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Becoming a Transformations Practitioner

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Abstract:

What are common pathways to becoming a transformations practitioner practitioner? Do these pathways depend on 'inner work,' or rather just being in the right place at the right time? How do personal transformations relate to social or material ones? We draw on 56 interviews with active practitioners from around the globe to address these questions. Interviewees reflected on how they developed capacities to engage in personal and professional transformations.

In many cases, epiphanies and self-reflective practices led to turning points away from conventional career patterns. The realization, either sudden or progressive, that established forms of science and practice were insufficient, and that one needs to extend one's scope beyond conventional frames and beliefs often happened in the context of 'epistemological crises.' That is, deeply questioning what counts as valid and useful knowledge and how learning occurs. An unexpected finding was that such personal crises were often triggered by meaningful interactions with non-Western cultures, through which the epistemologies and, occasionally, ontologies of these cultures were embraced or at least recognized as equally sound to their Western counterparts. In these cases, 'letting go' and 'unlearning' were identified as key skills to overcome onto-epistemological crises.

Highlights:

1. Many practitioners experienced turning points brought on by 'onto-epistemological crises' and realizations as to the shortcomings of their work and practice.
2. Interactions with Indigenous ways of knowing often led to these turning points.
3. Intercultural interactions and onto-epistemological crises led academics and practitioners to re-evaluate their personal and professional lives, leading to the development of several relevant capacities for becoming transformations practitioners (e.g., self-reflection, integration of the personal/professional, unlearning).

Introduction

Becoming a transformations practitioner is both a subjective process and specific to contextual and structural factors. Sustainability and climate change research has only recently addressed subjective and inner dynamics in social-ecological systems' transformations (Manuel-Navarrete 2015; Horlings 2015). A central idea in this line of research is that we need to activate inner (deeper) leverage points to trigger larger transformations, both individual and collective (Woiwode et al. 2021). Transformative agency represents the capacity to pull these deeper levers of social-ecological change (O'Brien 2005; Charli-Joseph et al. 2018). Transformations are defined here as deliberate processes of radical change to meet social and environmental crises that are purposefully initiated and carried out by human agents and can be triggered or accelerated by systemic events (Manuel-Navarrete and Pelling 2015). New theories and models are increasingly proposed to mobilize subjective dynamics towards sustainability (Scharmer 2009; Künkel & Ragnarsdottir 2022). A key element of these theories and models is transformative leadership. Still, in addition to leadership, global transformations will also require a critical mass of people to engage in transformative forms of inner work.

Our notion of transformations practitioners expands research on transformational leadership. It focuses on more general inner changes experienced by academically trained professionals as they intentionally engage in personal, societal, and other types of transformational processes. The idea that we all must "become the transformations we seek" by shaping our subjectivity rather than leaving the job to experts and politicians is consistent with Indigenous cultures' stronger sense of community and relationality (Kimmerer 2017; Nelson & Shilling 2018). A promising dialogue between transformations practitioners and Indigenous scholars is underway (Goodchild 2021). Many interviewees reported that exposure to indigenous cultures, their epistemologies, and ontologies was one of the primary triggers of inner change along their pathways to becoming. Ontologies refer to what we assume to be the nature of reality. For instance, reality is assumed to be made of matter in modern ontologies but of relationships in Indigenous ontologies (Wilson 2008) or consciousness in non-dualistic ontologies. Epistemologies refer to ways of learning about reality. Although the practitioners we interviewed did not report this form of direct learning, some sustainability pedagogies are starting to acknowledge that we can learn directly from engaging with ecosystems and non-human beings (e.g., Burns, 2015). practitioner.

Academics and professionals dissatisfied with the transformational potential of their current practices, especially given the scope and urgency of our global crises, may particularly benefit from the insights shared here. It is cliché that transformations are always difficult and often painful, but sometimes necessary. As one interviewee put it: "You can read about it, but the only way I have ever advanced in it is through pain." In sharing these insights, we seek to promote the emergence of a global community of practitioners, which will support painful transformations while, hopefully, making them more accessible and enjoyable.

The Transformations Community (see next section for a description of the community) is an association of action researchers and reflective practitioners who seek to foster a just transition toward a more sustainable future. So, how do they implement these vital systems changes, and what abilities do they need to do it well? In this paper, we consider the kinds of projects that transformations practitioners do and what skills and competencies they need to pursue them. This is the first effort to investigate what transformations practitioners have in common by asking 56 of them to describe their practice. Prior empirical work on this topic has made inferences from large-scale literature reviews of transformations projects (Rose and Wanner 2018) or examined research and practice in specific initiatives (Bulten et al. 2021; Hilger, Chien 2022).

What is the Transformations Community?

The Transformations Community is a global community of action-oriented researchers and reflective practitioners who support transformations to a sustainable and regenerative future. The community consists of experienced academics and professionals who work in various organizations, including sustainability-oriented academic programs, government, intergovernmental agencies, research institutes, agile non-profit organizations, consulting firms, and foundations. The community began in Norway in 2013, with the first Transformations conference hosted by the University of Oslo to explore how to bring about a deliberate, ethical, and sustainable transformation in response to climate change. Since then, Transformations conferences have taken place at Stockholm University in Sweden, The University of Dundee in Scotland, and The University of Chile in Santiago, Chile, online in 2021, and the University of Technology in Sydney, Australia, in 2023. In addition to the conference series, the Transformation Community organizes dialogues, workshops and communities of practice to enable practitioners to bring desirable transformations to life.

Methods

This project began as a joint effort between the University of Colorado Boulder Masters of the Environment Program (MENV) and the Arizona State University (ASU) Graduate Programs on Sustainability. We embarked on this project to:

- Provide students interested in systems change with an opportunity to engage with members of the Transformations Community.
- Check-in with the Transformations Community membership on how the community can better serve them.
- Use the Transformations Community as a case study to develop and share our understanding of the emerging field of transformations-in-practice.

In August 2021, the Transformations Community solicited interview subjects in our quarterly newsletter, received by approximately 1500 transformations practitioners, most of whom had attended one or more of the five conferences convened by the Transformations Community biennially since 2013. We screened the 80 responses to this request to obtain a broad representation and diversity of perspectives and selected sixty subjects for interviews, four of

which were not completed. The 56 members of the Transformations Community that we interviewed:

- Were about equally divided between males (26) and females (30) (note that we did not ask them for this information, and our estimate is based on their online biographies).
- 22 identified an academic institution as their organizational affiliation, 20 were from the non-profits/government or private sector, and 14 were from both.
- 29 were from the U.S. and Canada, nine from Latin America and the Caribbean, eight from Europe, six from Australia/Oceania, three from Asia, and one from Africa.

This sample is more heavily weighted toward the U.S. and Canada than the Transformations Community as a whole, perhaps because they were more likely to volunteer to be a part of a project conducted by two U.S. universities and U.S.-based graduate students. Most of those associated with academic institutions gave their field/discipline affiliation as one of the fields where social and ecological systems are jointly studied. These included Anthropology, Applied Ecology, Environmental science, and Geography. Table 1 lists the terms they used to describe their applied research domain and professional practice.

Table 1: Domains of applied research and professional practice

Adaptive management	Organizational change
Biodiversity conservation	Organizational learning and change process
Climate adaptation	Permaculture design
Climate change adaptation and resilience	Policy and governance
Community-based policy development	Policy research and analysis
Corporate responsibility	Polycentric governance
Creative arts	Public Participation
Ecosystem management	Reducing social inequality
Ecosystem services	Regenerative economics
Environmental governance	Social entrepreneurship and social innovation
Food sovereignty	Social-ecological resilience
Inter-organizational collaboration	Sustainability
Management and governance transitions	Sustainable Food systems
Monitoring and evaluation	Urban agriculture
Natural resource management	Urban/smallholder agricultural systems
Network management and governance	Visioning and futuring
Organizational behavior	

The two lead authors organized interviewing teams of three graduate students each, two from MENV and one from ASU. Student groups were able to select their interview subjects from the pool of 60 practitioners based on their alignment with their interests on a first-come, first-served basis. On each campus, faculty trained the students in semi-structured interviewing techniques, including opening the interview, establishing rapport, and probing for detail and examples.

Students scheduled an initial meeting to meet the other members of their interviewing team and then coordinated with the practitioners to schedule one-hour interviews in October 2021. Before the interview, students emailed their interview subjects an informational memo and consent form that stated that the interview data would not be publicly shared and that we planned to publish and distribute the results of the interviews without personal attribution. Students informed respondents that they could choose not to answer any questions and could request at any time that they leave the study and have their data deleted.

One student conducted the 90-minute interview, one managed the Zoom platform, and the final member of the team took notes and identified key moments for later analysis. Questions from a semi-structured interview protocol examined these themes:

- What do they understand transformations practice to be, and how does it show up in their lives and work?
- How did they develop their capacity to engage in transformation practice, both personally and professionally?
- What are their challenges to achieving transformation, and how do they address them?
- How do the institutions they are currently engaged in support or hinder their transformations work?
- How could the Transformation Community help them become more professionally and personally fulfilled?

Students created an automated transcript which they corrected and uploaded onto a shared Google drive folder. By the end of November, student groups prepared a memo containing their insights and reflections on their own career development, which they discussed in class. The contents of these memos were not analyzed further or incorporated into this analysis.

During Spring 2022, the authors coded and analyzed the interview transcripts using Delve content analysis software. Grounded Theory (Corbin and Strauss, 2015) guided analysis of individual cases, emphasizing identifying emergent themes and insights (Law, 2004). We edited the transcripts to enhance their clarity and enable them to stand alone in this format. We limited these edits to changing tense or pronoun and removing elements characteristic of verbal speech (e.g., phrases like “um” and “well”).

This article is one of four articles created from this analysis that appear in this special issue – the other three examine the meaning of transformations (Goldstein et al. 2022), how to become a transformations practitioner (Navarrete et al. 2022), and the challenges that transformations practitioners face (Balakrishna et al. 2022).

Results

Overall, interviewees described a wide diversity of personal and professional pathways. These pathways combined turning points, often caused by personal epiphanies, with more extended organic periods of searching for more meaningful practices of professional engagement.

Epistemological and ontological turns and crises were amongst the main levers, often described as triggered by meaningful interactions with non-Western ways of knowing and being in the world. Basic capacities and skills to become a transformations practitioner were also identified. Unlearning and letting go stood out as key capacities.

The main insights from interviews are reported below. They were organized as answers to three practical questions:

1. What does becoming a transformations practitioner look like (i.e., pathways and turning points)?
2. What triggers a sustained process of becoming (i.e., levers)?
3. What does it take to become a transformations practitioner (i.e., capacities)?

1. Pathways and turning points of becoming: What does becoming a transformations practitioner look like?

Pathways

Personal and professional pathways to becoming a practitioner were very diverse in terms of starting points and trajectories. In some cases, pathways began within the personal sphere and spilled over to the professional one.

"Everybody goes through this journey in terms of understanding your place, understanding white saviorism, and all of that. For me, when I had my first son, there was something about realizing that the world was really screwed up. You cannot protect your child from the world. There's not enough money or buffers that you can create around your child. So, it made more sense to transform the world, rather than to try to build a castle. I just must create the conditions where he doesn't need a castle because we'll all be better off."

"I hated schools right from the beginning because my parents were teachers and that's a tragedy. Your home is turned into a school. So, I had a miserable childhood. I rebelled all the time. So, when I went to engineering, I never attended classes, I drank, I smoked weed […] And it was a thorough negative rebellion because modern societies very rarely have space for positive rebellions, which may disturb the system. And I began questioning: Why do I find nobody interested in true learning? Everybody's interested in good marks, but no interest in learning. I couldn't find answers to these kinds of contradictions, so I kept on questioning."

In other cases, transformations had their origin and most of their trajectories within the professional sphere.

"I started being a typical scientist, trying to control conditions, because you have to measure and you have to track the system, and all that kind of things. But you see that one cannot control everything, and that narratives matter. I remember a workshop where we had everything

planned, and there was a point in which I just felt like everything was falling apart. I felt horrible, but one realizes it is part of the change."

In a few cases, transformations entailed radical professional turns.

"My own biography includes my decision to leave academia. I was a full professor, and I left. I feel that academia itself is desperately in need of transformation. So I left but remained on the margin. And it's not to say that there were any bad feelings or anything. It's just that academia is not about transformation. I'm about transformation, I want to be with people who are about transformation. So, I now run a foundation."

Turning points and epiphanies

Most pathways included turning points, which were often described as triggered by personal epiphanies or realizations that there is something wrong with the status quo of our global society and with how research and professional careers are conventionally framed. The need to transcend the limitations of the status quo was also identified by Goldstein et al. (2022) as a critical challenge for transformations practitioners. For many interviewees, the first step was questioning the dominant systems and their personal relation to them.

"I do think that there's something about that moment where you start really considering what kind of society you live in, and what you can do, and what is your role in it"

"I started to understand that there are systems that I'm enmeshed in based on where I've grown up like the Canadian government and the provincial government and municipalities and homeownership and, you know, jobs and stuff like this, that, are enmeshed in a particular way of organizing"

"I was like I don't want to write another report, I'm going to kill myself, so I said, I see this pattern, I see these systems, I see people doing the same things over and over again"

Epiphanies pushed some interviewees to rethink what counts as research and to expand the scope of their professional activities beyond what their jobs and training prescribed.

"Thinking that it's allowed to be an academic that cares for others and cares for the state of the world and has a political voice. The realization that we all have to do it. It's not something that you watch some other folks do from a distance. You realize this is your obligation. You owe this to society, I don't want to call it a calling, but then you realize that this is your duty. Being able to say I can absolutely justify doing the research that I do, in my very political ways, and not feel that it was detrimental to research or to rigor."

"When you're a researcher sometimes you see all these problems and you're like, I want to help that community, but then you also have your responsibility to do your research, gather your data. So that's where I think transformation science should come in."

"The relationship with academia is ambiguous. Academia creates marvelous spaces of exploration. And we rely on these spaces to be the agents of change that academics are incapable of being. So that's the ambiguity and then I had to make a choice. Quitting academia is not something I necessarily recommend, but in my particular situation I was able to step away and do something else."

"As professors we were very much independent operators and were usually valued and rewarded for publications, which I also love, by the way, but to move away to see that the collective is the space for more practical work. I could get that intellectually, like years ago, but to live that out, is an ongoing practice and I'm not especially good at it, partly because I'm so deeply socialized in the academic model. Part of our problem is this deep socialization we've had"

In addition to swift realizations, transformative pathways were driven by gradual burnout, 'slow burning' processes of soul-searching and meaning-making, and going back to the land and sabbatical years.

"It happened organically. I can't say I set out a plan to start meditating every day, and then it happened. But there's no question that, you know, after I left Wall Street in 2001, I was already restless, I had been itching to get away from that culture, but always sort of drawn back in. And then when the merger with Chase happened, it made it easy to leave, because my stock options vested, so I just left. And that opened-up a whole new world to me, in part triggered by experiencing 9/11 firsthand, but none of that was planned. The only way I can describe it is the universe delivered that to me"

"It's usually over time. It is what was transformed or awakened or what changed in me. And I was hopeless when doing peak oil research and learning we have solutions, but they're not gonna be implemented. And there was a lot of despair for the future and next generation. So I think the permaculture transformation piece helped me come from a place of despair to a place of hope."

"In conversation with a colleague, we realized that almost all of us at some point in our lives we were more traditional activists that got really burnt out from fighting against things or from inter-organizational fighting. People were idealistic about what they wanted. If someone else within the organization wasn't meeting up to their perfect values, then they would attack them rather than the thing that they were trying to change."

"I had two years to do whatever sort of research I wanted. I just felt like I finally had the head space to stop and think: what sort of a researcher do I want to be? I don't want to keep doing research."

Finding purpose and meaning was a common driver behind wanting to become a practitioner.

"I probably see an element of purpose and even calling, I know, that's not language that is often used in the scientific space, but the idea of trying to figure out how my work contributes something meaningful."

Overall, we found that becoming a practitioner happens through entanglements of personal and professional events and processes resulting in turning points. A common turning point consisted of realizing that there is something wrong with the status quo of our global society and with how research and professional careers are conventionally framed. This led to burnout but also to positive personal changes through questioning the dominant systems and one's personal relation to them.

2. Levers: What triggers a sustained process of becoming?

An unexpectedly common lever consisted of going through a form of epistemological and ontological crisis, triggered through exposure to non-Western cultures. As anecdotally illustrated by one of the interviewees: *"There's a practical element of looking at my diet in ways that I hadn't before. And it wasn't until I got out of my culture that I kind of was able to see that."*

The crisis was mostly due to exposure to Indigenous cultures and practices.

"Luckily, I was led to the rural tribal people of my country, whom we call 'illiterates.' As I began to live with rural tribal communities, I began to take deep interest and I realized they are so sustainable. They are self-sufficient and we are going to 'develop them.' This is something that I couldn't understand. They are far more civilized, far more rooted, far more authentic. They are more culturally rooted, whereas we 'the educated' get colonized and then go to rural tribal people and want to convert them. We have all these ideas of how to change one another. Our worry is how to change the other person. So, this is something that I realized as a trap."

"Every day we see more concern about different cultures, ways of living, and conceiving the world, and there's Indigenous evaluation, which would care for other cosmologies to understand or to learn from them, or the ways of dealing in the world. This was a major experience for me, very, very important, very important. And then I decided to study evaluation"

Intercultural exposure then led to epistemological turns.

"And I began to understand what's called the double wampum belt [Two-Row Wampum Treaty], this idea that there are two, two canoes, traveling parallel paths, and I wouldn't say that my understanding of that is complete, but I now better understand that I got to remain with my ear open, and attentive to my relationships that are organizing in a different world than the one that I know."

"I got involved with the indigenous land defense movement in northern British Columbia and this experience was fundamental. It happened pretty quickly, just getting involved there with the camp, and coming, getting in touch with people who were looking at climate work from such a

fundamentally different epistemology was transformative for me. But this is something that I'm still working on today, this idea of thinking about climate justice from different epistemologies."

"I used to give little credit, in terms of knowledge, to traditional ways of knowing. I would be very respectful, but I would say, we have to think in terms of what the [Western scientific] model is saying and, what they're saying is important, but just because it is telling us about how they feel about the system not because they are adding to the model's description of the system."

Deeper engagements with Indigenous cultures and knowledge sometimes resulted in questioning Euro-centric ontologies.

"I read Braiding Sweetgrass by Robin Wall Kimmerer. And she just blew my mind because now I gotta have relationships with the trees, the grass that I'm mowing, seeing them as beings."

"It's not just knowledge, but more. It's hard to explain because I don't really understand it myself, but thanks to this project I got closer to understanding it. It's kind of, a way of being in the ecosystem, and not considering themselves as an entity. It's fundamental to them being part of the system. Once we wanted to go and see a waterfall and we asked one of the elders we were working with and he said, 'I just need to call because, that's not my family's place'. He called and got permission, got it and took us to the waterfall and he explained to us, and this is what I hadn't really realized, the reason is that if you look after country, the country looks after you. Hadn't he checked with a person whose waterfall was part of their family story, we could have gotten sick from going to visit the waterfall because it is against culture. For them, it's like a deep-rooted cultural violation when someone is hurt in their country because it means they've failed to protect. That person is in their country. And so it's kind of like a different level. Their stuff is just such a different level of understanding and being in nature. I don't think that's unique to Australian indigenous people."

One interviewee deeply reflected on the relationship between these critical levers and the processes of colonization and westernization.

"In India colonization has become so natural, they don't even address their colonization. But, when I got into design education, I realized the depth of colonization and recolonization that is happening to education because I found that being an Indian, I was being subjected to Western aesthetic sensibilities, now all over the world, through education. But westernization is misunderstood to a large extent. It's actually what I call textualization. The west became the first victims of texts. [...] So, I spent three years for my rebirth. I faced that we are putting the mind first and the body later, which means that you plan, you sit at a tablet to write down everything you plan, and then you make your body servant. You are only executing what the mind has already planned. Luckily, I was able to address this. I was able to recognize this very fast and I stopped any kind of planning and I started doing work spontaneously. I began to engage and reengage, my body as a primary source and the mind working in service of the body, not the other way around. So, it was just a fantastic experiment."

In one case, engaging with local Western people in rural contexts was also described as a critical lever leading to significant changes in perspective, ways of thinking, and approaching the world.

"I started out like this strident environmentalist and I wanted to study how grazing regulations could be reformed. And I really had this image of ranchers, they're pretty much all bad, and public lands were the problem. We've got to at least raise the grazing fee and really make the regulations more stringent. You know, these ranchers are pretty much all evil guys that need to be reined in. It was very simplistic. That's the way I saw the world, I had been taught by the environmentalist's that I worked with. But then I started interviewing ranchers in rural communities around Yellowstone. It made me realize that some ranchers are really conservation minded. Their ranches look beautiful and they're doing great things and they're trying to restore. They're actually land stewards and they care. And then, there's other ranchers, and then there's wealthy conservation buyers who maybe are clueless about weeds, and the relationship between elk and cattle management and so on. So it just turned my world upside down and I had to really rethink how I feel about ranchers and get a much more nuanced understanding of ranchers because it's not all black and white."

COVID-19 was another lever. In one case, it led to a renewed commitment to the local.

"With the pandemic I remember walking around in our local communities because I couldn't go anywhere else. We had more space because certain things had to get dropped. I was also at a place where I was feeling despondent about research, income, success, so I committed to sustainability issues here locally, not ignoring but being less concerned about global impact. It was during COVID that I really got embedded into, connected, sensing a calling without it being a grand thing but with purpose, and the orientation was towards the local. The sense of staying put and committing to that."

In another case, COVID-19 triggered the opposite effect: a renewed commitment to the global.

"There's been a greater recognition of the planetary crisis being something that I have a certain voice to speak into, from a certain perspective that many others don't, which is connected in many ways to my faith and perspective. So it has probably reinforced that [change] from something I'm just kind of interested into something actually quite central to the kind of impact I want to be making on the world"

Overall, we found that a key lever of becoming a practitioner consisted of onto-epistemological crises, which were often triggered through exposure to non-Western, particularly Indigenous, cultures and practices.

3. Capacities & skills: What does it take to become a transformations practitioner?

The most relevant capacities to become a practitioner included: (1) self-reflection, (2) integration of personal and professional spheres, and (3) unlearning, letting go, and ego deflation.

Self-reflection

Self-reflecting on one's own pathway was key to strategizing, adjusting, re-defining one's activities and professional engagements, and seeking to become the change one wants to see in systems.

"How do I have an impact? How do I really make a difference? For me that critical reflection on who I am, what I want to be, sort of renewed my commitment to try and have an impact."

"We began to reflect on ourselves and the fact that so much of transformative research is closely linked to transdisciplinary research. Also, that researchers aren't necessarily going to be the people who can drive this sort of change. And so, it's recognizing that there's a whole range of different actors that need to be brought together to work together on transformative processes."

This self-reflection was often explicitly connected with the dynamics of systems "out there."

"I've had no choice but to make very hard decisions and lots of personal reflection and transformation, so, I'm well practiced in humility, I know where my faults exist, and I have no problem doing immediate evaluations of experiences I'm having to see if I'm managing them correctly, so transformation in systems works similarly. If you're working in a system properly and you're not transforming yourself personally you're doing something way wrong."

And with others, in relational ways.

"Reflexivity is, to me, really the core to doing work. Especially from like a privileged, white cis-gender dude, working with people in Borneo, there is a lot of ways to screw up and I have done a lot of them. And to me, the core thing is not to try to avoid screwing up, but it's to develop relationships with the people you're working with, so that when you screw up, they will let you know. And you can go 'Oh shit! You are right! What was I thinking of? I am so sorry, can we fix this?' 'Maybe,' 'Yeah, we can fix this.' That combination of humility and reflexivity is important, and, to me, the only way to learn reflexivity is through pain."

Integration of personal and professional spheres

The integration or weaving together of personal and professional life was less obvious but as crucial a capacity as self-reflection. This integration was also a main finding in Balakrishna et al. (2022).

"I used to separate my intellectual work from things that you care about. And there were two distinct spheres. And then I was a lot more willing to just bring those two together. Because then you realize that you don't have a lot of time, I must be doing useful things. There's this heightened sense of urgency."

"I started off as sort of intellectually interested in the environment, and what's happening to the natural world. Meanwhile, I had my own sort of personal convictions and beliefs, particularly with my position as a person of faith. And then it was a gradual weaving together of those, like: 'Oh, these aren't separate things.' All things wove together so the environmental crisis is a spiritual crisis as much as a kind of technological or economic crisis."

Unlearning, letting go, and ego deflation

Unlearning forms of academic training that thwart transformative change, letting go of academic conditionings that hinder transformative practice, and, more generally, academic ego deflation can be bundled into a third essential capacity.

"I spent all these years getting my degree and all I do now is try to explain to these communities that my role is not to tell you what you need to do. And that I don't have all the answers. That's the expectation academia has perpetuated. And we must shed that. We must break that and kind of start over. So, we call it unlearning all the things that we were trained to do in our degree programs. You have to be constantly conscious of when those path dependencies are being built in your mind through the ways that you're being exposed to different learning experiences."

"I used to read so many books, you know, philosophy, anthropology, all kinds of things to understand my culture and all the books I read were written by Westerners. This, I found, was a terrible contradiction. How do I ever come to know my culture if I'm being directed to look to the world through a Western mindset?"

"I realized how attached we are with our production, our ideas, our theories, and how much we do to defend them. And evidently, we are in a market context, which is global, and it's disputed. And also you have to have some prominence, but how are you going to get it?"

"Academic people are emotionally trained to dispute. So we are always disputing with each other. We want to win an argument and this is the vocabulary that we use. It's like we were in a war. But what we need now is more cooperation and conversations which can build a future together. Otherwise, we are in bad shape. But this is emotional. We as academics, we are trained to win."

"You've studied up on this. It is hard to not try to prove you're smart, but to in fact, start by the idea that you really don't know."

Specific skills and tools that can enhance these capacities or contribute to the process of becoming are listed in Table 2 along with a representative quote from interviewees.

Table 2. Skills and Tools identified as useful for Transformations Practice

Skills and tools	Quote
Auto-ethnography, journaling	"I use auto-ethnography and journaling to find the first case that I can remember where I had a reflexivity experience, and it did involve a kind of a crisis; an identity crisis."
Reciprocity mindset	"That reciprocity mindset, embracing it at its core, will completely transform the way you work with communities and your ability to be a transformations catalysts and real agent of change."
Listening	"The ability to walk in a situation where people are on that, and your first instinct is to ask rather than tell."
Embracing discomfort	"Practicing not choosing things that you're comfortable with, but that you're uncomfortable with." "Put yourself in positions where you're going to get pushed around, where you're going to get challenged. You must have the right amount of tension, where you're not overwhelmed, but you're challenged, and so that the way you get by is by adapting, by transforming."
Being inclusive while finding your tribe	"Going out into the groups of people that don't like you and don't understand you and listen to them, how they're thinking through these issues and why it makes sense in the way that they did." "It's important to find your tribe and to find like-minded organizations. Networks that will help essentially increase your voice."
Compassion	"This compassionate lens or practice enables all of us to engage with things that are difficult and very emotionally intense because you see the injustice, or because you see the suffering and allows you to engage with this in a non-purely rational way also saying, well, I have skin in the game."
Holistic career approach	"Get ahead of the curve and become expert in all that our culture doesn't value. Don't limit yourself to only analytical skills. Develop left and right brain, encourage your feminine energy and

	talents: collaboration over competition, creative over analytical, generalist over specialist." "Not treating your careers just necessarily as a career, but as a natural kind of outworking of what your deepest convictions are. So being true to your own values and ethical convictions and trying to live those out."
Translating and boundary spanning	"Don't just go for depth, go for breadth as well. You need to obviously specialize in something, but there's a need for practitioners who can be translators and boundary spanners. Shapeshifters, moving from one issue to the next, one setting to another. We've had well trained individuals in various different fields for decades, and yet we're finding the world getting worse and worse when it comes to sustainability." "I don't like zoning in on one area because I think what it does is create those silos. And everything about transformations is about trying to break free of those silos, and collectively work across disciplines, work across those boundaries."
Managing expectations	"When I start, I try to create clear conversation with my stakeholders about expectations. There is no need to create expectations because there is no control and there are emergent issues that are going to create unplanned outcomes."
Paying attention to power	"We try repeatedly to depoliticize the context in which we're working and just say if we can just get together and come to some shared vision, then we'll have some sort of outcome. And then, they say, well, that we had the outcome and the plan, we just didn't have a political will."
Humility	"Sometimes being a transformation professional leads you to hubris because you think that you are outside of the things that make other people blind or that you know they're stuck in systems that you can see the outside of, and so it makes you, you a jerk so trying to be more cognizant of not being a jerk."

Overall, we found three main capacities and a variety of skills and tools that were either characteristic or useful in the process of becoming a Transformations practitioner.

Conclusion

Becoming a transformations practitioner entailed personal and professional turning points triggered by: (1) epiphanies about fundamental shortcomings in the status quo and (2) onto-epistemological crises often caused by meaningful interactions with Indigenous ways of knowing and being in the world. This suggests that pathways to becoming Transformations practitioners often entail inner work, which can be triggered by exposure to difference and disorienting dilemmas. These turning points pushed interviewees to rethink what counts as research, repurpose their careers, and expand the scope of their professional activities beyond what their jobs and training prescribed. Thus, personal transformations led to changes in social roles and positions. Unlearning, letting go, and questioning the dominant systems were key capacities to overcome onto-epistemological crises. Self-reflecting on one's own pathways, integrating personal and professional spheres, and ego deflation was also key to becoming the change one wants to see in systems.

The Transformations Community could facilitate the process of becoming a practitioner by helping current and future members: (1) create synergies between personal and professional spaces and help process the dilemmas that arise at their interface, (2) structure collective processes of questioning the status quo in critical but constructive ways, (3) promote Indigenous onto-epistemologies and knowledge co-production between academia and local people, (4) decolonizing academia, and (5) realize that transformations are not about achieving, but about cultivating less self-centered ways of being.

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