Female journalists under attack? Explaining gender differences in reactions to audiences' attacks

Stahel, Lea ; Schön, Constantin

Abstract: The literature on public figures attacked by their audiences is unclear why female and male figures react differently to attacks. This study examines why female journalists are more likely than male journalists to use avoidance strategies as a reaction to online attacks. Avoidance includes limiting audience engagement, adapting reporting behavior, and thinking about quitting journalism. Drawing on social role theory and gender stereotypes, this study contrasts two explanatory hypotheses. The results, based on mediation analyses of online survey data of 637 journalists representative of Switzerland, show that women are more likely than men to use avoidance strategies because women are more stressed by attacks. This heightened stress is argued to result from differences in gender role socialization. In contrast, while women are somewhat more severely attacked than men, this cannot explain their greater probability of avoidance. Results contribute a theoretically and empirically rich explanation of gendered reactions to attacks.

Female journalists under attack?

Explaining gender differences in reactions to audiences' attacks

Lea Stahel

University of Zurich

Department of Sociology

Andreasstrasse 15

8050 Zurich, Switzerland

Tel: +41 44 635 23 17

stahel@soziologie.uzh.ch

Constantin Schoen

University of Zurich

Department of Sociology

Andreasstrasse 15

8050 Zurich, Switzerland

Tel: +41 44 635 23 16

schoen@soziologie.uzh.ch

Abstract

The literature on public figures attacked by their audiences is unclear why female and male figures react differently to attacks. This study examines why female journalists are more likely than male journalists to use avoidance strategies as a reaction to online attacks. Avoidance includes limiting audience engagement, adapting reporting behavior, and thinking about quitting journalism. Drawing on social role theory and gender stereotypes, this study contrasts two explanatory hypotheses. The results, based on mediation analyses of online survey data of 637 journalists representative of Switzerland, show that women are more likely than men to use avoidance strategies because women are more stressed by attacks. This heightened stress is argued to result from differences in gender role socialization. In contrast, while women are somewhat more severely attacked than men, this cannot explain their greater probability of avoidance. Results contribute a theoretically and empirically rich explanation of gendered reactions to attacks.

Introduction

In today's media-permeated societies, public figures are regularly harassed by their audiences, but not all of them seem to be equally impacted. Generally, public figures such as politicians, celebrities, popular academics, and journalists have become highly exposed and accessible. This has made them easy targets for shaming, defamation, and trolling (Barlow and Awan, 2016; Johnen et al., 2018; Preuss et al., 2017; Shin et al., 2017). Some of them regularly receive large amounts of vulgar, pathologizing, inappropriately generalizing, disparaging, offensive, and threatening feedback against either them or their work (called attacks in the following). They are attacked through letters, face-to-face, and these days overwhelmingly online, such as on social networking sites, in emails, and in comment sections. The existing anecdotal evidence on attacked public figures emphasizes the negative impact of such attacks on the targeted individuals and on society at large (e.g. Astor, 2018; Barlow and Awan, 2016; Eckert, 2018). Most of this evidence, though, is limited to attacked women. For example, among journalists, it is predominantly female journalists who report avoiding attacks by closing their social media accounts or stopping writing for the public, and, thus, self-selecting out of the public sphere (Adams, 2018; Chen et al., 2018; Friedersdorf, 2014; Sletvold Øistad, 2015). Similar accounts by men are rare. Combined with other evidence showing that online harassment generally affects women more strongly than men (Kenski et al., 2017; Pew Research Center, 2014), this suggests that female public figures might be more likely than male public figures to use avoidance strategies as responses to attacks. However, the existing literature on attacks against public figures and journalists specifically (e.g. Barlow and Awan, 2016; Johnen et al., 2018; Preuss et al., 2017; Shin et al., 2017) to our best knowledge includes no systematic research on whether women are indeed more likely than men to react to attacks with avoidance. Furthermore, the literature neither argues theoretically nor shows empirically how such gender differences among public figures could be explained. Filling these research gaps is, though, both important and timely. New research may theoretically clarify and differentiate the thus-far inconclusive gendered dimension of attacks on public figures. Also, knowledge about any gendered avoidance may clarify long-term consequences, such as any reduction in the diversity of people and perspectives in the public sphere (Adams, 2018; Craft et al.,

2016; Nielsen, 2014).

Thus, the present study examines why female journalists might show different avoidance behavior from male journalists as a reaction to attacks. We use the literature on coping (e.g. Chen et al., 2018; Fox and Tang, 2017; Leets, 2002) to examine journalists' responses to attacks. We focus on three forms of avoidance: limiting engagement with one's audience, adapting one's reporting behavior, and considering quitting journalism. To explain the gendered aspect of avoidance behavior, we draw on social role theory and gender stereotypes (Eagly and Wood, 2011; Prentice and Carranza, 2002). This theoretical framework is particularly suitable because it contrasts two possible explanations for gendered behavior. The first is sanction severity (Eagly and Wood, 2011; Prentice and Carranza, 2002; Rudman et al., 2012; Wenzel, 2004), which allows a focus on the severity of attacks. It argues that female journalists are more likely to apply avoidance strategies than males because they are more severely attacked. This explanation is suggested implicitly or explicitly in many anecdotal sources on the topic (e.g. Chen et al., 2018; Ferrier and Garud-Patkar, 2018; Friedersdorf, 2014; Tofalvy, 2017). The second reason is the internalization of gender roles (Dedovic et al., 2009; Matud, 2004), which allows a focus on the stress experienced following attacks. It argues that female journalists are more likely to apply avoidance strategies than males because they are more stressed by attacks generally. We analyze online survey data of 637 journalists representative of Switzerland in a multivariate mediation approach. Our results contribute a theoretically driven and empirically validated explanation for public figures' gendered reactions to attacks to the literature on attacks against public figures.

Research on coping and on gender differences in behaviors

This theoretical section first introduces literature on coping with attacks. It then presents the theory and reasons for gender differences in behavior—sanction severity and stress resulting from internalization of gender roles—and how both may lead to avoidance. This theoretical framework justifies our focus on avoidance as a coping strategy and explains gendered avoidance behavior among journalists.

Coping with attacks

Individuals cope with attacks in a variety of ways. When individuals are confronted with

attacks and hate speech, whether offline or online, they cope with it by adapting their atti-
tudes and their behaviors (e.g. Leets, 2002). For example, employees in organizations may
choose to confront, seek advocacy, ask others for help, avoid, and deny (Knapp et al., 1997).
Similar strategies have been observed within online communities, for example, as a reaction
to being trolled in online fora and harassed in online games (e.g. Fox and Tang, 2017).
While most studies on this topic focus on coping as a response to attacks that occur
within individuals' immediate environments, such as by work colleagues or by fellow
online gamers, this study focuses on attacks from outside. In the case of public figures,
these are predominantly from members of their audience. Nowadays, celebrities are
openly shamed by their fans (Johnen et al., 2018), politicians are discredited by rumors
spread online (Shin et al., 2017), academics are trolled (Barlow and Awan, 2016), and
journalists are threatened in comment sections of online news (Preuss et al., 2017).
Generally, very little is known about how public figures cope with such attacks. One
exception is that of journalists. A few qualitative and descriptive studies have investi-
gated how mainly female journalists cope with online abuse and harassment from their
listeners, readers, and viewers (Adams, 2018; Chen et al., 2018; Nilsson and Örnebring,
2016; Preuss et al., 2017). For example, they seek distraction and psychological support,
take legal action, and show avoidance behavior. Whether and why female journalists
might cope with attacks differently from male journalists is, to our best knowledge,
unclear. However, this can be informed by literature on gender differences in behavior,
which we present in the following section.

Why women and men at times behave differently

What causes gender differences in behavior is a profound question in many research
disciplines. For sociologists, any differences reflect the positions that men and women
occupy in broader social hierarchies. Building on this perspective, social role theory
(Eagly and Wood, 2011) states that differences in behavior between women and men
reflect gender role beliefs. Gender role beliefs are stereotypes about the social roles of
men and women and their associated behaviors and attributes (Eagly and Wood, 2011;
Prentice and Carranza, 2002). Although significant individual differences exist, women
and men tend to behave according to their social roles, which are distributed differently
between women, more often caregivers at home, and men, more often in authority posi-

tions. People tend to infer innate and stable attributes of the sexes from these behaviors (Eagly and Wood, 2011). Most of these socially shared beliefs can be categorized in two dimensions: agentic and communal. Men are often perceived to behave in a predominantly agentic way, characterized by being assertive, competitive, and forceful (Eagly, 1987). In contrast, women are rather perceived in a predominantly communal way, characterized by being warm, interpersonally sensitive, and emotionally expressive (Eagly, 1987; Matud, 2004). These gender stereotypes remain quite stable even today (Eagly et al., 2019). Such gender role beliefs can motivate women and men to behave differently through two psychological processes, which are discussed below.

Sanction severity. The first mechanism behind gendered behavior is the influence of sanction severity. Generally, negative sanctions motivate people to conform (Tittle and Logan, 1973). Accordingly, "sanctions on undesired behavior deter people from performing undesired behavior and encourage desired behavior simply because such a sanction makes the undesired behavior less attractive" (Mulder et al., 2009: 255). Imposing more severe sanctions is commonly expected to increase people's compliance and to motivate them, for example, to avoid undesired behavior even more (Garoupa, 2001; Tittle and Logan, 1973; Wenzel, 2004).

The sanctioning of women for violating status expectations is particularly relevant, in our opinion, to gender in journalism. Commonly, men and women are expected to behave in accordance with dominant beliefs about gender roles (Berger et al., 1980; Webster et al., 2018). Women are prescribed to show "feminine" behavior but proscribed from showing "masculine" behavior, such as agency (Prentice and Carranza, 2002). When individuals do not conform to gender roles, they may be negatively sanctioned, for example, by being devalued (Eagly and Wood, 2011). To avoid negative sanctions and their corresponding costs, people tend to conform to gender roles—even today, despite gender role changes in recent centuries (Eagly et al., 2019). In particular, women in high-status positions are regularly socially sanctioned because they violate status expectations. The authors of the status incongruity hypothesis, Rudman et al. (2012), state and empirically show that gender roles are aligned with perceived status: agentic roles are aligned with high status and family roles with low status. Correspondingly, due to their gender, women tend to be ascribed a low status and men a high one (Eagly and Wood,

2011). When women exhibit "masculine" traits, for example, by possessing or pursuing power, they tend to be perceived as status incongruent by some sections of society. These women undermine the presumed gender differences, and "discredit the system in which men have more access to power and resources for ostensibly legitimate reasons" (Rudman et al., 2012: 166). Therefore, while men and women in powerful positions can both be sanctioned for a variety of general and gender-independent issues, such as their opinions, the women are additionally particularly severely sanctioned for threatening gender hierarchy. This will lead women to be more likely than men to avoid positions of power by attenuating their status (Rudman et al., 2012).

Experienced stress resulting from gender role socialization.

The second mechanism behind gendered behavior is a difference in stress that women and men feel as a result of their gender role socialization. Generally, people feel stressed if they perceive a discrepancy between environmental demands and biological, psychological, and social resources (Lazarus and Folkman, 1984). To buffer the resulting worries and tension, they adapt their attitudes and behaviors (e.g. Leets, 2002). If people apply emotion-focused adaptations, they avoid the threat that reduces stress and anxiety (Roth and Cohen, 1986). People tend to avoid situations that seem uncontrollable and feel as if they need to be endured (Lazarus and Folkman, 1984). One example is receiving hate speech, "often considered the rough edges of society that people are asked to tolerate in a free society" (Leets, 2002: 357). This contrasts with approaching, problem-focused adaptations applied in more controllable situations (Lazarus and Folkman, 1984).

Many empirical studies suggest that women are on average more stressed than men by significant events, such as births and deaths occurring in their own lives or their close social network; this is especially true of interpersonal events (Almeida and Kessler, 1998; Matud, 2004; Rudolph and Hammen, 1999). Women rate such events as more negative and less controllable than men do, even though the events experienced by women and men are similar in nature and number (Matud, 2004). This phenomenon has also been observed for attacking and harassing feedback: compared with men, women perceive a broader range of social–sexual behaviors to be forms of harassment (Rotundo et al., 2001), are more sensitive to uncivil online comments (Kenski et al., 2017), and are more upset by online attacks (Pew Research Center, 2014).

Existing studies provide "strong support" (Dedovic et al., 2009: 51) for the notion that this male–female variation in stress is in part explained by gender role socialization (Barnett, 1993). Early socialization and parental gender role models form boys' and girls' gender-typed self-concepts, which emphasize to each what is important to their sense of self and self-worth (Dedovic et al., 2009; Eagly and Wood, 2011). Accordingly, girls tend to value social and interdependent goals, while boys are more likely to value independence (Dedovic et al., 2009). In later stages, these self-concepts determine how women and men react to events. For example, Matud (2004) observes, "These types of [masculine] attributes would make it difficult for men to accept and express feelings of weakness, incompetence and fear [. . .]" (p. 1403). Consequently, women and men tend to be vulnerable to different types of event. Women are more likely to perceive interpersonal events as aggressive and negative, in correspondence with the feminine stereotype of being sensitive and emotionally expressive. Men tend to perceive the same events as less aggressive or ignore latently aggressive events, in correspondence with the masculine stereotype of being assertive and competent.

Applying the research on coping and on gender differences to journalists

Avoidance as a coping strategy for journalists

In contexts where journalists cope with attacks against them personally or against their colleagues, avoidance strategies are of specific concern. Among journalists, avoidance is a typical response to attacks (Adams, 2018; Chen et al., 2018; Nilsson and Örnebring, 2016; Preuss et al., 2017). This is unsurprising, as the negative verbal feedback that journalists receive, particularly online, may be hard to control and, thus, may predominantly feel as if it needs to be endured and tolerated (Lazarus and Folkman, 1984). Avoidance may also narrow the media landscape (Adams, 2018; Craft et al., 2016; Nielsen, 2014). Generally, in any occupation, systematic and large-scale avoiding behavior may narrow the diversity of social composition, perspectives, and thus outcomes. For journalists, those who avoid audiences may reduce the mutual shaping of news content; those who avoid topics may contribute to a less diverse coverage; and those quitting journalism exclude themselves from the public debate. This concern applies less to problem-focused strategies, such as discussing attacks with families, discussing attacks with attackers, and

visiting counseling services.

We investigate three central strategies journalists can use to avoid future attacks. First, journalists can limit their engagement with their audience, for example, by avoiding reading comments, moderating comments, and limiting their social media engagement. Journalists worldwide have mentioned this strategy in surveys and interviews, for example, among 440 female and male journalists surveyed in Germany (Preuss et al., 2017) and among journalists in other countries (Adams, 2018; Chen et al., 2018; Nilsson and Örnebring, 2016).

Second, journalists can adapt their reporting behavior. For example, they can change their reporting style and stop reporting about certain topics. This strategy was also often reported by journalists in various studies. For example, threatened journalists reported having avoided covering specific issues because of the risk of harassment (Nilsson and Örnebring, 2016) or self-censoring in form, style, and content (Adams, 2018). Similar behavior is reported in Chen et al. (2018) and Preuss et al. (2017).

The third strategy corresponds to the ultimate form of avoidance: considering quitting the journalistic profession. Although this strategy has also been mentioned by journalists, interviewed female journalists have reported seeing this as the last resort, not least because of the guilt associated with stopping serving as role models (Adams, 2018). In line with this, only 10% of journalists in a Swedish survey reported considering quitting journalism (Nilsson and Örnebring, 2016). Despite its expected relatively rare occurrence, this strategy is nevertheless particularly relevant: if groups of journalists, such as women, decide to withdraw from the media landscape, particular foci and perspectives may be systematically lost.

Why female journalists are more likely to apply avoidance strategies

Here, we use the proposed mechanisms of sanction severity and of stress resulting from gender role socialization as a basic framework to predict why female journalists are more likely than male journalists to apply avoidance strategies as a response to attacks.

Female journalists are more severely sanctioned. This mechanism proposes that female journalists are more likely to use avoidance strategies because females are more severely attacked than male journalists. We expect that journalists in general are more likely to apply avoidance strategies if they are more severely attacked. Research on the deterrent

effect of sanction severity (Garoupa, 2001; Wenzel, 2004) suggests that the more severely journalists are attacked, the more costly sanctions are for them and the more likely they are to comply and avoid attacks. We argue here that attacks are more severe if they are either sexual (i.e. target people based on their gender) or include threats of physical (non-sexual) and material violence. Sexual and threatening attacks are linked to one's stable gender identity or encroach on physical integrity. Studies examining hate speech messages have also categorized threat as severe but criticism as mild (Leets and Giles, 1997). However, the specific impact of severe sanctions on journalists is largely unknown. As an exception, one study showed that sexual attacks lead women to withdraw from online gaming, but general attacks do not (Fox and Tang, 2017).

We argue that female journalists are more severely attacked than male journalists because women in journalism can be perceived, at least by some sections of society, as violating their gender status. Drawing on the reasoning of sanction severity (Garoupa, 2001; Tittle and Logan, 1973; Wenzel, 2004), gender roles (Berger et al., 1980; Eagly and Wood, 2011) and the status incongruity hypothesis (Rudman et al., 2012), we expect journalists who do not conform to gender role expectations to be more likely to be severely attacked than those who do. Audience members form these expectations by contrasting the gender with the position. The position of a journalist is of relatively high status. The media system and its representative journalists are able to exercise power across many areas of society: as gatekeepers, journalists hold a degree of sovereignty over information, discursively frame social issues, influence agendas, legitimize representations of the social world, and decisively deny social prestige (Couldry, 2003). In addition, some share traits commonly attributed to high-status public figures: they lead public controversies, such as columnists, and are prominently exposed, such as media personalities. Consequently, the journalistic position is linked to power or pursuing power, but power as a masculine, high-status attribute is proscribed from female journalists (Rudman et al., 2012). Therefore, some people perceive female journalists as status incongruent, and thus nonconforming. Consequently, to uphold the "traditional" gender hierarchy, female journalists are more severely attacked than male journalists.

This theoretical reasoning addresses the narrative of female journalists being severely attacked and consequently withdrawing, as found in anecdotal publications. It is found in

mainstream media articles (e.g. Friedersdorf, 2014; Sletvold Øistad, 2015), non-representative reports (e.g. Tofalvy, 2017), and scholarly case studies with female-only samples (e.g. Chen et al., 2018; Ferrier and Garud-Patkar, 2018). Many of these publications frame these attacks as a power issue (Chemaly, 2014; Sletvold Øistad, 2015), which is in line with the reasoning on gender roles and stereotypes. Therefore, we derive the following hypotheses (see Figure 1 for illustration):

> *Hypothesis 1a: Female journalists are more likely than male journalists to apply avoidance strategies as a response to attacks, because they are more likely to be sexually attacked than male journalists.*

> *Hypothesis 1b: Female journalists are more likely than male journalists to apply avoidance strategies as a response to attacks, because they are more likely to be physically and materially threatened than male journalists.*

Female journalists are more stressed by attacks

This second mechanism proposes that female journalists are more likely to use avoidance strategies than male journalists because females generally are more stressed by attacks. This is explained by female journalists having internalized a predominantly interdependent self-concept, which makes them vulnerable to feeling stressed by interpersonal events.

Consistent with the theoretical reasoning on gender-typed self-concepts and the empirical evidence on gendered stress (Dedovic et al., 2009; Eagly and Wood, 2011; Kenski et al., 2017; Rudolph and Hammen, 1999), we expect that the gender difference in the response to attacks is a result of gender socialization. We assume that female journalists, just as women on average, are socialized into a self-concept that determines how attacks, here conceptualized as interpersonal events, are perceived and interpreted. Due to their gender, female journalists are here assumed to value interdependence on average more highly than males. Consequently, while the same attacks can be perceived as aggressive by both genders, female journalists interpret them, independently of their severity, as relatively more negative and harassing. This

makes female journalists more likely to be stressed by attacks, such as by being emotionally upset, frightened, and concerned about losing their professional distance and by feeling impaired professionally. This is supported by initial descriptive evidence suggesting that female journalists react more emotionally to aggressive comments from their audiences than do male journalists (Binns, 2017). The stronger stress motivates female journalists to apply avoidance strategies to reduce the stress and the adverse effects arising from it (Leets, 2002).

(Figure 1. Theoretical mediation model of journalists' avoidance as a response to attacks. About here.)

> *Hypothesis 2: Female journalists are more likely than male journalists to apply avoidance strategies as a response to attacks, because they experience more stress from attacks than male journalists.*

Data and method

This study uses data from an online survey of journalists in Switzerland conducted between July and October 2017. Some survey questions were inspired by similar surveys by Preuss et al. (2017) and Nilsson and Örnebring (2016). The authors of both those studies provided their survey questions to us on demand.

The population of this study includes freelancing and employed journalists of print and online media (including newspapers, magazines, and news agencies), television, and radio in the German-, French-, and Italian-speaking parts of Switzerland. The study excludes journalists who are retired and those working predominantly in advertising and public relations. The population of Swiss journalists in 2017 is estimated to be approximately 10,500 (or less). This is based on the most reliable estimation, by Dingerkus et al. (2018) for 2015. We used two contact channels to maximize the reach of the survey. First, the survey was sent via email in the three national languages to all 7877 journalists who are members of at least one of the four largest Swiss professional journalism associations. This is the most common approach for surveying journalists in Switzerland because journalists must be a member of at least one association to be officially registered. To increase response rates, the survey was also sent to all 6062 jour-

nalists registered in the Renteria Swiss journalist database. However, the two samples overlap considerably, so the second step was a reminder to the nonresponding association-registered journalists and an invitation to those who, for whatever reason, were not registered.

Eventually, 637 completed the questionnaire and were considered for the analyses. The corresponding response rate of 8% of all association-registered journalists is similar to previous, comparable online surveys of journalists, such as in Germany, ranging from 2 (Preuss et al., 2017) to 8% (Obermaier et al., 2018). We explicitly motivated journalists who had never been attacked to participate to minimize a nonresponse bias, because attacked journalists may more likely self-select into the survey. The journalists participated in an anonymous manner. The final sample can be considered representative for journalists in Switzerland (see Table I in the Supplementary Material for a socio-demographic comparison with an extensive study on journalists in Switzerland by Dingerkus et al. (2018)). This allows us to draw statistically meaningful conclusion for all journalists in Switzerland.

Measurements

Outcome variables. The three outcome variables represent the three strategies journalists used to avoid future attacks (last 24 months).

Limiting engagement with audience is treated as a continuous variable combining three items. Journalists were asked relatively how often they, as a reaction to attacks, (1) had avoided reading readers' comments to their publications, (2) had avoided contacting their audience by limiting social media activities or keeping their contact information hidden, and (3) had limited or closed the possibility of comments to their publications. Answers range from never (= 0), rarely (= 1), regularly (= 2) to (almost) always (= 3). The values the journalists ticked on each item were summed. Some 43% of all journalists have never limited their engagement with the audience, 45% had a value from 1 to 4, and 12% from 5 to 9.

Adapting reporting behavior is treated as a continuous variable combining two items. Journalists were asked relatively how often they had, as a reaction to attacks, (1) changed their presentation style or their formulations when they covered sensitive topics, persons, or groups, and (2) avoided covering such sensitive issues (last 24 months). Answers

range from never (= 0), rarely (= 1), regularly (= 2) to (almost) always (= 3). The values

the journalists ticked on each item were summed (values 5 and 6 were taken together due

to few observations). Some 54% had never changed their reporting behavior, 38%

reported a value from 1 to 2, and 7% from 3 to 5.

Considering quitting journalism is a binary variable. Journalists were asked how

strongly they, as a reaction to attacks, had considered quitting journalism due to attacks.

Some 17% had at least weakly thought about quitting (= 1).

Independent variable. Female gender is a dichotomous variable indicating whether jour-

nalists were female (= 1; 35%) or male (= 0). This variable is dichotomous, although in the

survey we offered a third option ("other") besides these two gender options. Because only

one person selected this third option, we were unable to treat gender as non-binary.

Mediators. Sexually attacked measures how often journalists were attacked on the basis

of their gender (e.g. sexist comment) as a proportion of all attacks on them. Answers

range from never (= 0), rarely (= 1), sometimes (= 2), frequently (= 3) to always (= 4).

Overall, 7% of the journalists had been sexually attacked at least rarely.

Physically–materially threatened measures how often journalists were threatened

with physical (non-sexual) violence or vandalism as a proportion of all attacks on them.

Answers range from never (= 0), rarely (= 1), sometimes (= 2), frequently (= 3) to always

(= 4). Overall, 11% had been physically–materially threatened at least rarely.

Stress due to gender socialization is a variable combining four items. Journalists were

asked how strongly attacks against themselves or their journalistic colleagues had affected

them personally: (1) being emotionally upset, (2) feeling frightened, (3) feeling impaired in

their journalistic work, and (4) fearing loss of distance and neutrality toward their work.

Answers range from not at all (= 0), weakly (= 1), a little (= 2), considerably (= 3), to

strongly (= 4). The values the journalists ticked on each item were summed. Some 10% had

not been emotionally stressed, 48% reported a value from 1 to 4, and 42% from 7 to 16.

Control variables. In addition, our study controls for variables that previous studies have

shown influence the attacks and the reactions to them (last 12 months).

Demographics. French- and Italian-speaking regions are dichotomous variables

measuring whether journalists belong to the francophone part or the Italian part of

Switzerland. The reference groups are journalists from the German-speaking part.

We measured the migration background of the journalists with two dichotomous variables. First, German-speaking migration background measures whether journalists or their parents or grandparents migrated from Germany or Austria. Second, non-German-speaking migration background measures whether journalists or their parents or grandparents migrated from any other country. The reference groups are those without migrant background.

University degree is a dichotomous variable indicating whether journalists have a doctorate or tertiary degree.

Age indicates journalists' age. It is divided by 10, to adapt to the scale of the other variables.

Professional information. Hard news indicates whether journalists regularly published on the topic of politics, crime/judiciary, economy/finance, and/or international issues. Soft news indicates whether journalists regularly published on the topic of social affairs/human interest, fashion/consumption/travel, culture/art, and/or entertainment. Local topics. Journalists reported whether they regularly published on local topics. Regular opinionated publications indicates whether journalists regularly published opinionated articles including journalistic columns, comments, or leading articles. Media reach of organization is an ordinal variable measuring the media reach (e.g. size of audience) of the organization the journalist primarily worked for. (Partial) managing role is a dichotomous variable indicating whether journalists held a leading position, such as chief editor or sectional chief. Frequency of publishing indicates how often journalists published journalistic content. Publicly accessible contact information indicates whether none, one, two, or all of the following personal data on journalists were publicly accessible: email address, private or office address, and mobile or office phone number. The study controls for media type, indicating for which media-type(s) journalists worked, including subscription newspapers, (professional or news) magazines, radio, television, online-only media, commuter/tabloid newspapers, and news agencies.

Aggression-associated information. Support consists of three items. It measures how supportive the journalists' surrounding is in case of attacks (Fox and Tang, 2017). Journalists were asked (1) how strongly their colleagues openly talk about attacks; whether

(2) their colleagues and (3) their editorial department supports journalists when dealing with attacks, for instance, with legal assistance.

Sense of belonging consists of two items. It measures how strongly the attacks against journalists or their colleagues have strengthened their sense of belonging to the journalistic community and have brought the community closer together.

Frequency of being attacked measures how often journalists or their journalistic contents were targeted by "offenses, threats, and aggressive, vulgar, pathologizing or generalizing statements that are inappropriately disparaging". Some 44% of journalists were never attacked, 51% once to 12 times per year, and 5% once a week or once daily. The great majority, 92%, of all attacked journalists were targeted at least once by digital channels (e.g. online platforms, text message, etc.). Treating this variable as a control rather than as a mediator is justified by systematic reports that show gender-equal frequencies of attacks (Döring and Mohseni, 2018; Nilsson and Örnebring, 2016; Preuss et al., 2017).

Anonymous attackers is a dichotomous variable. It measures whether journalists have been attacked by people of whom at least the majority were anonymous. If at least half of the attackers were not anonymous or if they had not been attacked at all, the variable is 0. We checked for the problem of multicollinearity. The highest correlation was between media type: magazines and frequency of publishing (-.44). For the descriptive statistics, see Table II in the Supplementary Material.

Mediation model.

To examine our hypotheses, we use a mediation analysis based on the steps in Zhao et al. (2010). The authors recommend a bootstrap test of the indirect effect and reporting the coefficients and the 95% confidence intervals of this test. To calculate the indirect effect, the following steps were taken: first, the hypothesized mediators (sexually attacked, physically–materially threatened, and stress) were regressed on the independent variable (female gender); and second, the outcome variables (limiting engagement with audience, adapting reporting behavior, and considering quitting journalism) were regressed on both the independent variable and the hypothesized mediators in one equation (see Figure 1 for the model). Then, the resulting coefficients of both steps were used to calculate the indirect effect. We used a bootstrap test with 5000 replications

to calculate the confidence intervals and to determine whether the indirect effect is significant, which is evidence of mediation (Table 1 shows the results). Furthermore, we report the unstandardized regression coefficients of the two regression steps in Figure 2 to allow a more detailed interpretation of the results. Tables III and IV in the Supplementary Material show the results of the regression steps in detail. We used a multiple imputation method to deal with questions some journalists had not answered (on average less than 7% observations of a variable were missing).

For the first regression step, we treated the mediator variables as quasi-metric and applied standard ordinary least square (OLS) regressions. This has the advantage that the resulting coefficients can be compared. Alternatively, it is reasonable to treat the first two mediators (sexually attacked and physically–materially threatened) as binary variables and calculate logit models, because they contain many zero values. We did this in separate models and provide the results in the Supplementary Material (see Tables V and VI). Across all models, the main results remain robust.

For the second regression step, we applied OLS regressions for the first two outcome variables limiting engagement with audience and adapting reporting behavior. For the third (binary) outcome variable, considering quitting journalism, we applied a logit regression model.

Results

Overall, our results do not support the hypotheses on sanction severity but fully support the hypothesis on stress by gender socialization: as shown in Table 1, the coefficients of the indirect effect of sexually attacked and physically–materially threatened are not significant, while the indirect effect of the stress mediation is significant for all three outcomes. For the coefficients of the regression steps, see Figure 2 (and, for more details, see Tables III and IV in the Supplementary Material).

Sexually attacked

The first regression step in calculating the indirect effect shows that women are more likely to be sexually attacked. The coefficient of gender in the sexually attacked regression is significant. Nevertheless, there is no overall mediation effect for being sexually

attacked, because the mean indirect effect from the bootstrap analysis is not significant

for any of the outcome variables (accordingly, the 95% confidence interval includes zero

in all three outcome variables). Therefore, being sexually attacked does not mediate gen-

der differences in avoiding strategies. Thus, Hypotheses 1a is rejected.

Physically–materially threatened

In the first regression step, the gender coefficient is not significant, indicating that there is

no difference between men and women in the likelihood of being physically–materially

threatened. Furthermore, the mean indirect effect from the bootstrap analysis for being

physically–materially threatened is not significant for any of the three outcomes, because

the confidence intervals include zero in all three outcome variables. Thus, Hypothesis 1b

is rejected.

Stress due to gender socialization

For stress, the mean indirect effect of the bootstrap analysis is positive and significant, with

a 95% confidence interval excluding zero for all three outcomes: limiting engagement

with audience, adapting reporting behavior, and considering quitting journalism. Thus,

Table 1. Indirect effects of gender on outcome variables from the bootstrap analysis (replications = 5000)

	Limiting engagement with audience			Adapting reporting behavior			Considering quitting journalism		
	Coef.	Lower limit 95% CI	Upper limit 95% CI	Coef.	Lower limit 95% CI	Upper limit 95% CI	Coef.	Lower limit 95% CI	Upper limit 95% CI
Indirect effect of sexually attacked	0.114	-0.011	0.239	-0.008	-0.066	0.049	0.135	-0.033	0.304
Indirect effect of physically-materially threatened	0.008	-0.020	0.036	0.013	-0.002	0.029	0.027	-0.023	0.076
Indirect effect of stress due to gender socialization	0.311	0.174	0.449	0.245	0.144	0.346	0.558	0.316	0.799
Total indirect effect	0.433	0.240	0.626	0.250	0.135	0.365	0.720	0.422	1.017
Total effect	0.705	0.383	1.027	0.333	0.141	0.525	0.320	-0.263	0.904
No. of obs.	637			637			637		

Hypothesis 2 is supported. In the indirect path, being a woman (gender = 1) significantly increases stress, by 1.68 units. The coefficients for the three outcome variables regressed on stress are positive. Therefore, holding gender constant, stress increases the likelihood of using avoidance strategies in all three cases.

The size of the indirect effect that is mediated by stress relative to the total effect for limiting engagement with audience is 0.31/0.705 = 0.443; for adapting reporting behavior 0.736; and for considering quitting journalism 1.740. The size of the indirect effect for the last outcome is greater than one, which is not unusual (Buis, 2010) and explained by a negative direct effect of gender on considering quitting journalism.

Gender

The direct effect of gender on all three outcomes is not significant when mediators are included. Therefore, we have an indirect-only mediation (Zhao et al., 2010), meaning that gender affects the outcomes only via the indirect path through stress. According to Zhao et al. (2010), these results suggest that our mediator model is consistent with the hypothesized theoretical framework and that omitted mediators are unlikely.

(Figure 2. Regression results of the mediation. About here)

Discussion

In today's media-permeated societies, many public figures such as journalists are regularly harassed, particularly online. However, they are not all impacted equally. This study examined why female journalists are more likely than male journalists to respond to such attacks with avoidance strategies. Analysis of online survey data of 637 journalists representative of Switzerland by a multivariate mediation approach showed that, as a reaction to attacks against themselves or their colleagues, women are more likely than men to avoid attacks by limiting their engagement with audiences, adapting their reporting behavior, and considering quitting journalism. The mediation results explain this gendered avoidance by a gender difference in feeling stressed from attacks. However, the alternative, the severity of attacks, has no mediating effect.

These results contribute to the existing literature on attacks against public figures and journalists (Barlow and Awan, 2016; Johnen et al., 2018; Preuss et al., 2017; Shin et al.,

2017), which is largely anecdotal and limited to women. Our results enrich this literature by a theoretically driven and quantitative comparison of the prevalence rate of three avoidance strategies for both genders and two contrasting explanations of gendered avoidance. Overall, our results suggest that gender differences in stress responses rather than in the severity of attacks are primarily responsible for the greater prevalence of avoidance among female journalists. Gender role socialization may be at play here: as women, female journalists have more likely internalized an interdependent self-concept that leads them to be more sensitive to interpersonal events such as attacks and therefore are more likely to feel stressed (Eagly, 1987; Matud, 2004). The stress-avoidance link among journalists shown here thus supports the theories on stress leading to avoidance (Lazarus and Folkman, 1984; Roth and Cohen, 1986) and on gendered stress due to gender socialization (Barnett, 1993; Dedovic et al., 2009; Matud, 2004). Our theoretical framework may also help to explain empirical, but not yet theoretically embedded, findings of female journalists and women generally seeming more upset by online harassment than their male equivalents (Binns, 2017; Kenski et al., 2017; Pew Research Center, 2014). These findings suggest that changing the impact of attacks is a long-term, societal task of addressing gender socialization that goes beyond narrower strategies such as moderating harassing online comments.

The absence of any mediation effect of sanction severity on gendered avoidance disconfirms the anecdotal evidence and the sanctioning theory suggesting such an effect. The significantly higher prevalence of sexual attacks targeting female journalists than male ones confirms existing reports of women being more likely to be sexually attacked than men (e.g. Pew Research Center, 2014). However, the gender-equal prevalence of being physically–materially threatened rather contradicts the image of women as the main target of particularly severe attacks (e.g. Chen et al., 2018; Ferrier and Garud-Patkar, 2018; Friedersdorf, 2014; Tofalvy, 2017) and specifically of women in journalism being particularly severely sanctioned for any perceived status incongruency (Eagly and Wood, 2011; Rudman et al., 2012). More importantly, however, female journalists are not more likely than males to apply avoidance strategies because they are more likely to be sexually attacked or physically–materially threatened. This initially disconfirms any theoretical stronger deterrent effect of more severe sanctions (Garoupa, 2001; Tittle

and Logan, 1973; Wenzel, 2004). It also contrasts with initial empirical evidence of sexist, compared to general, attacks being more likely to affect women (Fox and Tang, 2017). Consequently, severe attacks seem a relatively ineffective tool for bullying female journalists out of the public sphere. Conversely, it could be argued that the severity of attacks affects the experience of stress, which, in turn, affects behavior. For example, sexual attacks could be more stressful for women than men and thus increase women's likelihood of adopting avoidance strategies. Separate models (results not shown here) can rule out this alternative: being sexually attacked was not a significant predictor of stress when gender was included.

The study also has practical implications. Overall, gendered avoidance in journalism may promote a gender-stratified public sphere and influence the media landscape, for example, by less mutual shaping of news content, reduced diversity of contents, and a narrowed range of stories (Adams, 2018; Craft et al., 2016; Nielsen, 2014). The unequal gender reactions to attacks can systematically disadvantage women. For example, female journalists may refrain from exposing themselves on social media and thus benefit less from audience contact, activities that are often considered pivotal to the journalistic profession. Furthermore, female journalists are at a higher risk of leaving the public sphere to avoid stress. Therefore, the original idea of involving the audience in news production, aimed at strengthening democratic structures and weakening exclusive gatekeeping ones (Nielsen, 2014), might boomerang; it may promote inequality within the journalistic profession. However, and counterintuitively, attacks could lead to positive effects as well. Journalists have selectively reported that attacks motivated them to consider more diverse perspectives and thus report in a more balanced way (Chen et al., 2018). These implications suggest that gendered experiences and behaviors following attacks may influence the public sphere, although in currently still unpredictable ways.

This study has several limitations that serve as important avenues for future research. First, although the inclusion of diverse control variables and the theoretical foundation minimize confounding factors, the survey design does not allow causal inferences to be drawn. Our findings may be strengthened by explicitly measuring gender socialization (e.g. by the level of identification with gender roles) rather than assuming it. A second limitation is the inclusion of few cases for some variables, which limits reliability. This

is most likely the case for the sexually attacked mediator, because only 43 individuals (13% of all attacked people) experienced sexual attacks. Third, within our dataset, we were not able to find moderators, such as social support, that can mitigate the impact of gender on avoidance strategies. We encourage future research to seek and test such moderators to counteract a narrowing public sphere. Fourth, it is open to future research whether the results can be applied to journalist populations in countries other than Switzerland. The applicability of the results to other groups of public figures appears to be feasible, as the focus on women identified here for journalists has also been observed for other groups (e.g. Astor, 2018; Döring and Mohseni, 2018; Eckert, 2018).

Acknowledgements

References

Adams C (2018) "They Go for Gender First". Journalism Practice 12(7): 850–869.

Almeida DM and Kessler RC (1998) Everyday stressors and gender differences in daily distress. ournal of Personality and Social Psychology 75(3): 670–680.

Astor M (2018) For female candidates, harassment and threats come every day. The New York Times, 24 August. Available at: https://www.nytimes.com/2018/08/24/us/politics/women-harassment-elections.html

Barlow C and Awan I (2016) "You need to be sorted out with a knife": the attempted online silencing of women and people of Muslim faith within academia. Social Media + Society 2(4): 1–11.

Barnett RC (1993) Multiple roles, gender, and psychological distress. In: Goldberger L and Breznitz S (eds) Handbook of Stress: Theoretical and Clinical Aspects. 2nd ed. New York: Free Press, pp. 427–445.

Berger J, Rosenholtz SJ and Zelditch M Jr (1980) Status organizing processes. Annual Review of Sociology 6(1): 479–508.

Binns A (2017) Fair game? Journalists' experiences of online abuse. Journal of Applied Journalism & Media Studies 6(2): 183–206.

Buis ML (2010) Direct and indirect effects in a logit model. The Stata Journal: Promoting Communications on Statistics and Stata 10(1): 11–29.

Chemaly S (2014) There's no comparing male and female harassment online. Time, 9 September. Available at: https://time.com/3305466/male-female-harassment-online/

Chen GM, Pain P, Chen VY, et al. (2018) 'You really have to have a thick skin': a cross-cultural perspective on how online harassment influences female journalists. Journalism. Epub ahead of print 7 April. DOI: 10.1177/1464884918768500.

Couldry N (2003) Media meta-capital: extending the range of Bourdieu's field theory. Theory and Society 32(5): 653–677.

Craft S, Vos TP and Wolfgang DJ (2016) Reader comments as press criticism: implications for the journalistic field. Journalism 17(6): 677–693.

Dedovic K, Wadiwalla M, Engert V, et al. (2009) The role of sex and gender socialization in stress reactivity. Developmental Psychology 45(1): 45–55.

Dingerkus F, Dubied A, Keel G, et al. (2018) Journalists in Switzerland: structures and attitudes revisited. Studies in Communication Sciences 18(1): 117–129.

Döring N and Mohseni MR (2018) Male dominance and sexism on YouTube: results of three content analyses. Feminist Media Studies 19: 512–524.

Eagly AH (1987) Sex Differences in Social Behavior: A Social-Role Interpretation. Hillsdale, NJ; London: Lawrence Erlbaum Associates.

Eagly AH and Wood W (2011) Social role theory. In: Van Lange PA, Kruglanski AW and Higgins ET (eds) Handbook of Theories of Social Psychology, vol. 2. London: SAGE, pp. 458–476.

Eagly AH, Miller DI, Nater C, et al. (2019) Gender stereotypes have changed: a cross-temporal meta-analysis of U.S. public opinion polls from 1946 to 2018. American Psychologist. Epub ahead of print 18 July. DOI: 10.1037/amp0000494.

Eckert S (2018) Fighting for recognition: online abuse of women bloggers in Germany, Switzerland, the United Kingdom, and the United States. New Media & Society 20(4): 1282–1302.

Ferrier M and Garud-Patkar N (2018) Trollbusters: fighting online harassment of women journalists. In: Vickery JR and Everbach T (eds) Mediating Misogyny. Cham: Springer, pp. 311–332.

Fox J and Tang WY (2017) Women's experiences with general and sexual harassment in online video games: rumination, organizational responsiveness, withdrawal, and coping strategies. New Media & Society 19(8): 1290–1307.

Friedersdorf C (2014) When misogynist trolls make journalism miserable for women. The Atlantic, 7 January. Available at: https://www.theatlantic.com/politics/archive/2014/01/when-misogy-nist-trolls-make-journalism-miserable-for-women/282862/

Garoupa N (2001) Optimal magnitude and probability of fines. European Economic Review 45(9): 1765–1771.

Johnen M, Jungblut M and Ziegele M (2018) The digital outcry: what incites participation behavior in an online firestorm? New Media & Society 20(9): 3140–3160.

Kenski K, Coe K and Rains SA (2017) Perceptions of uncivil discourse online: an examination of types and predictors. Communication Research. Epub ahead of print 3 April. DOI: 10.1177/0093650217699933.

Knapp DE, Faley RH, Ekeberg SE, et al. (1997) Determinants of target responses to sexual harassment: a conceptual framework. Academy of Management Review 22(3): 687–729.

Lazarus RS and Folkman S (1984) Stress, Appraisal, and Coping. New York: Springer.

Leets L (2002) Experiencing hate speech: perceptions and responses to anti-Semitism and antigay speech. Journal of Social Issues 58(2): 341–361.

Leets L and Giles H (1997) Words as weapons—when do they wound? Investigations of harmful speech. Human Communication Research 24(2): 260–301.

Matud MP (2004) Gender differences in stress and coping styles. Personality and Individual Differences 37(7): 1401–1415.

Mulder LB, Verboon P and De Cremer D (2009) Sanctions and moral judgments: the moderating effect of sanction severity and trust in authorities. European Journal of Social Psychology 39(2): 255–269.

Nielsen CE (2014) Coproduction or cohabitation: are anonymous online comments on newspaper websites shaping news content? New Media & Society 16(3): 470–487.

Nilsson ML and Örnebring H (2016) Journalism under threat: intimidation and harassment of Swedish journalists. Journalism Practice 10(7): 880–890.

Obermaier M, Hofbauer M and Reinemann C (2018) Journalists as targets of hate speech. How German journalists perceive the consequences for themselves and how they cope with it. Studies in Communication and Media 7(4): 499–524.

Pew Research Center (2014) Online harassment. Report, Pew Research Center, Washington, DC, 22 October.

Prentice DA and Carranza E (2002) What women and men should be, shouldn't be, are allowed to be, and don't have to be: the contents of prescriptive gender stereotypes. Psychology of Women Quarterly 26(4): 269–281.

Preuss M, Tetzlaff F and Zick A (2017) Publizieren wird zur Mutprobe. Studie zur Wahrnehmung von und Erfahrungen mit Angriffen unter JournalistInnen [Publishing is becoming a test of courage: A study on perceptions and experiences concerning aggression among journalists]. Report, Mediendienst Integration, Berlin.

Roth S and Cohen LJ (1986) Approach, avoidance, and coping with stress. American Psychologist 41(7): 813–819.

Rotundo M, Nguyen D-H and Sackett PR (2001) A meta-analytic review of gender differences in perceptions of sexual harassment. Journal of Applied Psychology 86(5): 914–922.

Rudman LA, Moss-Racusin CA, Phelan JE, et al. (2012) Status incongruity and backlash effects: defending the gender hierarchy motivates prejudice against female leaders. Journal of Experimental Social Psychology 48(1): 165–179.

Rudolph KD and Hammen C (1999) Age and gender as determinants of stress exposure, generation, and reactions in youngsters: a transactional perspective. Child Development 70(3): 660–677.

Shin J, Jian L, Driscoll K, et al. (2017) Political rumoring on Twitter during the 2012 US presidential election: rumor diffusion and correction. New Media & Society 19(8): 1214–1235.

Sletvold Øistad B (2015) Young women twice as exposed to cyber bullying as men. ScienceNordic, 29 May. Available at: https://partner.sciencenorway.no/forskningno-gender-harassment/young-women-twice-as-exposed-to-cyber-bullying-as-men/1418553

Tittle CR and Logan CH (1973) Sanctions and deviance: evidence and remaining questions. Law & Society Review 7(3): 371–392.

Tofalvy T (2017) Online harassment of journalists in Hungary: forms, coping mechanisms and consequences for press freedom. Report, International Press Institute (IPI), Vienna, 7 March.

Webster JR, Adams GA, Maranto CL, et al. (2018) "Dirty" workplace politics and well-being: the role of gender. Psychology of Women Quarterly 42(3): 361–377.

Wenzel M (2004) The social side of sanctions: personal and social norms as moderators of deterrence. Law and Human Behavior 28(5): 547–567.

Zhao X, Lynch JG and Chen Q (2010) Reconsidering Baron and Kenny: myths and truths about mediation analysis. Journal of Consumer Research 37(2): 197–206.
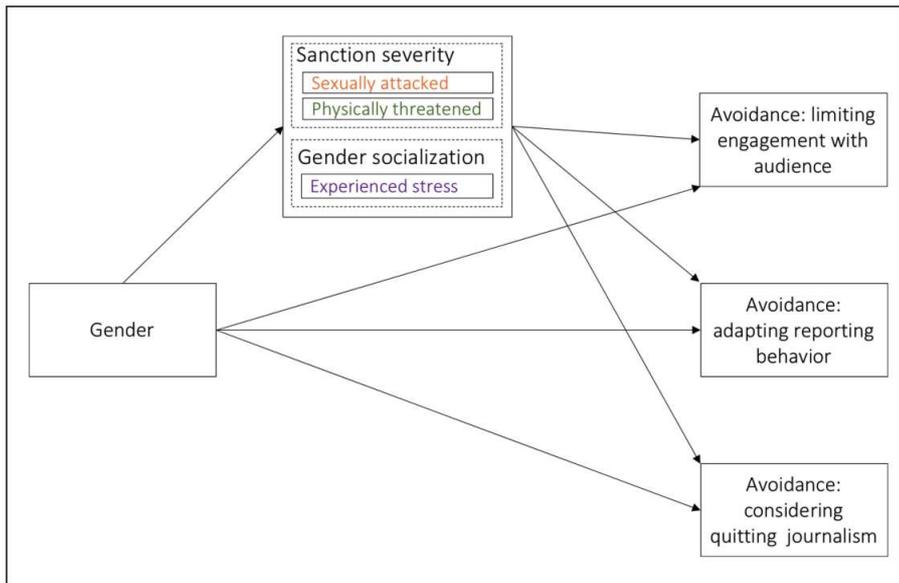
Figure 1. Theoretical mediation model of journalists' avoidance as a response to attacks.
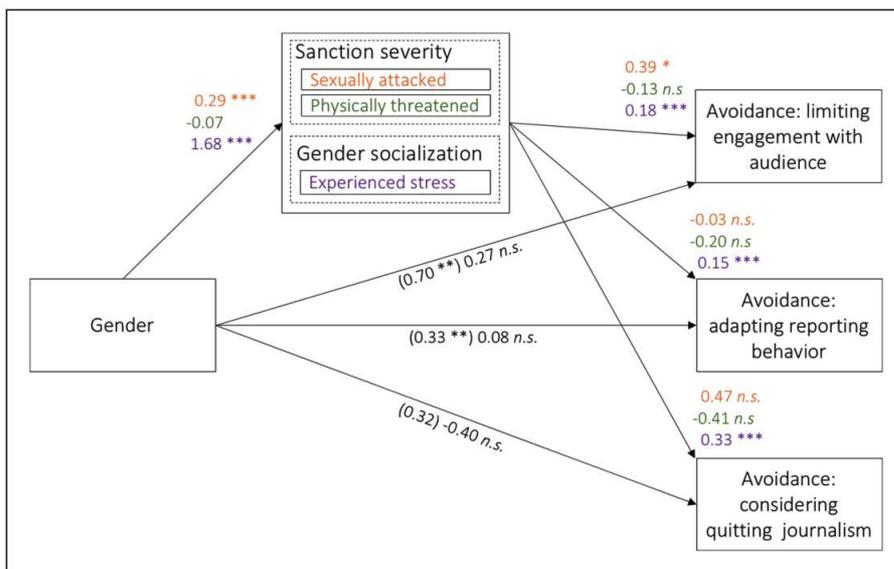
Figure 2. Regression results of the mediation.
The value in parentheses represents the coefficient for the unmediated (i.e. direct) path. The value thereafter represent the coefficients for gender on the outcome variable in the mediated path.

Supplementary Material

Table I. Comparison of socio-demographic information in surveys (%).

Authors		Dingerkus et al.	Stahel & Schoen
Year of survey		2015	2017
Estimated population (N)		10'500 (or less)	10'500 (or less)
Sample (N)		909	637
Region	German speaking	73	81
	French speaking	19	13
	Italian speaking	8	6
	Total %	100	100
Sex	Female	39	35
Age	Mean Age	42	46
Education	Compulsory	9	2
	Secondary	11	19
	Tertiary studies	66	74
	Doctorate	3	5
	Some university studies, no degree	10	**
	Total %	100	100
Media type*	Television	10	12
	Radio	18	13
	(Professional, news) magazine	9	33
	Press agency	3	6
	Online-only media	5	12
	Commuter/tabloid newspaper and subscription newspapers	43	49
	Online (of offline media title) and other media type mix (no main)	11.9	**
	Total %	100	(multiple response)
Employment	Freelance	8	10
Hierarchical role	(Partial) managing role (chief editor, sectional chief etc.)	27	33
	Other (Trainee or Editor)	73	65
	Total %	100	100

*The comparability of these values is limited due to differing data collection (exclusive vs. non-exclusive categories)

** Data not collected in the survey.

Note: Slight differences may be ascribed to structural transformations in the media landscape within the last few years.

Table II. Descriptive Statistics.

Variable	Mean	Std. Dev.	Min	Max
Avoidance 1: Limiting engagement with audience	1.69	2.10	0	9
Avoidance 2: Adapting reporting behavior	0.80	1.07	0	5
Avoidance 3: Considering quitting journalism	0.17	0.37	0	1
Sexually attacked	0.11	0.46	0	4
Physically-materially threatened	0.16	0.50	0	4
Stress due to gender socialization	4.68	3.80	0	16
Gender (1=female)	0.35	0.48	0	1
French-speaking region	0.13	0.34	0	1
Italian-speaking region	0.06	0.23	0	1
German-speaking migrant	0.11	0.31	0	1
Non-German-speaking migrant	0.14	0.35	0	1
University degree	0.79	0.41	0	1
Age/10	4.59	1.14	2.1	7.4
Hard news	0.66	0.47	0	1
Soft news	0.58	0.49	0	1
Local topics	0.48	0.50	0	1
Regular opinionated publications	0.51	0.50	0	1
Media reach of organization	3.30	1.44	1	6
(Partial) managing role	0.33	0.47	0	1
Frequency of publishing	5.64	1.67	1	8
Publicly accessible contact information	1.88	1.09	0	3
Media type: Subscription newspapers	0.45	0.50	0	1
Media type: Magazines	0.33	0.47	0	1
Media type: Radio	0.13	0.34	0	1
Media type: Television	0.12	0.32	0	1
Media type: Online-only media	0.12	0.32	0	1
Media type: Commuter/tabloid newspapers	0.07	0.25	0	1
Media type: News agencies	0.06	0.24	0	1
Support	7.67	2.94	0	12
Sense of belonging	3.53	2.42	0	8
Frequency of attacks	1.47	1.61	0	6
Anonymous attackers	0.13	0.33	0	1

Table III. Mediation variables regressed on gender (first step)

	Sexually attacked			Physically-materially threatened			Stress due to gender socialization		
	Coef.	SE		Coef.	SE		Coef.	SE	
Gender	0.29	0.04	***	-0.07	0.04		1.68	0.31	***
Control variables									
Demographics									
French-speaking region	0.12	0.05	*	-0.01	0.06		-0.89	0.43	*
Italian-speaking region	-0.08	0.08		0.03	0.08		-0.40	0.60	
German-speaking migrant	0.11	0.06	†	0.09	0.06		0.24	0.44	
Non-German-speaking migrant	0.07	0.05		0.03	0.06		0.19	0.41	
University degree	-0.02	0.04		-0.15	0.05	***	0.03	0.35	
Age (/10)	-0.04	0.02	*	-0.01	0.02		-0.07	0.14	
Professional information									
Hard news	-0.03	0.04		0.03	0.04		0.08	0.32	
Soft news	0.01	0.04		-0.01	0.04		0.02	0.28	
Local topics	-0.03	0.04		0.04	0.04		0.46	0.31	
Regular opinionated publications	0.10	0.04	*	0.00	0.04		0.14	0.33	
Media reach of organization	0.00	0.02		0.01	0.02		-0.22	0.12	†
(Partial) managing role	0.07	0.04	†	0.02	0.04		-0.79	0.30	**
Frequency of publishing	0.00	0.01		0.01	0.01		0.02	0.10	
Publicly accessible contact information	-0.01	0.02		-0.03	0.02	†	-0.20	0.14	
Media type: Working for …									
Subscription newspapers	-0.02	0.05		-0.01	0.05		-0.02	0.38	
Magazines	-0.04	0.05		-0.01	0.06		0.93	0.41	*
Radio	0.02	0.06		-0.16	0.06	**	0.74	0.45	
Television	0.10	0.06	†	0.06	0.06		0.66	0.47	
Online-only media	0.03	0.05		-0.08	0.06		0.46	0.42	
Commuter/tabloid newspapers	-0.04	0.08		0.18	0.08	*	0.65	0.61	
News agencies	0.04	0.08		-0.07	0.09		1.46	0.65	*
Aggression-associated information									
Support	0.01	0.01		-0.01	0.01	†	0.07	0.06	
Sense of belonging	0.00	0.01		0.08	0.01	***	0.25	0.07	***
Frequency of attacks	0.04	0.01	***	0.01	0.01		0.21	0.10	*
Anonymous attackers	0.15	0.06	**	0.22	0.06	***	-0.54	0.43	
Constant	0.00	0.15		0.24	0.16		2.88	1.19	*
No. of obs.		637			637			637	
F-Value		6.14	***		5.56	***		4.17	***

Legend: † p < .1, * p < .05, ** p < .01, *** p < .001

Table IV. Outcome variables regressed on gender and mediation variables (second step)

	Limiting engagement with audience			Adapting reporting behavior			Considering quitting journalism		
	Coef.	SE		Coef.	SE		Coef.	SE	
Sexually attacked	0.39	0.19	*	-0.03	0.10		0.47	0.25	†
Physically-materially threatened	-0.13	0.18		-0.20	0.09	*	-0.41	0.25	†
Stress due to gender socialization	0.18	0.03	***	0.15	0.01	***	0.33	0.04	***
Gender	0.27	0.21		0.08	0.10		-0.40	0.28	
Control variables									
Demographics									
French-speaking region	0.17	0.26		-0.13	0.13		0.08	0.36	
Italian-speaking region	-0.19	0.37		-0.04	0.18		-0.76	0.59	
German-speaking migrant	-0.41	0.27		-0.20	0.14		-1.05	0.46	*
Non-German-speaking migrant	-0.10	0.25		-0.16	0.13		-0.08	0.34	
University degree	0.37	0.21	†	0.13	0.11		-0.01	0.31	
Age (/10)	0.14	0.09		0.03	0.04		0.01	0.11	
Professional information									
Hard news	0.26	0.20		-0.20	0.10	*	0.11	0.26	
Soft news	-0.10	0.17		0.02	0.09		-0.38	0.24	
Local topics	-0.58	0.20	**	0.07	0.10		-0.28	0.27	
Regular opinionated publications	-0.18	0.21		-0.16	0.10		-0.11	0.28	
Media reach of organization	-0.09	0.08		-0.07	0.04	†	-0.25	0.10	*
(Partial) managing role	0.16	0.19		0.03	0.10		-0.08	0.27	
Frequency of publishing	0.02	0.06		0.01	0.03		-0.02	0.09	
Publicly accessible contact information	-0.39	0.08	***	-0.02	0.05		-0.25	0.11	*
Media type: Working for …									
Subscription newspapers	0.28	0.24		0.05	0.12		0.08	0.31	
Magazines	-0.02	0.25		0.13	0.13		0.04	0.33	
Radio	0.15	0.28		0.09	0.14		0.61	0.37	
Television	0.11	0.28		-0.16	0.14		-0.01	0.39	
Online-only media	-0.13	0.27		-0.05	0.13		-0.58	0.38	
Commuter/tabloid newspapers	0.81	0.38	*	0.20	0.19		1.23	0.49	*
News agencies	-0.25	0.45		-0.06	0.22		-0.23	0.59	
Aggression-associated information									
Support	-0.02	0.03		-0.01	0.02		-0.01	0.05	
Sense of belonging	0.01	0.04		0.00	0.02		-0.15	0.06	*
Frequency of attacks	0.20	0.06	**	0.01	0.03		0.09	0.09	
Anonymous attackers	0.47	0.27	†	-0.03	0.14		0.39	0.37	
Constant	0.58	0.75		0.36	0.38		-0.76	0.99	
No. of obs.	637			637			637		
F-Value	4.98		***	6.40		***	3.19		***

Legend: † p < .1, * p < .05, ** p < .01, *** p < .001

Table V. Mediation variables regressed on gender (first step) with sexually attacked and physically-materially threatened as binary variables

	Sexually attacked			Physically-materially threatened		
	Coef.	SE		Coef.	SE	
Gender	4.47	0.78	***	-0.60	0.38	
Control variables						
Demographics						
French-speaking region	0.93	0.59		-0.12	0.43	
Italian-speaking region	*no*	*obs*		-0.11	0.69	
German-speaking migrant	0.67	0.64		0.93	0.48	†
Non-German-speaking migrant	0.61	0.53		0.77	0.45	†
University degree	0.30	0.65		-1.30	0.36	***
Age (/10)	-0.23	0.24		-0.04	0.16	
Professional information						
Hard news	-0.11	0.51		0.49	0.42	
Soft news	-0.19	0.48		-0.16	0.34	
Local topics	-0.15	0.52		0.47	0.36	
Regular opinionated publications	0.29	0.52		0.23	0.39	
Media reach of organization	0.19	0.22		0.26	0.15	†
(Partial) managing role	1.27	0.54	*	0.11	0.35	
Frequency of publishing	0.02	0.17		0.14	0.13	
Publicly accessible contact information	-0.40	0.23	†	-0.27	0.15	†
Media type: Working for …						
Subscription newspapers	0.52	0.61		0.43	0.49	
Magazines	0.27	0.68		0.09	0.51	
Radio	0.40	0.75		-1.99	0.76	**
Television	0.54	0.70		0.46	0.54	
Online-only media	0.37	0.59		-0.85	0.57	
Commuter/tabloid newspapers	-0.59	1.04		0.03	0.64	
News agencies	-0.87	1.47		-1.84	1.23	
Aggression-associated information						
Support	0.20	0.10	†	-0.08	0.06	
Sense of belonging	0.01	0.11		-0.02	0.07	
Frequency of attacks	0.80	0.18	***	0.65	0.11	***
Anonymous attackers	1.05	0.59	†	0.82	0.37	*
Constant	-9.96	2.49	***	-3.92	1.44	**
No. of obs.		637			637	
F-Value		2.21	***		3.31	***

Legend: † p < .1, * p < .05, ** p < .01, *** p < .001

Table VI. Outcome variables regressed on gender and mediation variables (second step) with sexually attacked and physically-materially threatened as binary variables

	Limiting engagement with audience			Adapting reporting behavior			Considering quitting journalism		
	Coef.	SE		Coef.	SE		Coef.	SE	
Sexually attacked	0.74	0.36	*	0.04	0.18		0.82	0.47	†
Physically-materially threatened	-0.06	0.28		-0.20	0.14		-0.34	0.39	
Stress due to gender socialization	0.18	0.03	***	0.14	0.01	***	0.32	0.04	***
Gender	0.27	0.21		0.08	0.10		-0.39	0.28	
Control variables									
Demographics									
French-speaking region	0.18	0.26		-0.14	0.13		0.08	0.36	
Italian-speaking region	-0.18	0.37		-0.04	0.18		-0.79	0.59	
German-speaking migrant	-0.40	0.27		-0.21	0.14		-1.01	0.45	*
Non-German-speaking migrant	-0.11	0.25		-0.15	0.13		-0.06	0.34	
University degree	0.37	0.21	†	0.15	0.11		0.01	0.30	
Age (/10)	0.13	0.08		0.04	0.04		0.00	0.11	
Professional information									
Hard news	0.24	0.20		-0.20	0.10	*	0.08	0.26	
Soft news	-0.10	0.17		0.03	0.09		-0.36	0.24	
Local topics	-0.59	0.20	**	0.07	0.10		-0.29	0.27	
Regular opinionated publications	-0.17	0.20		-0.16	0.10		-0.06	0.27	
Media reach of organization	-0.09	0.08		-0.08	0.04	†	-0.26	0.10	*
(Partial) managing role	0.15	0.19		0.02	0.10		-0.11	0.27	
Frequency of publishing	0.02	0.06		0.01	0.03		-0.02	0.09	
Publicly accessible contact information	-0.38	0.08	***	-0.02	0.05		-0.24	0.11	*
Media type: Working for …									
Subscription newspapers	0.27	0.24		0.06	0.12		0.07	0.31	
Magazines	-0.02	0.25		0.14	0.13		0.04	0.33	
Radio	0.17	0.28		0.11	0.15		0.65	0.37	†
Television	0.11	0.28		-0.17	0.14		-0.01	0.39	
Online-only media	-0.13	0.27		-0.05	0.13		-0.57	0.38	
Commuter/tabloid newspapers	0.81	0.38	*	0.18	0.19		1.18	0.49	*
News agencies	-0.23	0.45		-0.05	0.22		-0.19	0.58	
Aggression-associated information									
Support	-0.02	0.03		-0.01	0.02		-0.01	0.05	
Sense of belonging	0.01	0.04		-0.01	0.02		-0.15	0.06	*
Frequency of attacks	0.19	0.06	**	0.01	0.03		0.08	0.09	
Anonymous attackers	0.46	0.26	†	-0.06	0.13		0.35	0.37	
Constant	0.60	0.75		0.33	0.38		-0.76	0.98	
No. of obs.	637			637			637		
F-Value	4.97		***	6.27		***	3.15		***

Legend: † p < .1, * p < .05, ** p < .01, *** p < .001