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Religious Journalists' Ethics on Communicating Science: The Case of Ultra-Orthodox Reportage in Israel

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Abstract: While religious dogma and science are often viewed at odds, scientific knowledge is increasingly integrated into religious journalism. This challenges the epistemic tenets that underlie the worldviews of religious readers. In this study, we aim to investigate the role of religious journalists as science gatekeepers and, more specifically, uncover their ethos in advocating science communication to their audience, amid widespread ambivalence. To this end, we focus on the ethical gaze of ultra-Orthodox (Haredi) Jews in Israel. An enclaved religious group that has a history of challenging scientific precepts and has of late demonstrated various levels of ambivalence and resistance to scientifically inspired policies made during the COVID-19 pandemic. To this end, we conducted in-depth interviews with 20 Haredi editors, radio and print/online journalists, engaged with science reporting before and during the COVID-19 outbreak. The findings unveil several ethical facets employed by Haredi journalists: care, community, professionalism, and religion. The findings also outline the interaction between professional, religious, and communal codes of conduct, as they play out in bounded mediascapes. Accordingly, religious journalists' role breaches traditional boundaries as they respond and strive to integrate multiple sources of knowledge for what they see as the betterment of their devout readers.

Keywords: science communication; religious journalism; ultra-Orthodox press; professional ethics; journalist ethics

1. Introduction

Science communication is considered a major building block in facilitating a modernly oriented society that advances democratic ideals, addresses health concerns, promotes economic growth and guides policymakers (Davies and Horst 2016). However, for numerous religious groups, science is identified with secularism and knowledge authority that competes with religious dogma, and is thus approached cautiously (Chan 2018). Accordingly, many religious communities have developed a dubious perspective of science and a wariness of the public dissemination of science on their media platforms, including the press (Taragin-Zeller et al. 2022).

Since the rise of the COVID-19 pandemic, religious groups are challenged to accept scientifically driven dictums regarding segregation, social distancing, personal hygiene practices and receiving vaccinations (Campbell 2020; Schlag and Nord 2023). Moreover, state policies enforced shutdowns with restricted access to churches and religious schools (Campbell 2020; Gering and Cohen 2023; Mishol-Shauli and Golan 2024; Taragin-Zeller et al. 2020). Consequently, the significance of science communication to religious communities became paramount with the pandemic, and the role of media outlets that cater to religious communities gained prominence in an already growing field.

Given the significance of science communication for religious publics (Taragin-Zeller et al. 2022), and the immense growth of online religious media outlets in recent decades, complementing their print counterparts (Campbell 2010; Cohen 2012; Golan and Mishol-Shauli 2018; Schlag and Nord 2023), the role of religious journalists and their perspectives

regarding science dissemination is accentuated. Thus, the aim of this study is to examine the ethical considerations of religious journalists towards science. The question begs, how do religious journalists negotiate their ethical conceptions towards scientific knowledge? To explore this question, we focus on science reporting among ultra-Orthodox (Haredi) Jews in Israel, an enclaved religious group that has a history of challenging scientific precepts and has of late demonstrated various levels of ambivalence and resistance to scientifically inspired policies during the COVID-19 crisis. Previous studies of Israeli Haredi journalism suggest that communal aspects carry more weight in their considerations (Mishol-Shauli and Golan 2022). However, the Haredi ambivalence towards science warrants particular examination. We contend that understanding the ethical considerations and worldviews of Haredi journalists reporting science can shed light on the tensions between science and religion in diverse societies and the ways that journalists could act as active agents to mediate modern ideals and knowledge to traditionally inclined societies.

2. Literature Review

2.1. Knowledge, Science and Religion

The conflict of science and religion bears political meanings that were spotlighted in public events such as the trial and condemnation of Galileo or the Scopes trial. However, its political aspects are intertwined in the epistemic meanings of knowledge itself and have been publicly engaged with and developed since the 19th century (Harrison 2020; Rock-Singer 2019).

Religion (particularly the Abrahamic variants) can be viewed as a transcendental value-oriented interpreting form of knowledge, operating under the basic code of religious knowledge that contains three components: transcendentalism, faith, and totalism (Kahane 1997). In contrast, modern (secular) science has historically separated the moral aspects from what it sees as the "laws of nature" to present science as a neutral body of knowledge, a relationship which has vastly been altered in the history of knowledge (Harrison 2020) and stands in contrast to the sociology of scientists who heavily rely on legitimation and the prestige attainment, which reflects in their craft (Ben-David 1971). Notwithstanding the latter approach, the coined term is derived from the Latin word "scientia", which originally referred to knowledge or practical understanding. Thus, the "natural sciences" are contrasted with "sapientia" or wisdom (Hess and Allen 2008, p. 2). According to this bounded approach and terminology, the inherent paradigm of science determines value-free patterns of objective knowledge (Kuhn 2012).

Indeed, "knowledge" itself is a highly controversial concept that is open to multiple interpretations through the lens of various disciplines, such as sociology, philosophy, and education. It refers to the myriad forms of know-how—facts and values, cognition and evaluation, information and disinformation, rational and irrational thinking, transcendental (mystical or magical) and empirical knowledge, as well as the explanation and interpretation of what is known (Kahane 1997). Past scholars often underscored the distinct premises that underlie religious lore from that of scientific knowledge (Parsons 2013). Similarly, Cassirer (2023) discusses what he views as an evolutionary development between religious, aesthetic, and scientific knowledge. Cassirer perceives religion to be a basic form of knowledge, which is to be replaced by aesthetic knowledge, and eventually by scientific thinking.

Cassirer's outlook can be interpreted as a manifestation of a secularist approach whose traces can be linked to the Enlightenment and, to this day, is reflected in contemporary scholarship (Ben-Porat and Feniger 2014; Fordahl 2017). On the contrary, other scholars (Stark and Bainbridge 1985; Berger 1999) oppose this linear evolutionary reasoning and underscore the expansion of religious movements that follow secular and modern counterparts. Additionally, Eisenstadt (2000) introduced the concept of multiple modernities, where he contended that contemporary societies often disassemble and reassemble cultural elements. As such, societies (and related knowledge constructs) are continuously constructed and reconstructed in a sporadic and dynamic sequence that differs from that

which is conceived in the evolutionary model of secularism. Thus, religious thought may be repeatedly embedded in modern society and its institutions of information dissemination (e.g., schools, social media, the press) in new and changing ways. However, Eisenstadt does not expand on the dynamics of these changes and does not closely examine the critical points of transformation and clashes between different forms of knowledge.

Communities tend to institutionalize acceptable forms and balances between different modes of knowledge at a given period. Thus, the balance between legitimizing scientific and religious knowledge is not necessarily a conflict or zero sum narrative (Evans 2011). Scholars have demonstrated an evolutionary transformation (as in the Catholic case; Hess and Allen 2008) and an ambivalent stance towards science as demonstrated in the epistemic examination of professionals that are involved in academic research (religious historians, for example), a case in point was studied by Gottlieb and Wineburg (2011). According to their study, religious scholars employ alternative logics in what they refer to as epistemic switching. For example, they engage different sets of assumptions varying their criteria for truth. Gottlieb and Wineburg stress that this can be performed simultaneously in engaging texts or newfound situations, through a bifocal lens, or through a conscious appreciation of the two logics, trumping one over the other or separating them to address situations at different times (Gottlieb and Wineburg 2011). Gottlieb and Wineburg's findings offer a useful framing, yet their empirical gaze is limited to an experimental finding, rather than through naturalistic investigation. Thus, tensions between the different epistemic positions of science and religion can be examined in monastic, fundamentalist, and enclaved communities, where religious belief, as well as the rejection of Western liberal versions of modernity, symbolized by science, is at the forefront of the individual's identity (Marsden 2022; Marty and Appleby 1991). Moreover, the COVID-19 pandemic period is extremely poignant for examining these tensions and points of negotiation as agents of modernity (e.g., the state, medical institutions) push forward to impose provisionary rules that are based on scientific logic in religious populations (Campbell 2020; Mishol-Shauli and Golan 2024). Thus, the population is encouraged to engage in these logics, consume information, and make sense of science-based principles. To this end, in this study, we focus on a potential change phase of an enclaved society, namely Israel's Jewish ultra-Orthodox community, and explore how its informal mediators of knowledge negotiate the tension between scientific and religious knowledge.

2.2. Science Communication and the Role of the Journalist

Narrowly speaking, science communication refers to the transfer of knowledge from scientific experts to public audiences. While much of this role has been assigned to formal educational agencies (i.e., schools, universities), the role of informal agents of knowledge transmission has been often overlooked. Nevertheless, some scholars have underscored the role of informal platforms operating in this capacity, such as fiction, plays, films, social networks, print and online press (Echchaibi and Hoover 2023; Lewenstein 1995). These platforms for disseminating scientific lore serve as key socialization formats for the delivery of ideas of modernity and shaping the epistemic landscape of Western societies.

In the liberal West (best documented in the UK and the US), the emergence of science communication in the press is attributed to the post-WWII period. Science, medicine and technology were often lumped together in a single social category referred to as "science" and its ideological and ethical facets were crystallized as leaning towards scientists' perspectives, rather than the public (Dornan 1990). As a result, science communication emerged as a field that was considered morally justified and necessary for modern society. Trachtman (1981) discusses the science journalists' mission as leaning on three key premises: (1) knowledge is good in itself (2) scientific knowledge can support consumer choices (3) democratic society relies on an enlightened citizenry (Trachtman 1981, p. 10). However, with the rise of science communication, the role of journalists as mediators of scientists and transmitters of a faithful distribution of scientific knowledge has gradually gained scholarly attention as reporters consider their responsibility to educate, inform, or to promote critical

thinking (Treise and Weigold 2002) beyond reader entertainment and advocate the self-interest of the publication's popularity itself.

As the institutionalization of journalist practices evolved, professional associations highlighted reporters' responsibility to verify the accuracy of the information they publish (Society of Professional Journalists Code of Ethics 2014). This ethical commitment is challenged with regard to science reporting, as journalists are rarely equipped with the necessary expertise to assess the quality of the scientific findings they wish to report (Figdor 2017). Nguyen and Tran (2019) raise further ethical concerns when discussing science reportage in the 'Global South'. Their findings indicate that in developing countries, the low status of science news, together with interventions by political and other non-science vested stakeholders, hampers the contribution of science reporting for readers and their communities.

Science communication plays a marginal role in most modern media outlets. Nevertheless, science communication's presence becomes notable, and occasionally popular, during times of crises, such as the pandemic, or specific peak public moments, (e.g., amid Nobel prize announcements) (Baram-Tsabari and Segev 2015). For Haredi audiences, the prominence of science communication is not self-evident given their deficient STEM education, notwithstanding Haredi first-generation college graduates are on the rise (Golan and Fehl 2020; Perry-Hazan 2015).

2.3. Context: The Haredi Community in Israel

Haredim are characterized as adhering to strict interpretations of Jewish oral and written laws (Halacha and Talmud) (Brown 2017; Dalsheim 2019). However, they do not consist of a unified entity but rather 'Haredi', which is an umbrella term that encompasses communities with varying Jewish theologies, rabbinic leaders, and sometimes different ethnic affiliations (Dalsheim 2019). The sociological line we follow, laid forth by Yaakov Katz and Menachem Friedman, marks the beginning of the Haredi branch of Judaism between the middle to the end of the 18th century (Caplan and Stadler 2009; Friedman 1991; Katz 1998). In this socio-historical perception, Haredi communities are defined by their resistance to secular/modern influences. Haredim aim to limit meaningful interactions with those who do not share their religious beliefs (Stolzenberg and Myers 2022). Hence, they distinguish themselves physically, linguistically, through distinctive dress codes, and selective media use, making assimilation into non-Haredi environments highly challenging (Baumel 2006; Brown 2017; Heilman 1992; Mishol-Shauli et al. 2019; Munro 2022; Tavory 2016).

Scholars describe the Haredi sector in Israel as "the society of scholars" (Friedman 1991), as it has unique state–community relations, with Haredi men being the sole Jewish group exempted from military service (Dalsheim 2019). Another shared aspect among all Haredi communities is the attribution of infallibility (Daas Torah) to their rabbinic leaders (Gdolei Ha'Dor or venerated elders). This means that the decisions of these esteemed leaders are regarded as sanctioned as if they were part of the written codex (Brown 2017; Munro 2022).

Israeli Haredi Jewry is commonly divided into three main strands: Hassidic, Lithuanian, and devout Sephardi, each roughly equal in size (Brown 2017; Dalsheim 2019; Lehmann and Siebzehner 2006; Lupu 2004). Hassidic communities revolve around a charismatic rabbinic leader (rebe or admor) and his court, encouraging members to find a livelihood within their own community (Dalsheim 2019; Heilman 2017). Lithuanian Haredim, while not tied to a specific court like Hassidim, are expected to dedicate their lives to Torah study or work within Haredi, preferably Lithuanian, environments (Brown 2017; Dalsheim 2019; Friedman 1991). Devout Sephardi communities consist of Israelis from North Africa, the Middle East, and the Iberian Peninsula. These communities in Israel have largely adopted the practices of Lithuanian Haredim but retained their ethnic distinctiveness (Kasstan 2021; Lupu 2004; Munro 2022). More nuanced categorizations among Israeli Haredim highlight further distinctions to include *baalei tshuva* (returnees), as

well as subsections within Breslov and Chabad Hassidic courts that deviate in theology and practices from typical Hassidic courts (Cahaner 2020; Sands 2009).

2.4. Conceptual Framework

While ethical concerns bear philosophical merit, the focus at hand is occupational. Doctors, social workers, teachers and journalists regularly grapple with dilemmas that pit ethical values against each other. To understand the underlying schemes or ideals that motivate ethical action, we turn to the ethical perspectives instrument, which was recently developed by Eyal and Berkovich (2023). These scholars aimed to investigate the ways that (semi-) professionals juggle judgment calls on ethical issues by identifying their main ethical concerns and classifying them by primary considerations. These perspectives are thereby clustered by five facets as follows, with special attention paid to journalism:

(1) Ethic of Justice—This perspective includes two ethical sub-facets: equity and utilitarianism. The ethic of equity emphasizes individual rights and equal treatment. Equity highlights the fair treatment of all, predicated on uniform universal standards (cf. Sabbagh 2022). Utilitarianism refers to an effort to advocate "good" to the fullest by stressing the benefit of the many, despite possible harm to the few. (2) Ethic of Critique—This perspective highlights efforts taken to monitor, reflect, expose, and confront social norms and institutions that may mar vulnerable groups. (3) Ethic of Care—This ethic is rooted by empathy and commitment to the wellbeing of others. The ethic of care most often orients professionals towards the needs of the individual and their empowerment. (4) Ethic of Community—This perspective spotlights the need to take into account the values, beliefs and overall aspirations of a given community. (5) Ethic of the Profession—According to this perspective, responsibilities towards subjects (e.g., clients, readers), are based on vocational knowledge, know-how, and cutting-edge research. The Ethic of the Profession takes into account professions' stakeholders (e.g., other journalists, source confidentiality).

Previous studies of Haredi journalism suggest that communal aspects carry more weight in enclaved societies (Golan and Mishol-Shauli 2018; Lavie et al. 2023; Rosenberg and Blondheim 2021; Shomron 2022). Additionally, as science is regarded as knowledge that leans on ambivalent tenets of legitimacy within religious communities, its ethical considerations warrant particular examination within this conceptual framework.

3. Methodology

To explore the ways that Haredi journalists negotiate their ethical conceptions towards scientific knowledge, we developed a qualitative design of which the lion's share included in-depth interviews with Haredi journalists that cover scientific issues.

Accordingly, several steps were taken as follows: Initially, a comprehensive list of online/offline Haredi news outlets was created. Additional outlets were identified through an online search, and key informants were consulted in the process (e.g., journalists, community leaders). Snowballing techniques were employed to contact and enable in-depth interviews with editors as well as radio and print/online-journalists. The selected interviewees were those that served as either "science reporters" or "health reporters", as well their editors. Between August 2019 and November 2020, i.e., before and during the COVID-19 pandemic, twenty interviews were conducted in Hebrew, ranging between 30 and 90 min. Interviews were conducted by the authors and a female Haredi research assistant. The open-ended questions focused on the ethical challenges that Haredi journalists face when reporting science and their corresponding actions. Core questions focused on the basic tenets of Eyal and Berkovich's (2023) ethical perspectives instrument to cover primary topics such as their commitment to professional concerns and their sense of accountability towards the community. Furthermore, reporters were asked whether they feel comfortable applying a critical tone, and whether they feel responsible for advocating the wellbeing of the Haredi public. Given the distinct context of this enclaved religious society, the questions served as talking points that led to issues of belief, communal affiliation, relations to rabbinical authority and more.

Approaching these enclaved populations is not an easy task for outsiders, particularly as they often resist academic inquiry (Stadler 2007). However, our previous research on Haredi journalists allowed us initial access to these publics. These contacts allowed us, through snowballing efforts, to reach a cadre of interviewees who are part of the community and publish regularly in Haredi news outlets on science-related issues.

All interviews were recorded, anonymized, and transcribed. Interviews were conducted in Hebrew, and the passages cited in this paper were translated. While the theoretical parameters were drawn from the ethical perspectives conceptual framework, subjects' answers were integrated into Dedoose software and themes raised in the transcripts were coded and compared (see Saldaña 2021). Ultimately, these codes were clustered and compared to the ethical perspectives discussed in the conceptual framework, leading to the unexpected finding of a new (religious) facet.

4. Findings

Science communication is not a primary focus for Haredi newspapers. Consequently, most of our interviewees tend to cover multiple reporting fields aside from science, including health and education. The interviewed journalists did not possess a formal science education; instead, they were informally informed and knowledgeable in various fields, having developed autonomous learning skills alongside networks of academic connections and access to online resources. Moreover, most journalists we interviewed lamented what they perceived as unjustified ignorance within the Israeli Haredi sector concerning the engagement of great Jewish thinkers with science, such as Maimonides and the Vilna Gaon (such as those described by Freudenthal 2011).

Exploring the ways that Haredi journalists negotiate their ethical conceptions of scientific knowledge, with special attention on the multiple ethical perspectives, we identified three facets that correspond with Eyal and Berkovich's taxonomy, and while belief may partially coincide with a communal orientation, we offer an additional facet that expands and highlights this religious dimension particularly for communities of faith, as follows:

1. *The Care Facet*—Journalists highlight empathy and commitment to the protection and wellbeing of others.

2. *The Communal Facet*—The ethic of community postulates that journalists take into consideration the values, beliefs, and desires of the community and view the community as essential in their reportage.

3. *The Professional Facet*—Reporters underline their occupational ethic as guardians and disseminators of verified facts, following a universal (or Western) basis for their communicative actions on relaying science.

4. *The Religious Facet*—Highlighting personal considerations of commitment to faith (e.g., fostering belief, commitment to Godly servitude, refraining from sin) in reporters' creed, which affects their support (or partial avoidance) of science dissemination.

4.1. The Care Facet

Framed by what we identified as a care facet, Haredi journalists expressed their objectives for protecting and concern for the community's wellbeing. Expressing a universal claim for care, Shlomo, the founder and young editor of an online Haredi news outlet explained the fundamental utility of health communications.

> Health is information that people need. However, most 'health' publications in Haredi media are useless. Let me give you an example, this <HMO name> PR statement that "Rabbi Kanyevski visited our new medical center". True, Rabbis sell well among Haredi readership, but why don't you try to come out as a professional as well? Last week we covered a study about Autism in Israel conducted by the <same HMO>. This research can attract Haredi readers as well! And you come out as a professional organization conducting comprehensive research! Such publications bring me traffic, yet we're the only ones currently covering such issues in Haredi media. In essence, if you publish what the public

really needs, as can be seen in our outlet, then yes, it serves the audience a lot. The same information interests both you and me when it comes to health, there is no significant difference between the ultra-Orthodox and non-Orthodox in matters of health.

Shlomo criticizes what he sees as a misplaced framing of public health communication in Haredi media. He views most mentions of health issues as marginal details that are framed within other storylines. In contrast, Shlomo asserts a moral axis that highlights the prominence of delivering sound health information to readers. This concern can be viewed as universal caring as the Haredi distinction is downplayed, and the neutrality of scientific medical knowledge is accentuated.

In contrast, Shimon, a veteran journalist whose columns are dedicated to science and technology, stresses a particular deficiency specific to medicine in the Haredi sector. Shimon explains that members avoid health-related science because they see it as 'too secular'. Consequently, he claims that many Haredim are left vulnerable to charlatans.

Regarding academic knowledge, scientific knowledge, and all the things that go beyond knowledge that is more intuitive and Jewish-Religious, there is complexity. There is a reluctance towards science, but a great thirst for new knowledge. A lot of people take advantage of this [in ultra-Orthodox society]. They manipulate the science, bring it in a washed-up, processed form, and do courses, workshops and all kinds of things that lack sufficient professional training, but they present it as professional knowledge. I see this especially [salient] in personal counseling, CBT, NLP.

Shimon cautions against the exploitation of ultra-Orthodox members who he views as susceptible to manipulation given their poor backgrounds in science. In his publications, he aims to counter these knowledge deficiencies by writing about science and better informing the public. Thus, in line with his predecessor, the reporter's motivation for science communication is embedded in ideals of empathy and dedication to the welfare of community members, thus highlighting their ethic of care.

4.2. The Communal Facet

This facet refers to the journalists' imputes to foster a sense of communal commitment through science dissemination. In the interviews, journalists often expressed adherence to communal boundaries, values, mores and identity.

Experienced in radio, print and web reporting, Zalman, a journalist in his early 40s, directly addresses his commitment to the community as follows:

As an editor or journalist in a Haredi newspaper you have a certain responsibility towards the readers. This responsibility is to give them content adapted to Haredi language and family values [...] The newspaper has a certain role not to confront the reader with heresy such as "the world was created millions of years ago" and stuff like that.

Zalman highlights his commitment to the community as a primary concern. Further addressing scientific content, the chief editor of a health section of an online news outlet explained how communal gender boundaries affect his editorial considerations when reporting on breast cancer:

There are times when you say, "Here, my audience is mostly men, so I can't relate to female (issues) unless I place it in the women's section and not the health section".

While modern liberal readers may find Haredi communal gender boundaries resentful, the editor stresses them as a means to uphold a communal climate. In maintaining this value, the editor avoids raising resentment among Haredi men that may consequently avoid the health section altogether.

Similarly considering communal values, Meir, a reporter in a digital news outlet in his late 20s, explains his motivation to downplay religious–scientific conflicts as an effort to circumvent communal disputes:

> First of all, the whole idea is to avoid publishing something that displays [tension between religion and science], unless it is something critical, but overall you just shake it off. That means you eschew it. You just let go of this item because you try to always avoid creating a conflict.

Given the potentially volatile nature of science reportage, through this facet, interviewees conform with a communal climate. This is to say, reporters recounted that they rely on past feedback or lean on their acquaintances with communal values and mores. Considering ad hoc situations against these mores requires drawing on their understanding of the Haredi moral order as they vet their reportage and framing existing issues related to science communication.

4.3. The Professional Facet

Reporters discuss their dedication to canonical values of journalism such as truth telling and informing the public as the underlying principle that guides their communicative actions.

Most journalists we interviewed were critical towards Haredi journalists in general, and even referred to them as unprofessional and tabloid-like. They take pride in being the exception to this rule, as they strive to maintain professional standards and bring useful and well-founded scientific information to their readership. As Shlomo stresses:

> I looked at all these journalists who cover politics and it seems to me like gossip reporters: "exclusive video, when [Haredi parliament member] Gafni spilled the coffee on [Haredi parliament member] Litzman". It brings a lot of traffic to the websites and they enjoy it, but that's not what we're talking about, that's not journalism. A journalist should always serve his audience. If it is through the disclosure of things, if it is through the handling of consumer complaints, if it is through the publication of investigations.

Shlomo highlights the professional role of the journalist. He directly criticizes many of his colleagues for offering entertainment value over service to the community through meaningful information dissemination. The veracity of this information is emphasized among other journalists. Reuven, an experienced reporter, began reporting on science a few years ago for a print magazine. He explains how he sources information pertaining to a topic he wishes to write about:

> Q—So how do you value credibility [of a source]?
>
> A—If it's an informational piece written by a scientist, then the level of credibility is much higher. Conversely, if it's some kind of interpretation or something that is a bit off the mark, well, while that doesn't mean it's not reliable, it means it needs verification.
>
> Q—So you cross-reference with other sources?
>
> A—If I need to then yes. If it concerns the topic I'm writing about then yes of course.

Reuven identifies the academic credentials of a source as a means to evaluate its trustworthiness on scientific matters. For him, other sources require further evaluation and supportive references. His efforts in verifying data and reliance on academic sources highlight a professional gaze that emphasizes truth telling and a scientific orientation.

Sarah, a science and technology reporter in a Haredi weekly and guest columnist in other Haredi online and offline news outlets does not consider herself learned enough to argue scientific issues. Therefore, in order to present contesting positions with regard to scientific debates, she interviews multiple scientists.

Q—Is it [information in her possession] used as a source to refute other scientists or provide information for the community?

A—I'm not the one to refute, I get scientists to do it. The idea is that I bring science and scientists. One of the greatest privileges of working in this field is that I often speak with the greatest scientists in the world in their field. They talk to me on eye level, explain interesting things to me and then I pass it on.

Sarah emphasizes her pleasure in her work while engaging with top scientists. She underscores her reliance on their expertise in delivering quality information and only leans on other academics to postulate additional perspectives (or refute) of her subjects while composing a publication.

Overall, we find science reportage to entail sourcing considerations, an engagement with scientists and a sense of pride in their invested effort to deliver accessible high-quality information to their readers. These practices align with journalists' professional standards, disregarding their religious background.

4.4. The Religious Facet

Framed within this facet, webmasters discussed their commitment to religious objectives which they embed in their ethical considerations of science dissemination.

In an adamant account, Zvulun, a publisher of an online news outlet in his late 50s, explained:

If you are a true believer, then you don't write things that are problematic for religion because it goes against your basic belief. It's not like a person who doesn't believe, then he can choose. If he has already crossed the line, then he no longer believes, so he cannot write on an ultra-Orthodox platform. An ultra-Orthodox platform is not an open collective. We have the Torah, that's it, holy and unchangeable. The world is 5782 years old. If that is right for you, you are in. If it does not fit you, you are out. You can be a conservative, secular, reformer. You can be whatever you want. You are not Jewish. Not on this platform, you will not be there.

Zvulun's position is Haredi-centric and clear, and he believes that reported texts should coincide with the Haredi belief system, rather than adopting a universalistic or Jewish pluralistic approach. These framings guide his writing.

Offering a more nuanced explanation, Akiva, a 41-year-old commercial Haredi print press editor, informed us that his "red line is to stay within faithful boundaries". Accordingly, he explained that he selects interviewees for his science reporting that are religious or that have a favorable inclination towards religion. In his words, they "fit the Jewish perspective". Akiva further explains that he is set to avoid anything that "connects with heresy such as the (false) claim that the world was created millions of years ago. All other things (of scientific merit) can be expanded on". Akiva attests that he himself reads scientific texts that might be controversial, but he feels his belief is solid enough to withstand these transgressive texts, since he experienced a long personal process that enabled him to align all science with his faith. However, since Akiva considers Haredi media to be too shallow to reflect such complex deliberations, he sets to avoid controversial precepts of science. To save himself some of the adaptation work, he also opts to receive information from Jewish-religious interviewees when possible, as they are inclined to impart information that is already in accordance with the basic worldviews of the Haredi.

In summary, this facet highlights journalists' work as protectors of the faith while integrating scientific information into their publications. Thus, the ethical responsibility of these journalists is to ensure that information that conflicts with their basic beliefs (e.g., evolution) or are endorsed by alternative religious publics (e.g., Reform Jewry) are avoided. Accordingly, their professed ethical mission is to verify that the Haredi religious spirit underpins all publications, including that of scientific data and inquiry.

5. Discussion

Exploring the ways that Haredi journalists negotiate ethical considerations towards scientific knowledge, the study unveiled the Haredi press's stance with regard to the key facets, suggested by the model of ethical perspectives set forth by Eyal and Berkovich (2023). This included an overlapping addressal of the key aspects of care, community and professionalism, albeit with the interpretive gaze of an enclaved society. However, comparing these findings with the conceptual framework indicates that, while identifying three of the five perspectives, a new ethical facet is discerned, namely that of the religion.

The religious facet adds a much needed gaze when considering the mindset of their pious clients. However, we posit that this facet involves more than merely catering and appeasing readers. Through discussions with Haredi journalists, we found many of them express deep curiosity towards science and develop a sturdy knowledge base of its foundations, particularly when referring to science in its natural and applicative essence (rather than highlighting the contribution of social science). These journalists set their knowledge constructs in what can be seen as a liminal tract between religious and secular worlds, these journalists are set in a dangerous anomalous setting (in Mary Douglas' terms (Douglas 2003). Accordingly, to avoid being tagged as unfit (or heretic), reporters are motivated to embrace religious considerations. These considerations fit well with their belief system and enable them to affirm their dominant identity and belonging to Haredi Judaism, as well as ensuring the legitimacy of their work. Given these motivations, the journalists develop this perspective to underscore the reasoning for protecting the public from what they see as heretic axioms and the underlying premises of science.

Given the piety and totality of the Haredi way of life, as discussed in literature reviews, the existence of the religious facet as a separate category came as a surprise. Specifically, when comparing our findings with previous research on Haredi journalists, communal considerations were found to trump professional ones (Golan and Mishol-Shauli 2018; Lavie et al. 2023; Shomron 2022). Furthermore, it could be assumed that religion would act as an underpinning axis to guide all considerations. Nevertheless, the findings indicated the separation of facets in the epistemic considerations of science-related journalists. We posit that this finding coincides with Gottlieb and Wineburg's (2011) observations, identifying epistemic code-switching among religious historians amid tensions between religion and science (historical, theological, scientific) (in the Haredi case, see also Golan and Fehl 2020). Accordingly, in the case at hand, Haredi journalists shift between multiple frameworks to fit contingent situations and rotate between one set of assumptions and another, which manifests in the identified facets.

While Haredi journalists applied epistemic code switching to accommodate separate ethical facets, two facets were not identified: critique and justice. The facets that were not evident in the journalists' reasoning are in line with the mindset of religious minorities identified in previous research (Chan 2018; Mishol-Shauli and Golan 2022). The absence of critique can be attributed to the Haredi communities' emphasis on reverence towards their spiritual leaders (Brown 2017). The absence of the facet of justice can be interpreted as being drawn from the structural properties of Haredi society that highlight enclave isolationism. This isolationism is depicted by scholars and supported by interviewees' accounts regarding journalists' calls for particular distinctions in various life aspects, including their moral epistemology. Parts of this epistemic stance may be guided by universal principles but are overridden by other considerations (communal, religious, segregational politics) or presented by the journalists themselves as stemming from specific Haredi and Jewish values (Marsden 2022; Marty and Appleby 1991; Sivan 1995).

Through the religious facet, and given the growing significance of webmasters and religious journalists as power brokers in the community (Golan and Martini 2022), we can see Haredi journalists develop their role as secondary spiritual leaders. In this leadership capacity, journalists demonstrate agency as knowledge owners and leaders that navigate their flock through different sets of traditional, religious, and scientific knowledge. Paradoxically, the marginal status of scientific knowledge in Haredi newspapers allows journalists

to embark on a creative journey of considering and negotiating balances between these different sets of knowledge and defining what they view as fitting parameters for readers' epistemology.

While recent scholars contest the epistemic foundation of the conflict between science and religion (Harrison 2020; Rock-Singer 2019), Haredi journalists identify their readership's view of this conflict as based on such a distinct dichotomy. When discussing their personal views, some subjects expressed this dichotomy of 'science versus religion', trumping religion over science (cf. Fordahl 2017). In contrast, other interviewees evinced their epistemic switching practice, which allows the co-existence of both epistemologies (cf. Gottlieb and Wineburg 2011). However, they view their imagined readership as wary of science and their media outlets to be too shallow for educational purposes. Therefore, in their reporting, Haredi journalists conform to their imagined readership and implement the religion over science approach. To wit, they refrain from discussing scientific knowledge that the general Haredi public considers antithetical to Judaism. When reporting scientific knowledge that the majority of Haredim deem acceptable, they incorporate religious idioms and prefer to interview Jewish-religious scientists, so as to highlight its legitimacy and avoid communal backlash.

While journalists refrain from reporting contested issues, they express acute curiosity to science and see themselves as morally able to learn (and vet) scientific knowledge. Journalists' perspectives in this regard demonstrate the "third person effect", in which community members justify their use of information technologies on an individual level. This is to say, users identify themselves as carrying distinct epistemic properties that safeguard them against sinful and transgressive information that may harm the community at large (see Lev-On and Neriya Ben-Shahar 2012).

Engaging Haredi journalists, we identified tensions that are innately embedded into their role objectives as science journalists belonging and catering to an ultra-orthodox community. Accordingly, when employing Eyal and Berkovich's ethical perspectives instrument, tensions manifest between the professional and communal ethical facets. Despite their inclination and deep curiosity towards science, they are driven to report mainly on its pragmatic perspectives, which relate to medical care (most salient during the pandemic), and other aspects of public concern. Another tension contrasts reporters' yearning for generating popularity and maintaining ethics. As journalists aim to maximize their readership, their ethical codes require curtailing its volume in favor of upholding communal, religious, or truth-telling values. While tabloids may allow more leeway for excessive, sensational, vulgar, or "melodramatic" texts (Fiske 2010), Haredi journalists aim to curb their publications, not necessarily for their highbrow value, but to adhere to their aforementioned ethical considerations. Accordingly, the introduction of scientific information is brought forth with their interpretation of the professional, communal, care, and religious ideals accounted for.

While the study at hand sheds light on the ethical considerations of Haredi reporters on what religious publics often view as ambivalent knowledge, future research can explore the ways that other socialization agents take part in integrating and legitimizing science, and other forms of modern or risk-laden knowledge (non-religious content including history, sports, and leisure-oriented information). Such research may investigate other media, such as popular literature, feature films, extracurricular learning, digital games, or social media. Finally, research on journalists (or other professions) in different religious communities (including that of diasporic Haredi communities in New York, London, Brussels and beyond) could uncover the diverse variance of ethical considerations that could enrich our perspective towards a more encompassing theory of ethical considerations that goes beyond existing ethical instruments and takes into greater account religious affiliation and imagined clients.

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