Toward an Affective Turn: Hosting a Mental Health Exhibition at a Science Centre

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Abstract

In this paper we focus on the exhibition *Mental Health: Mind Matters* which was developed originally in Finland by Heureka The Finnish Science Centre, and then premiered at the Science Museum of Minnesota (SMM; St Paul, USA) in 2018. Through a qualitative case study, we examined the emotional journey museum staff experienced while adapting the Finnish exhibit for the SMM. We also questioned how the experience of working with a mental health exhibition speaks to broader social roles and purposes of science museums. Data – including interviews with museum professionals, institutional documents, and photographic records of the exhibition – were analyzed through constant comparative methods. Our findings identify three episodes of productive struggle collectively experienced by museum professionals while preparing the exhibition for public consumption. They also revealed important aspects related to a movement towards an *affective turn* in science museums marked by institutional values and practices that embrace empathy, compassion and care, humility, self-reflection, and the need for safe spaces for dialogue.

Key words: mental health, science museums, affective turn, museum professionals, emotions.

Introduction

Mental health issues are affecting individuals worldwide. Data and statistics provided by different health organizations stress the need for institutions, social structures, and citizens to speak up and take urgent action on mental health matters.[1] In 2015, the World Health Organization (WHO) estimated that globally the number of people with depression exceeded 300 million, and a similar number of individuals endured diverse types of anxiety disorders (WHO 2017). These numbers increased considerably during and after the COVID-19 pandemic. WHO identified a rise of 25 percent in anxiety and depressive disorders during 2020 (WHO 2022). Despite awareness efforts and campaigns, mental health has been (and continues to be) taboo in diverse socio-cultural contexts. Furthermore, people living with mental health conditions often face stigma, social exclusion, and discrimination (WHO 2022).

By joining conversations about mental health, museums can play an important role in helping confront social stigmas (Besley 2014; Chen et al. 2014; Dudley 2017; Coates 2019; Piwko et al. 2021[2]). During the last few decades, we have noted the emergence of compelling efforts by museum communities to address this complex issue. These efforts include:

1) exhibitions about mental health (e.g., *A Revolução pelo Afeto [Revolution by Affect]*, Centro Cultural do Banco do Brasil,[3] *The Mind: Enter the Labyrinth,* Melbourne Museum[4])

2) information and useful resources online about mental health (e.g., *¿Cómo conservar la salud mental? [How to care about mental health?],* Maloka[5])

3) awareness raising events (e.g., Mental Health Awareness Week, Science Museum of Minnesota[6])

4) accessibility programs dedicated to individuals living with mental health conditions (e.g., Meet Me: The MoMA Alzheimer's Project*,* Museum of Modern Art[7])

As difficult issues positioned at the intersection of science and society enter the science museum world (Hine and Medvecky 2015; Pedretti and Navas Iannini 2020), we wonder how these institutions embrace complicated conversations and work. What kinds of emotional challenges do staff face? How is care practiced? How are institutional identities or mandates changing in this new context?

This study centres on *Mental Health: Mind Matters*, a North American exhibition originally created in Finland and brought and adapted to the American audience by the Science Museum of Minnesota (SMM) in 2018. Drawing primarily from the voices of museum professionals, documents, and artifacts, this qualitative case study seeks to understand how the SMM embraced the opportunity of working with an exhibition about mental health. Specifically, we ask: what tensions, opportunities, and emotional challenges emerged as SMM museum staff prepared the Finnish exhibit for its American premiere; and how did the experience of working with a mental health exhibition speak to broader social roles and purposes of science museums?

Literature review and theoretical perspectives

Mental health and science museums

Although science museums have increasingly hosted pressing and controversial issues (Macdonald 1998; Cameron and Kelly 2020; Pedretti and Navas Iannini 2020) the topic of mental health has not been commonly part of their repertoire. Joanna Besley (2014) points out that mental health continues to be out of museums' comfort zone and treated with circumspection. Similarly, Amy Jane Barnes et al. (2014) argue that museums have tended to treat mental health and publics dealing with mental health conditions as too challenging.

There are, however, outstanding examples from the past few decades that highlight ways in which museums have approached mental health and fostered engagement with this complicated subject (Piwko et al. 2021). Some institutions have focused on accessibility and social inclusion through the development of specific programmes that could meet the expectations of diverse publics (Barnes 2014). Consider, for instance, Meet me: The MoMA Alzheimer's Project*,* referred to above, which was established as an expansion of the Museum of Modern Art's educational programs and methodologies. This free-of-charge program involves visits to art studios by trained personnel who specialize in working with individuals with Alzheimer's disease or other forms of dementia. In another example, Chia-Li Chen et al. (2014) collaborated with mental health professionals in Taiwan to plan visits to art museums for individuals living with schizophrenia. According to the authors, these visitors had an appreciation for artworks and connected them with their lived experiences. Chen et al. (2014: 136) conclude that museums can play an important role not just as places for social activities (engaging people with mental health conditions) but 'can also help to challenge social stigma and prejudice [about mental health] through exhibitions'.

Science museums are beginning to engage with mental health issues through their exhibitionary and curatorial practices. Paul Piwko et al.'s (2021) review highlights two waves that characterize mental health exhibitions. Wave 1.0 (starting during the 1960s) describes mental health exhibitions that seek to foster understanding and awareness of historical approaches that different societies have followed for mental health treatments. With a primary (or exclusive) focus on history, these exhibitions arose in the decades following deinstitutionalization. According to Piwko et al. (2021), Wave 1.0 exhibits tend to be stationary and hospital-based, with a focus on physical locations, the story of treatment methods for mental illness, medical practices, and the social and living circumstances of the patients.

Pertinent to our study is Wave 2.0 (broadly speaking, starting from 2010) which involves exhibitions aiming to advance and normalize dialogue about mental health, develop critical literacy about this complex subject, and promote emotional engagement as a means

to confront stigma and discrimination. Consider, for example, the exhibit *Many Faces on Our Mental Health* displayed in 2017 by the Museum of Science (MOS), Boston. As reported by the museum's website, this exhibit engaged with culturally dominant misconceptions about mental health, inviting visitors to learn about this subject and develop empathy.[8] The exhibit – conceptualized through collaboration between the MOS, artist Lynda Cuttrell, a neuroscientist, and a science journalist – invited visitors to engage with artwork that reflects biological issues, scientific information, and personal accounts related to mental health. Wave 2.0 exhibits embrace diverse expectations and practices around mental health that include: establishing partnerships with different community organizations to better reflect on mental health and how to represent this topic; exposing and deconstructing taboos about mental health; offering information, resources, and ways of learning about this issue; and moving towards the affective turn. This latter point brings us to the following section.

Emotional engagement and mental health exhibits

The *affective turn* – often associated in the literature with history and heritage museums – builds upon embracing 'the languages of affect and emotion in order to highlight the ways in which […] museums might "act on the social"' (Munro 2014: 5). Nuala Morse (2020) further explains how curatorial work – under the logic of care – is a practice that encompasses more than its relationships with objects; it also comprises, and is reframed by, relationships with visitors and the communities that are (and are not) represented in collections. Borrowing from Ealassaid Munro (2014), we view science museums as emotional places, with potential for validating emotional and confronting socioscientific content. In addition to considering the affective nature of visitor experiences and interactions (Gregory and Witcomb 2007), we argue that emotional engagement is also present backstage (Munro 2014; Robinson 2021), as science museum professionals join conversations about difficult issues, develop related curatorial work, and make important decisions about (re)presentation and the kinds of experiences they want to offer visitors.

Focusing on mental health as an exhibitionary theme, Besley (2014) has called on museums to explore the possibilities and limits of a new ethics of compassion. The production of exhibitions about mental health should evoke the capacity to imagine the 'ills' of others, with 'vivid sympathy', and participate in their suffering (Besley 2014: 149). In their view, sharing the stories and life experiences of individuals living with mental health conditions calls for compassionate institutions. Concerned about the risks of falling into the dichotomy 'us' and 'them', Besley (2014: 149) asks: 'what is the "structure of feeling"…that shapes who is recognized? Is there an 'us' that is inclusive, which brings museum workers and people with disabilities together in an equal collaborative relationship? Or is there a "them" who "need" "our" compassion?'

According to Lachlan Dudley (2017: 209), there are real challenges that museums face when they attempt to stimulate an emotional response about mental health and to engage visitors with materials and sites that 'challenge established historical narratives and senses of self and the other'. However, museums do have the potential to play an important role in helping visitors develop emotional engagement. For Dudley (2017: 209), this will only be possible 'if museum practitioners actively consider empathy and other emotions as primary aspects of the museum visit and if they are made aware of the significant emotional barriers that face visitors at difficult exhibition sites'. These kinds of reflections prompted us to consider the challenges and opportunities that science museum communities experience while conceptualizing, producing, and hosting exhibitions about mental health; and the role empathy can play in the process of disrupting and breaking stigmas through exhibits' content and displays. These reflections invite conversations about the transformative potential that emotionally confronting issues – such as mental health – can bring to science museums internally and externally.

Productive struggle

We draw upon the notion of *productive struggle* in the context of informal learning environments (Paneto et al. 2021; May et al. 2022), and the associated attribute of (emotional) disequilibrium:

a state 'of being emotionally out of balance' (Paneto et al. 2021: 20). The notion of productive struggle finds its roots in learning theories research. In this spirit, we note how Elizabeth Bjork and Robert Bjork (2011: 58) introduced the idea of *desirable difficulties* while discussing conditions to enhance learning and instruction. In their framework, difficulties are desirable when they have the potential to 'trigger encoding and retrieval processes that support learning, comprehension, and remembering'. Manu Kapur's (2008) work on instructional design offers another perspective on struggle. Their work on *productive failure* explores how, under specific circumstances, the engagement of learners in solving ill-structured problems can be a productive exercise in failure. In the context of moment-to-moment emotions during complex learning, Art Graesser and Sidney D' Mello (2012: 188) denote *cognitive disequilibrium* as 'a state that occurs when people face obstacles to goals, interruptions, contradictions, incongruities, anomalies, uncertainty, and salient contrasts'. Such cognitive disequilibrium has the potential to trigger emotions (e.g., frustration or confusion) and inquiry. Equilibrium can be restored after episodes/moments of exploration, reflection, problem-solving and/or deliberation. This, in turn, can move a person to experience positive emotions such as delight or flow.

The productive struggle model that Sarah May et al. (2022) and Sunewan Paneto et al. (2021) applied to informal learning environments describes three moments that comprise an emotional experience:

> 1) *Encountering disequilibrium:* individuals face a disrupted idea, task, or phenomena and experience a state of disequilibrium that includes emotions such as confusion, frustration, surprise, and unease.
>
> 2) *Engaging in a challenging task:* individuals choose to persist through disequilibrium using emotional and/or behavioural strategies including for example, motivation and problem-solving.
>
> 3) *Resolving disequilibrium*: individuals achieve a productive resolution or a holistic sense of achievement.

In museum visitor studies disequilibrium has been associated with a set of negative emotions including anger, frustration, indecision, ambiguity, and uncertainty (e.g., Pedretti and Navas Iannini 2020; May et al. 2022). However, struggle can become valuable when individuals choose to persist, express positive emotions, and experience productivity (Pedretti and Navas Iannini 2020; Paneto et al. 2021) – which may or may not be through the completion of a particular task. Developed and studied primarily in the context of museum visitors engaging with challenging exhibitions (i.e., exhibits with the potential to foster both positive and negative emotions due to their content or the nature of specific tasks requested of visitors), we believe that the productive struggle framework can provide an interesting way forward as we think about staff experiences with mental health exhibits. It can inform our understandings of how museum professionals navigate the work inherent to creating and/or hosting exhibits about emotionally charged topics.

The research site: Context and goals

Mental Health: Mind Matters (hereby referred to as *Mind Matters*) was first titled *Heureka Goes Crazy* and developed by Heureka the Finnish Science Centre in collaboration with members of the Finnish Central Association for Mental Health and Finnish psychiatrists. This exhibit is intended to provide visitors with compelling experiences about mental health issues such as depression, anxiety, and psychosis that are often taboo and rarely shared in private or public spaces. Original overarching goals for the exhibit include: engaging people with a topic outside their comfort zones; helping destigmatize mental health conditions; and creating open spaces for dialogue.[9]

In *Mind Matters* four different themes permeate the exhibit and are reflected through objects, installations and displays. These themes speak to mental health as:

> 1) an important facet of our overall health and well-being

2) an opportunity for empathy-building exercises

3) a context to identify and express emotions

4) a topic that can be linked to helpful mental health and well-being resources

(Science Museum of Minnesota 2018)

As visitors enter the exhibit they encounter a large wall displaying rolling images and short videos of individuals (including SMM staff) from the local St Paul and Minneapolis areas sharing testimonials about mental health (Figure 1). These personal accounts, alongside statements from professionals in the field, are the starting point for visitors to learn about and destigmatize mental health. In this area, touch-screen interactives also let visitors explore the symptoms, causes, and treatments for some common mental illnesses. Nearby, a small desk with a chair invites visitors to write about lived experiences with mental health that they are willing to share. These 'Let's talk about it' stories are displayed in a book that visitors can access; they are powerful moments of sharing and empathy building. Also in this section, one finds exquisite paper dioramas (Figure 2) that offer visitors insight into the tumultuous history of mental health treatments.

Figure 1: Entrance panel of Mental Health: Mind Matters, including testimonials and images from locals and SMM volunteers. Credits: Ana Maria Navas Iannini.

Figure 2: Dioramas corridor at Mental Health: Mind Matters. Credits: Daniel J. Atkinson.

As visitors move through the exhibit they find the 'Emotions Theatre' (Figure 3). Here, they can spin a wheel with labelled emotions, place their heads in the hole of the theatre wall and (re)present an emotion to the audience through facial expressions (e.g., happiness, anger, sadness). Installations like the 'Emotions Theatre' or the one with oversized masks and mirrors (Figure 4) are meant to move the audience to identify and dramatize different emotions in the hope that these practices will help people read cues, interpret someone else's mental state, and better understand themselves and others.

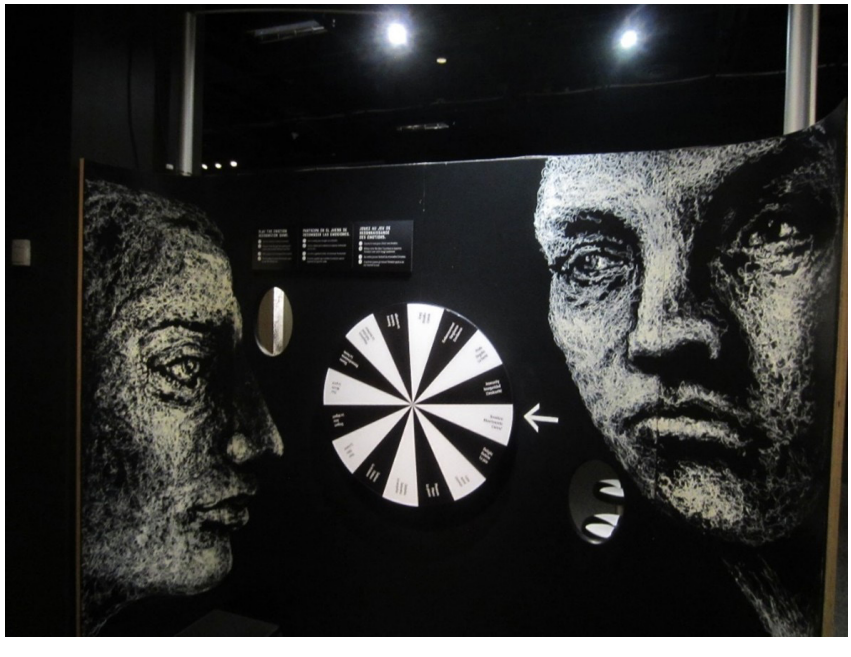

Figure 3: The back of the 'Emotions Theatre' at Mental Health: Mind Matters Credits: Erminia Pedretti.

Figure 4: Oversized masks representing different emotions at Mental Health: Mind Matters. Credits: Daniel J. Atkinson.

Empathy-building experiences are present in different areas of the exhibition. For example, there is a life-size diorama representing a family scene in a living room where visitors can listen and read the 'thoughts' of different family members: the father who is living with depression and unable to leave the house; the mother who worries about her family; and the son who desperately tries to engage his father and doesn't quite understand why his father is sad. Another example is the schizophrenia room, where visitors are given an (apparently) simple task – write a phone number – while listening to intrusive voices being reproduced on headphones.

Finally, *Mind Matters* offers a lounge where visitors can consider the importance of asking for help. The resource centre, integrated into the exhibition space, is equipped with books, brochures, and phone numbers to support individuals and families, and to help people understand that mental health conditions 'are not a "choice" or a personal flaw but a medical condition that requires care'.[10]

Methodology

This research was part of a larger funded project about science museums and controversy. Employing qualitative case study methodologies (Tight 2022), we explored museum professionals' and visitors' perspectives in the context of issues-based controversial exhibitions in science museums from around the world (Pedretti and Navas Iannini 2020). In this paper, we present findings related to the SMM case study, with an exclusive focus on the experiences of museum professionals. Work about visitors to this exhibition has been published elsewhere.[11]

Data collection

The authors and two research assistants spent one intense week on site, in 2018, collecting data. Our methods included: conducting semi-structured interviews with SMM professionals; collecting documents and artifacts (e.g., brochures, handouts, publicly available descriptions of the exhibit); and taking digital images.

Participants and interview questions

For recruitment purposes, we initially contacted the coordinator of the SMM Education team. From this communication, they created an interview schedule with different team members involved in the production of *Mind Matters*. The nine SMM professionals who agreed to take part in the research had different roles within the organization including: exhibit developer, public operations manager, visitor experience associate, vice president of exhibits, director for exhibits management, educator, and vice-president of STEM equity and education. Five individuals self-identified as women and four as male.

The interviews – lasting between 50 and 80 minutes – began with questions about staff perspectives on the exhibit, such as:

- Could you describe *Mental Health: Mind Matters*?
- Why did you bring this exhibit to the SMM?'
- Were there changes made to the original Finnish exhibit, and why?

In the second part of the interview, we asked our participants about the relationships between the exhibit and the visitors, for example:

- What communication approaches were used in the exhibit and why?

In the final section, we asked broader questions related to the current roles of science museums:

- What do you think the role of science museums should be?
- Do you think that science museums are/can be places for presenting and discussing sensitive (and/or unsettled) topics? Please provide details/examples.

Data analysis

Data was analyzed through combined deductive and inductive strategies and constant comparative methods (Boeije 2002; Fram 2013). In the first analytical stage, we independently conducted several rounds of coding and comparison of all sets of materials to identify initial patterns. In the second analytical stage, we collectively refined and coalesced patterns found in our coding schemes. We revisited our research questions and theory related to emotional engagement, mental health exhibits, and productive struggle. This movement allowed us to generate and interpret major themes reported below.

Findings

Tensions, opportunities and emotional challenges

Borrowing from Graesser and D'Mello (2012) and Paneto et al's. (2021) works, we frame this first set of findings as three 'episodes' of productive struggle collectively experienced by museum professionals. These events relate to *advertising the exhibit*, *representing diversity in the exhibit*, and *selecting sensitive installations for the exhibit's premiere*.

Advertising the exhibit: 'We did not want to use the word "crazy"'

An initial moment of disequilibrium that generated disappointment in SMM professionals was related to the use of the word 'crazy' in the title of the Finnish exhibition (*Heureka Goes Crazy*). This is illustrated in the following interview passages:

> The title…we did not want to use the word 'crazy'. We felt like that was insulting and…it actually has changed how we talk…I do not say 'I'm going crazy' or 'this person is driving me crazy' because we understand that is very…kind of stereotypical negative response about something that is actually an illness (Vice-President of STEM Equity and Education).

> One of the things that was very interesting, and I remember hearing about this, but also being part of discussions…was, in the European English version [of the exhibit] the term 'crazy' is used very casually and the connotations are different… officially speaking [even in] the same language, words do not mean the same thing. So, I know that removing that…renaming it *Mind Matters* and changing some of the English wording to words that would relate more to Americans was important (Museum Professional[12]).

A further element of concern was the public image and marketing of the exhibit. The SMM team critically considered the promotional materials developed by Heureka The Finnish Science Centre (Figure 5), for which an informal approach to mental health had been chosen. A playful advertisement involved representations of scientists wearing oversized glasses and white coats, alluding to a lighter interpretation of the word *crazy*.

Figure 5: Advertisement of Heureka Goes Crazy, in Vantaa, Finland. Credits: Mikko Myllykoski.

An SMM staff commented:

> Our advisors said 'look that is language [in the advertisement] that is not supportive and does not encourage people to get help'. In fact, there is concern that that adds to the fear of discrimination and you know that can become the barrier to people getting help because they don't want to be seen as 'crazy' (Director of Exhibit Project Management).

Disappointment and concern moved the SMM team to problem-solve and make critical decisions about the very words used in naming the exhibit and, by extension, the impact that images and words in the public domain have. It was decided to follow a more sober approach that would better engage their local audience with difficult topics. This led to deliberately changing the title of the exhibit to *Mental Health: Mind Matters* to foster contemplative interpretations of this subject (Figure 6). As expressed by museum professionals, the process of renaming the exhibit also involved careful consideration of the guidance provided by the exhibit's advisory committee, comprised of mental health professionals from the National Alliance for Mental Illness and the Wilder Foundation in St Paul.

Figure 6: Advertisement brochure of Mental Health: Mind Matters in St Paul, USA. Credits: Daniel J. Atkinson.

Representing diversity in the exhibit: 'I felt like it was not reflective of this community'

SMM professionals commented on how *Heureka Goes Crazy* felt 'really white'. This whiteness refers to, for example, exhibition panels in which individuals with mental health conditions are portrayed, and videos presenting accounts and testimonies. Feelings of unease are present in the following comments:

> There were things we needed to change [in the exhibition] to make it [a] more… valuable experience for this country, for North America (Vice-President of STEM Equity and Education).

> *Heureka Goes Crazy* felt very Finnish. It felt very white and maybe Finland is not as white as we think it is, and Minnesota is probably more diverse than people think it is, but…part of it felt like it was not reflective of this community (Museum Professional).

To overcome this uneasy feeling about the lack of diversity in the exhibition, museum professionals chose to redo some of the displays and audiovisual resources, particularly those related to conversations with, and testimonials from, individuals living with mental health conditions. In so doing, they sought out volunteers from the St Paul and Minneapolis areas, in an effort to support a more diverse and local set of narratives within the exhibition:

> In all of the individual interviews that we did, instead of having European [languages] translated into English or [Europeans] who might be speaking English, we did original interviews with people living in the Twin Cities [St Paul and Minneapolis]…I was really pleased…I know this was important to her [referring to another museum professional] and her staff. In addition to representing a wide variety of mental illnesses to make sure that through the individuals interviewed we had a variety of ages, of skin colours, of gender and gender identities. So, someone might go into the exhibit, whether or not they relate to a specific mental health concern or mental illness, there might be other ways that they can connect with those individuals (Public Operations Manager).

> The video stories were all redone. The videos that…came with [the original exhibition]…they were a little European…it felt very strange to, I think, a Midwestern audience (Exhibit Developer).

In the quotes above, positive feelings related to satisfaction emerged ('I was really pleased…') as museum professionals recalled their intent to make the exhibit relevant to their communities. As part of this process a few SMM staff came forward and shared their personal struggles of living with mental health issues. Their stories and testimonials also became part of the exhibition (See Figure 1 above).

Selecting sensitive installations: 'Putting your face in this piece is… almost a bit of a mockery to me'

In the original exhibition, SMM professionals identified objects and content that they felt were insensitive to promoting engagement with the difficult topic of mental health. Among them, they referred to a digital installation that recreated Edvard Munch's iconic painting *The* S*cream (1893)*:

> This particular component was a digital image of Munch's *Scream*. And you…the visitor was invited to back up to where your head would fit into the screen and then the…media piece, would take a picture of you and then, include your face - remove the painted face and include a visitor face. And so, you would be in the 'Ah! *Scream* position'…this was…a component that I felt was really insensitive and should not be in the show…It just seems almost...you know, insensitive at best and almost ridiculing or worse…And, you know, putting your face in this

> piece is almost a bit of a mockery to me (Exhibit Developer).

> The European version had some…content area that showed the famous painting *The Scream*. And with, some connections about how the painting may have been inspired by a mental health issue…and we looked it up right away. That was a red flag to me. And all of us in the room knew we had heard different things about what the painting was about (Museum Professional).

As we can see from the quotes above, some museum team members experienced feelings of discomfort, unease, and frustration around this installation. They responded to these feelings and tensions by removing the Munch display from the American version of the exhibit. This process, layered with internal tensions, is described as follows:

> The objections…or concerns had to do with…some of the things we talked about. *The Scream*…when we did the larger walk-through that was the only thing where some of us had, an initial this 'doesn't seem to fit' so…we did not include it. And, you know…doing what we could do to Americanize it (Museum Professional).

> I felt very comfortable telling Irina [pseudonym] about this [the inappropriateness of the Munch's installation] and…I wasn't in the room when they decided to not include it but it's not there, and I'm not sure exactly why. It might have been space. It might have been…that it doesn't feel right. It might have been one of the advisors saying 'absolutely not' and we listen to our advisors, very carefully (Exhibit Developer).

It is clear that navigating disruptive or challenging situations is a complex process, particularly when a team of science museum professionals including museum educators, exhibit developers, curators, advisors, and volunteers are working together. However, the science museum staff we interviewed were able to achieve productivity and feelings of holistic accomplishment amidst differing ideas, perspectives, and points of view. Through dialogue, care, and institutional support for the work that they were engaging in, this group managed to reach a satisfying end as they attended to the specific sociocultural contexts in which they were immersed, while also recognizing the power of words, images, and objects.

Expanding views of science museums

In the second part of our findings, we address science museums' social roles and values. We draw on SMM staff experiences with emotionally challenging exhibitions like *Mind Matters* and others previously developed. Four major themes emerged and speak to: *supporting dialogue about difficult issues; conveying institutional positions about pressing matters; challenging beliefs and attitudes*; and *being humble*. These themes are described below.

Supporting dialogue about difficult issues

The work of the SMM around emotionally challenging topics such as mental health, race, and evolution, reflects an institutional commitment to supporting and modelling safe spaces for dialogue. In the time leading up to the premiere of *Mind Matters*, it was publicly presented in the following way:

> Much as the travelling exhibition *RACE: Are We So Different?* created a safe place for conversations around race and racism, *Mental Health: Mind Matters* will create a safe space for important conversations about mental illness. Misconceptions and stigma lead to prejudice and discrimination. This exhibition and related programming can help make it OK to talk about mental health. Mental illness touches all our lives in some way, making *Mental Health: Mind Matters* an important resource.[13]

These sentiments were also echoed by SMM professionals as they reflected on the responsibility of science museums in contemporary societies:

> I think there's a lot of conversations about different subjects that might be controversial, like mental illness or race…it's just so powerful when you create that open language and that positive language and you're not, and it's not, putting anyone down (Visitor Experience Associate 1).

> I think we can help people make sense of their world and a lot of those things are somewhat difficult topics to engage in. So…we cannot squander this, but you know…we have got a pretty good reputation for being a safe place to have discussions (Vice-President of Exhibits).

Another SMM professional described how science centres can become 'entry points' for informed and safe conversations:

> I really like the exhibit *RACE* and I really like the *Mental Health* exhibit. So, I think it's a really good safe…place to start a conversation. It's not in your house. It's, you know, it's in a safe space…and to get more information so that when you do go home and you talk to, your brother, or your sister, or your friend, or something, that you have more information about it, or, or you're…in another place to have a conversation (Educator).

At the same time, it was important to some museum professionals that the institution preserves its scientific reputation. This, though, should not negatively impact the overall experience of visitors, nor be set up as a hierarchy:

> One of the things that I really like about our organization is that…because something is sensitive that doesn't prevent us from talking about it…We want this to be a place where anyone can feel comfortable but as a museum, we have certain scientific values. So, I think that it's important in terms of scientific integrity…to maintain that in our communication. Now…there are ways of having conversations with visitors who have a different point of view and we still want them to have a good time here (Public Operation Manager).

> I would say your audiences very likely want to have these discussions and you have a great place in your community in which to host those discussions. And don't be afraid people can…people know how to…do this without ruining your reputation...I think it's a strategy to become more valuable to your community (Vice-President of Exhibits).

Conveying institutional points of view

When questioned about science museums and displays of sensitive topics, some museum professionals expressed how these institutions should be responsible for the status (or at least perceived status) they have in society and embrace clear positions. In their words:

> I think that there is an openness people have coming in through the door…they'll listen to what you have to say, maybe. And to the question 'should museums be in this space?' Museums should be in this space…they are institutions who have earned the trust of many people and, I think that in that respect it's so important that museums and exhibitions, if they're not going to be neutral, come out and say that (Museum Professional).

> I do think exhibits have a point of view and I think they need to because if they don't have a point of view then it's just sort of like there's nothing to react to. We want people to react and it doesn't always mean love it. Feel something…So, yeah, I think people need to…they [the exhibits] have a point of view. I mean…with the RACE exhibit we say race is not biological. That's…there are lots of people you would be surprised. I mean it's not just like Anthropology 101 but there are a lot of people who will say I did not know that…So we're saying race isn't real

> but we're also saying it is real (Vice-President of Stem Equity and Education).

The privileged position that science museums hold in society reinforces the responsibility these institutions have in not appearing to be neutral:

> I think it's so hard to remain neutral because that in itself is a statement, you know… So I feel I'd rather be a part of an institution that takes a solid statement rather than just kind of like 'uhhhh…I don't know. Are we just going to stay neutral?'…especially in the face of such really pressing matters that affect a lot of people (Visitor Experience Associate 1).

In the case of the SMM, clear institutional positions that are counterpoints to neutrality around topics such as mental health, evolution, and climate change have been made explicit on the museum's website. Consider, for instance, how the SMM presented *Mind Matters*:

> Good mental health is an important aspect of everyone's life...Yet misunderstanding of mental illness often leads to lack of treatment and needless suffering. That makes mental health a personal issue, a social issue and an economic issue.[14]

In another example, SMM clearly articulated its stance on evolution:

> **Evolution is real** [bold in original]. *The theory of evolution is one of the most impactful concepts of modern science. It is supported by abundant evidence, observations, and testable hypotheses, allowing us to predict outcomes, changes, and impacts. The scientific theory of evolution is central to the Science Museum of Minnesota's work, forming the basis of our scientists' research on the natural world*.[15]

These statements represent institutional (not personal) positions which in turn offer a safe context for museum educators to engage in difficult conversations. 'We have statements on our website…evolution, climate change, and race statements now and…if our staff needs to, we can always fall back on those' (Educator).

Challenging beliefs and attitudes

Constructs of productive struggle and emotional disequilibrium have been related to exhibitions that are challenging and controversial (Paneto et al., 2021). *Mind Matters* and other 'edgy' and provocative SMM exhibitions provided platforms for museum professionals to reimagine the role science museums could play in challenging visitors' ideas, beliefs, and attitudes. In their words:

> [The exhibit] challenges people to think about…the words we use that add to the discrimination that people face, that makes somebody afraid to talk about being depressed because they are concerned it will affect their ability to get a promotion at work or be seen as the person who gets this opportunity that may not come around all the time…So, I think, I would say that [the goal] is to challenge some of our assumptions about what we think about mental health and mental illness and…to challenge us to be more supportive to think about what we can do to help people get help (Director of Exhibit Project Management).

> I feel like museums are a place that can, and should, and do address societal topics and concerns that inform, educate and create a place for people to kind of think about these things and dialogue about them and, form opinions and change their opinions and see themselves, learn about somebody, you know… change an attitude (Vice-President of Stem Equity and Education).

Although notions of challenging visitors' beliefs and attitudes were prevalent amongst staff, a few staff approached this idea with hesitation and caution:

> I think, this is kind of a rocky road. I think the material is out there for people to come to, and to have an open mind. I don't think science museums should

> particularly try to change people's minds. Just have the information that science has proved out there and, inspire discussion and things like that between people who may like, as an example maybe vaccination, or climate change or things like that...We have things…in this museum…that inspire discussion...It's …sometimes more of an argument or sometimes it's more of a discussion. But I don't think a science museum should necessarily be trying to change anyone's minds (Visitor Experience Associate 3).

> I'm in a space where…I sense…it's very subjective. If I sense that I'm being respected as a thinking person and that I am being presented with ideas and saying what do you make of this? That's a powerful experience. But if it's feeling like 'finger-wagging' or 'should' it's…it's not as powerful. It's not as comfortable and I don't feel as trustful of the experience (Exhibit Developer).

Being humble

The interviews we conducted reveal how practicing humility can positively impact the work of science museums – particularly around emotionally charged topics. In the words of museum staff:

> I think science museums should be thinking partners with the communities they serve. They should be…exploring ideas together with their communities… And it's so important for museums to say 'we're not sure how to do this', and to say 'this is a fraught topic', 'we don't know', 'we just know it's important to talk about this'…Humility is such an important part of any institution and to…humbly present ideas and to say 'we want to think about this with you', 'we don't have all the answers' (Exhibit Developer).

> I feel that as science museums we do know a lot of stuff because of access to information but I don't think museums should just be about 'here's the information we have, learn about it'. It's 'this is the information that we have, but what is your information', and consult with, double check everything. Double check your own biases too as you go along (Visitor Experience Associate 2).

Within this practice of humility self-reflection is central. This reflective capacity becomes integrated into the responsibilities of identifying and revising bias, re-evaluating priorities, and understanding the limits, extent, and social impact of knowledge that can be produced and disseminated by the institution:

> [Science museums should] get a better understanding of what the conversations are in that community and how those are probably going to be slightly different in that community versus another community…I think it's important to have some outside perspective as well but to start with asking, how is this relevant to people in this community. Who else is thinking about this? How can we share resources as we think through how to develop this idea?…you know, we could not have done this [*Mind Matters*] without people in this community who were… thinking about it, living and breathing it every day and having their expertise to share…That was, kind of a good check about priorities and it was I think it was always…almost always confirmed by what locals and people in this community said (Director of Exhibit Project Management).

Discussion

The language of emotions and the growing dispositions toward affective practices (Munro 2014; Varutti 2023) – alongside commitments to care (see, for example, Morse 2020) – are slowly shifting curatorial and exhibitionary practices in science museums. This was evident in the work of the nine SMM professionals we interviewed. We recognize how powerful this

emotional engagement was among staff as they curated, prepared, developed, and created programs, in the context of a highly charged socioscientific topic like mental health.

Drawing on critical issues-based science exhibition literature (Pedretti 2004; Pedretti and Navas Iannini 2020) – and in agreement with Marzia Varutti (2023: 64) – we note how 'museological thinking and curatorial practice have always, to some degree, been informed by affect'. In this study, we made use of the three components of the productive struggle framework – disequilibrium, persistence, and productivity (Paneto et al. 2021; May et al. 2022) – as a way of understanding how the SMM team navigated tensions and by extension, the emotions they felt, as they curated *Mind Matters*. Our findings revealed that negative emotions such as frustration, unease, and disappointment were experienced by SMM professionals at diverse moments of disequilibrium in their work with the Finnish exhibition. These emotions, however, did not prevent the team from doing their work and preparing the exhibit for its premiere. The need and motivation to find solutions for disequilibrium were expressed in terms of problem-solving, searching for advice, and sustained commitment to *Mind Matters*. It was also evident that museum professionals achieved productivity and some kind of resolution (different than consensus) through: persistence and completion of specific tasks (e.g., removing certain installations and replacing narratives and videos); and positive feelings of satisfaction and pride related to expectations for the American version of the exhibit.

When it comes to exhibits about mental health, institutional work and practice call for deep consideration of empathy (Dudley 2017). The stories that SMM staff shared with us reflect an enactment of empathy in different ways. Impacted sometimes by negative emotions, museum professionals imagined themselves in the place of others (e.g., potential visitors from St Paul and Minneapolis, volunteers, colleagues, Finnish museum staff and visitors), trying to understand how they might feel while encountering certain words, phrases, images, advertisements, and objects. As part of this process the dichotomy between 'them' and 'us', identified by Besley (2014) as a potential risk for mental health exhibits, seemed to have been subdued by SMM professionals through an inclusive approach. This approach involved bringing together specialists from mental health fields, museum professionals, and volunteers living with mental health conditions, while adjusting the exhibition. This, in turn, allowed for reframing the stories being told to better represent and serve the diverse communities and socio-cultural contexts of St Paul and Minneapolis.

Deeply tied to empathy is the notion of compassion. According to Besley (2014: 149) recognizing the compassionate foundations of museum work can empower educators and other museum professionals 'to engage with compassion as a reason to improve museum programs and projects'. Besley (2014: 149) calls upon museums 'to support people who live with mental health difficulties to share their stories and life experiences in museum projects'. The sharing of accounts and testimonials about mental health – a pivotal element in *Mind Matters* – prompted us to consider how compassion (and empathy) were framed through the words and actions of museum professionals as they prepared the exhibition.

Humility has also been described as part of the commitment that museums should adopt 'for effective participation in the broader world' (Janes 2010: 330). In our study, this institutional value seems to be related to practices of self-reflection, recognition, and honouring of multiple epistemologies needed to inform the museum staff's work. Practicing humility allows museum teams to reconsider their perceived status as privileged purveyors of 'truth', and, to discard 'the myth that museums and galleries are neutral voices of authority' (Janes 2022: 737).

Lastly, the idea of museums as safe spaces for conversation (Morse 2020) is beginning to emerge, more broadly, through the work of science museum teams engaging with controversial exhibitions (see, Navas Iannini and Pedretti 2017; Pedretti and Navas Iannini 2020). Like Karin Flensner and Marie Von der Lippe (2019: 276), we view safe (educational) spaces as settings where individuals can 'speak freely' – contexts where diverse perspectives and positions are included and welcomed. Our study suggests that science museums as safe (educational) spaces for conversation:

> 1) provide and honour different kinds of knowledge in order to inform discussions and challenge people's beliefs, preconceptions, and attitudes inside and outside

the museum

2) generate opportunities for positive exchange of different perspectives and ideas

3) 'preserve' the scientific reputation and points of view of the institution, so that conversations are also safe for museum educators and mediators

Final thoughts

Embracing an affective turn in science museums not only challenges established historical narratives and senses of self and other (Dudley 2017), but pushes institutions to revisit and expand goals, mission statements, mandates, and possibly internal structures (Janes 2022). We suggest that recognizing, validating, and honouring museum professionals' emotional journeys (Munro 2014; Robinson 2021) on difficult socioscientific topics may move these institutions to reframe internal ways of working and forms of collaboration with communities (Gurian 2015; Morse 2020). Rethinking values, acknowledging museums' ethical obligations, being responsive to communities' perspectives, interests, and concerns, practicing empathy and humility, and opening up spaces for multiple epistemologies to co-exist are fundamental to embracing this much-needed affective turn in the science museum landscape.

Notes

1 See for example: National Alliance on Mental Health 'Mental Health by the Numbers', NAMI 2022. https://www.nami.org/mhstats, accessed 20 February 2025; Pan American Health Organization, 'Mental Health', PAHO n.d. https://www.paho.org/en/topics/mental-health, accessed 20 February 2025.

2 See also: Heidi Rosenström, 'When Heureka Went Crazy', ASTC Dimensions – The digital publication of the Association of Science and Technology Centers 2015. https://www.astc.org/astc-dimensions/heureka-went-crazy/, accessed 20 February 2025.

3 This exhibition was open to the public from 8 December 2021 to 28 March 2022. See: Centro Cultural do Banco do Brasil, 'A revolução pelo afeto. Catalogo', CCBB, n.d. https://www.mbaraka.com.br/nise, accessed 20 February 2025.

4 *The Mind: Enter the Labyrinth* was a permanent exhibition at the Melbourne Museum open to the public from 2007 to 2021. See: Freeman Ryan Design, 'The Mind: Enter the Labyrinth', Freeman Ryan Design n.d. https://www.frd.com.au/the-mind-enter-the-labyrinth, accessed 20 February 2025.

5 Maloka,'¿Cómo conservar la salud mental?', Maloka, n.d. https://maloka.org/noticias/como-conservar-nuestra-salud-mental/, accessed 20 February 2025.

6 Charlotte Coates, 'Museums joining the mental health conversation', Museum Next, 2019. https://www.museumnext.com/article/museums-joining-the-mental-health-conversation/, accessed 20 February 2025.

7 Museum of Modern Art, 'Meet me: The MoMA Alzheimer's Project', Museum of Modern Art n.d. https://www.moma.org/visit/accessibility/meetme/, accessed 19 February 2025.

8 Museum of Science, 'Museum of Science presents Many Faces of Our Mental Health', Museum of Science 2017. https://www.mos.org/node/45157106, accessed 1 November 2024.

9 Rosenström, 'When Heureka Went Crazy'.

10 Science Museum of Minnesota, 'Mental Health Mind Matters', SMM n.d. https://new.smm.org/exhibit-rental/mind-matters, accessed 20 February 2025.

[11] We refer here to our book *Controversy and Science Museums: Re-imagining Exhibition Spaces and Practice* (Routledge, 2020) where one chapter is dedicated to visitors' voices related to this and other controversial exhibitions.

[12] This museum professional didn't want to be referenced by their specific title.

[13] Science Museum of Minnesota, 'Mental Health Mind Matters'.

[14] Science Museum of Minnesota, 'Mental Health Mind Matters'.

[15] Science Museum of Minnesota, 'Statement on Evolution', SMM 2024. https://new.smm.org/evolution, accessed 20 February 2025.

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