly counteracts free radicals, pollution and stress in our organisms. (*Sole-24 ore*, 29 January 2015)

Initially presented as a promising natural adjuvant for stress and even cancer prevention supported by examples of national celebrities making alkaline water palatable,¹⁷ more recently, the framing has shifted towards debunking, following the same path as reported for other cases in the literature (Vargo et al., 2018).

Prof. Conte makes no bones about the fact that when it comes to the benefits of alkaline water, the nonsense is piled up out of all proportion. If we ask whether alkaline water is good or bad for us, we have to answer that it is neither good nor bad for us. This is another hoax. [...] In fact, since it was discovered that areas surrounding some tumour tissues have an acidic pH value, the idea has been to do business by driving people to alkalise their bodies. In this regard, it is estimated that per capita water consumption is equivalent to 206 litres per year in bottled form, which translates into a turnover of 10 billion. (*Sole-24 ore*, 3 December 2018)

In this case the debunking is by experts interviewed to explain why alkaline water is not as promising as some sellers argue.

So, Joshua McAdams and Taylor BlandBall, arbitrarily decided to give their son Noah, who suffers from lymphoblastic leukaemia, a mix of CBD (an acronym for cannabidiol) oils, fresh food and alkaline water, and refuse traditional chemotherapy treatments. According to the New York Post online, the parents made this choice following some entirely personal considerations and without any scientific evidence. (*Il Giornale*, 11 September 2019)

The irony is tangible in this last excerpt as well in the shift from a neutral to a sarcastic tone and contributes to discrediting the issues espoused by RKC. Does this count as a form of rejection of refused knowledge?

¹⁷ “Barbara D’Urso ready for The Celebrity Island” published in *Messaggero*, 4 April 2014.

Thus far the answer has not been a straightforward one but requires some further elaboration.

9.6 Conclusions

This contribution is an attempt to complement other contributions on RKC in this book with an overview on the backdrop to many analyses of the ways refused knowledge can reinforce, circulate, and contribute to the shaping of specific social worlds. The analysis began with a research question derived from the evidence reported widely in the science communication literature regarding medialisation. Indeed, there is broad scholarly consensus that the media play a supporting role in science. Specifically, it has contributed to promoting the so-called social contract for science (Guston, 2000) and support its institutionalisation in society. In this way the media promote science's political legitimacy in a symbiotic relationship which falls into the medialisation category (Weingart, 2022; Rödder, 2011). Accordingly, it is useful to ask if there is a pattern consistent with such symbiotic relationship for the RKC and, if so, how it is configured. One hypothesis is that the media actively refuse, by not covering, or discrediting, RKC. Actually, the analysis provided in this chapter shows a more nuanced media's role or, at least, a less homogeneous one than might be expected. Rather than covering the various cases in the same way, the media coverage varied in accordance with the RKC issue dealt with. Analysis of TIPS project data revealed different levels of refusal, with analysis of coverage considering agenda-cutting, framing, and narrative hypotheses with a view to assessing the extent of publicly expressed discrediting of RKC. Agenda-cutting (Buchmeier, 2020), here defined as withholding coverage or discrediting—as the 'Stamina Protocol' and 'Di Bella method' cases previously demonstrated—is consistent with the literature on the medialisation of science and the synergy between public science narratives and its political legitimisation. By building a science-non-science barrier, discursive exclusion (agenda-cutting) and public discrediting would also be expected to be relevant mechanisms given the frequency with which these are cited by RKC members and in their online media outlets.

Longitudinal analysis from 2010 to 2022 enabled us to detect different phases—one before the pandemic and another directly connected with the turbulent pandemic period, and the Italian mass vaccination campaign in particular. In addition to the pandemic, other turning points emerged, such as compulsory child vaccination by decree in 2017. These turning points worked differently in the Italian media context, as Sect. 9.4 showed, with the attention to (or refusal of) the issues raised by the four RKC's being unevenly distributed.

As Table 9.3 showed, in general it would seem that agenda-cutting was present in all the cases considered in this analysis but a number of differences can be detected. Although all four cases were affected by issue-omission, only pro-vaccine choice was covered sufficiently to be affected by issue-diminution and issue-removal. As the previous sections showed, in three out of the four cases, the discourse was mainly linked to news stories that were rarely covered: 5BLs, Stop-5G (or electro-sensitivity), and pro-vaccine choice were mainly covered when there was a local news or crime news connection. During the pandemic coverage also increased in line with the growing political engagement of the three communities. In this sense, for these three cases, agenda-cutting alone can be confirmed, with issue-omission certainly present during the pre-pandemic phase, while issue-diminution emerged during the pandemic. We cannot distil a specific indication from this evidence, except that anchoring was also applied to RKC's: the visibility of the pro-vaccine choice community definitely increased during the pandemic.

Qualitative analysis provided additional elements about the way RKC's are publicly presented.¹⁸ Framings of deviance for 5BLs and blame for pro-vaccine choice are coherent with a public discrediting strategy designed to protect the medical community in the former and public policy in the latter. For 5BLs in particular, this is coherent with the earlier well-known 'Stamina Protocol' and 'Di Bella method' cases. Indeed, during the pandemic period, many scientists referred to these cases as examples of malpractice, accusing politicians and journalists of being overly

¹⁸ It should be noted that the communities very rarely speak to the media themselves. Although this feature has not been properly thematised, it is significant that interviews on media outlet with pro-vaccine choice or 5LB are particularly rare and totally dominated by the accounts of institutional experts and scientists.

Table 9.3 Analytical scheme for the agenda-cutting, framing, and level of controversy processes

RKC	Coverage	Issue-omission	Issue-diminution	Issue-removal	Framing	Controversiality
Pro-vaccine choice	High	Yes	Yes	Yes	Blaming	High
5BLs	Low	Yes	No	No	Deviance	High
Stop-5G	Low	Yes	No	Yes	Politicisation/debunking and irony	High
Alkaline water	Very low	Yes	No	No	Consumerism/debunking and irony	Low

Source: Author's own elaboration of TIPS project's data

emotive or irrational. One final element relates to the underhand irony employed in relation to RKC issues that had already been debunked in public, further discrediting them publicly, as in the case of 5G and electro-sensitivity as well as alkaline water.

In line with the wide variety of coverage of the four issues considered, a single take-home message is difficult to discern, but two conclusions can be drawn: the media refuses refused knowledge under certain circumstances and via different strategies, i.e. not talking and discrediting when it did talk. Not talking about refused knowledge was not the principal strategy, but it was a significant one, as in the case of pro-vaccine choice, whilst talking about them may have been functional to supporting political health decisions based on scientific advice. In this case refusal is more underhand, using coverage in a blaming narrative. This reinforces the frame with irony to supplement discrediting and blaming.

Given the symbiotic relationship between media and science and technology, this analysis concentrated on naturally produced written texts, such as newspaper articles, on the assumption that these are proxies of media outlet orientations. However, the literature shows that these choices should be considered part of a more complex media ecology of the relationships between different actors. Agendas can be influenced by external and internal factors: the former includes advertisers, political pressures, and the role of public relations practitioners (Colistra, 2012) while the latter encompasses anticipatory obedience (Buchmeier, 2020) understood as compliance with normative ideas coming from other actors such as political institutions. Another potentially useful area of enquiry within this broad field is the resources that some RKC may lack. As medialisation scholarship has shown (Peters et al., 2008; Schäfer, 2011; Weingart, 2022) scientific institutions can marshal respected communication and press offices, while RKC generally do not invest in such communicative apparatuses but rather concentrate on channels such as social media. This is further proof of social world separation based on media representation. I have reported on representations of ‘corrupted science’ and rejected knowledge denounced as ‘irrational’. These representations can be retrieved from other sources (e.g. social media) and also traced directly through interviews with members of RKC. Perhaps the most important contribution of the present analysis is to show that media

provide a discursive resource for both social worlds. Media representations can fuel mutual accusations and discrediting. On one hand, it is a resource, a complementary part of the science narrative and part of a discourse designed to reinforce scientific institutions' value and role as potential political support for decision-making, especially at times of crisis such as the COVID-19 pandemic. In turn, the RKC narrative is configured as a symbolic resource for RKC themselves: blaming, mocking (irony), or openly accusing is a discursive resource supporting an antagonism and mistrust narrative. This fact helps us to describe a feature of the construction of the RKC social world: discourses as building blocks in a reciprocal relationship in which one side can hardly avoid talking about its counterpart. Once again, opposed social worlds are reproduced in a complementary way, as has emerged in the most recent research, including other contributions to this book.

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