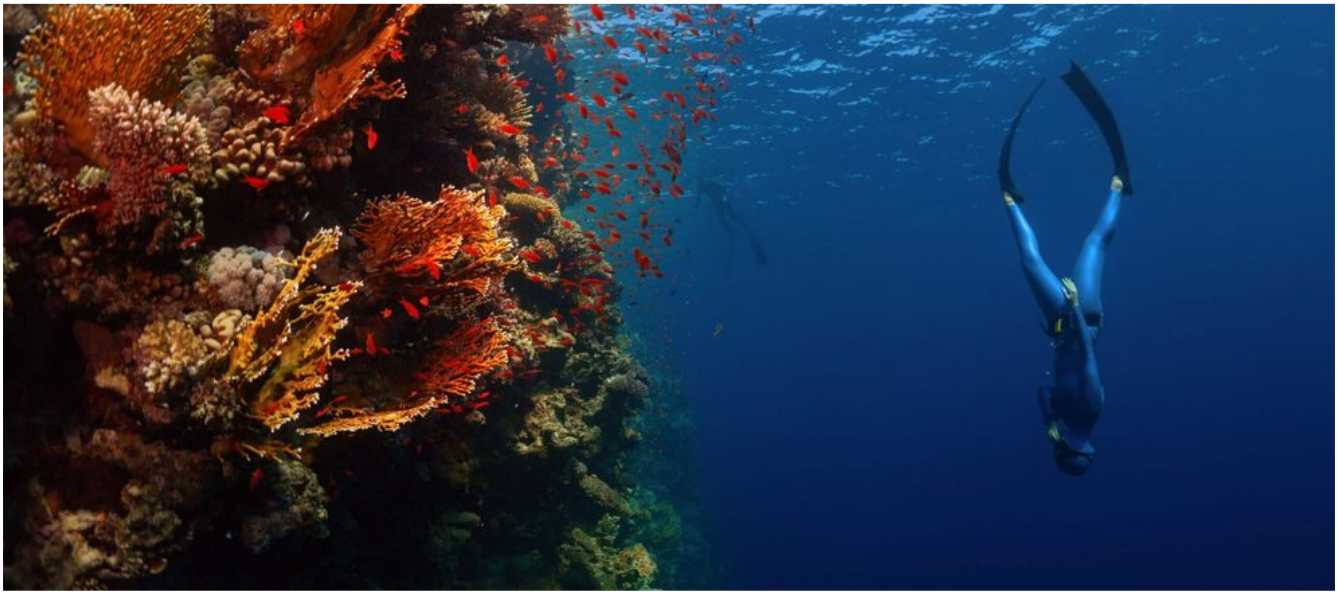
MIND FOUNDATION

Field pharmacology and naturalistic placebos

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In the MIND Bioblog series, we present personalities who have influenced the development of psychedelic therapy, research, and the culture surrounding the psychedelic experience. For this interview we talked to Dr. Malin Vedøy Uthaug, formerly post-doctoral researcher at The Centre for Psychedelic Research at Imperial College London, now at Swinburne University of Technology, because she won the Willy Schweitzer Award for Young Researchers, including a prize money of 1,000 Euros, awarded at the MIND Foundation's INSIGHT conference in September 2021.

Lucca Jaeckel: Malin, today we will talk mainly about your PhD work and about some of the things you did in your post-doc. Welcome!

You started your career as what one may call a field pharmacologist, studying how people use psychedelics in naturalistic settings. What drew you to this discipline? Was it also the "field" or "pharmacology" that initially drew you to this?

Dr. Malin Uthaug: It's a very good question. I think there've been many different variables that drew me to that. I think personal experience with ayahuasca was one thing. I was like, "Ok, this is interesting." And I've always been deeply fascinated and curious about uncharted territories.

I got very curious to understand what the substance and ritual were all about. And then as I got involved in the research, my curiosity grew, and my motivation to do the research also grew.

Another part of it was that I was very fed up with the current medical approach to therapy. There's this quote by Richard Buckminster Fuller, who says, "You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete" For me to be able to somehow

transform the current approach to treating mental health disorders, I needed to understand what was being done differently in other contexts.

Going into the field felt very natural to me, because I thought "these people have done these ceremonies for years, so maybe it can help understand what we — in the West — are doing wrong."

It's been a little bit of a mixed bag, but that's essentially how I've gotten involved.

L: When you're saying you were "fed up" with the current medical approach, what do you mean by that?

M: I think particularly for trauma-related distress, like posttraumatic stress disorder, I realized that talking through the traumatic events might help some people, but others might need something else. Some might be helped by getting in contact with feelings or memories that have been repressed, by looking at them and facing them whilst feeling safe and secure. That can be quite transformational, I think. So, feeling that you are in a safe environment and having the comfort to face the discomfort — [this idea] is what I saw as something to research further that could maybe augment the current medical approach.

Another thing that I saw, for example, growing up, was that often people are given pills to deal with depression or ADHD, which seems like just putting a plaster on a boat that is about to sink. It doesn't make things better; it just postpones dealing with the issue. I felt like if psychedelics should be used, we shouldn't just use them as *another* medicine. There must be this other aspect to it, and I think we'll get to that later in regard to rituals and all of this around ayahuasca.

L: Let's maybe jump to that right away: You did research on naturalistic psychedelic use in very different contexts. What were some of your main findings? How does doing psychedelics naturalistically impact people?

M: From the research that I've done, the common denominator is that — be it ayahuasca, 5-MeO-DMT, Holotropic Breathwork, also mescaline — [these all] seem to elevate people's well-being and, some, decrease affect such as stress, anxiety, and depression. The increases in well-being were correlated with the ratings of the psychedelic experience, as assessed by questionnaires such as ego dissolution inventory and mystical experience questionnaire.

L: In addition to investigating the effects of naturalistic psychedelic consumption, you did one thing that I found particularly interesting. You did a placebo-controlled study in an ayahuasca retreat, where you investigated not only the changes in mental health related to ayahuasca but also related to the ayahuasca ceremony. Could you explain this a bit?

M: Naturalistic work isn't really looked upon as the "ideal" way to research all these things because of the lack of control. So, implementing some elements of a placebo control became one of the things I really wanted to do. We had this great opportunity as one retreat center was training students to become facilitators, and one aspect of their curriculum were ceremonies where they would not be aware, whether they got placebo or ayahuasca. It was like a training for them, but we [at Maastricht University] thought: "This is a perfect opportunity to run a placebo-controlled naturalistic study." That's essentially what we did, and the overall finding was that set and setting played a role in the psychedelic experiences and the observed changes in well-being.

L: Do you think the people who participated in this knew that they got placebo or not? Because this is critical to the idea of the placebo effect.

M: They were aware that they could get placebo or ayahuasca. We also theorized about it in the discussion part of the paper reporting the results. We saw that both groups had psychedelic experiences but also that the ratings of the psychedelic experiences were overall pretty low compared to other studies we've done on ayahuasca or 5-MeO-DMT. This might have been because the dose in the ayahuasca group was low compared to other studies. However, maybe people also lowered their expectations towards the ceremony and its outcome because they knew that there might be a possibility of them getting a placebo.

L: In terms of the effectiveness of the blinding, did you ask people afterwards what they thought they'd gotten? Placebo or ayahuasca?

M: I was sitting down with these individuals the day after the ceremony. We had gotten a list of who got what, and I just asked everyone: "So tell me about last night, how was it for you?" And it was really eye-opening for me to sit there at that point in my career and to listen to people who'd had a full blown ayahuasca experience, but on paper it had said they had placebo. At that point it was like "wow, what is going on here?" as some people went on a tangent of having actual visions and hallucinations and how the experience had impacted them.

L: It's surprising that a lot of people on placebo thought they had gotten an active dose — You mentioned already that expectancy may partly explain this, but do you think there's also something to the ritual and social setting beyond expectancy that explains these findings? How do these factors play together to produce these sorts of outcomes?

M: One thing to clarify is that even though this was placebo control, we didn't really account for specific parameters within the set and setting. So, this is one of the limitations of this study. It may be a starting point for other people to look at what part of the setting influences this and what part of the set influences that.

I think that people coming together in a ritual of sorts plays a role, by bringing about a sense of community, and a sense of belonging. But it should also be noted that the participants in this ceremony already had extensive experience with these rituals or retreats. In other words, we investigated an experienced group of ayahuasca drinkers, and because they had ayahuasca so many times, one could speculate whether they might have 'learned' to associate this ritual with an increase in well-being — and you see that playing out in the data even though they did not get ayahuasca.

L: It seems difficult to tear these things apart. Would you have any prompts for maybe how to approach this rabbit hole of set and setting in the future?

M: I think it could be cool to design a study, let's say in the lab, where you play around with the music and just look at how it impacts the outcome variables. There are many things you can play with there, like the type of music, drums, or even smells. Many of these ceremonies make use of let's say Palo Santo incense and things like that. Does that play a role?

Also, there's something I've thought a lot about lately that came into my mind through my own experiences with freediving: The way that freedivers are preparing to dive involves not only the relaxation breathing [directly relevant to holding breath during the dive] but everything you do up until that moment. Like, what you put in your body, how much you sleep you get, what exercise you do, and all these things.

Ayahuasca ceremonies usually require preparatory practices such as a *dieta*, meaning certain dietary restrictions, or purging ceremonies, using tobacco and things like that. And how [does this] play a role in preparing somebody for the ceremony itself?

Something that is going to come out from my end soon is the suggestion of expanding set and setting to what I would like to term “body-set”. What I mean with this is the following: what are the internal conditions within the body at a certain point in time?

L: You are working on this right now?

M: I’m writing that paper now.

The idea with the body-set came from my own experiences with freediving. For me, it isn’t really rocket science — If you eat bad food, you’re going to feel like bad and that will basically ripple out to how your mental health functioning. If you eat a donut every day at McDonalds, you’re not going to feel great. I feel it is important that psychedelic researchers also start thinking about these things. I believe it [body set] does play a role in how people experience the psychedelic itself.

You see, with Ayahuasca ceremonies, people have the diets to clean themselves. Not only mentally, but also physically to ensure that the ceremony itself isn’t too hard. This also ties into another part of the paper that is yet to be published, which is the “Popcorn Theory”. Essentially, from my point of view, we are all like popcorn kernels, and that with the right internal — meaning, body set — and external environment we might better be able to “pop”. Popping could be freediving to 60 meters, or a cathartic moment in your therapy session with or without psychedelics.

L: Leaving these theoretical discussions behind a bit – more practically speaking, could you explain what sorts of groups you worked with and what challenges you encountered during your work “in the field”?

M: I made a very conscious decision of going to Colombia to carry out the data collection of my masters’ thesis, because I wanted to ensure that I studied something *authentic*, that wasn’t Westernized. I wanted to learn something new that we could potentially apply in the West. So, I visited and spoke with Shamans from the Amazon basin that were trained there.

Coming back to Europe after six months in Colombia, after Jordi [Riba] told me about 5-MeO-DMT, I started doing a bit of a literature review. Then, going from an *authentic* kind of style to a more neo-shamanic approach was also super interesting. Especially as 5-MeO-DMT, compared to Ayahuasca, doesn’t have this ritualistic lineage, so people had to figure out how to do this thing.

My work has been about studying a mix of both authentic and neo-shamanic approaches to psychedelic use, and in terms of differences between them or challenges [related to the data collection itself] — I think for example in Ayahuasca ceremonies, you have a big group of people doing the session together, whereas for 5-MeO-DMT it’s one-on-one. So, for data collection on Ayahuasca it was more about finding the time for the group to sit down and fill out the questionnaires. With 5-MeO-DMT it was more like, “Ok, you’re next, can you please fill this out before?”

Another important thing to mention is that 5-MeO-DMT is not scheduled in the Czech Republic. This was also one of the reasons why, even though I was doing my PhD at Maastricht University, I was living in the Czech Republic.

L: And you were always at the premises of the retreats when they did these ceremonies.

M: Yes, I lived in Colombia for six months whilst I travelled around with my friend there, who is the person who connected me to all the Shamans. So, we were travelling around outside Bogotá to the Northern part called Bucaramanga and the South around Cali. And in Prague, it wasn’t hard for me to travel to the location where

the sessions were taking part, as they happened in locations around the city, and because I was based in Prague. That said, I was also involved in data collections in Spain, Germany, and Poland. So, I was travelling quite a lot. At some point I was perhaps “home” in Prague, two days a week.

L: Now, the field of psychedelics is rapidly expanding as they are being developed into medical uses and gaining more and more attention for “wellness” and spiritual purposes. Since you worked with many psychedelic retreats and people who attended them: Did you learn something that you think should inform this larger development of psychedelic expansion?

M: During the INSIGHT conference there was a lot of talk about the importance of connection and empathy — and that is one of the things that I find highly relevant for people: to feel secure enough to face the hardship that they might have repressed. And that’s not easy. Not only do you have to make sure that the therapeutic support is prime; you also have to make sure that these people are ready to face what they need to go through.

One of the other things I saw in the 5-MeO-DMT sessions is that — and I also think this might be attributed to the high doses that were administered — often you see people shake, cry, or scream. This was at first a bit scary to watch, and I was wondering what was ‘wrong’. But having spent some time reflecting on it, those moments of shaking, screaming, crying might be, to some extent, a cathartic moment. And this may not be dissimilar from practices from back in the day, like exorcisms and things like that which were conducted to release ‘demons’.
These ‘demons’ may just have been built-up tension and emotions. I think it’s important to think of these moments of shaking, screaming, or crying as normal and human. I think that doing so will open up more acceptance of these cathartic moments, and people may see them as ‘good things’ rather than something to be repressed, for they actually help bring about healing.

In sum, not being scared of those moments of release is kind of what I’m trying to get to.

L: This reminds me of what you talked about in the beginning. The acceptance or normalization of “strange” or “release” experiences as well as the necessity of a feeling of security are things you may not necessarily associate with the mainstream medical model of mental health treatment.

M: When you think about it, if someone is going a bit crazy — let’s say they’re coming to their physician or end up in the emergency room because of panic attacks or so — one of the things that seem to be quite common is that the GP would prescribe something to calm them down such as valium. That, in my head, seem to repress the natural release phenomena that have started. And whatever pain that is stuck inside this person is just going to be pushed back in.

It would be wonderful if there was a space where a person had the opportunity to have such a release. So, let’s find a way for them to do that in a safe, empathic, and non-judgmental space.

L: While on the one hand this could mean that practitioners ought to do some things differently, would this also entail changes in the physical environments? Since you studied people going to these retreats, is there something you found interesting about the places that you’ve seen?

M: I learned a lot about what not to do from the 5-MeO-DMT sessions I observed. For example, laying down, that’s a good thing. Perhaps, in a treatment room, a mattress in the middle of the therapy floor would be helpful so that people can roll around a bit — should they feel this need in their session. This may be helpful because there may be movements coming naturally that they might want to engage in. Sitting up might be a bit too restrictive. Having that space around one could be helpful.

L: I have two final questions for you. First, I would really like to hear about your post-doc work. I'm interested what you did in the last two years, what was that about?

M: I joined The Centre of Psychedelic Research at Imperial College London and I was mainly brought in to initiate a 5-MeO-DMT study in the lab, which has been a dream of mine for the longest time. Also, I launched two survey studies: one to investigate the effects of 5-MeO-DMT and another to explore the effects of Holotropic Breathwork.

Right now, we're at the end of the data collection of the largest prospective study on 5-MeO-DMT, so that's really exciting. I'm going to get cracking with the data analysis very soon. The survey included many measures that haven't been used yet for 5-MeO-DMT.

Alongside my PhD in Maastricht, I also became interested in the effects of Holotropic Breathwork and decided to design a prospective survey study on this as well which is similar to the 5-MeO-DMT study. We will keep this study running for a couple of more months as we still need some more participants. With Holotropic Breathwork I've been very interested in the phenomenon of release, because that's also prominent with that practice.

That's what I've been working on for Imperial, but I'm probably going to be moving to Australia at the end of the year [editor's note: at the time of publication of this interview, Dr. Malin Uthaug already arrived in Australia]. I can't talk about it much right now, but it's 5-MeO-DMT related.

L: That would have been my next question: What's up next? You can't talk about the actual details of the research work, but can you tell us where you're going and what you're going to do there in general?

M: I'm going to be joining a team at Swinburne University of Technology in Melbourne, Australia. We are going to be doing a study there with 5-MeO-DMT. I'm happy to talk about the details of that study in the future when we have some clarification on the progress there.

I'm definitely looking forward to relocating. I think Australia is going to be a great experience for me. There'll be a lot of great people and I've heard good things about the city. And another great part of this transition is that I'm going to be able to freedive, which is very important to me now. In essence, there are many boxes that are getting ticked that support the way I want to live my life and the way I want to be as a researcher.

L: Thank you very much, Malin!