Support for Scholars Coping with Online Harassment: An Ecological Framework

This article contributes to understanding the phenomenon of online harassment of scholars with a focus on examining the effectiveness of support for coping with online harassment. We collected data from 182 participants of an online survey examining scholars' experiences with online harassment. Bronfenbrenner's ecological model was used to examine the relationship between coping and support. We found that scholars used numerous engagement and disengagement coping strategies, and that the effectiveness of support for such strategies varied across genders. These findings have implications for practice and research, especially as they relate to equity and safety for scholars operating in online spaces.

Keywords: online harassment; coping; support; ecological model; academia; scholars

Introduction

Online harassment is nothing new, nor is it particularly rare (Maeve Duggan 2017). It includes everything from innocuous trolling to the more disturbing and violent rape and death threats (Colleen Flaherty 2017). Depending on who the targeted individuals are – whether they are women, or racialized, or queer, for example – this harassment can more commonly become increasingly vitriolic and damaging (Amnesty 2018), with both immediate and long-term personal and professional effects (Emma Jane 2018; Frithjof Staude-Müller, Britta Hansen and Melanie Voss 2012; Jessica Vitak, Kalyani Chadha, Linda Steiner, and Zahra Ashktorab 2017). Scholars are not exempt from online harassment (Authors 2018b), as a growing number of media and research accounts have established (Danielle Citron 2014; Jane 2017; Wanda

Cassidy, Chantal Faucher and Margaret Jackson 2014). As one scholar indicated after facing harassment, the experience "is emotionally and psychologically consuming," and she notes that scholars are "paying a lot for this work that [they're] doing" (Christina Frangou 2019).

Given the potential pitfalls of making oneself visible online, understanding the limits of support for scholars coping with these vulnerabilities remains a vital topic of inquiry: if academics are expected to share their work in spaces of public scholarship, then doing so needs to be as safe and supported as possible. Extending our previous research into this issue, in which we examined the ways women scholars cope with online harassment, and how support operates for such victims, the purpose of this study was to determine what forms of coping are found to be most effective, where gaps in support occur, and how gender impacts these gaps (Authors 2018a; 2018b).

Review of Relevant Literature

Online harassment of scholars

In recent years, online harassment of scholars has attracted increasing attention, to the extent that some research fields, such as feminist (Vera-Grey 2017) and social media studies (Adrienne L. Massanari 2018), alongside factors like the gender, race, and ethnicity of scholars (Charlotte Barlow and Imran Awan 2016; Candi Carter Olson and Victoria LaPoe 2018; Tressie McMillan Cottom 2015), have been well established in the literature as targets for such violence. In the context of increasing political polarization, the rise of the far-right, anti-intellectualism, and anti-science attitudes in the Western context, particularly since the 2016 American presidential election (Eric Merkley 2020; Matthew Motta 2017), these risks have been further exacerbated, as many scholars have argued (Joshua A. Cuevas 2018; Hannah Yelin and Laura Clancy

2020). Massanari (2018, p. 6), for example, notes that today for scholars, "the far-right forces us to think more carefully about how we are public online." Despite these risks, many scholars face increasing pressures to make themselves visible online (Inger Mewburn and Pat Thomson 2013; Martin Weller 2011). In light of this bind faced by scholars, particularly given that public scholarship and refusal of what Carter Olsen and Lapoe (2018) call the "digital Spiral of Silence," is a route to disrupt oppression, effectively supporting scholars is of paramount importance.

In some places, institutions have begun to reckon with this problem, though doing so is by no means widespread. In a recent report, Ketchum (2020), surveyed every Canadian university's response to online harassment first through analysis of web content made available by media relations offices. They found that aside from one exception, there are no policies available online. However, in a follow-up study, they do note some institutions have begun to create safety protocols and workshops, though there is little research on how effective these are. More commonly, professional organizations have made policies or offered best practices for researchers, including the Association of Internet Researchers (2020), Science Media Centre (2019), with further suggestions provided by Jeff Cain, Eleni Linos and Katherine C. Chretien (2019) with respect to medical scholars online. The emphasis on the bulk of these practices are on individual behaviours, though they do all point to the need for institutions to develop policies. As our previous research makes clear though, individual methods for coping with online harassment are insufficient and improved support from institutions is needed (Authors 2018b).

Coping with online harassment

As coping is a central part of the experience of harassment, understanding it can

illuminate some of the effects of online harassment. Conventionally understood, coping is the work of self-protection from harm through the management of related stress (Daniel Girdano, Dorothey E. Dusek and George S. Everly 1990). Richard S. Lazarus and Susan Folkman (1984) describe coping as primarily either emotion-focused, or problem-focused, with the former focusing on behaviours for managing and avoiding stress, and the latter focusing on behaviours that intervene in the stressor itself, though this framework has since been complicated. For example, research on women coping with sexual harassment refined coping strategies in terms of avoidance, denial, negotiation, and support-seeking (Deborah Knapp, Robert Faley, Steven Ekeberg and Cathy Dubois 1997; S. Arzu Wasti and Lilia Cortina 2002). Potential harm also requires coping through prevention, which Ralf Schwarzer (2000) further divided into proactive, reactive, and preventive. Jennifer Scarduzio, Sarah E. Sheff, and Matthew Smith (2018) further extend coping as either active or passive emotion-focused, or problem-focused.

For our analysis, we were most interested in which types of coping are most effective, so that increased support can be prioritized. For example, in the context of cyberbullying, passive emotion-focused coping, while common, does not decrease future vulnerabilities (Trijintje Vollink, Catherine A.W. Bloman, Francine Dehu and Niels C.L. Jacobs 2013), and has poorer outcomes in terms of health complaints and depression. In contrast, problem-focused coping occurs when the terms of an interaction can be altered. Being able to affect outcomes has major ramifications for individuals, including better health outcomes. However, people who rely on emotion-focused coping experience significant negative emotions.

Another important way of framing coping is through engagement and disengagement (Ellen A. Skinner, Kathleen Edge, Jeffrey Altman and Haley Sherwood 2003). As Charles Carver explains: "[e]ngagement coping is aimed at actively dealing

with the stressor or stress-related emotions. Disengagement coping is aimed at avoiding confrontation with the threat or avoiding the stress-related emotions" (n.p.). Here, the value of emotion-focused coping through things like "support seeking, emotion regulation, acceptance, and cognitive restructuring" is apparent. Moreover, coping behaviours such as avoidance, though also emotion-focused, are ineffective disengagement coping strategies and are much less helpful for long-term stress reduction.

The differences between engagement and disengagement coping highlight the role that effective support can play. Various types of support can help empower people and provide resources needed to alter a stressful situation (Anita Delongis and Susan Holtzman 2005), which becomes especially important as harassment severity increases (Hana Machackova, Alena Cerna, Anna Sevcikova, Lenka Dedkova and Kristian Daneback 2013). Social support is significant in all degrees of harassment and was found to be one of the most effective emotional coping strategies (Machackova et al. 2013). As with coping, support is a complex and broad category of analysis, which occurs at varying levels of interaction.

Ecologies of Support

The social ecological model provides a way to think about individual behaviors within the context of broader systems, which includes social relationships, organizational and political norms, and extended cultural values. Urie Bronfenbrenner (1977) developed the ecological model to help make sense of the fact that understanding human behavior "requires examination of multiperson systems of interaction … [ ] … and must take into account aspects of the environment beyond the immediate situation containing the subject" (514). With this model, experience is not seen as exclusively localized in the individual, but rather as embedded in relationships. It is also subject to broader systems

and structures (Michael J. MacKenzie, Jonathan B. Kotch and Li-Ching Lee 2011). To date, the ecological model has been used to understand and address a variety of social-psychological issues, such as intimate partner violence (Lor E. Weeks and Kristal Leblanc 2011), academic performance among college students (Nadine Rania, Anna Siri, Annamaria Bagnasco, Giuseppe Aleo and Loredana Sasso 2014), and workplace or classroom bullying (Susan L. Johnson 2011; Susan M. Swearer and Shelley Hymel 2015). This literature reveals that an individual's response to, and resilience in the face of conflict is both a result of individual choices and actions, relationships in community, and broader social, systemic and cultural supports or interventions that can either help or hinder individual agency. Importantly, influences in the ecological model work both ways, meaning that while systems, structures, and social interactions act to either constrain or empower individuals, individuals can also exert influence on these same things, albeit not always to the same degree.

Figure 1 shows the ecological model. In this diagram, the individual sits at the microsystem level, with things such as individual preferences, personality, feelings, capacity, as well as interactions with family and friends influencing how an individual copes with a harassment situation. The community, organizational, and sectoral level in Figure 1 makes up the mesosystem of the model and includes social and organizational interactions, including the interactions that occur in the context of work (Wendy Cukier, Suzanne Gagnon, Laura Mae Lindo, Charity Hannan, and Sarah Amato 2014). The mesosystem also includes the interactions that people have with their communities and other organizations, such as the interactions one might have with a social network one posts to (Authors 2018a; Author 2016).

Figure 1: The Ecological Model. Adapted from Cukier et. al., 2014.

Finally, broader social and cultural values, along with laws, policies and national and international cultural norms occur in the macrosystem of the model. This is where, for example, values about the role of female scientists, gendered stereotypes, and laws and norms governing online civility play a role. Taking what Kimberlé Crenshaw (1991) calls an intersectional approach, Helen A. Neville and Michael Mobley (2001) recognized class, race, gender and sexuality as part of the macrosystem in addition to values and laws. Macrosystemic forces influence sectoral, organizational, and individual behaviors but may also be influenced by them. For example, changes in individual values within a large population can create changes in culture, as in the case of gay marriage (Joshua Becker 2016).

Importantly, though the ecological model diagram suggests that micro-, meso- and macrosystems are discrete and separate, there is considerable interaction between all systems. The model is intended to help visualize how different relationships and discourses act with an individual to influence behavior, but since any system can be impacted by the other systems, where one system ends and another begins can blur. Bronfenbenner notes that "in ecological research, the principal main effects are likely to be interactions" (518), meaning that all systems, and the parties within them are interdependent, which is precisely why we suggest it is limiting to study support following harassment at only one level – for example, at the level of the individual, where support is often located. Instead, an ecological perspective provides a complex and systemic approach. It takes into account the different relationships that make up an individual's life experience prior to and following the experience of harassment, and considers how support at the micro, meso and macrosystemic levels can either help or exacerbate the problem.

Theoretical Framework: The Relationship Between Coping and Support in the Ecological Model

An individual's ability to cope with online harassment is influenced by the kinds of support to which they have access, with varying coping strategies operating in relation to a network of support in varying systems of the ecological model. Figure 2 shows various types of support mapped out over the model, what we are calling the ecological model of support. Like Bronfenbrenner's social ecological model, the ecological model of support shows that different types of support can occur in the microsystem, mesosystem and macrosystem.

Figure 2: An Ecological Model of Support

Support at different levels can influence and be influenced by supports at other levels. For example, macrosystemic norms and values that encourage women to avoid conflict may contribute to an unwillingness to ask for help from family and friends at the microsystem or an unwillingness to involve law enforcement at the mesosystem (See: Angela M. Moe 2007; Sarah R. Robinson, Kristen Ravi and Rachel J. Voth Schrag 2020). Similarly, help from friends and family in the microsystem, could lead to seeking community support more broadly, which could help to influence norms and values. Significantly, access to different kinds of support (and therefore forms of coping) is not equitable: consider for example, the emergency services provided by police. Ostensibly, such services are meant to be available to all, and yet researchers have identified that race, sexuality, gender, class, and disability all impact how police interact with people (Robyn Maynard 2017). This means that there is no guarantee that involving the police will in fact facilitate coping with victimization. In fact, involving the police may instead exacerbate the issue. Sara Ahmed's (2019) work on complaint in academia illustrates this discrepancy by showing that complaint is received differently

(i.e., as more or less hostile) depending on who is doing the complaining, and who is the target of the complaint, with gender and race being significant determinants. The ecological framework helps render these differences legible by showing where individuals face barriers in the context of larger systems, which in turn makes visible patterns of access, neglect and other forms of oppression. While cultural norms change, and while individuals can play a role in such changes, as in the #MeToo movement (Stephanie E.V. Brown and Jericka Battle 2019) for example, it is important to understand the meso- and macrosystemic forces that result in different responses to the same or similar instigating events (Susan M. Swearer and Shelley Hymel 2015).

Our investigation focused on answering the following research questions: *How do scholars cope with online harassment? How helpful are the different strategies and resources perceived to be by those who rely on them? Does this perception vary according to the gender of those who experience harassment?* By answering these questions, we hoped to identify gaps in support and determine how these gaps undermine coping to answer our final question: *Adopting an ecological understanding of the issue, how can support for coping be improved?* The next section describes our methods in detail.

Methods

Data Collection

We developed a survey based on previous research into online harassment to answer the research questions guiding this study (Lida Marie Blizard, 2016; Amanda Lenhart, Michele Ybarra, Kathryn Zickuhr and Myeshia Price-Feeney 2016; Cassidy, Faucher, and Jackson 2014; Chantal Faucher, Margaret Jackson and Wanda Cassidy 2014). Using a variety of question formats (e.g., slider scales, text entries, and Likert scales),

the survey focused on participants' experiences with online harassment, their responses to this harassment, and the impact of those experiences. Finally, respondents were also asked about their digital technology use and demographic information. Once a draft of the survey was created, it was reviewed, discussed, and revised until all seven co-authors expressed satisfaction with its final form. The survey was then created in Qualtrics, an online survey platform and tested by three co-authors, and then publicized on the social media account *Shit Academics Say* (@AcademicsSay) on Twitter and Facebook wherein it was shared and re-shared by others over a two-week period. This account was selected due to its recognized social influence among higher education audiences (see Nathan C. Hall 2015).

Sample

A total of 182 people self-identifying as having experienced online harassment relating to their scholarly activities completed the survey, with more than half coming from North America. (46.7% [n=86] live in the United States and 13% [n=24] in Canada.) Another 33.2% (n=61) came from countries in Europe, Australia, and New Zealand. The remaining participants, each numbering one, came from Brazil, Costa Rica, Indonesia, South Africa, Turkey, and the United Arab Emirates. Respondents came from a wide variety of scholarly positions, though the dominant categories were PhD students (31.3%) and tenured professors (23.1%), followed by untenured professors (21.4%), other positions (13.2%), and finally, contingent and adjunct faculty (11.0%). The vast majority (76.4%) identified as female with the remaining identifying as either male (18.7%) or gender diverse (5.0%). Most participants identified as heterosexual (64.1%) and 22.8% identified as lesbian, gay, bisexual, or queer. The remaining participants either selected "not applicable" (4.9%) or gave no answer (8.2%).

Data Analysis

Descriptive statistics and frequencies were calculated for each question in Qualtrics and cross-checked manually using the raw data in Excel. From there we created a two-step analytic framework for organizing the data in order to determine gaps in support. The first step was to label coping strategies as either engagement or disengagement. Engagement strategies included those that targeted either the problem of the harassment or the emotional fallout of the harassment. Disengagement strategies were those that appeared to accept the problem of harassment as inevitable and exhibited some form of withdrawal. Notably, a number of strategies could arguably be expressions of both disengagement and engagement. For example, when someone who is facing harassment asks someone to manage a social media account on their behalf, the act reflects both a desire to protect oneself from emotional harm, and is thus a measure of active self-protection, but is also a form of withdrawal. By categorizing each coping strategy, we were able to assess which strategies are likely to have better or worse outcomes for victims based on which strategies are engaged or disengaged.

In the second step, we matched forms of coping in relation to the various levels of support within the ecological model in order to identify where support succeeds and fails to facilitate coping in relation to demographics. Specifically, our analysis assessed the variation in perceived usefulness of different forms of coping strategies in order to improve understanding of both who and what can support scholars better following online harassment.

Limitations and Delimitations

Our research specifically targeted scholars. As such, employees working in academic institutions but not in a scholarly capacity were not included. We also did not include undergraduate students, though we recognize that undergraduate students can and do

operate as researchers both on and offline, and thus will be relevant for future research considerations. Overall, 182 individuals completed the survey. Additionally, the survey was self-reported, based on recall, and anonymous.

As our demographic data show, the vast majority of respondents were white (n = 150), and thus our results are primarily shaped by the experiences of white people. In some ways, this is unsurprising given the disproportionate representation of white people within higher education (Patricia A. Matthew 2016). While we did collect data from scholars identifying as Black people (n = 2), Indigenous people (n = 2), and people of colour (n = 22), the low numbers of self-selected respondents make it difficult to make definitive claims about any given non-Caucasian group. Another factor in this demographic distribution may be due to releasing our survey invitation on social media without taking additional steps to ensure racial diversity in respondents, as distributing with specific institutions or programs may have better enabled. This same factor will also have impacted our results in other ways as the Twitter analytics for Shit Academics Say at the time of distribution indicate that followers were primarily from the U.S. (39%), the U.K., (16%), Canada (8%), and Australia (5%).

Results

Coping with Harassment

Results reveal the variety of strategies, coping mechanisms, and supports sought by participants. These are summarized in Table 1. Engagement coping strategies were most commonly used by participants, including discussing the harassment they received with colleagues or peers (65.4%) and discussing it with friends and family (55.5%). These resources also ranked highly in terms of helpfulness (see Table 2): 31.4% ranked social support from friends either very helpful (n = 44), and 13.6% ranked it as extremely

helpful (n = 19); 23.9% ranked social support from family as very helpful (n = 28), and 17.1% ranked it as extremely helpful (n=30). On the other end of the spectrum, only 8.6% (n = 10) participants found speaking to family not helpful at all, and 5.7% (n = 8) found social support from friends not helpful at all. The most frequently used strategy, discussing abuse with peers or colleagues (n = 119) had wider variability in terms of helpfulness. While 17.6% (n = 32) found this strategy very helpful, and 9.3% (n = 17) found it extremely helpful, 14.3% (n = 26) indicated it wasn't helpful at all. These strategies all fall within the microsystem level of the ecological model. Mesosystem level disengagement strategies included blocking abusers, changing security settings, and using secondary apps or digital tools to manage harassment. More than a third (35.7%) of participants blocked abusers, making blocking the third most frequently employed strategy, 17.0% changed their security settings, and only a small fraction employed digital tools to manage the abuse (7.5%). Of the meso-level engagement strategies, 21.4% reported to the platform, 27.5% reported to their university, and only 8.8% reported it to law enforcement.

Table 1. Coping strategies and the ecological model of support.

Strategy	Type of Coping	Level of Support	Total (n = 182)
Discussed with colleagues or peers	Engagement	Meso	119 (65.4%)
Discussed with friends and family	Engagement	Micro	101 (55.5%)
Blocked abusers	Disengagement	Meso	65 (35.7%)
Attempted to engage in dialogue with perpetrators	Engagement	Meso	60 (33%)
Ignored it	Disengagement	Micro	56 (30.1%)
Formally reported it to my university	Engagement	Meso	50 (27.5%)
Passed it off as inevitable	Disengagement	Macro	42 (23.1%)
Used humor, jokes about it	Both	Disengagement: Macro Engagement: Micro	40 (22%)
Reported it to the platform	Engagement	Meso	39 (21.4%)
Refrained from speaking about controversial topics online	Disengagement	Macro	35 (19.2%)
Changed security settings	Disengagement	Meso	31 (17%)
Felt responsible	Disengagement	Macro	25 (13.7%)
Other	N/A		25 (13.7%)
Reported it to law enforcement	Engagement	Meso	16 (8.8%)
Removed, edited, obfuscated identifying information	Disengagement	Meso	15 (8.2%)
Used other apps for protection	Disengagement	Meso	13 (7.5%)
Left a platform for an extended period of time (6 months or longer)	Disengagement	Meso	8 (4.4%)
Trolled back	Engagement	Meso	6 (3.3%)
Left platform entirely	Disengagement	Meso	6 (3.3%)
Asked someone to manage account temporarily	Both	Micro	3 (1.6%)
None of the above	N/A		0 (0%)

Support Across Genders

Results are summarized in Table 2. Mesosystem level strategies varied in how helpful they were for people. 22.2% of our respondents found blocking (a disengagement strategy) helpful and 25.9% found it extremely helpful, which marked disengagement as

the highest ranked strategy. However, even though proportionately this was found to be a useful strategy for most, 16.1% found it not helpful at all. Of those who reported the incident to the social media platform or moderator, 10.4% (n = 19) found it not helpful at all, while only 1.1% (n = 2) found it very helpful, and 2.2% (n = 4) found it extremely helpful. Of those who reached out to their department or university, 10.4% (n = 8) found it very helpful and 6.5% (n = 5) found it extremely helpful, and 46.8% (n = 36) found it not helpful at all. Taken together, these results suggest that while social support within the context of family and friends is perceived as effective, institutional support from platforms or employers, though sought out, is significantly less effective or is not provided at all. Consequently, we understand that institutional support in the mesosystem is under-developed and needs to be improved.

Table 2. Level of helpfulness for each support type.

	Not helpful at all	Somewhat helpful	Very helpful	Extremely helpful	Total users
Social support from friends	8 (5.7%)	74 (52.9%)	44 (31.4%)	19 (13.6%)	140
Social support from an online community or network	9 (15.8%)	23 (40.4%)	16 (28.1%)	9 (15.8%)	57
Social support from family	10 (8.6%)	68 (49.6%)	28 (23.9%)	20 (17.1%)	117
Blocked a person on social media	13 (16.1%)	29 (36.8%)	18 (22.2%)	21 (25.9%)	81
Spoke to my colleagues	26 (14.3%)	60 (44.4%)	32 (17.6%)	17 (9.3%)	135
Googled or searched online for resources	15 (30%)	23 (46.0%)	8 (16.0%)	4 (8.0%)	50
Spoke to law enforcement	9 (50%)	6 (33.3%)	2 (11.1%)	1 (5.6%)	18
Spoke to a lawyer	4 (21.1%)	9 (47.4%)	2 (10.5%)	4 (21.1%)	19
Reached out to department or institutions	36 (46.8%)	28 (36.4%)	8 (10.4%)	5 (6.5%)	77
Reported incident to the social media platform or moderator	19 (41.3%)	21 (45.7%)	2 (4.4%)	4 (8.7%)	46

Impact of Gender on Perceptions of Support in the Microsystem

Gender did not seem to heavily impact the perceived usefulness of microsystem strategies, such as social support from family and friends. Men, women, and non-binary or trans-identified respondents were more likely to find support from friends helpful to varying degrees than not helpful at all, with 9.4% (n=3) of men finding it extremely helpful, 31.3% (n=10) very helpful, and 34.4% (n=11) somewhat helpful. A total of 9.9% (n=13) of women found it to be extremely helpful, 24.4% (n=32) very helpful, and 42.0% (n=55) somewhat helpful. Finally, 33.3% (n=3) of non-binary and trans respondents found support from friends to be extremely helpful, 22.2% (n=2) very helpful, and 33.3% (n=3) somewhat helpful. Women were more likely to find it not helpful at all (5.3%, n=7) compared to men (3.1%, n=1), while no non-binary or trans-

identified respondents indicated they found support from friends to be not helpful at all.

With respect to family, similar trends were reported. While no non-binary or trans-identified respondents indicated they found family support not helpful at all, 4.5% (n=6) of women and 12.5% (n=4) of men found family support unhelpful. Most respondents felt family support was somewhat helpful: 36.6% (n=49) of women, 25.0% (n=8) of men, and 22.2% (n=2) of non-binary and trans-identified folks. Women (15.0%, n= 20) and trans-identified people (11.1%, n=1) were less likely to find family support very helpful than men (21.9%, n=7). Notably this trend reversed for the category of "extremely helpful," with men (3.1%, n=1) least likely to select this option, compared to women (12.0%, n=16) and non-binary or trans-identified respondents (33.3%, n=3).

Impact of Gender on Perceptions of Support in the Mesosystem

Gender appeared to be a factor in perceived helpfulness of mesosystem level strategies of coping, which included reporting to the platform and reporting to their institution. Men (16.7%, n = 5) were proportionately more likely than women to find reporting the incident to the platform not helpful at all (9.5%, n = 12), but non-binary and trans participants were the most likely to find it not helpful at all (22.2%, n = 2). Additionally, non-binary and trans participants did not find any degree of help from reporting to platforms, while men and women shared roughly similar statistics, with 13.4% of women (n = 17), and 13.3% of men (n = 4) finding it somewhat helpful. In terms of reaching out to departments or institutions, over half the participants in all gender categories indicated that they did not do so. Men were least likely to find this strategy not helpful at all (6.5%, n = 2), with 23.4% of women (n = 32) and 22.2% of non-binary and trans participants (n = 2) indicating the same. Men and women

indicated somewhat helpful at roughly similar rates (16.4% [n = 22] women compared to 19.6% [n = 6] men) though increasingly diverged as perceived helpfulness increased. Only one trans or non-binary participant rated this strategy as positive at all (11.1%) finding it extremely helpful.

Discussion and Implications

Our findings affirm that those who experience online harassment use a wide variety of strategies to cope with the harm. Unfortunately, notable gaps in support are indicated in the mesosystem level of support, firstly in terms of the university administration and colleagues, and secondly with digital platforms. Across genders, people rely most heavily on friends and family, as well as basic platform affordances such as blocking harassers, suggesting that the responsibility supporting those coping with harassment is primarily shouldered by individuals and their friends and families. These strategies most often fall within the microsystem. When they do not, they end up being disengagement strategies, which is unsurprising given that individual disengagement from a platform faces fewer barriers than strategies that require support and intervention from forces outside one's immediate circle of friends and family. Significantly, beyond the less positive outcomes associated with disengagement strategies, the problem with over-reliance on microsystem strategies is twofold. Firstly, it risks overextending the capacities for support available at that level, potentially diminishing quality, and secondly, it centres individual responsibility over the role of institutions, platforms, and policy/society, potentially limiting opportunities for positive change from areas beyond the individual.

Crucially, in the face of harassment, a person's ability to adopt problem-focused rather than emotion-focused coping strategies seems to have some relationship to what

kinds of supports are available to them in the meso- and macrosystem. If cultural norms and values tend to support a discourse of victim blaming following publicized accounts of harassment, the individual experiencing harassment may be more likely to blame themselves as a suboptimal coping strategy. Similarly, in the absence of help from community, institutions, or law enforcement, an individual will have little choice but to adopt individualized or microsystemic coping strategies to deal with harassment. If mesosystem supports are unavailable, or if supports are available but difficult to access, then coping necessarily turns from problem-focused to emotion-focused. Since any level of the ecological model can influence any other level, weaknesses in supports at all levels can create scenarios where a scholar who has experienced harassment may feel their only option is disengagement.

Though our respondents reported that they sometimes reached out for support in the meso- and macrosystem, support from these levels was perceived as less effective than microsystemic supports. This suggests that while there is a desire to reach out beyond the microsystem for support, barriers exist around accessing meso- or macrosystem support. Given that research shows reactive coping (i.e., coping following a problem) is often less effective and generates more stress than preventive and proactive coping (i.e., coping that anticipates and circumvents problems) (Ralf Schwarzer 2000), the improvement of mesosystem supports, which help facilitate preventative and proactive coping, is particularly necessary, as scholars face increased exposure online. Mesosystem supports that need improvement according to our respondents include things like more immediate and consequential responses to harassment from the platforms, including better and stronger enforcement of community guidelines. The affordances of digital platforms – including whether a platform

accommodates, for example, anonymity, and whether a platform has policies with meaningful consequences for those people who engage in harassment – create mesosystem level information environments that either help or hinder the mitigation of online harassment (Isto Huvila 2009). Social media platforms are organizational information environments that can create the conditions that enable harassment. Support offered in the level of the platform could include anything from algorithmic management to stringent and, more importantly, highly enforced user guidelines. Which is to say that platforms could be designed to create a safer space for scholars and a less welcoming space for those who wish to harass them.

Participants identified a second under-performing mesosystem support as institutions themselves. Such support could take shape in policy on online harassment and is particularly needed for women and non-binary or trans-identified scholars. Scholars need to know what to do and who to contact in the event of online harassment, which may very well have different protocols than for harassment that occurs in-person. Such mesosystem support can facilitate engagement coping and shift the burden of coping away from the individual. Moreover, such policies will offer protection and reduce the vulnerability of scholars. It's worth noting here that scholars are differently vulnerable due to their positionalities, and policies need to reflect this. University policies relating to online harassment need to account for the interrelated nature of various levels of the ecological model of support, which is why taking a holistic approach is so essential. Writing about the field of internet studies in 2004, Annette M. Markham suggested that unless "radical measures are taken to reflexively interrogate everyday routines and habitual ways of talking in academic environments, the future … [of the field] … will not transcend the traditions of the academy but will be entrenched in and reproduce traditional structures and a traditional scholarly enterprise" (1087).

Today, this same critique can still be levied with respect to the practice of being a scholar *on* the internet. The normative ways of operating as an academic, including which people are allowed or entitled to their expertise by virtue of their subjectivity (i.e., white, cis, or male, for example), are reproduced online. Through the lens of the ecological model, it becomes clear that the patriarchal and colonial structure of a university could exacerbate the problem of online harassment of marginalized individuals, just as scholars have shown in other organizational contexts (Shelly A. McGrath, Melenia Johnson and Michelle Hughes Miller 2012).

The production of academic subjectivity via graduate school, post doc, pre-tenure and tenure, which are meso-level interactions impacted by elements of both the micro- and macrosystems, recalls what Alison Harvey (2019) noted for video game developers. Both academic and video game socialization processes create the conditions that continue to serve a gatekeeping function and reinforce forms of harassment for those outside the accepted identity. This means two things in terms of support: in the mesosystem, institutional practices and policy (both implicit and explicit) relating to harassment can either provide or frustrate attempts at support, and in the macrosystem, assumptions and stereotypes about what kinds of people are accepted as experts and in which domains also impact support. In short, if one does not fit the normative idea of what a scholar looks like, both access to support and the likelihood of experiencing harassment will be impacted.

Finally, and relatedly, macro-level attitudes and values about gender, race, academic work, and online life exacerbate the problem. Some of our respondents reported that they refrained from speaking about "controversial topics" online, and also that they often "felt responsible" for the harassment directed at them. These two phenomena can be traced back to larger discourses. Controversial topics are defined by

cultural norms and values (Norman Fairclough 2013; Michel Foucault 1990). As long as these macrosystemic values and attitudes persist, they will continue to influence both the availability of support for online harassment in the mesosystem, the support asked for, as well as the coping methods employed in the microsystem. At every turn, it is clear that each level of the ecological model of support impacts and interacts with each other level, which is unsurprising given the complex nature of harassment and how harassment is responded to by victims, their friends and families, the communities in which they live, and the broader organizational forces and institutions that surround them. Indeed, scholars have reminded us that sexual violence such as harassment is not something that simply happens by one individual to another individual, but that it occurs within community. Consequently, support that only targets the individual level is doomed to be insufficient (Iverson and Isadore, 2018; Hardesty and Ogolsky, 2020).

Conclusion

Given the bleed between all levels of the ecological model, we expect that interventions that increase support at any level of the model can have impacts at all other levels: if there are supports at specific levels lacking for individuals (e.g., institutional or societal) then improving these areas can potentially improve supports at other levels (e.g., individual or micro), thereby improving coping more generally. For example, discourses about algorithms (macrosystem) and the policies based on them (macrosystem) impact both the affordances of the platform (mesosystem) and also the way law enforcement and universities respond to cases of harassment (mesosystem). The access to support from platform affordances, law enforcement and university support structures (mesosystem) impact what microsystem interventions a person will turn to for support following harassment. This means that interventions focusing only on individual actions

will never be sufficient to provide support for scholars experiencing harassment. If on the other hand universities develop stronger policies (mesosystem) to support staff, as we recommend elsewhere (2018b), and also lobby upwards for support, they may be able to exert impact on government policy (macrosystem). Moreover, where there are specific groups for whom a lack of support is pre-existing, or where there is a pre-existing antagonism at meso- and macrosystems (e.g. racism), the capacity to cope across *all* systems will be impacted, making support initiatives that much more difficult. And notably, no matter what initiatives are made at the individual level, problems cannot be fully understood nor addressed if an ecological view is not adopted (Nadya A. Fouad and Angela Byers-Winston 2005), and future research should account for this. Thus, the most robust way to address the issue and provide tools to prevent and support following online harassment is to develop interventions at each level of the model – that is platform-based solutions, individual solutions, university and government policy changes, and education to change broader discourses surrounding the problem.

Overall, alongside continued research into the effects of harassment, research into how to better support scholars as they navigate social media and public scholarship is required, especially as institutions place increasing merit on such activities. Better understanding of long-term effects of harassment is needed in order to determine how it impacts the relationships between scholarship (public and otherwise), academic freedom, and equitable access to and participation on the internet. Furthermore, better understanding of the differing attitudes towards, and experiences with harassment by scholars at various stages and positions in their careers is urgently needed, especially given the differences in vulnerability for precariously employed scholars. Most importantly, while the majority of our data illuminated gendered

experiences of online harassment, until similar research is conducted that addresses the intersectional nature of oppression, our understanding of online harassment will remain incomplete. Thus, any proposed solutions will likely fail to adequately address the specific forms of harassment faced by people of different subject positions. It is thus imperative for future research to address online harassment of scholars in terms of things like race, sexuality, and disability, all of which remain vital areas for investigation.

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