Academic (in)security: Addressing 'imposter syndrome' in graduate studies

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A. Project summary

This report describes the preliminary findings of a study of 'imposter syndrome' as a public feeling, based on 43 surveys completed by Carleton graduate students in the humanities and social sciences in the fall of 2019. This project was funded by a Scholarship of Teaching and Learning grant and we are pleased to share what we have learned. Given the challenging times, we have prioritized clarity, brevity, and those points that seem most pertinent to our current circumstances.

B. Context

Many competent scholars and students experience everyday academic life as a space where they do not belong and are in danger of exclusion (see, for instance, Bernard et al., 2002; Cokley et al., 2015; Kumar & Jagacinski, 2006; Neureiter & Traut-Mattausch, 2016; Seritan & Mehta, 2015; Peteet, Montgomery & Weekes, 2015). This feeling is generally attributed to personal characteristics but as the recent mainstream acknowledgements of structural racism have made clear, institutions enact patterns of inclusion and exclusion that have not evolved as quickly as our stated principles. Studies that aim to map individual biographic or biological correlations with 'imposter syndrome' have produced important findings but they do not adequately address our institutional and collective accountability. The individualized mental-health solutions they point toward are often useful and necessary, and can sustain some recipients of care, but they do not prevent systemic problems or provide change in structural conditions. This strains institutions that cannot meet the demand for mental health services and it strains students and scholars by making them responsible for their own productive wellbeing even as impostering continues.

Because impostering is felt or sensed and difficult to attribute to specific external agents, it is easy to perceive as a personal problem. However, there is now a large body of queer and feminist scholarship that reframes affect and emotion as interpersonal and spatial. This attention to public feelings includes Anne Cvetkovich's (2012) work on depression, Lauren Berlant's (2011) work on trauma, and Elspeth Probyn's (2005) work on shame as manifestations of colonial and neoliberal social systems. While impostering comes up in each case, we have only found one study (Breeze, 2018) that approaches it directly as a public feeling. Feminist and emotional geographies similarly offer useful frameworks for studying the public location and circulation of feelings and their effects – but while impostering often appears on the radar, it is seldom directly or sufficiently engaged. We speculate that shame is a significant barrier to frank discussion, especially as the experience of impostering often can and does co-exist with a guilty awareness of one's own success and privilege. This undermines opportunities for solidarity and change in academic spaces and practices.

C. Methods

A team of one faculty (Sophie) and two graduate students (Maria and Brittany) from Carleton's Emotional Geographies Lab created an anonymous online survey on 'imposter syndrome' last fall (see Appendix 1). Our work on the topic is driven by our own experiences with impostering as well as our observations of it from different vantage points: Maria in her work as an administrator and graduate

student, Brittany in her doctoral research on academic writing, graduate communication, and research development, and Sophie in her graduate seminars on the emotional geographies of academia.

After receiving approval from the Research Ethics Board, we collected 43 questionnaire responses between September 2019 and February 2020. Participants were graduate students in FASS or FPA, 18 doctoral, 22 master's, and 2 unspecified. Half the doctoral students were in their 4th+ year of study.

To analyse the findings, each of us individually coded the data and then discussed our perceptions. Brittany incorporated it into a book chapter and a deck of conversation-starter cards and Maria developed data visualizations and a workbook. The collaborative process of sense-making and planning that we'd hoped to achieve was interrupted by the pandemic – so much of the value of the data remains untapped. We offer this report as an exploratory work-in-progress that provides an overview of preliminary findings and takeaways to consider as teaching and learning moves online. Unattributed quotes in the findings below are taken from our anonymous data.

D. Findings

1. What is imposter syndrome?

Our participants identified imposter syndrome as feeling inadequate, out-of-place, unworthy, and/or unqualified, even though you are not. The sense of being a fraud, a fluke, or a fake manifests as "an internal dialogue," an "affective state" and as a "sudden feeling that could be triggered by any number of things. I could be having a great day at school and then suddenly feel out of place." It is often strangely durable:

> "What I find really interesting is that even though I intellectually understand the idea of imposter syndrome, there is still a persistent belief that while others may only feel like they are imposters, I'm the exception and truly don't belong."

This sense of 'knowing better' compounds distress, as students (like many of us) expect comprehension to more-or-less equal progress. They are prone to despair and self-blame when understanding the trap they are in does not open it.

The location of perceptual distortions in all this is nuanced; participants seemed to doubt their self-perceptions but not their perceptions of the academy as "a cesspit of toxic elitism and entitlement." Several described a trajectory of critical reframing and externalization reminiscent of feminist consciousness-raising:

> "I am an anxious person so 5 years ago I tended to ascribe my imposter syndrome at the time to my anxious disposition. However, my present stance is that imposter syndrome and career anxiety is primarily the product of the conditions in which we work and study, economic precarity, and the subjectivation of hyper-competitiveness."

The framing of imposter syndrome as a personal mental health problem is sometimes explicitly refused; as one participant puts it, "I think imposter syndrome is a healthy response to the farce that is academic prestige" in a "hierarchal education system that grants access to information and intellectual resources based on class."

Locating imposter syndrome as a self-perception issue was seen by some participants as an institutionally convenient way to seem supportive while dismissing concerns about real differences in familiarity with academic norms and belonging in academic spaces. Seventeen participants explicitly framed it as a form of "gatekeeping" which "reinforce[s] the boundary between different cultural bubbles, by getting mismatches and sore thumbs to remove themselves voluntarily, without ever using direct force." They tied this "boundary work" to disciplinary anxieties (especially competition between

traditional disciplines and critical interdisciplinary programs), to the manufacturing of "class stratification and (often undeserved) social status and wealth" and to capitalism. As one tartly observed,

> "I imagine imposter syndrome is really useful neoliberally, if everyone is constantly trying to prove they are capable producers, it internalizes production metrics as self-worth."

This sense that imposter syndrome is a form of "social control" mobilized to dismiss or undermine legitimate concerns about academic spaces and practices is a key finding that should be carefully considered. As one student observed,

> "we could think about governmentality and producing docile bodies a la Foucault – you would think that the social sciences that spend all day critiquing this sort of thing would do better at recognizing it within themselves."

Replicating harmful structures as we equip students to recognize and critique them may be inevitable, but it produces stressful cognitive dissonance, especially if we don't acknowledge it or if we respond defensively when our own positions are critiqued.

Programs aimed at off-setting the impact of "imposter syndrome" might be experienced as victim-blaming if they rely on an exclusively personal framing of the problem. While we cannot individually protect our students (or ourselves) from institutional impostering, we are collectively responsible for its ongoing effects.

2. What does impostering do or produce?

We asked participants how imposter syndrome affected their experience of being at Carleton, if it had any beneficial effects, and what public functions they thought it might serve.

a) Does it have any benefits?

While some participants flatly rejected this possibility ("literally no benefits… feeling like an imposter is not making me a better researcher or person nor do I think it's having benefits for the field or academic culture"), a few tentatively proposed that impostering might do something useful. Six comments suggested it could be "grounding" or support realistic critical reflection and goal-setting. There were also six comments on a possible link to humility ("so you don't become full of yourself"). Five commented on its potential to support solidarity among students, between students and similarly-afflicted faculty, or internally ("maybe it serves as a signal to your body and mind to be more compassionate with yourself and connect with yourself more. To be a better friend to yourself"). One observed "there is a lot of creativity, flexibility, generativity needed in order to survive as an outsider, as an imposter."

Twenty-seven comments suggested that imposter syndrome might push you to work harder but all of them qualified their statements about forced productivity (in theory, it might…). One participant added,

> "Honestly, thinking about IS [imposter syndrome] this much is making me want to cry. I think it's important that we're honest with ourselves, and that we strive to be constantly trying to improve and be our best. IS helps with that by showing us our weaknesses so that we can target these issues and get better."

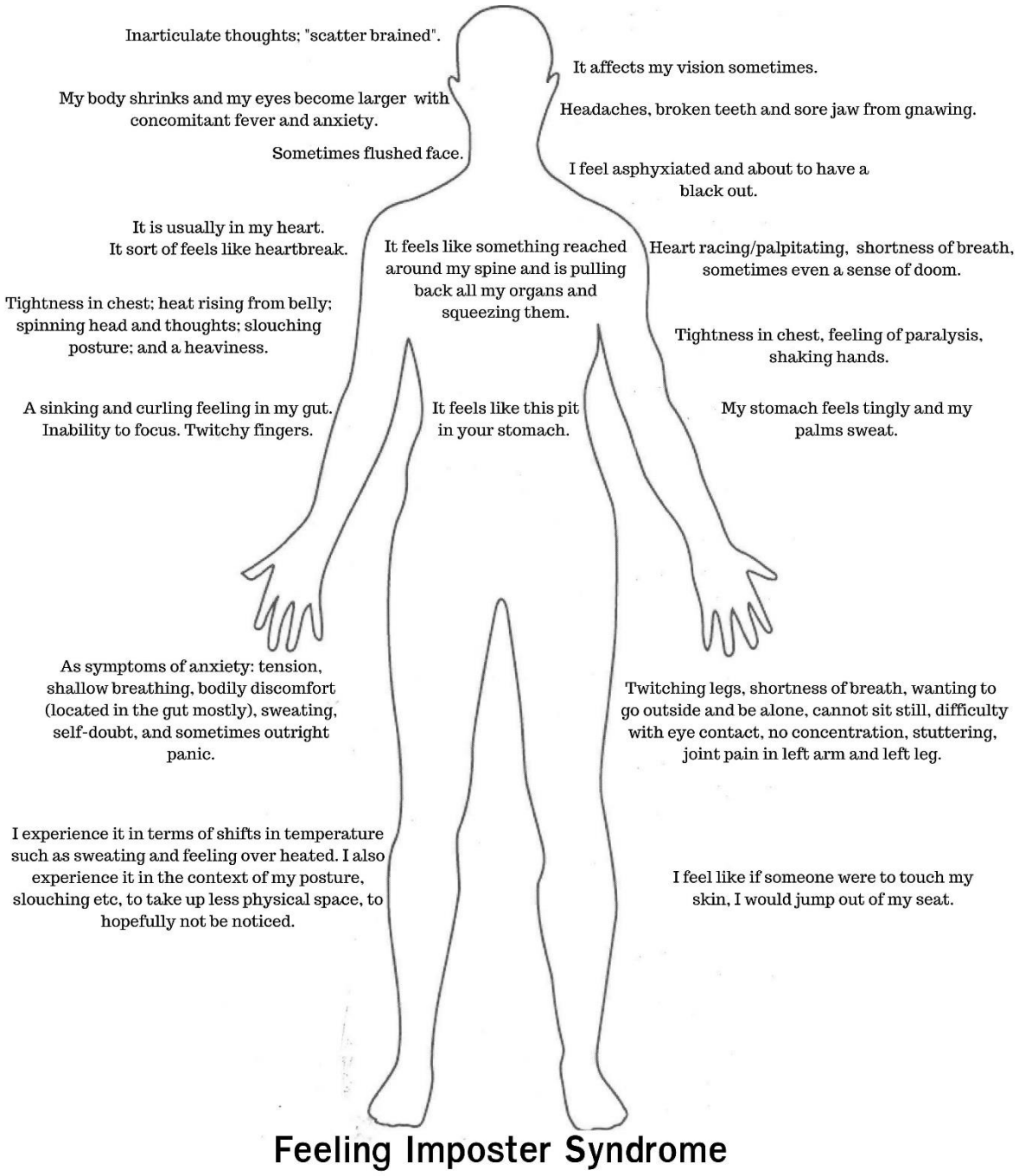
This student's tears are an important reminder of the emotional labour required by academic processes of knowledge production.

b) Does it cause any harm?

None of the participants found imposter syndrome entirely benign. Participants identified a wide range of negative physical effects, including impacts on the heart, breathing, head, stomach, limbs, temperature, posture, cognition, and tension. Some of these effects are visualized in Figure 1.

Participants also identified a wide variety of negative emotional, social, or relational effects. A rough sense of the scale (by number of times it was mentioned in the data) and the range of content is provided in Table 1, which follows Figure 1, below.

Figure 1: The physical experience of impostering.



Source: Imposter syndrome survey responses from Carleton University graduate students in the social sciences and humanities, Fall 2019

Table 1: Impacts of 'imposter syndrome'

Impact zone	#	Examples
Wellbeing	6	"It causes physical and mental illness that can take an incredible toll."
Competition	8	"I don't have an issue with other people knowing more than me - I love that! I love learning from people that are more experienced and knowledgeable than me, that's why I came back to school…. The issue is more - I see other people and I wonder where I fit in? Should I even be in grad school? Is it just for some special people? And deep down, I don't really believe it. I think I am in the right place, but for some reason I still feel like an imposter." "I think it tends to produce a scarcity model of thinking. The idea that there are only so many jobs, only so many grants, only one right path- and that only certain individuals with all the right characteristics are able to get those things." "It keeps us competing for limited resources in a capitalist system." "My department ranks us, so we are all quietly competitive. I sometimes think we are all supporting each other, but other times it feels like we are being really cagey about things we shouldn't need to be. Like we always need everyone else to think we are competition.
Retention, completion, & academic progress	12	"It's helpful for my work ethic that I can put pressure on myself. At some point, I connected self-worth and production and now it is no longer helpful." "I'm afraid to try things and being told I'm not enough." "I end up sometimes feeling like going into a PhD program was just a huge mistake (both by me and the department)."
Withdrawal	12	"The places where you don't fit in tend to be the places that are less safe for you. Imposter syndrome might be an unreliable 6th sense aimed at avoiding danger." "It forces people to turn inward and reinforces the blasé outlook so that we do not rail against oppressive forces." "It means that we don't show up to work as our full selves, but as packaged/performative versions who 'get things done'". "Those who really have something important to say, but have the imposter syndrome, are left out, while the discussion is occupied by people who are not necessarily the best, but manage to get there anyways as they believe so much in themselves."
Social and spatial belonging	14	"I feel like I do not look like a proper grad student, whatever that looks like I do not know but I feel as though it is not me." "It makes me feel like an outsider but also that I could leave at any point and nothing here would change (I am replaceable)."

		"It is hard not to read anything from Carleton Admin as other than telling me I don't belong. All of the hoops to jump through and forms to fill out (progress reports, etc.), and repeated threats re: time to completion can only be interpreted as gatekeeping and working me towards the door since I am an impostor." "I've learned to engage with the extracurricular culture less and less, because I don't want to increase the number of situations where my incompatibilities with this space become too starkly obvious." "I have had to become aware and constantly accommodating to the fact that to be a student or to hold any position in academia is generally to play a social role that is inauthentic to my self-concept and antithetical to academic freedom and intellectual honesty."
Exclusion and suppression	16	"It allows for a sort of social order to form, that couldn't exist if everyone felt confident all the time." "The language of this as a 'syndrome' frames it as a delusion… the idea that somehow everyone is not equally familiar and comfortable in their department becomes instead some anxious pathology with no basis in anything other than one's own self-doubt." "Reminding working class people to stay in their place." "Imposter syndrome produces intellectual and general cowardice."
Inadequacy	37	"I used to feel smart. Not now." "Requires an intellectual creativity I'm not sure I've ever had." "I believe people perceive me as annoying." "I don't feel like I deserve to be here, nor am I smart enough to be." "Though I've done very well in school, I've always felt it's been due to luck and my ability to bs my way through situations." "I have a bad habit of knocking myself down so I can deny others the opportunity to do it. It's so easy to convince myself that I am a fraud. The sad part is that I know that I am not. I have to keep convincing myself that I am not."

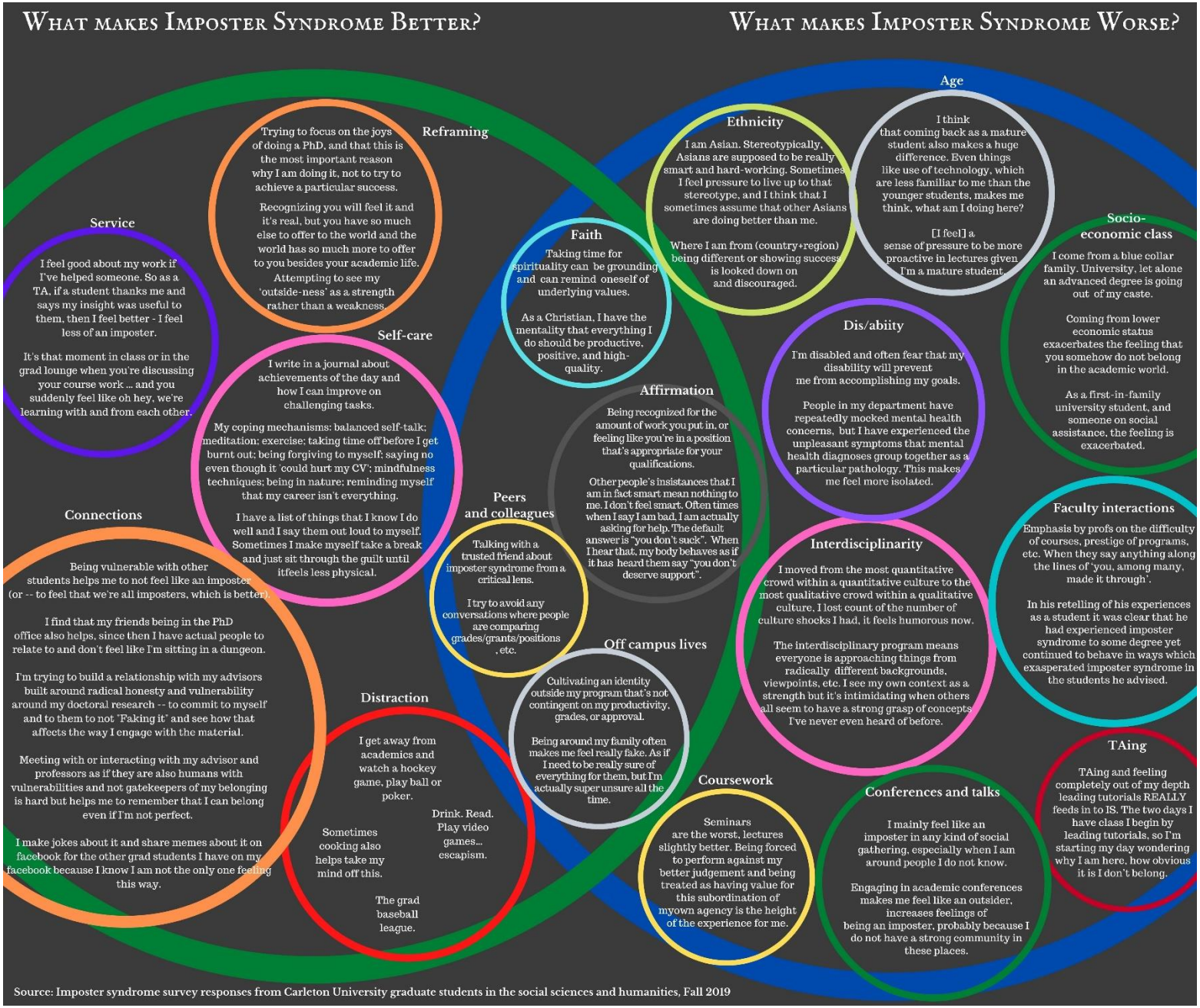
3. What makes it worse? What makes it better?

When we asked about factors that play a role in student experiences of 'imposter syndrome', some struggled to narrow it down; as one participant put it, "the feeling is always there. There are numerous factors that may increase the feeling, but there is no specific place or time when that happens." Thirty-three participants linked it with their personality or character traits, pointing perhaps to the pervasive personalizing of the phenomena. However, several other structural and social factors were not far behind (see Table 2). A data visualization on the next page (Figure 2) offers a deeper dive into our findings.

Table 2: Factors that play a role in the experience of imposter syndrome.

Do these factors play a role in your experience of imposter syndrome?	Yes	No	N/A	No response	Total
Your religious or spiritual life, past or present?	5	31	5	1	42
Your own or your family's social or economic status?	26	14	2	0	42
Your gender, ethnicity, dis/ability, sexual orientation, or other aspects of your identity?	28	13	1	0	42
Your personality or character traits?	33	8	1	0	42
Your academic history?	26	14	1	1	42
The nature of your academic program?	25	16	1	0	42
The academic culture in which you are working?	28	13	1	0	42
The physical spaces on campus?	15	25	2	0	42
Scheduling, distances, finances, or other contextual factors?	21	19	2	0	42
Other experiences or circumstances?	15	16	9	2	42

Figure 2: What makes it better? What makes it worse?



Ambivalent factors

As this visualization suggests, some factors – especially connections with peers and colleagues, external affirmation, off-campus lives, and religious or spiritual affiliations – seem to have contradictory effects on impostering. The volatility of affirmation is particularly important for faculty to consider. One participant with social difficulties related to impostering explained that professors tend to "tell me that they are actually like me, despite acting in a very different manner." When faculty express solidarity without showing any associated impairment, it "makes clear that I am just doing something wrong," by implying that students can, and therefore should, also learn to 'pass.'

The ways in which being at home or off-campus interacts with impostering may be especially important for us to consider as the academy will only exist 'at home' for most (if not all) of us in the coming year. I am not ordinarily a professor at home; that performance is called out when I step onto an academic stage with an academic audience. The same spatial and relational scaffolding helps students step into their roles as learners. Losing access to this external framing may be particularly impairing for students because they often have not spent long in their role as scholars, do not own or control sufficient physical space to recreate a suitable learning environment, and cannot afford to fail.

A wide range of spatial associations with impostering was mentioned, with many students finding it worse on campus in general and in PhD offices specifically. The varying kinds of spaces made available to graduate students within departments was perceived as a system of ranking, division, and surveillance. As one participant put it, "all the positive things I've experienced here have happened in spite of the physical space, not because of it." Commuting was also a source of difficulty.

Our feelings about campus may shift unpredictably over the next months and years. The loss of access to our shared space offers faculty and staff a chance to revisit the way status and belonging (or not) are spatially communicated to our students.

Negative factors

The previous table offers glimpses of exclusions tied to ethnicity, age, socio-economic class, and dis/ability. We did not include gender as we hoped to analyse this issue separately, given the complexity of its role in impostering. We heard from 27 women, 13 men, 1 non-binary and 1 genderqueer respondent. Participants observed that departmental "collegiality" was male-dominated; they found themselves on the fringes of a "good old boys club;" policed their own "girly" actions (including trying not to cry); felt women were not taken seriously or expected to "take up space;" and worked in fields where the examples of success "are white, cis (and presumably straight) men." One participant explained that,

"I could end up feeling like I'm wasting my time and resources here when ultimately I might have to give up some of this to be able to put more time into a relationship/ marriage. Let's not even think about what children could do to my hopes and dreams." The gendered financial and familial effects of the pandemic seem likely to make female students more vulnerable to impostering over the coming year.

Both social class and economic factors were seen as significant but financial precarity was tied to impostering even for some students from upper-class or academic families. Resource scarcity and competition seem to function as obstacles to solidarity and sources of anxiety in academic communities at all levels. Among the many questions this raises is whether it might be productive to consider impostering as an effect of student poverty or precarity, particularly for graduate students who are often at an age when economic self-sufficiency is socially expected.

Positive factors

Survey participants were asked what reduces or offsets their experience of impostering. Their answers reveal a wide range of strategies and tools.

Nine participants described reframing their thinking or changing their own perspectives. Psychologically-oriented strategies included challenging or ignoring negative thoughts as well as "letting them be,", accepting the discomfort of learning, affirmation ("you will feel it and it's real"), and refocusing "on the joys of doing a PhD" or on the non-academic context ("you have so much else to offer the world and the world has so much to offer you besides you academic life"). Other adaptations were more political; one described "recognizing that imposter syndrome is part of the conditioning of academic institutions governed by neoliberal notions of 'productivity' and increasing economic precarity;" another "attempted to see my outside-ness as a strength rather than a weakness," and a third tried to "reflect on the reality that I am not the only one who feels this way. Therefore, no one is really an imposter." Three participants also found useful reframing through spiritual, Buddhist, or Taoist practices.

Participants identified a wide range of practices that they used to manage impostering. Eight described acts of self-affirmation or self-care, using journals, lists, or self-reminders. "I have a list of things that I know I do well and I say them out loud to myself," one explained. Another "write[s] in a journal about achievements of the day and how I can improve on challenging tasks." A third offered a list of coping mechanisms:

> "balanced self-talk; meditation; exercise; taking time off before I get burnt out; being forgiving to myself; saying no even though it 'could hurt my CV'; mindfulness techniques; being in nature; reminding myself that my career isn't everything."

While seven participants found external affirmation helpful, the parameters were tight. Affirmation was effective if it came from "those in authority. Those who have the genuine position to suggest that I do fit in," and its impact was tied to self-assessment. Feeling proud of themselves *and then* having that work well-received was more useful than praise on its own, which was liable to feel misattributed or unearned. Specific, constructive praise was more readily accepted than generic compliments. Two participants also found the 'flow state' of collaborative learning helpful - "when you are discussing your course work with your peers and/or profs and you suddenly feel like oh hey, we're learning with and from each other." Finally, five described using distractions to manage the intensity of impostering, such as cooking, hockey, video games, or the Grad baseball league.

Spatial approaches to coping with impostering involved seeking comfortable places. For six participants none were available on campus; one said their most comfortable spot was "in my car, as I am leaving". A second said, "being disconnected from campus … reduces how much I feel like a sore thumb." For a third, home provided "a safe place to use technology the way I know how, to take the time to read and think as I need to." On campus, the library was comfortable for four participants, offering quiet, sunlight, anonymity, little social interaction, and staff who are "always ready to connect with me on a meaningful level and to affirm my being-there through asking about my work and helping me to connect with the resources I need."

Cafes or Mike's Pub were also mentioned by eight participants. Purchasing a drink in those spaces might provide a basic sense of belonging as consumers that relieves sensations of impostering. Some graduate students (and faculty) work primarily in cafés off campus and rely on their anxiety-reducing buzz of background life in order to write, but such public spaces may no longer provide safe places to linger. Going outside was an equally popular spatial strategy, with participants going for a walk, sitting by the river, or looking at the birds to clear their minds, calm down, or "to breathe properly."

The most mentioned strategies utilized by students were relational. Off-campus relationships were mentioned 12 times as a necessary respite from exposure to experiences of toxic academic spaces. As one participant put it, "I make sure that school isn't my entire life, so that I have things to focus on outside of feeling like a failure." Being "as far away from everything academic as possible" offered predictable things like perspective, balance, and validation, but was also used to find essential elements of scholarly practice. Students turned off-campus to find the roots of their "intellectual curiosity" along with "an identity…that's not contingent on my productivity, grades or approval" and a sense of being valuable "that offsets the feelings at school."

We received 51 comments on how students use on-campus relational strategies to reduce or offset the impact of impostering. As one explained, "I am not sure feelings of belonging can be linked to a particular space but for me they are linked to moments of connections with people and the environment." The importance of talking with colleagues and peers in their labs, offices, or department was mentioned 35 times – one said, "other than that, there's nothing that helps." Relationships with peers and colleagues were helpful if they were open, vulnerable and not just "ruminating over our insecurities" or "comparing grades/grants/positions etc etc." Finding common ground with peers reduced isolation and was "very reassuring" but as one participant added, "it doesn't stop me from my own substantial doubts." Another observed that it was "difficult to reach a point where you feel comfortable bringing it up." There were two references to online sources of support for imposter syndrome – in sharing Facebook memes and coping strategies on dissertation blogs – but the importance of informal social contact in our data suggests that its loss over the coming year will be keenly felt.

There were 18 comments on relationships with faculty but our usefulness was not assumed; as one said, "I talk to people I trust. Former students and even professors." Students appreciated faculty sharing our own experiences with impostering and associated coping strategies so long as we demonstrated that we had made changes to reduce the stress our students were exposed to and did not continue to use the same "rough but effective" methods as our advisors. Another observed, "the more collaborative and 'real world' the program is, the less the imposter syndrome is felt. I think the hierarchies of academic work contribute to this experience." Two students described intentionally resisting and shifting the academic relational frame; one worked to "remember that I can belong even if I am not perfect" by "meeting with or interacting with my advisors and professors as if they are also humans with vulnerabilities and not gatekeepers of my belonging." Another said,

> "I'm trying to build a relationship with my advisors built around radical honesty and vulnerability around my doctoral research – to commit to myself and to them to not 'faking it' and see how that affects the way I engage with the material."

We are impressed by the resourcefulness of students who 'back steer' faculty like this and work with us to find more supportive and egalitarian relational positions. However, their capacity to change departmental cultures can easily be outlasted or neutralized by opaque social rules that make students "feel like [they are] always doing the wrong thing."

4. What is the opposite of imposter syndrome?

For four participants, the opposite of imposter syndrome was hubris, delusions of grandeur, or over-confidence, "someone who talks too much and listens too little." One noted, "Objectively, that is behaviour that indicates insecurity, but it feels like the opposite of imposter syndrome." This raises interesting questions about what the experience of impostering indicates; while often tied to a lack of security it could also indicate sensitivity, humility, or a realistic sense of our own (in)significance. We are curious about what such assets-based analysis might produce.

Seventeen participants located the opposite of imposter syndrome in or around the idea of confidence. Their aspirations for it were modest – one says feeling capable can make "the void voice in my head finally quiet for a bit," another hopes to feel "that your work is worth something and can make a difference, however small." Four participants cited other people's smooth academic performances as indicators of confidence. In such cases, students may be conflating their peer's polished skills or contextual familiarity for existential security. They might not recognize their own performance of confidence if they expect it to feel as smooth as it looks. Faculty might want to consider being more frank about our own experiences with impostering and confidence or working to produce departmental cultures in which it would feel safe to do so.

One participant offered a lovely description of the goal state, in which confidence is an emotional orientation rather than something acquired over time through practice:

> "Yes, it feels like potential, like confidence, like anticipation. I don't think the opposite of imposter syndrome is feeling like you're in control or you know everything. It's more about being able to harness excitement and enthusiasm. Like contentment in where you're at and in the process."

If 'confidence' is one of our pedagogical goals, we might want to think about how we provide and recognize it, as our data suggests it plays a crucial role in supporting student's access to voice.

The other 'opposite of impostering' that emerges from the data is belonging, with fourteen comments. In eight of these comments belonging was tied to physical presence on campus; students refer to feeling "cohesive with the institution," "connection with other students," "involvement in campus activities," "engaged in the department/academic culture/university more broadly," "comfortable in a space" and "like you have a right to exist in a given space" along with "shared laughter" and "fitting into the environment so well that I don't notice the environment." Participants associate belonging with understanding, connection, creativity, ease, comfort, security, trust, acceptance, freedom, engagement, and feeling "that your work is valued". Interactions that convey belonging are unrushed and "seem natural" so "one feels relaxed and not under the same sort of pressure."

The academy has never been a place where everyone belongs, but our exclusion criteria are troublesome at best. The way we extend or withhold belonging will stick with our students longer than anything in our lectures. Our data shows how impairing the absence of belonging can be. We hope the university recognizes and rises to the challenge of conveying some felt sense of belonging for our students online. To reduce the duplication of efforts between departments it might be useful to provide faculty-wide resources and strategies. Attention to the distribution and cultivation of belonging may be a key harm-reduction strategy for institutions that seek to become more inclusive, equitable and diverse. It could also improve scholarship.

E. Discussion

Rather than continuing to share our thoughts about the data, we are using this section to invite readers to engage in an online discussion. Impostering is a complex phenomenon and a collective issue for both equity and health. In the future, we aim to broaden our research to consider students beyond FASS and FPA as well as faculty and staff's experiences with impostering. Readers who would like to leave feedback or engage in discussion can do so anonymously or with attribution at <https://carleton.ca/emogeolab/imposter-syndrome-locating-academic-insecurity/>.

We are particularly interested in documenting systems and spaces that foster belonging and confidence on a range of scales so that we can identify best practices and resources that support thriving. The workbook, visualizations, chapter excerpt and discussion cards in Appendix 2 offer

examples of materials developed by my collaborators, Maria and Brittany. The Emotional Geographies Lab will also be experimenting with online collaborative interventions to promote student confidence and belonging over the coming year.

F. Recommendations

Although we are still getting to know the data, we want to share our preliminary thoughts about its implications for a few concrete academic practices. These recommendations are primarily drawn from Sophie's interdisciplinary standpoint. We offer them as an invitation to thought rather than a prescription. Readers who are interested in how our suggestions line up with the current literature will find a short summary based on Brittany's review of secondary sources in Appendix 3.

1. Grading and evaluation

The sense that achievements are unearned and based on luck or fraudulence frequently came up as a source of distress. If a significant proportion of the students **who have always excelled** worry that they've "tricked everyone into thinking I'm smart/capable when I'm not," we may have a problem with confidence and transparency in our evaluation systems. Trust in the fairness of grading and feedback relies on both tangible factors (such as transparency and consistency) and intangible factors (such as tone and facial expressions). Supervisors and instructors might consider how to offer positive feedback in a way that allows students to feel sure that their assessment is fair and deserved (not 'just being nice' or a fluke). Student self-assessment might be useful companion strategy as well as pacing and scaling assignments so that it is possible for students to feel proud of their own work. Specificity in our praise for good work can also help reduce skepticism.

In offering criticism, it may be useful to remember how we feel when others find fault with our work and to ensure that overall adequacy is not conflated with specific skills or competencies. Expectations for graduate students often seem infinite, as if every assignment should be publishable; differentiating between process-based and results-based expectations and articulating both clearly could alleviate student anxiety. Insecurity is likely to be elevated by moving online, as it reduces opportunities for informal clarification of expectations and performance feedback. This also applies to faculty, especially if we are new to online teaching, as our own sense of competency may rely on observing students' physical cues such as sleepiness or eye-contact. It might be difficult to know whose performance anxiety we are feeling.

Higher education often paradoxically feels like a process of becoming less sure about anything. The trajectory of specialization in disciplinary programs (where, as the quip goes, you know more and more about less and less until you know everything about nothing) may be quite different from the trajectories of interdisciplinary or critical learning, in which the deliberate pursuit of 'unsettling' and 'denaturalizing' produces knowledge as a form of uncertainty while often simultaneously demanding the performance of knowledge as certainty. As one participant noted, the associated fear "causes writer's block, stage fright, [and] test anxiety therefore impeding productivity." If writing or presenting have been framed as post-hoc representational practices, students might (quite reasonably) expect to know what they think before they write or speak. Reframing writing and discussion as methods of inquiry through which we come to know may help fear of not-knowing shift into curiosity or excitement about what might be learned.

Supervisors and instructors who seek to create 'safe' spaces that support intellectual creativity and risk-taking may find their ability to do so limited by their own ambivalence about failure or find it relationally treacherous to toggle between collaborative and evaluative positions. The satisfaction of

feeling admired by our graduate students may compete with an uncomfortable sense that they want our jobs. The contradictory messaging this produces may undermine student wellbeing as well as pedagogical effectiveness.

We may be able to help students calibrate their own expectations and increase their confidence in the fairness of their grades by engaging them in peer-assessment, so they can properly contextualize their own work. Having the opportunity to compare themselves realistically could help those who are pushing themselves too hard as well as those who may need to apply themselves with more vigour. However, competitive dynamics were generally seen as more destructive than productive. Graduate students are put in the contradictory position of being called upon to learn collaboratively and support each other's growth while being pitted against one another in opaque and often desperate competitions for scarce funding and prizes. Because mutual-support can be an important buffer that mediates the negative effects of impostering, especially when morale is at risk, we may want to minimize competitive dynamics within departments as much as possible. We may also want to consider working with our colleagues to develop more unifying means of determining merit and distributing resources.

2. Engagement and belonging

The operation of withdrawal as both an involuntary and a strategic response to impostering has implications for evaluation systems that rely on participation, engagement, and the public display of competencies. While often read as an indicator of effective teaching, engagement may say more about a student's relational security and experiential background than it says about either our skills or their academic achievement. Barriers to participation may be layered and include a legitimate sense of self-preservation; there are few contexts in which anyone feels safe while being evaluated. Impostering was associated with avoiding many academic spaces and practices that are meant to support student success, such as contacting professors for help, presenting at conferences, attending colloquia, writing for publication, attending social events, going to talks, speaking out, asking questions in public, sharing work, or "putting yourself out there." One participant added, "when I do attend such events, I try to keep my head down because I do not want to reveal that I do not belong there, so I tend not to participate." Several said that it caused them to question remaining in their programs.

These behaviours can readily be (mis)read as expressions of disinterest or incompetence (being a 'bad student' versus being a 'keener.') Resistance to engagement may surface (in faculty and students) as boredom or personal dislike. In her work on shame as a public feeling, Elspeth Probyn (2005) observes that it tends to surface in response to the interruption or withdrawal of interest. Retreat and withdrawal by students can produce feelings of shame in faculty who are trying to be engaging. Questions about our own competence may be externalized into doubts about the withdrawing student's 'commitment' or 'sharpness.' The shame that instructors and supervisors may feel in response to student disengagement can produce anger or reciprocal withdrawal of interest. These feelings are liable to be readily communicated to students even if we don't recognize them ourselves; as one participant observed, "the administration is quick to suggest taking terms off rather than working to find solutions and supporting students."

Teaching and learning occur in "the schoolhouse in the mind" (Britzman, 2013), which is shaped by our early encounters with education systems. The tacit and stated rules of engagement are culturally-specific, but the friction produced by failure to follow them tends to be personalized. Many normalized aspects of the capitalist education system are painful and/or unjust and it is difficult to predict how much of that pain is necessary or generative. Room for solidarity can be pushed out of reach by our prescribed relational positions and roles. Faculty might also refuse engagement to protect

ourselves from relational losses when the students we have cared for go on with their lives. In such cases, our anticipatory retreat or avoidance might be projected onto our students.

Faculty engagement may be particularly compromised over the coming year by having been forced to reinvent ourselves as online educators over the summer, without childcare, during a pandemic, on top of our research and other obligations. Because we also operate in a failure-averse education system, not knowing how to serve our students or do our job well can feel intensely demoralizing and unfair. Needs that we cannot meet may feel intolerable, leading us to distance ourselves from our students even as we crave connection with them. None of these issues can be 'fixed' but it might be useful to become curious about our own engagement and to ensure that, so far as we can, we've created courses that we look forward to teaching. We will also require new strategies for conveying engagement, interest and attention online.

Our expectations around engagement and belonging are often based on ableist norms which do not account for physical and emotional sensory differences that may be innate or acquired. Social and biological factors have a direct impact on if and how we can engage with others, especially in high-stakes educational contexts. Relational norms can vary widely between and within departments and may be built around unstated histories of interpersonal conflict. Faculty may be particularly prone to disengagement or other forms of 'bad behaviour' in spaces where the relational complexities of collegial governance are inhibiting open communication. If faculty in a department feel unsafe or persecuted, students may pick up on this sensation, as emotion is often readily communicated.

The relatively predictable and short-term relational dynamics within courses might be less stressful for students than spaces in which roles and expectations are more fluid. This surfaces as difficulties with engagement in departmental colloquia, conferences, or most acutely in relation to supervisors, where care and judgement are often closely intertwined. Both faculty and students are liable to feel anxious as they depend on one another to co-create a successful learning experience. Neither knows if this will be a mutually-enriching exploration or a draining relational train-wreck; supervisors caught between their own conflicting imperatives can experience this as generalized sense of frustration and insufficiency that makes it difficult to respond joyfully to external demands, no matter how worthy the student or their project may be. Students, naturally, are inclined to take this personally rather than attributing it to institutional constraints.

Faculty who do not want to be seen as the face of the institution may find some common ground with students in our shared constraint if we take care not to minimize our own power and complicity. We may be particularly impatient with students whose insecurity manifests as arrogance or if they seem ungrateful when we expect thanks. Such feelings are often impervious to 'shoulds' but noticing them might help us find less reactive ways of engaging.

3. Participation

In teaching graduate classes equalizing the distribution of voice is often seen as ethically and pedagogically correct, as it flattens power differentials in the classroom and provides training for students in scholarly skills like public speaking, academic writing, and debate. We often love classes where nobody seems to be in charge and the conversation flows, but it can be hard to remember what they feel like for students. In class, on the page, and in their work as Teaching Assistants, they must reveal their half-baked thoughts, and then they are ranked.

Participation can be coercive (see Kesby, 2005). The long pause when an instructor asks a question and students avoid eye contact until somebody breaks – the feeling of waiting out their reluctance – tells us it's a game of chicken. It's about power, specifically, our power to make students expose themselves by performing certain competencies in front of an audience even if they don't want to.

This everyday academic routine may be a key site of impostering. As one participant stated, "being forced to perform against my better judgement and being treated as having value for this subordination of my own agency is the height of the experience for me."

This experience could be especially harmful for students raised in Indigenous cultures where public shaming is not a normalized traditional approach to education but was a key feature of residential schools. A discussion of Indigenous pedagogies exceeds both my expertise and our present purposes but (as I understand them) they tend to require modelling, observation, self-directed practice, indirect or allegorical instruction, and consent (see, for instance, Simpson, 2014; Kovach, 2005).

Being asked to state opinions in zones of ignorance is not a culturally neutral practice. Given the invisibility of many differences, it is impossible to know what participation costs our students. Fostering participation is an essential part of inclusive experiential learning but if we do not recognize it as an exercise of power we may be careless about its effects.

It can be especially difficult to recognize our complicity in structures of power if we cannot tolerate our own failures. As we move into online teaching, students may feel increasingly exposed or unsettled by group interactions. It may be difficult for us to 'read the room' or sense their (dis)comfort. Having clearly articulated expectations and creating opportunities for anonymous feedback from students can help, but optimizing our pedagogies cannot render us trustworthy or undo the bodily effects of educational institutions.

Instructors and supervisors may want to consider the role fear is playing in their students' education. While fear of failure can have motivating properties, we suspect that the sharp rise in ambient fear related to COVID-19 and its devastating ongoing global impact has reduced our own and our students' ability to tolerate fear-inducing systems. Our strategies for self-soothing and emotional regulation are often spatial and relational, so physical distancing is likely to make it worse. We would encourage instructors and supervisors to consider how we might intentionally cultivate a felt sense of security (for ourselves and our students) and support healthy fear management as we pivot to teaching and supervising online.

E. Conclusion

We propose that impostering be considered a public spatial phenomenon, indicated by a felt sense that one does not belong. Losing access to campus is already having strong and complex effects on this and many other relational dynamics in the academic community, as many of our routines rely on spatial strategies and human proximities that are no longer available.

Expectations must adapt accordingly; we are not the academy of last year. We are grateful for the grant that allowed us to begin this work and look forward to continuing to work on this issue with the Carleton community.

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G. Appendices

Appendix 1: Questionnaire

1) What is your age?

2) Gender identification?

3) Academic location: where are you in your program, and what program are you in?

4) What, to you, is imposter syndrome?

5) Do these factors play a role in your experience of imposter syndrome?

Factor	Yes	No	N/A
Your religious or spiritual life, past or present?			
Comments:			
Your own or your family's social or economic status?			
Comments:			
Your gender, ethnicity, dis/ability, sexual orientation, or other aspects of your identity?			
Comments:			
Your personality or character traits?			
Comments:			
Your academic history?			
Comments:			
The nature of your academic program?			
Comments:			
The academic culture in which you are working?			
Comments:			
The physical spaces on campus?			
Comments:			
Scheduling, distances, finances, or other contextual factors?			
Comments:			
Other experiences or circumstances?			
Comments:			

6) How does feeling like an imposter affect your experience of being at Carleton?

7) How do you physically experience imposter syndrome? Where do you feel it in your body and how? (eg. Shifts in temperature, cravings, breathing, tension, posture, etc.).

8) Are there times, places or things you do on campus that influence feelings of being an imposter?

9) Are there times, places or things you do off campus that influence feelings of being an imposter?

10) What, if anything, do you do to manage or minimize feelings of imposterism?

11) In your opinion, what collective or public function might imposter syndrome serve? What does it do or produce?

12) In your opinion, what personal or collective benefits might imposter syndrome offer?

13) What is the opposite of feeling like an imposter? How do you recognize it?

14) Where and when on campus do you feel most comfortable, or like you belong?

15) Are there any stories or images you'd like to share that relate to imposter syndrome? If you wish, you may upload an image or document via the upload button below. Note: You might not want to share images that disclose your identity, if you wish to avoid being identified. We will not use potentially identifying images or stories without your express consent. If you have elected to disclose identifying information and would like us to give you credit by naming you, please indicate this explicitly in your response.

Appendix 2: Resources developed

1. Workbook (Maria Dabboussy)

The Mindful Impostering workbook was developed in response to the move to online learning for the 2020-2021 academic year. Mindful Impostering can be printed on 8.5 by 11 paper and folded into a workbook, or utilized digitally.

This workbook has the goal of familiarizing its user with their own relationality to their imposter self. It aims to bring the imposter self into the known in ways that neutralize the fear and shame around impostering. We hope that the activities can be done repeatedly as needed. We plan to gather feedback and resources from the community to continue to develop this and other workbook and journaling practices.

2. Data visualizations (Maria Dabboussy)

We have developed a collection of data visualizations containing aggregated, de-identified selections from the questionnaire data. You are invited to read and respond to this collection, and provide advice and suggestions about next steps. We hope to use this collaborative analysis space to enrich our understanding of the data and to start building community around experiences of imposter syndrome on campus. Two of these are included in this document; the full set is available here.

3. Chapter excerpt and discussion cards (Brittany Amell)

From: Amell, B. (forthcoming). Getting stuck, writing badly, and other curious impressions: Doctoral writing and imposter feelings. In M. Addison, M. Breeze, & Y. Taylor (Eds.), *The Palgrave handbook of 'imposter syndrome' in higher education* (pp. 00-00). Palgrave Macmillan.

Abstract:

> Although doctoral writing is receiving an increasing amount of attention, few known studies consider doctoral writing and imposter syndrome together. The present chapter brings doctoral writing and imposter syndrome (or imposter feelings) in conversation with each other, vis-à-vis a focus on the experiences of Canadian doctoral students and the role(s) imposter feelings may be performing in their accounts. The author argues that imposter syndrome takes on several shapes in students' accounts

and uses the metaphors of the press, compass, and obstacle to discuss the roles imposter syndrome appears to be performing. The author ends the chapter by sharing heuristic aids (in the form of cards) that invite reflection and dialogue on the implications of the study.

Excerpt (from conclusion):

My aim throughout this chapter has been to highlight the places one might pause for reflection and intervention—ideally at the pedagogical, supervisory, and institutional level, rather than at the level of individual doctoral students—instead of a precise 'inventory.' In support of this aim, I created a set of cards readers may download and print (See Appendix). Each card is based on the data and my analysis, and contains the metaphors introduced in this chapter (the press, compass, and obstacle, plus two more: the award and lighthouse). Figure 3 shows thumbnails of the cards.

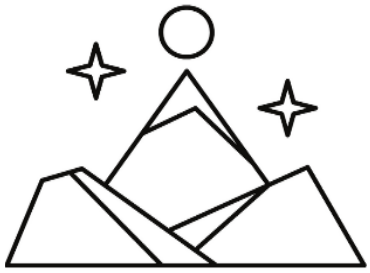
I was motivated to develop these cards because I believe that the knowledge generated from my inquiry processes ought to be useful and subvert theory/practice divides. I imagine these cards used in several ways, such as:

- Conversation starters at faculty and supervisor brown-bag lunches, especially those geared toward the topic of imposter syndrome.
- Topics for Inkshedding activities (see Hunt, n.d.).
- Questions to guide reflection, whether in general or repurposed in some way to support critical readings of imposter syndrome and doctoral education literature.
- Conversation starters during supervision meetings, experimenting with using them in 1:1 meetings and in group meetings (if one has multiple students, similar to studio-based approaches).

Figure 3. Heuristic Aids/Resource cards (also available here: https://bit.ly/2yMCQIk)

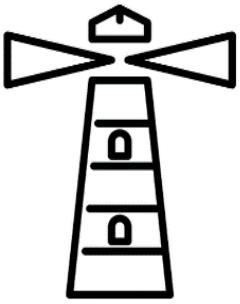
The Award

Imposter feelings may be spurred on by perceived gaps between what we produce and what seems to be valued. If applicable, what seems to be valued? Do we agree?



The Obstacle

If imposter feelings are experienced as an obstacle, identify what work processes and which elements are impacted.

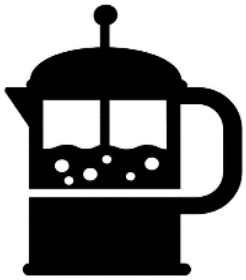


The Lighthouse

Sometimes imposter feelings may be sparked by a hyperfocus on a limited definition of success. How might we reconfigure the meaning of 'success'?

The Compass

How might imposter feelings act as a compass? What are we orienting toward or away from?



The Press

How might the environment be pressing, provoking or inducing imposter feelings? What 'work' might these feelings be doing?

Appendix 3: Summary of literature review

Different Approaches to Imposter Syndrome: Applications and Analyses

In her review of the literature, Brittany found that imposter syndrome is approached at the micro or individual level (Peteet, Brown, Lige & Lanaway, 2015) and at a socio-cultural level (Breeze, 2018; Cisco, 2019; Cohen & McDonnell, 2019).

Those focused on the micro-scale identify imposter syndrome as a wish to be considered exceedingly capable, to the point of severely high self-expectations. When these cannot be met, many feel that they are failures, fraudsters, or phonies. They attribute their success to luck or chance and feel they have deceived or fooled others into seeing them as capable. They discount praise and their own abilities and fear their eventual, inevitable exposure (Bernard, Dolinger & Ramaniah, 2002; Clance & Imes, 1978; Cohen & McConnell 2019; Seritan & Mehta 2015).

Recommendations from Bravata et al (2019) based on this micro-scale analysis suggest that department chairs, directors of graduate studies, and faculty mentors should be able to identify imposter syndrome, be mindful of its likelihood in relation to our students, and work with student associations to mitigate imposter feelings. They call for the evaluation of individual and group cognitive-behavioural therapies used to address imposter feelings and propose that it be considered for inclusion in the Diagnostic and Statistical Manual of Mental Disorders (DSM) so its symptoms and treatments can be codified.

Those writing from a socio-cultural perspective provide a different point of view that emphasizes structural factors. For instance, Breeze (2018) argues that framing imposter syndrome and its solutions as 'individual' or 'private' does little to illuminate its ties to socio-cultural and political contexts; she therefore asks how impostering tracks with broader social patters of in/exclusion. Cohen and McConnell (2019) noted the surprising durability of imposter feelings and wonder if students might reinforce their familiar discomfort by "gravitat[ing] toward experiences that exacerbate their feelings of fraudulence," refusing to compete for funding, avoiding interactions with faculty or peers, and failing "to seek out the best mentors" (p. 470). They focus on shifting academic practices, such as improving the clarity and quality of the mentoring and evaluation students receive in order to support more accurate self-assessments. Their recommendations include establishing formal policies to monitor and encourage skillful mentoring, recognizing diverse student accomplishments rather than focusing on the highest-status achievements, and promoting informal interactions between faculty and students to help establish realistic professional expectations and informal support networks. Finally, Cisco (2019) explores the gatekeeping role of academic literacies and calls for greater attention to providing appropriate preparation for graduate-level reading, writing, and discussion. Rather than 'quick-fix' solutions like stand-alone workshops or self-care toolkits he calls for grouping students to foster solidarity and cohesion and for explicit mentorship and instruction that pairs "literacy and academic skill set development" with principles of clinical psychology.