

Asian Ethnology Podcast

“Hearing Aids, Assistive Technologies, and Accessibility in Japan” Transcript

Guest: Frank Mondelli, Stanford University

Interviewer: Mark Bookman, University of Pennsylvania

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Mark Bookman: Welcome to Asian Ethnology Podcast. My name is Mark Bookman. Today, my guest is Frank Mondelli. Frank is a PhD candidate in Stanford University's Department of East Asian Languages and Cultures. He is currently working on his doctoral dissertation, which examines the technological and cultural history of deaf assistive technologies in Japan between the years 1945 and 2000.

Frank is involved in disability advocacy in both the United States and Japan. He has served on the board of the Stanford disability initiative and has also worked with the Japanese Federation of the Deaf. Frank, Thanks so much for joining me.

Frank Mondelli: Thank you so much for having me.

Mark: If I can just ask, can you tell me a little bit about your research?

Frank: I'm currently, as you mentioned, working on my doctoral dissertation. I'm working on the social, technical, and historical dimensions of assistive technologies for deafness and hearing impairment in 20th century Japan. This research has taken me everywhere from looking at the social and technological politics of algorithmically generated Japanese sign language, to portrayals of deafness in Japanese film and television, to vibration powered assistive technologies meant to transmute music into deaf bodies, and so on.

What I found over the course of doing this doctoral research is that music as a concept as a practice is integral to understanding the history of deafness and assistive technology in Japan. I essentially end up asking, what exactly are the historical material and ideological connections between music and deafness in 20th century Japan? What are the consequences, social, political, and so on, of those connections on not only deaf communities but also larger sound cultures around the world?

For the talk, I'll be giving later this year at Nanzan, I focus on the late 1940s to the early 1960s specifically, where the idea of the deaf body as grotesquely dehumanized was not uncommon. I look at how ideas on the "humanizing potential" of rhythm and music proliferated in the network surrounding the hearing aid and the networks include electronics firms, local governments, schools, and so on. What those connections mean for ideas of listening, group listening, music, and sound technology more broadly.

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Mark: Interesting. I know from personal experience that a lot of the literature out there on deafness in Japan tends to focus on the politics of sign language or the connections between different forms of mainstreaming in school, for instance, but I haven't heard too much about deafness and musicology before. If I can ask, what led you to do this type of research?

Frank: I think that's a good point. Of course, you know as a fellow researcher, it's often a long road that we take to get to where we are in our academic and personal journey. I think there's a couple of things that led me to this topic, specifically. To start off, I'm hearing impaired myself, I have a unilateral hearing impairment, which means that I can only hear out of one of my ears.

Of course, everybody has different degrees of hearing impairment, and so on. Springing from that, I was always very interested in listening to music through my hearing aids when I was younger. Whenever I get a new hearing aid, I would always try to test out listening to songs I was familiar with and seeing how they sounded completely different. I started to realize the hearing aids I had were not really meant for music consumption, they're not exactly equipment designed for that.

That got me thinking for a long time since I was a child who designed these hearing aids, for what purpose, who gets them, how are they distributed, and what are all of the different factors that go into the ways that hearing aids and these assistive technologies proliferate throughout society? That's hearing aids and music more generally, when it comes to Japan, my hearing impairment itself was actually integral to jumpstarting my professional and personal investment in Japan, although, that's actually a different story.

Specifically, when it comes to this research, the first time I went to Japan, I guess taught at a school for the deaf, Ishikawa Prefectural School for the Deaf. It was a great time, I got to enjoy the classes. One thing that stood out to me that I still remember very vividly was, I was asked by a student, "Okay, so you're hearing-impaired, right?" I said, "Yes." They said, "What were your childhood dreams?"

I said, "Well, I always wanted to come to Japan." The kid said, "Okay, so you're here, so that means you accomplished your dreams and you did that as a hearing-impaired person, that's wild. How did you even do that?" Of course, the implication there is that, as hearing-impaired people accomplishing our dreams and whatnot is challenging to say the least. That really stood out to me, because the student was really asking about potentiality of people like us.

Much of my work is about where these ideas of potential come from, what are the realms of possibilities that we ascribe to particular individuals, say, deaf kids or persons with hearing impairment, particular kinds of individuals, and where do these ideas historically come from? That's a big part of the story that I'm telling the dissertation. If I could just say one more thing about that, after I graduated from

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undergrad, I went to Okinawa to do some research on the endangered languages there.

I had done some work with the Living Tongues Institute for Endangered Languages and I was working back then on an interactive dictionary. That really got me thinking about language and politics more generally, and the history of these languages in Japan, endangered minority languages, it generally tends to be one of oppression, as is the case with other kinds of minority communities.

Later on, I remember this experience in Okinawa, when I heard about algorithmically generated sign language by NHK, Japan's public broadcaster, and looking into that brought me into the larger world of assistive tech for deafness more broadly. As you mentioned, there have already been some works on deaf communities in both English and Japanese like Karen Nakamura's *Deaf in Japan*, for example, but there's not that much work on the history of assistive technology.

Whenever you do find that kind of work, it generally tends to be very teleological telling of history. It's like, "Oh, check this out, the hearing aid has gotten better and better throughout time", and now you can't even see it because we've progressed so well. I want to stop and say, "Okay, what does it mean to tell that kind of history? How does the history change when you bring in more social and political dimension to the story?"

I really wanted to add that to the discussion, and then bring in all these really interesting connections that I uncovered as I was doing this work in Japan.

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Mark: Let me pick up on a couple of things you've said, if I may. I was listening to you describe your work and it sounds to me like terms like potential, teleological, and cultural are really at the heart of what you're doing. You're looking at how we can break the large teleological narrative we've seen in some works about deafness in Japan. I'm really interested in this idea of potential and the idea that things are not predetermined, individuals will attempt to meet goals and sometimes meet them, sometimes they won't.

The way that they'll achieve their goals is different then, of course, every deaf individual in different contexts, different cultures, has their own ways of both setting and realizing those objectives. One of the questions I have, based on our understanding of different actors ascribing or attempting to reach different goals is, what have you seen in your work that surprising as we've watched this process of individuals attempting to reach their goals? What does **[unintelligible 00:09:50]** that teleological narrative in their mind from the research you've done so far?

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Frank: That's a really interesting question. I think a number of things jump out but one thing that was especially surprising to me, especially in the beginning of my work in Japan, for this dissertation research was, these notions of potentiality, of course, they don't come from nowhere. It's not a surprise to say that, but what was very interesting was, how interwoven these ideas are, and how they are shared and shaped mutually by a large set of actors, that we may not necessarily expect to be very close to one another.

I'll give you an example. After the World War Two in Japan, so 1945, you went up with, of course, a lot of researchers who had been doing military work in one form or another for the Japanese Imperial Army. Of course, once the war is over, that work is no longer available. What we have is we have a lot of researchers trying to figure out how do they stay afloat?

How do they feed themselves, their families and how do they take what they had been doing, and apply it in a completely different direction or so it seems? When you look at the hearing aid in Japan, what you end up seeing, if you trace this socio-technical history, is that you see hearing aid firms, joining forces with a variety of actors, such as electronic stalls, in black markets, in places like Akihabara, in Tokyo, you see them joining forces with American networks, of course. You see them trying to reach out and appeal to local governments.

Not just Tokyo, traveling all over Japan. Essentially, what you end up with a massive, sprawling network throughout all corners of the country, and of course, internationally. Each one of these actors is involved in hearing aids for slightly different reasons. They have different motivation for pursuing it. What they do is they all try to coordinate.

What did the hearing aid mean? What are they trying to accomplish mutually and how can they achieve mutual objectives while furthering their individual objectives? You end up with a very messy but almost paradoxically unified idea of what the hearing aid can do for the deaf child, or for the veteran, or for the elderly person.

I guess to get back to your question, it was just really surprising how networked these coalitions are. I got really excited to look into that, uncover that, talk about it, describe it, analyze it, and say why that matters to us today.

Mark: Got you. That really is interesting to think about the way that these coalitions have changed over time. Certainly, in my own work as a disability historian, I spend a lot of time looking at how other groups, whether it's elderly or international populations of disabled individuals have come together or broken apart, due to various contingencies and circumstances.

Really the last word you mentioned is the key thing here, which is today. What can we learn from the way that these coalitions were formed or the way that they were

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brought together? Historically, how does it help us understand what's going on right now? Do you have any thoughts on that?

Frank: Yes, of course, we talk about today we're having this conversation towards the end of 2020. It certainly has been a year, to say the least. When we think about what's going on with, say, COVID-19. We're finding that there's a lot of technological solutionism, for lack of a better term, being thrown around such as, we have this problem, this technology is going to save us or at least make things better.

The problem, in a certain way, almost becomes like a disability. Then a particular technology becomes the solution within this framework. You see this kind of idea a lot in the history of hearing aids such as, okay, the deaf child is either helpless, the deaf child, or really the deaf person is not even a human being.

You see examples like they're fish, they are dogs and they are beasts, or they're simply removed from the category of humanity. Don't worry, because we have this technology, and the technology is going to play a massive role in their rehabilitation. That's one previous historical manifestation of technological solutionism.

I say historical because I'm describing an instance in the past. Of course, these things have genealogies. We end up with that today, we end up with a lot of factors going on in COVID-19, such as using video technologies as a means of replacement of what we conceived of as normal social interaction.

We're using certain kinds of behaviors or certain technologies such as masks, or politicizing them in one way or another by defining a problem and then proposing a certain solution to it in a technological vein. Essentially, what I want to say is by looking at different historical instantiations, of technological solutionism, we might be able to better understand how we can steer things in the present towards a truly more inclusive environment for all of us during and after this pandemic.

If I could say one more thing about that, I think this also really connects with the idea of technology development, for disabled persons, without the involvement of disabled person, something I know, that you, like me, as a disability researcher, are all too familiar with. For many of us, we're online now more than ever.

I'll speak more on the deaf and hearing-impaired side of things. When you end up on YouTube, or Twitter, or Zoom, or any of these places with audiovisual components, and you end up with a lot of "solutions" that are, even if they're designed for accessibility they're not designed by the people who will use those features, need those features, and so on.

There's been a couple of terms thrown around for this one is disability dongle, which I know you're familiar with, and so on. I think the pandemic has really highlighted how important it is to talk about this, and how important it is to talk about this

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collectively as a group, and really think about, okay, how did this manifest? How has it happened before and what can we do about it now and going forward?

Mark: All right. I have one final question based on what I've been hearing you saying, which is, a lot of we have a lot of collective action. There's always a question of who really is involved in making these changes occur? Is it scholars, is it architects, engineers, policymakers, educators, who was going to enact the changes based on the history that- histories, I should say, that you've been calling attention to?

The question that I have is thinking about all those different sets of actors, all of them have their own knowledge bases, their own way of understanding the world, and their own way they've interacted with deaf stakeholders or disabled stakeholders in general. My question is, what do you hope people take away from your work whether they are scholars or practitioners?

What what are you really trying to convey if you had to boil it down to a three-minute response?

Frank: That's something that, of course, I think about all the time. I'll just speak for myself, but I think it's something that it's important to interrogate, as scholars, especially as we do this work that, in many ways can be quite detailed in the weeds, but at the same time really does have broader implications.

What do I think those implications are in my work and in my case? I think the first is, this is really fundamental but to work on assistive technology is to work on access more broadly, and to work on assistive technology is to work on what access means politically, socially and materially or really just physically how does it end up in the world? Access is vital for every one of us, and I know that you work on this in your work as well. What that means then is working on assistive knowledge histories matters to everyone because we all use technology in some form or another and we all need access in order to do the things that we want to do in the world.

It also reminds me of an article by Mara Mills and Jonathan Sterne, they call it *Dismediation, Three Proposals, Six Tactics*, there's a lot into it, I won't get into the whole thing but they basically say if we need to document the centrality of disability to media and the centrality of media to disability, I would go almost a step further and say we need to document the centrality of disability to culture and society more generally and vice versa.

To make it a little more concrete in my case, I'm thinking of my work as having almost three major takeaways. The first is that assistive technology has become embedded in larger complexes and I made a mention to this earlier when I was talking about social-technical coalitions surrounding the hearing aid in post-war

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Japan. Assistive technologies are quite crucial to the creation of and the maintenance of these larger bodies of actors.

In my case say, I'm talking about how the Japanese hearing aid found itself immersed in the politics of post-war and building commercial sound cultures, and so on, basically, I want to say that the hearing aid may seem, especially in this time period as such a small thing but it spirals out into incredible consequences down the line in terms of, what kinds of microphones are we using in Japan, or really around the world, how do we make music, how do we listen to music, how do we think about deafness in society?

Another thing that I think is a take away from my work is that- which is really just a continuation of that, that these complexes have a say in what kinds of cultural ideas happen and proliferate in society. I think the third thing is that we need to give credit where credit is due. What I mean by that is, assistive technology and more importantly their users which encompasses disabled people, not just disabled people but also disabled activists, researchers, et cetera, do note, both the technologies and their users are historically deemphasized.

I talk about this in my work with the term assisted erasure. What I mean by that is, let's say you have a hearing aid and that becomes very important figuring out how to make your industrial processes work better, and then you become a large multi-conglomerate corporation say, like Sony, for example, and then you write your own corporate histories and then you don't mention the hearing aid or you mention it in almost negative terms as in, "Oh, we didn't do the hearing aid, we just went straight into this other product," when in fact the hearing aid was quite crucial to that history.

I think recovering this history is good for our collective memory, number one, but it's also good for gaining insights into again how to make society more inclusive when you think about this "hidden component" of assistive technology histories, I think it can be really insightful into thinking about how technologies and ideas about technologies thrive more generally in society.

Mark: Frank, it's been truly enlightening speaking to you too. Thank you so much again for joining me. Everyone, I hope that we all listen to what Frank has to say and take some time to reflect on those erased histories on assistive technologies, the coalitions that brought together, and what our role is in the process of making and analyzing those histories. Frank, thank you again for joining me.

Frank: Thank you so much for having me.

Mark: This has been the Asian technology podcast. My name is Mark Bookman. Thank you, everyone, and we'll see you next time.

[00:25:13] [END OF AUDIO]