GENDER SYNTHESIS

MAYA B. KRONIC

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Who cares. It's hard to explain. M[...]'s been mentally outlining a zine about this stuff that will lay it out clearly and solve everything since, like, before she started transitioning. [...] When you are trans, you are supposed to know everything about men and everything about women and the way they interact [...] And when you first transition? You totally think you do [...] And you just want to talk about it, all the time, because it feels like such a revelation [...] Then, after you have felt very smart and insightful for a long time, you start to realize that all your insights are kind of stupid [...] There are so many variables that it's like, you see all the constructions, all the conections, and you kind of understand them, but if you ever plan on trying to make sense of them, you'd better be doing it in a cave on a mountain someplace far away from other people [...] All of this gender stuff is stupid and it's so complicated that it's impossible to make sense of.

Imogen Binnie, *Nevada*

Terrestrial instruments become families of topological invariants (varying according to size and elasticity of materials); and outside their multidimensional, infinite yet circumscribed zone, lurk instruments with which we are by rights, as Leibniz would say, incompossible. The 'stretching [of] variation far beyond its formal limits' precipitates a type of cosmic regression to the embryonic state of music—before music was born, there was the great vibrating cosmic egg, the organ-without-organs: 'Embryology already displays the truth that there are systematic vital movements, torsions and drifts, that only the embryo can sustain: an adult would be torn apart by them.'

Robin Mackay, 'Blackest Ever Black

This text is based on a presentation I gave at Bidston Observatory Artistic Research Centre on 26 October in the year 2023 BE (before estrogen) at the SSTRAPP event 'Sonic Disruptions'. Although it has been freely edited, and part three is a later addition, it is a record of a particular moment, and of ideas that emerged from my trans- experience and discussions with Amy Ireland that subsequently found their way into our book *Cute Accelerationism*.

1. RIGGING AND GENDER SYNTHESIS

I am the agent, patient, and product of a research project on gender accelerationism. I think of myself as being a synthetic person at this point. This has become really my main project in life. I've always understood philosophy as being something to do with how you live, something that has consequences. The philosophy that I care about has always been something that moved me and made me think about and live life in a different way. Doing philosophy is about both escaping yourself and producing yourself anew.

It's also to do with the body. You have to make a philosophy that actually fits your body, or adapt the two mutually to one another. Not because it's All About You, but because that body is your relation to the real and if what you're doing in philosophy is to have any possible traction it needs to be checked against every body part and every sensation. Do a fit check on your philosophy.

And don't start with flat patterns. Did you ever see that most beautiful of topologists Alexander McQueen moving around a model with his scissors, cutting and folding and adjusting, continually adjusting and moving and looking and touching and looking? That's how you should make philosophy. Otherwise, like Henri Bergson said, you're sure to end up with ill-fitting concepts that are too baggy to be of any use. After that, you can move on to cutting a conceptual couture to make your cute ass cuter.

Anyway, I want to talk, firstly, about how gender is or isn't a synthesis. A very basic meaning of synthesis is just putting two or more things together to make something new; you're taking certain processes or operators and combining them.

And then the second question is, *What happened?* Is something happening when you transit within gender, when you reconfigure gender? What kind of synthesis is it, and what kind of elements does it involve? What

are the processes that you're playing with and what are you recombining? I want to talk to you about this in terms of euphoria and joy, but also I feel anxious talking about it here because the whole process has also involved impostor syndrome, which in part is just my personality, but in part, I think, stems from the fact that *no one knows what gender is*.

In recognition of that fact, this is not going to be a well-informed review of gender studies literature. My ambition is merely to say something about this which is not just my personal little story, but is also not a Big Theory of Gender that I am trying to impose upon others. The question for me is how to stay close to *this* body, while drawing from it some diagrams that might be reusable for others.

To transition is a very precarious personal process which is also a kind of social provocation. It very obviously suggests wider social transformation, but it also verges on a kind of personal madness where you don't really know whether what you're doing is real or not. That's why, when I ask the question *How do we synthesize gender?* it's accompanied by this question *What happened?* Did anything actually happen to me, have I actually done anything? Because the source of anxiety and impostor syndrome is that what I've been through feels momentous, but it can also sometimes feel silly. Has it actually made any difference or not? How do you gauge difference? At times it can feel fake, self-indulgent, narcissistic, or hopeless—and of course there are people in the world who will take delight in telling you that's exactly what it is.

Something seismic has happened, and yet what I'm talking about may seem quite trivial. How could it be so momentous, isn't it just all imaginary? Can even just changing gendered cosmetic and presentational aspects of your existence make a significant difference, and what is that difference and what does it tell us or make us question about what gender is? The recognition that to transit, explore, or navigate within the space of gender is at once trivial *and* momentous is reflective of the fact that gender is quite obviously a fundamental structuring social category that's massively constraining for everyone, and yet the rules that apply to it are utterly arbitrary and contingent. Even from a historical perspective there's no good reason why, at present, some people wear skirts and some people don't; we all know that these things are arbitrary, and yet it's extremely difficult and apparently perilous to step over the line.

Once you actually have gone out in public e.g. as an AMAB wearing female-coded clothing and the world doesn't end, you may well feel that

something huge has shifted. It will probably be easier than you thought, in general no one really cares that much, it's not like you go out and everyone's pointing at you, like in a nightmare. (I would actually compare conquering this particular stage of transness to an altered version of the classic anxiety dream: it's like you're out in public and you realise that, rather than covering up your shame, protecting yourself and your vulnerability, you're just naked, yourself, with nothing protecting you from the gaze of others....and it feels great!!). The fact that in principle it's that easy is one reason why transphobia has to be so violently vigilant: people realise it would actually be possible to disrupt this fundamental category of social existence, it wouldn't really take much, and then so much would become uncertain, which is a source of fear, so we have to imagine it is really hard or even impossible to do. The great psychoanalytical thinker Jacques Lacan says that binary gender is to the logic of the subject what the principle of non-contradiction (It is impossible for anything to be both *A* and not-*A*) is to classical logic. It's that fundamental. And yet the components that make it up are, it seems to me—and will seem to anyone who starts tinkering with them—all material and can be altered, so this transcendental impossibility is, in fact, a construction.

Exploring gender is a weird transcendental experience of how these norms are both all-pervasive and powerful but also totally contingent and breakable. From 'that side' of gender, it looks like a huge binary that structures everything and you can't possibly get beyond it. It seems as if there's a hard and fast line. Once you cross the line, you look back and you realise the line wasn't even there, and that what is there is in fact a very complex variegated field of material assemblages, possibilities, blockages, and prohibitions. It really is a kind of transcendental breakthrough because you see everything from a new perspective and you can't rely on those structuring categories anymore (although they are liable to crash back down on you at regular intervals). I also think of this as a kind of *initiation*.

Today transgender culture is becoming mass culture for the first time, and that's obviously because of the internet. 'Crossdressing' and 'transvesticism' in various forms have always been present in culture, but that is a different category altogether. Historically and even today that is a practice freighted with a transgressive charge; it's generally something that people perform at home in secret and then feel bad about and then get rid of the stockings and bras and then buy some more and so on, like an addiction and/

or fetish. Transgression can only move in cycles because it is fixed in place: you cross the line and then where else is there to go? There are only two sides of the line, so you have to go back again and then cross it and then go back... there is no transformation. Now, being transgender is of course *not* a fetish, precisely because it is not a sublimated expression of something sexual, but it can often emerge in the form of apparently fetishistic feelings and behaviours, and there is no reason why it cannot or should not coexist with fetishism. After all, by strict definition, every aspect of human sexual conduct is 'fetishistic', apart from 100% functional reproductive behaviour, if such a thing exists. But more importantly, being transgender is not transgressive—or rather, in so far as it feels transgressive, that is because someone or something is stopping it from happening (maybe yourself).

For me, to wear female-coded clothes in a public setting was a huge thing because very soon, it wasn't to do with crossing that line anymore, and what I had fearfully apprehended as being fetishistic very soon lost that kind of charge. You've gone beyond that behaviour and you're in an open field where new things can happen, and it's absolutely not about transgression any more. The transgressive fetishistic charge gradually falls away and it's no longer a matter of the excitement of crossing a line; you become gradually able to perceive and understand more subtle changes to how you experience your own physical, social, and emotional existence, and what then opens up, beyond dysphoria, is an exploratory space of the tactile and sensual pleasure of simply allowing yourself to notice and enjoy your own body.

What happens when you get into this field of possibilities and you're interacting in a new way with your own sensory and somatic experience of your own body? Weirdly, I've found that people don't really want to talk about that much. I wanted to understand this whole thing as being a sensory exploration, a somatic process, to do with the body. But I found that in many trans forums people don't really want to talk about that, what they want to talk about is their identity, and trans politics. A part of this I think is that talking about bodily pleasure and sexuality in relation to transness can seem dangerously close to ratifying the 'gender-critical' idea that we're all really just dangerous criminals on a perverted sexual spree. But giving in to that fear means that too much trans discourse is about dysphoria and the management of fear, and euphoria becomes afraid to speak its name.

What resources are there for thinking about this experience, then? Coming from a philosophical background, the one thing it always made me think of was Deleuze and Guattari's understanding of 'becoming': when you become, it's not like you're going from one identity to another or copying the thing that you want to become; *a becoming* is a something in itself, a substantive, something that happens in-between two or more elements, producing some third element that isn't identical to them. One of their examples, from Vladimir Slepian's story *Fils de chien*, is about being a dog: if you decide to be a dog then you have to get down on all fours. But then because you're also still a human and you're going to have to walk around, you have to put shoes on your hands; then, because you can't use your fingers anymore, you can't tie your shoelaces, so you have to do it with your with your mouth so then you've got a muzzle like a dog…becoming is the in-between emergent process, the dog with shoes, it's not about trying to get from one identity to another, and it's not about acting or pretending or mimicking, the character in this story is not pretending to be a dog. The point is that, in moving from one point to another you transform the map itself and produce yet more possibilities for becoming, and this process can go on and on and on. Becoming has no end goal and identities are the betrayal of becoming.

I put on a skirt and I felt a certain way and that made me want to try something else and then that made me feel a certain way and I ended up producing a body that was not the one I started with. But I wasn't interested in 'passing' as a woman any more than I wanted to be a man. I would say *trans-* is about being in motion, and this motion is driven by attention to and responding to sensation. Again, I found that very few people wanted to talk about gender transition in these terms. What I found was, very broadly speaking, two positions. The first one, the 'gender-critical' position if you like, is that there's a pyramid: you've got all the 'real' stuff at the bottom, DNA, hormones, anatomy, and then you're officially registered and socialised into being a certain type of person because of your anatomy, and then because of that you wear certain things, and so on. There is a system of strata going from the real and the immutable to the trivial and changeable. If I was to give into my impostor syndrome and look at it in this way, I would just say, okay, I'm just messing around with this stuff at the top, I'm just dressing differently, nothing's *actually happening*: the government still thinks I'm a man, and quite rightly because that's what my DNA or my skeleton or whatever says.

And then the other position, espoused by some trans people—no doubt in some cases because this is the right kind of story, the story they are required to tell others—is the idea that in transitioning they discovered the real person who they always were: *I've always been a boy not a girl, but now I'm able to actualize that, to become the boy I always was*. But where is that person? I just don't really comprehend what it means. It seems to be a kind of metaphysical construct: somewhere, this person has 'always existed' inside you, and now you've dug them out. It's a way of thinking that's so different to how I experienced it that I can't really connect to it.

It's to do with time. In the first model, the strata relate to different temporalities: you have the planetary biosphere producing dimorphous sexuality, a millennia-long process that produced the system of sexual reproduction. Then you have ontogeny, the production of a single human being, in the process of which they are usually determined unambiguously as being one sex or another. Hormones then continue to program the body throughout the individual's life. And then you have socialization, which is drawing on all of these 'lower' strata, but operates at the speed of cultural evolution. And then you have your own personal individual life, which is just a tiny little blip in the scheme of things. Note that there is no feedback from the higher to the lower levels at all, everything is one-way.

In the second model, this idea about the real person inside seems to relate to some kind of eternal immutable identity that's always been there, and that one is recovering. While it seems to me that the first way of looking at this in terms of these strata makes gender transition seem superficial, this second way makes it very very deep, it appeals to a type of depth that I don't feel I have in me because I feel like I'm a becoming, not a vessel for an identity. Ultimately, I don't want to be superficial *or* deep about it. I want to be *broad* about it and to say that gender involves many different machines that interlink to each other, that it's a continual process of becoming which can be intervened in or disrupted at various levels.

So I was dissatisfied with these other models, and also, I don't want to deny anyone's suffering or adverse experiences but it seemed to me that too much trans discourse is shaped by dysphoria and transphobia. Can we start with euphoria? With the process and the becoming, not identity and its discontents and its defence? For sure there are existential stakes to the trans experience, but it is also a kind of pleasure and play at the same time as being

a labour and a process of becoming. That's why it's so powerful and why some people, joyless people, hate it so bitterly.

I decided the only way to think about it is in terms of a *gender pragmatics*. What does pragmatics mean, as a philosophical attitude? *Pragma* just means handling things really, it means constructing, manipulating the things around you. Philosophers have always asked questions like *What is this? What is that? What does this mean?* The pragmatist's answer, broadly, is that what something *is* or *means*, is defined by *what its effects are in the world*. Another definition is that the *meaning* of a proposition consists in the *conduct* that would ensue if it were to be accepted. So if I give you a definition of gender, you don't ask *Is that true or not?* What you say is: *What would our behaviour around gender look like if that was the case?* And then there is a further extension of pragmatism in philosophy, a more social form of pragmatism, in which what's important is *commitment*. The real meaning of a concept becomes clear when people commit to acting *as if it described reality*, and that commitment produces results *in reality*. One thing entailed by this is that, in fact, we can be committed to a concept without thinking that concept explicitly, just through our practices. We may have unconsciously picked up practices that commit us to concepts we have not yet thought. So, what would the effects in the world be if we as a culture committed to a certain understanding of gender? Obviously we've already done that! We've committed to a binary understanding of gender and our practices reflect that, and we're living in the results of what that produces. Now pragmatically speaking, what would it mean to start breaking that down? It would involve practices and commitments.

Pragmatism, then, has this double meaning: it's to do with experimentation and getting to grips with things, and it's also to do with understanding things in terms of their effects and in terms of what it means when you commit to something rather than just having a philosophical argument about it. The question is, *what happens* when you put your understanding to work in the world. *What becoming does it produce? What kind of a dog is this?*

Every instance of gender exploration may be personal, but it cannot be entirely a personal affair. If you secretly cross-dress in your bedroom then you're not really committing to it, in a sense. The commitment part, the production of something new out of your understanding of yourself, can only happen at the social level, when you demonstrate your commitment to other

people. One may lead to the other, but when I'm in the world, reacting to other people reacting to me—that's where fetish ends and gender starts to happen.

Initially when I thought about gender pragmatism I was thinking about how you become gendered or explore gender via an interplay between the techniques and artifacts that you engage with, and your own internal sense of your body. By 'techniques' I mean any kind of technologies that you attach to your body, any kind of prostheses whether that's adornments, clothes, etc., or whatever. You try out these things, you see what effects they have, and that produces a new state of mind and body, raises other questions, and that propels the process further. Which is about navigation, not ontology or identity. It's not that you're saying 'I am this, I am that', you're trying to become as sensitive as you can to the landscape you're exploring. And binary gender, a concept to which we have prior commitments via our inherited practices, is ultimately just a matter of being very insensitive to that landscape of possibilities.

That navigation is where euphoria comes from. And I wanted to start with euphoria because that's where it began for me. I never thought I was gender dysphoric until I had experiences of gender euphoria, and then I realised, *maybe I was wrong to think that being miserable was just normal and that's how everyone experiences themselves*. When I encounter transphobes I always try to reserve a certain grain of empathy, because what I thought to myself for a few years was: *I don't have dysphoria, this is just how life is, everyone's miserable and doesn't have an ideal relationship to their own body and can't become something else. Why do these crazy trans people think they can just change that at will!?!* Those are the kind of neurotic blockages that can lead to transphobia, and it's fine to have them, because we are born into certain practices and commitments. The first step out of them is simply realising that what you are angry and confused about is probably not trans people but yourself and your own stasis and trappedness. Anyway, I think dysphoria comes in various blends. I would now describe my dysphoria as being social and tactile rather than anatomical. I've experienced throughout my life massive physical and social discomfort at trying to be a man with other men, trying to play that role has always been hugely uncomfortable to me.

Gender navigation brings you to questions about fate, passivity, and even demons. In some sense all you're doing is just 'doing what you want'. You're just following your desires. And yet at the same time there is something

unknown that's compelling you, and until you get to where you're going you don't really know what it is. You don't know the destination, all you know is that it becomes possible to be increasingly sensitive to feelings, choices, and possibilities. But this is not hedonism, in the sense that 'doing (or even admitting) what you want' is not the line of least resistance; it requires a great deal of attention and energy, it is a kind of labour, moving around in this landscape and making commitments and taking risks, trying things out.

And as I said, this labour may also be likened to a kind of initiation, an ordeal. Something that someone said to me at a certain point when I was racked by doubt was that it actually doesn't matter if you decide to change what you're doing or to go back to being cis or hetero or whatever. Once you've gone over that nonexistent line you can't really reverse it; once you've gone through the mirror and seen that things are completely different to how you thought, there is no going back.

Is there some 'real you' that's already there and is trying to get out, or is that 'realness' something that you need to arrive at, and construct, by navigating carefully from where you are? I never felt like I was trying to recover something that was already there. I was trying to get somewhere (anywhere!) without having the precise coordinates—i.e. I was trying to *become*. Before, when I was attempting to be a man, every few years I would decide to be some particular kind of man: I'm going to wear these kind of clothes, I'll develop this type of look or attitude...and it never worked—whatever I tried it didn't work, and then I would give up and start doing something else...and it's not even as if there are that many models to try out! I just went through all the boring possibilities of man-being and concluded that misery and anxiety was just how life was.

My sense is that men's clothes are designed to stop you feeling your body, to limit your proprioception. That's linked to the supposed centrality and neutrality of man as default, as universal subject position. Men's clothes are a kind of anaesthetic. I feel like I've been imprisoned in them. But at the same time they also have the advantage that you never have to really think that much about your body. You can just be lazy and ignorant. Men's clothes seem to me to be designed specifically for that purpose, and it would be nice to think that we didn't have to generate humans like that anymore, humans who need to not feel their own body or who become accustomed to not feeling their own body. Women's clothes are obviously made in a certain sense to

project bodies outwards and to make bodies public property, and at the same time to aestheticize or superficialize, to make you into a sensory being for others—but also for yourself; to make you feel your own body and be conscious of it as a tool and as a lure of course, but that also means being conscious of it as a site of pleasure, or autophilia. So of course your sense of your own body changes when you wear differently gender-coded clothing. The process of doing that—how does it feel to wear a skirt? how does it feel to wear leggings or tights?—is like producing new body parts. Wearing different clothes actually changes your internal map of your body and you begin to produce parts of your body that you didn't have before. As a man, you knew of course that women had those parts, you had seen them, and you liked them (even if you didn't quite know why…) but you thought you didn't have them! But in fact you can produce these new zones.

There are some asymmetries here that we need to remark on. This whole thing is about escaping what is compulsory. A transmasc might find that, once they don't feel like they're being forced to wear women's clothes, they actually enjoy some of the things that are associated with femininity. And vice versa, a trans femme might want to wear nothing but skirts for a year, and then feel more relaxed and accept some of the advantages of baggy jeans! That's what the baby trans phase is all about. In a certain sense, what we want is to *have the option*. No one wants to be constrained to have a certain type of body, but that's what binary coding of gender does. The heaviness of the social coding is that you've either got to have this type of body or that type of body, as if each one is a package deal, when in fact there's a very complex field of different zones, different parts of the body, and different ways you can treat them. If you wear a crop top for the first time you produce a new area of your body you didn't have before; you feel something that you never felt before. If you wear knee socks and a skirt you're producing a new zone on your body, between the top of the socks and the bottom of the skirt. That can be something to look at, to be subjected to the gaze, of course. But it's also something you can feel, a new part of your body that you didn't have before, that produces a new kind of pleasure. An ankle bracelet produces a new kind of ankle.

All of these remappings of the body make you realize that your body is far more reconfigurable and fluid than you thought it was, and that you can have different types of experience of your body. Euphoria is the discovery of a

new continent, your own body.

And that's because your body is an egg. There's this brilliant passage in Deleuze and Guattari where they say, in relation to gender: 'the real question is the body, the body they stole from us in order to create opposable organisms'. They give a really interesting account of how boys and girls are produced in relation to one another in terms of what they can't do. But before you're trapped into that binary, you just have 'a body', and that body is an egg.

Egg discourse is really interesting. You'll know that there's a trans discourse about eggs: people who you recognize as being on the verge of realising their transness are called eggs and the question is, *What was the point at which your egg cracked?* There's something really fascinating about how this emerged, I don't think anyone knows exactly where it came from, but it converges with so many other interesting things. Obviously your body literally comes from an egg. In ancient biology they would imagine that inside the egg (or more likely the sperm) there was the pre-formed germ of a tiny little woman or a man who's then going to come out of the egg and grow and become a human. We now know that the ovum is, in fact, a very complex field of intensities, differentiations, chemical gradients. Those gradients will interact with one another to produce more complex articulations, and then the intensities of that field will interact with each other, it is a complex escalating process of production of differentiation of body parts. So the egg is not an image or pre-image of the thing that it produces.

Now, obviously you can't go back to being an egg. It's true that in principle any of your cells could revert back to being a stem cell and could then become some another type of cell, but physically, you can't reverse the process and go back to being an egg so as to reconfigure yourself completely and become someone or something else, another person or another species. So this begins to seem like a rather abstract, idealistic idea that has no connection to pragmatism. But stay with it.

Your body is an egg because your body is this field of tensions, differentiations, relations between one part to another, and *they are reconfigurable*. This is what I call the eggo or 'virtual body'—by virtual I don't mean anything to do with the digital or being online, I mean that beneath the body that's been constructed for you, there's this richer field of possibilities for reconfiguring your body—and some of them might feel better.

You're born into your tribe, but it's only when you reach a certain

age that you have an initiation ceremony and that's when you become a fully fledged member of the tribe. That initiation is spoken about in many cultures as being a 'second birth', and often the symbol for it is the bird hatching from the egg. It's strange and fascinating that there are all these resonances to do with the egg, and that this image has today been rediscovered and is being used for other purposes.

I also like to relate the egg to 'degeneracy'. There's nothing that I love more than if someone calls me a degenerate, that would be the greatest compliment. Can you think of any cultural phenomenon that has been called 'degenerate' that hasn't been really fantastic? And regression—people talk about young kids online, Tik Tok kids who are dressing up and being weird and doing gender, as 'regressive', infantile: *When are you going to grow up?* I take all of that in the opposite sense. Regress, be degenerate! But with the understanding that that doesn't mean going backwards in some simple sense. Instead it's regression in the sense of going back to the egg, unlocking possibilities. Everyone should be degenerating, becoming-egg. Your body is an egg, a system of tensions, relations of parts, the assignment of erogenous zones to one part of the body rather than the other, etc. Through your socialization you've been trained to register some of them and not others, and 'techniques of the body' or what I'll call 'rigging', including clothes, are a continual reinforcement of that, because depending on what clothes you're wearing, you're constructing and registering your body differently. Once you start opening that up and experimenting, you realize there's no such thing as a man's body and a woman's body, there's only an egg, there's only a virtual body.

That brings us back to pragmatism, and the importance of social diffusion and particularly social media as an enabler. One of the things that for me was a source of retrospective grief and prospective joy was discovering femboy culture, because I thought it was such a powerful thing: you had these teenage boys dressing in female-coded clothes and dancing around, and they just seemed to be experiencing their own bodies with joy. Certainly there have always been boys dressing up as girls, and vice versa, on various cultural margins. But social media was absolutely crucial to this, because these boys were able to share their enjoyment with one another and to ratify one another's existence. You'd see someone on Tik Tok saying 'I went to school for the first time in a skirt today' and hundreds or thousands of their peers would be applauding them. That couldn't have happened without social media, it would

have been a story of one weird boy who went to school and got beaten up. Of course, that still happens, but it seems that social media is very important and plays the role of a social diffuser for pragmatic commitments. The transphobic narrative is that it's a 'social media plague'. Well, maybe we should see it from the virus's point of view. What happens with diffusion through social media is the second level of pragmatism—you realise your transformation within the social sphere in order to make it real. I can't really begin to think of how I would have done what I've done for myself without social media, because it's a way to reflect your image back to yourself, it's a way to share your joy with others, and perhaps most importantly it's a way to lock in commitment. And that's a part of a programme that I decided on at a certain point: to overcome all of my embarrassment and shame by just putting things out there, propagating it into the social field so that I couldn't take it back. This touches on something that is important for me in thinking about transition: something, some little itch of desire, can seem almost random, silly, or contingent, but may truly transform things when you commit to it. In the absence of commitment and social propagation, you are stuck in this transgression thing where all you can do is step over the line and back again: transformation blocked by lack of social diffusion.

That's a positive feedback effect: you feel like you might be crazy and embarrassing and weird and you just have to lock it in until there's no going back—you have to commit. The role of social media here appears to be like a snowballing of public commitment. For me it's become a philosophical project so I'm committed to it in a 'professional' sense, it's an interesting project that's no longer even personal in a sense. But on Instagram there have been many moments when I've posted stuff where the human in me is quaking with fear of humiliation and embarrassment, and I just force myself to post it and be affirmative: no, I'm happy and this is what I'm doing. That externalization, I think, not only gives you access to an outside, it also serves as a mechanism that compels you, that tempts you to open up more and more. It actually has a positive role: the more you put out there, the more you're able to understand what you're doing because you can see yourself as an external object being shaped, and the more it then prompts you to to push on. Like you're unpeeling yourself from your internality, and overcoming shame—because shame and embarrassment are the Final Bosses of social constraint. When we're dealing with shame and embarassment we are dealing with social constraints we have internalized so much that it is actually painful to overcome them, it's an ordeal.

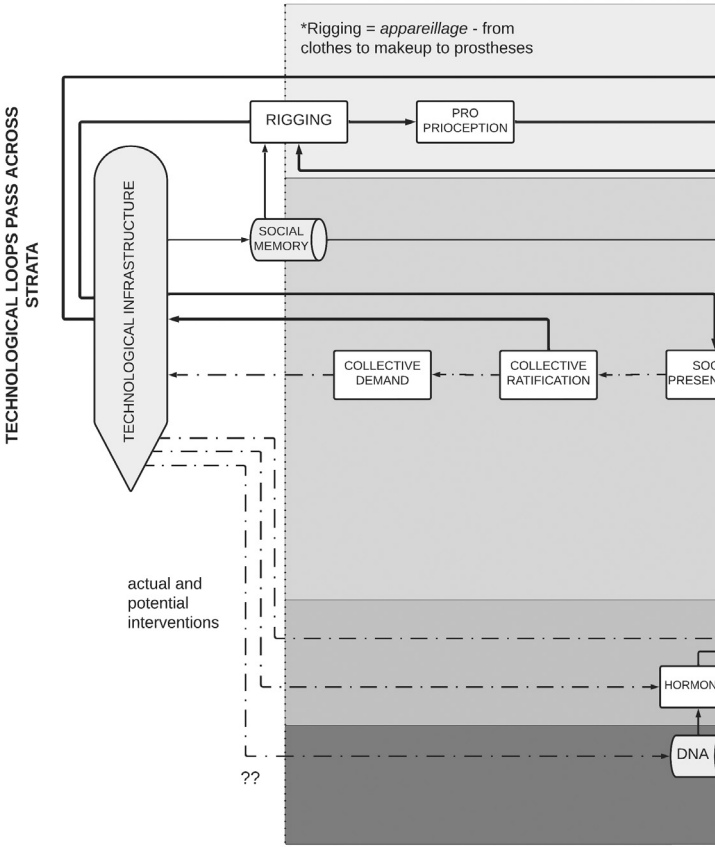
Embarrassment is the final boss but also the first one, it's the one that stops you even getting to the stage where you can start changing anything. So the shamelessness and degeneracy of online culture is quite positive, in terms of the way in which it can help you to overcome embarrassment and shame and inscribe yourself in an external form that drives further becomings.

Gender pragmatism, instead of being like a performance or an 'identifying', is more a matter of these *doings*, experimenting with artifacts and techniques, and transforming the virtual body. And on the horizon all the time is the egg, the transcendental principle of total plasticity. Again, it's an experimental process and it's also a type of labour, it's not necessarily easy, it requires attention and the development of a sensitivity about where you're going, where you could go. This doesn't happen without externalization, I think.

So it's not that I've grown up as a man and I've got a little femunculus of a woman in my brain and I've just got to reach in and get her, *Oh look, it's the real me!* No, that doesn't exist, what exists is a set of tensions between what you have been produced as, the body you've been produced as, and the peculiar tensions and possibilities that are a part of you, that are singular to you. There's a tension between the person you've been forced to become and the virtual body 'they stole from you', the egg, which is however still there, immanent to you. That tension is what dysphoria is.

And again, there is a question of temporality, because the process does of course naturally give rise to attempts to explain things in terms of *that part of myself that was always there, but I couldn't/didn't find it until now*. And there's something to that. There is indeed something that's 'always been there', but it's not a fully-formed image of the 'real you' waiting to come out, it's more like an itch. It's a set of tensions between the body you're inhabiting and the body that you could be or the things that your body wants to unfold into. All of this—transition, movement, navigation—is trans- labour, it's a *working* in the alchemical sense. You don't just 'get liberated', you have to continually expend effort to move across this terrain, to transform the elements.

Going back to the asymmetry between transmasc and transfemme: obviously I'm finding joy in escaping being a man, and I've said that really it's about opening up a field beyond the binary. But I had a long conversation with a transmasc friend which was rather comical, because it demonstrated to me


TECHNOLOGICAL LOOPS PASS ACROSS STRATA
*Rigging = appareillage - from clothes to makeup to prostheses
RIGGING
PRO PRIOCEPTION
TECHNOLOGICAL INFRASTRUCTURE
SOCIAL MEMORY
COLLECTIVE DEMAND
COLLECTIVE RATIFICATION
actual and potential interventions
??
DNA

VIRTUAL BODY
CONDUCTS
SOMATIC-SENSORY
CONSTRUCTION OF INDIVIDUAL GENDER
SOCIAL DYSPHORIA
BODY DYSPHORIA
SOCIOGENESIS
AVAILABLE ROLES
SOCIAL ROLE
INSTITUTIONAL IDENTITY
INTERFACE BETWEEN /PROJECTION OF SOCIAL AND SEXUAL REPRO
ANATOMY
ONTOGENESIS
SEXUAL DIMORPHISM
PHYLOGENESIS

how their journey was in no way the 'opposite' of mine. No, we need to rotate the way that we understand this in some other dimension, we need to think about it in a different way. The two of us were talking about basically the same experience, sharing details and laughing–*yeah that's what it feels like, yeah that's what it's like*—but then we'd get to certain points where they would say *It's really nice to go into a clothes shop now and not have to look at the woman's section* and my response was *What, are you kidding, the men's section is like so drab and boring, all those clothes are like a prison!* It was hard for me to put myself in the place of seeing things the other way around. They talked about how as a teenager they used to really hate having bra straps, spaghetti straps, *I used to just feel like they were really like cutting into me and I had to go into the toilet and take them off and allow myself to be free for a minute*. Those straps are one example of female-coded garments I have worn and I've experienced something that I've *seen* on women, but which I am now *feeling* 'from the inside' and it is a source of euphoria. It was a pleasurable experience to me because it was a remapping of my body in accordance with something I had seen from a distance with pleasure or yearning but had never dreamt I myself could feel. During this conversation I was slowly beginning to understand the reasons why someone would wish to go in the 'opposite' direction to me, while also understanding that there is no 'opposite' because we're both doing the same thing, dipping into the egg. But there is nonetheless an asymmetry. The asymmetry is that, in general, men aren't encumbered by a body in the same way that women are. In the same way that Frantz Fanon talks about double identity in the case of race—that a Black individual can't just be an individual, they're also aware of appearing to others as a Black person, so they always have two identities that they're having to deal with and move between. You can't just go out in the street and be a neutral person among people, because you're also Black. A woman's experience of herself as a subject is somewhat similar: you can't just be a person, you're always also a woman, and you're going to be made conscious at certain points of being a woman and of what the woman's social role and social position is. A part of what drives dysphoria for many transmascs seems to be that they don't want to be always interpolated as being a woman: *I just want to be a person, I actually would like to be able to be the default, invisible subject*. Some people have to be double, and that's extra labour. (White) men don't have to do that and men's clothes I think reflect that: men's clothes help you become the default and disappear

into the neutral. Something which, for me, is something that's experienced as a distressing and unpleasant imposition, but for others is liberation.

Another aspect of the asymmetry was that for me, a lot of the emphasis is on being able to *feel my body*, while for my friend as a transmasc a lot of the emphasis is on what they could *do with their body*: *I want to dress in a way that enables me to go on a bike ride and get muddy, I want to dress in a way where I can like go to the pub and watch rugby and no one's going to be looking at me and I'm just going to blend in*. A lot of the situations that for me were horrifying because they involved having to 'be a man', which made me feel very conspicuous, for them were an opportunity to be a man among men and not be subjected to being looked at 'as a woman' all the time. Inversely, although I am probably more conspicuous in the way I dress now, I feel a lot more calm and socially relaxed because I'm not trying to 'be a man' and I'm giving a clear signal that I'm not going to be playing that game….

Today we live in an extremely visual networked culture and there's an increased interest and experimentation with gender. It's got to the point now where men are beginning to realise that the neutrality of being the default subject position, while certainly a privilege, is at the same time just another way of your virtual body being stolen. It's just another way of being locked out of the egg. Privilege is also repression; the universal default nowhere position is also a heist.

Once you begin to break out of that default neutral man-body that doesn't need to try, once you begin to pay attention to yourself, you also encounter an interesting breakdown of the concept of the male gaze: you can become more attentive and enjoy the beauty of your own body rather than needing to look at other people's bodies. Where you perhaps used to look at the 'opposite sex' in a fascinated, yearning way, you can instead experience in a sensory mode some of the things that you used to just look at, and that's actually more fulfilling and enables you to attain a different kind of intimacy with others based on sharing of pleasures rather than consumption of their image. (As ever, memes have the maximally compact way of expressing this part of the process: *wants a cute gf/is the cute gf*.)

This also brings us to the concept of autogynephilia, which is extremely unpopular among trans people for good reason. This is the concept that there are two different types of trans women (the psychiatrists who talk about this aren't interested in trans men). One is homosexual but unable to

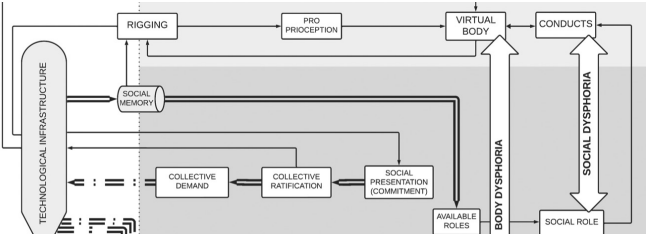
admit it so they try to become a woman, the other is the autogynephiliac, who has a fetish for enjoying their own body 'as if' it's a woman's body. It's obviously an incredibly reductive bad take in terms of understanding the psychology of transgender individuals, and there are definitional reasons why being transgender can't be reduced to being a fetish. But there's also a kind of truth to it, so long as we admit that cis women can also be autogynephiliac! What's wrong with autophilia, literally, enjoying your self?! A strange thing to make into a pathology or a 'fetish'. But these kinds of issues bring us back to the fact that, in this process, sometimes you ask *What happened?* and you're confronted with an apparently hard and fast alternative: are you asserting a reality which from some deep place in yourself you know to be true, *or* are you manically pushing ahead with some kind of weird folly, possibly losing your sense of reality? Those two possibilities line up, ultimately, with the flawed ways of seeing gender. Which is it? Both, neither, it doesn't really matter, sometimes you actually can't tell, and that's part of the joy of doing it. None of these things really exist apart from the pragmatic process of becoming.

In my diagram (pp16–17) I've retained the strata from the first model I mentioned—you've got these different temporalities, phylogenesis which is the process of evolution that produces dimorphic sexual reproduction, and that's something that's encoded in human DNA; ontogenesis i.e. the actual production of human beings, which happens through hormones feeding back with anatomy; sociogenesis, and the production of the individual as a social being. Obviously in society today we have this interface between sexual reproduction and social reproduction where anatomy determines your institutional identity: when you're born you get assigned one or the other. And finally that feeds into your social role, which then affects conduct—the way that you comport yourself as a person.

Let's first look at this loop between the virtual body, proprioception, and *rigging*. *Rigging* can mean when you're setting up a machine, 'rigging it up', it also means make-up, producing yourself, putting a mask on, making a presentation of yourself, and then it also means the rigging of a ship. And I think it's nice to use that because the rigging is the thing that enables you to put the sail up, and

that enables you to move. And rigging can also mean manipulating things in your favour.

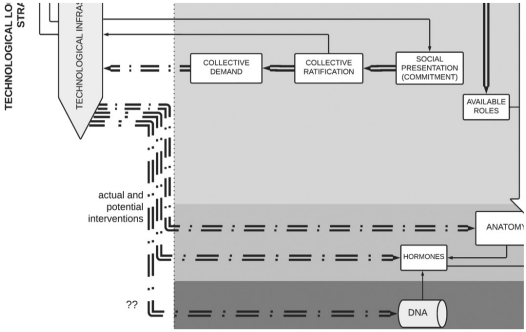
I don't think you can consider that first loop without considering how it connects to everything else. It's like the person stuck in their bedroom experimenting on their own, that's not going anywhere, it doesn't really 'do gender'. What makes gender happen is this other loop:



You rig yourself up and you exhibit yourself through the technological infrastructure. 'Technology' could mean anything—three hundred years ago it could be that you're going into the town square, that's a social technology as well. Social media today is very fast, though, and that speed makes a difference. But in any case, you present yourself through the technological infrastructure. You've then made a commitment in the social realm which feeds back onto other's attitudes to you and their confirmation of who you are; you've presented yourself socially, and then you have this process of collective ratification: others are recognising you and saying yes, we now recognise you as occupying a different place in our conceptual schema and practices.

That's all happening through technology, and the interesting thing about technology is that it cuts through all of these strata. Technology doesn't belong to the personal, the social, the biological, or the evolutionary, it's something that can intervene on all these levels. That's what's amazing about the way human culture has developed, it has tools that are now capable of intervening at all these different levels.

Collective ratification also places new demands on technology. By sending out new signals about gender into the social sphere, you're also producing desire, you're helping build a demand for new technologies that make gender possible in different ways. Obviously there are interventions at the level



of mediated cosmetic presentation, there are interventions at the level of hormones, maybe there'll be interventions at the level of DNA. But the point is that this social loop is not only expanding it from being a personal thing to being a social thing, it's also driving change in terms of what technology can do to intervene.

And then all of this obviously is also going into social memory, i.e. the collective archive of everything that we know about ourselves and each other. That social memory is then also changing the range of available gender roles. So therefore this process of sociogenesis is also effective in shaping reality, because in the future there will—at least—be a wider range of social roles that you can be assigned to.

The diagram has one form of dysphoria there between the virtual body and anatomy, and another form of dysphoria between social role and conduct. The point is that the more these circuits are accelerated, the more it becomes possible for these dysphorias to become minimised, because the social body becomes more flexible and able to cope with a larger range of possibilities.

In a sense there is not just one egg, there is an egg at every stage and at every level. Take DNA, we always think of DNA as being fixed, like a kind of ultimate reality, but obviously there's an 'egg' of DNA as well: a massive pool of possibilities of what could happen to an organism's DNA and to its phenotype, through mutation or drift or whatever. Obviously it might

be frightening, but it's going to happen, we're obviously just at the dawn of meddling with that. In terms of anatomy, the relationship between anatomy and hormones is particularly fascinating because you tend to think that your anatomy just is what it is, and of course in public discourse the idea of messing with hormones or puberty blockers is met with horror, as if you'll break the whole system. But it's astonishing how quickly your anatomy can just happily decide it's doing something else once you change the hormone balance. Again, we are only just at the beginning of understanding that, but for instance, it is quite amusing in relation to anatomy and the virtual body to observe that every AMAB on earth has a virtual bra size. All of us have this set of latent potentials whether we're AMAB or AFAB, whatever anatomy we have, there is this egg-like field of intensities and potentials at the anatomical level, and if you start putting the right hormones in, they'll simply become actualised differently.

Even the social has its own egg: beneath the actuality of the social as we live in it there are of course many more possibilities that could be realised: the set of relations between individuals could be configured in many different ways. And then as I've already talked about, you have the virtual-body egg which can be modified by clothing and cosmetics etc.

The egg goes all the way down! And trans- means trying to navigate in this eggspace. But as you see, eggspace is technology: to a large extent we can't really access eggspace without technology, because technology is the egg proxy, it's the thing that drills down through all the strata and enables you to intervene in all these different ways.

Is there room for an 'emotional body' somewhere in my diagram? Well, one of the things that participates in the construction of your virtual body is trauma and its emotional impact. Various forms of psychodynamic therapy recognise that all of these things are stored in the body. Take Wilhelm Reich's idea of 'character armour', which is in fact brilliantly definitive of what it means to 'be a man'....

This diagram is just a rough sketch. We could easily alter and expand various parts of this diagram with details taken from elsewhere.

OTHERBODILY, NOT OTHERWORLDY: EGGS FM

You can also see this as a diagram of a *synthesizer*. The egg is the original synth. We've looked at how gender is synthesized, but I wanted to think about

ways in which synthesized music can reflect the plasticity of the virtual body. This is fuelled by the type of musics that I personally happen to listen to and which have actually played a part in my gender transition (but that's another story). You can say the same thing about what synthesizers do to sound. Basically there's an egg on every level, and what synthetic music does is to try and crack this egg of sound, in the following sense. If you reimagine our diagram as being to do with sound, at the top you might have compositions, symphonies or whatever, and even pop songs; below it you might have instruments, different types of instruments that can be used in those songs and voice and so on, as you go lower and lower you have the physics of the way in which sounds interact with one another…but essentially this is all sound, sound is a homogeneous medium, all sounds are just movements in the air. Synthetic tools for making music enable us to intervene more and more precisely at all of these levels, to make sound at the level of the molecular rather than just at the level of instruments as preconstituted entities. This gradually opens up the terrain of the molecular basis of sound. So the distribution of sound then is no longer a matter of choosing your instruments from a fixed menu and using them in one of a number of traditional ways to assemble various notes into a melody.

I want to start with a quote from SOPHIE about making synthetic music. All of the sounds in all the SOPHIE tracks, obviously they're not physical instruments, but they're also not pre-constituted instruments from a soundbank on a synthesizer, they're all 'handmade' so to speak:

> I don't use any samples but rather think of materials and shapes can sculpt sound through synthesis that can perform similar functions as standard dance music instruments whilst being more connected and contributing more to the actual conceptual content of the song. You can have the possibility with electronic music to generate any texture in theory, any sound, so why would any musician want to limit themselves? *The places our imaginations can take us are so far away from what we're presented with*.

There are obvious links between what SOPHIE is talking about in terms of sound and music and what I've been talking about in terms of gender. In a sense it's a question of grammar: gender can be thought of as a type of grammar in the sense that binary gender is a certain way in which all these things

are 'meant' to fit together, and escaping binary gender is to discover a wider field. In the same way, Western music has been a codification, a grammar of how you take instruments, place them in relation to one another, make them make certain sounds within a certain compositional structure. And that's been gradually falling apart for centuries. felicita told me that they thought of PC Music as a group of people who were all interested in disrupting the grammar of music in different ways. In felicita's early digital music, they had experimented with Persian scales and non-standard tunings such as just intonation, and then 'I discovered (pitch) sliding, and that was the answer to everything: to slide from one event to another.' Which is indeed a form of being ungrammatical, sliding under the surface of the grammar of music, getting to the plasticity of the egg. That's what synthesizers and synthetic sound do, or what they can help us to do.

It's always the same egg, though. Sound is a consistent medium, whatever you're doing, however you make it, sound is sound. You can make any sound with any method of synthesis...*eventually*. If you want to have the sound of Jennifer Aniston reading a Shakespeare sonnet you can synthesize that out of pure sine waves, it's just going to be a very inefficient way of going about it. In the words of Vincent Lostanlen, researcher in machine listening, 'this is what's so fascinating about computer music: synthesis algorithms are not music-makers but music-making-makers'. There are different ways of synthesizing sound, there are different ways in which you can assemble parts in order to make a complex sound. Each mode of synthesis is implicitly a model of sound, of how sound works and can be analysed, and none of them are 'right', because sound is just sound, but each method of synthesis has a particular idea about how to build sound and that's reflected in the types of sounds they facilitate access to.

FM synthesis was invented or discovered in the late sixties and became very prominent particularly in pop music in the eighties. Up until the seventies, most synths were using either additive or subtractive synthesis. The thing that produces the sound is a VCO (voltage control oscillator), you can think of it as something that just cycles round, more signal, less signal, etc., and the job of a synth is to convert that voltage cycle into a sound wave. The simplest synthesizers have one VCO and it makes a sine wave, or another simple type of wave, a sawtooth or square wave, all of which result in different sounds. Additive synthesis simply means you can take more than one of these and add them to one another and you end up with a more complex wave and therefore a sound which has more interesting texture and characteristics. And of course you can also adjust volume to shape the sound. Subtractive synthesis is the same thing but the other way around, you take one wave away from the other.

FM synthesis historically emerged more or less at the moment when the first digital soundmaking tools were built. So it's actually an older invention but it's recently had a revival, and SOPHIE, along with other PC Music and other hyperpop artists, have used FM synthesis heavily.

In the sixties, John Chowning, who discovered FM synthesis, had been inspired by a very famous paper from 1963 by Max Matthews, 'The Computer as Musical Instrument'. This was the first time that someone had systematically presented the possibility that the computer, as a multi-purpose digital device, could be used to manipulate sound in ways that analog synthesizers couldn't achieve. Chowning was one of the first people who decided to test out this hypothesis, and he had various problems in his relationship with institutions: *What are you talking about, this is never going to happen, people aren't going to use computers to make music!* He ended up at Stanford, where he and his team were one of the first to build digital music workstations.

Like so many things in the history of synthesizers and electronic music, FM synthesis was discovered by accident. Chowning was taking a sine wave and then he was taking another one and, rather than *adding* them together, he was *modulating* one with the other. What does that mean? It means that if you have this wave that's being produced by a VCO and it's regular, it's just going up and down, and then you've got this other wave, you can use the cycle of the second one to control the speed of the first one, and you end up with a different kind of waveform. When you do that, you're essentially just doing vibrato, you are just altering the pitch up and down. But what Chowning discovered was that if you keep on increasing the frequency, you get some really interesting effects. He found that you can produce sounds that have a richness, a texture or timbre that gives them more character. Chowning discovered that certain ratios between the modulating signal and the modulated signal produced rich harmonics: 'I did more experiments and realized that I was hearing [...] a complex wave using two oscillators that I imagine probably had eight or ten harmonics.' Now, every natural object produces harmonics: any object that you hit is going to produce a fundamental frequency but it's also going to produce a set of other frequencies above it, and that's what gives an instrument its particular feel, the combination of all these different frequencies interacting with one another. Early synth music often sounds weird and spacey and otherworldly, and a part of that is because it's using simple isolated waveforms with no harmonics, which are things you don't usually

encounter on Earth. If you walk out into the world you're never going to hear a pure sine wave, if you hear a cricket or someone sawing a piece of wood it might be something close to a sawtooth wave, but you're never really going to hear such a thing in its pure form. And that's part of the fascination of those analog synths, they present you with unnatural alien soundscapes. Well, what Chowning discovered was that you could produce quite natural-seeming sounds, some of the classic examples with FM are that you can produce bell tones, wood-sounding tones, breathy flute tones. You can make your sounds richer by adding further modulator waves. Harmonics in nature are rarely purely harmonic, and another thing Chowning discovered was that using FM synthesis one can move continuously from harmonic to inharmonic spectra, exploring the boundaries at which our perception of sound crosses the boundary between harmonic musical notes and textured sound or even noise.

Using FM, then, you can build up complex sound with very few components. Also, with digital FM, you can use it to produce a sound that would be extremely laborious using any of the earlier methods. So as a result it's cheap, it's an extremely economical way to produce rich interesting sounds that approach the timbre of natural sounding objects.

But we can hardly talk about the technical aspects of FM synthesis without also talking about its cultural and historical aspects. Some of Chowning's colleagues suggested, *well, you can produce all these different types of sounds, what you need to do is to produce a soundbank, a range of different types of sounds*. And they did that and they showed it to various makers of electronic instruments and eventually Yamaha were the people who bought the soundbank and the FM technology and made one of the most successful and famous synthesizer ever, the DX7. These were truly the sounds of a generation! As Lostanlen describes, this was quite an exacting task, though:

> 'FM analysis' is not so straightforward as additive synthesis or wavetable synthesis [...] if you are given a recorded sound like a marimba, it's not at all obvious how to identify the right FM parameters for it. [...] There is a formula, but it involves special functions which are difficult to evaluate [...]. The search space is very high-dimensional and 'rugged' (does not gracefully increase/decrease in similarity [as you adjust the parameters], so for the longest time, FM synth was a game of trial and error and careful human listening, and patience.

But, he continues, this only begs the question

> How come the solution exists at all in the search space? What makes FM synth a better search space than anything else? And here I'm not sure what to say...we know for a fact that FM synth promotes harmonicity, vibrato, which are typical of some sustained tones (bowed strings, woodwinds)...we also know that modulation index induces some sort of "brassiness" which is very convenient to control as a correlate of loudness...

In any case, at this point FM synthesis played an economically important role in terms of the spread of synthesizer music. This is counterintuitive in relation to what I said before about the fact that synth music enables you to reach down into the egg, to manipulate sound molecularly. Because in actual fact, what drove the entry of synthesizers into pop music over this period was something quite different, it was the fact that with FM you could make things that actually sounded like instruments. Before that, it had been difficult for producers to incorporate synthesizers into popular music because these egregious, strong, pure sounds synths made didn't sit well in a mix. It was difficult to produce anything that featured synthesizers together with other instruments. The DX7 made it possible to place synthesizers into the mix of a pop song and to produce a type of music that was recognisable to the mass market *as* pop music. In addition, this was predominantly in the eighties, during the great period of the rise of consumer mass media, and for instance if you're making a TV advert, you can make the soundtrack with a DX7 instead of hiring an orchestra. So economically it had an impact, and made a great difference in the takeup of synthesizer technology and the public perception of synthesized music. In a sense it was like synthesizers disguising themselves as instruments in order to move into the cultural mainstream, slowly moulding expectations and opening the sonic Overton window. FM synthesis actually existed even before Chowning, in the sixties some people were doing analog FM synthesis, but the technology actually doesn't really work that well using analog machines. It was the digital implementation of it that made sense in technical terms and therefore in economic terms and hence shunted it into the musical forefront.

What's interesting to me about the resurgence of FM in the 2000s and 2010s and up to the present is that it is used to create sounds that are *problematically un/natural*. FM gives you access to a certain way of understanding

and constructing sound that makes it possible to produce *the type of sounds that would come from a natural object*. But it also alllows you to stretch and warp 'nature'. I would propose that FM seems more suited than other methods of synthesis to make sounds that have the sonic character of physical acoustic objects, even when they are outlandish. FM sounds tend toward sounding physical or bodily in a certain sense, and I feel like that is the way in which SOPHIE was using them. And I think other artists who are transgender or trans-adjacent or queer are using FM sounds in an expressive way to talk about bodies and about the *plasticity of bodies*. SOPHIE:

> I try to imagine a hyperreal world of sounds that we're sometimes used to from blockbuster films and that kind of thing, sounds which cartoonize and exaggerate naturally occurring or organic sounds and phenomena and materials that don't exist at the moment. An example would be that there's a piano that's five miles wide….

Again, you can create any kind of sound with any kind of synthesis, but it seems to me that certain ways of working with sound enable you to approach the sound world in different ways. This can provide a tool for thinking when you're making sound: the early history of synthesized music and analog synths often produces various kinds of 'spacey' sounds perceived as *otherworldly*, and that's both what they were valued for in certain circles, and what prevented them from becoming mainstream: that they produced sounds that didn't belong to our world but opened up a kind of expansive, hypnotic immersion in an alien sound environment. FM allowed something else to happen, and at the same time as those DX7 sounds are quintessentially 'normcore' in a way, they're not doing anything super advanced with sound, they're trying to emulate instruments—at the same time it opened the gates to what I want to call an *otherbodily* rather than *otherworldly* type of sound: a way of producing impossible bodies that reflect a renewed plasticity of the virtual body.

All of this is speculation, and I am of course aware that different musics mean different things about gender to different people. Indeed, this is an expected consequence of the broad multi-level model of gender and gender navigation outlined above. For instance, when the artist Xylitol talks about her experience of electronic music and clubs she foregrounds not just sonic specificities but also the 'gendered yearning' of certain strains of garage, house,

and jungle, along with the social and bodily aspect of the environment:

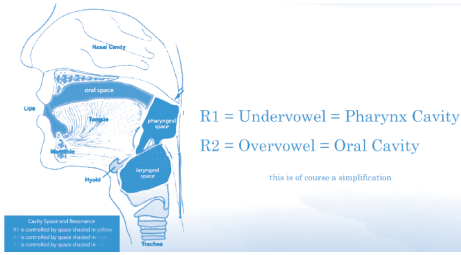
> Dancing… gave me a space to explore my sense of being a body in the world in ways that weren't open to me in my everyday life […] I was attempting to sublimate the desire I felt to divest myself of gender (or—in retrospect—the expectations my assigned gender placed upon me) through music—as a means to escape myself and inhabit another body, to dissolve my fractured sense of identity into something kind of amorphous […] if only for a fleeting ecstatic moment on the dancefloor, the psychic space to re-imagine "what my body could do and what it could become."

3. VOCAL EGG

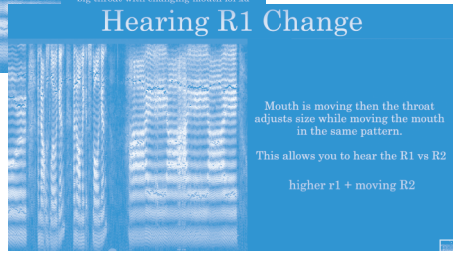
There is another way in which we can think about trans-plasticity in relation to sound, and this is vocal training. One of the effects of hormones in puberty is of course that testosterone triggers physical changes that produce the classic male voice characteristics. If you transition you may feel that you want to mitigate or reverse the gendering effects of that developmental difference. But in doing so you will need to look beyond the prepackaged surface of 'mens voice/woman's voice' and, precisely, understand your voice as a synthesizer.

One of the most brilliant voice coaches on YouTube, transvoicelessons, proceeds in her first lesson from pitch to weight to resonance—literally like a synth course, introducing all the parameters, but with the additional difficulty that there are no knobs to turn. Learning how to control each of these parameters in isolation is a matter of being very attentive to feedback from your own body and ears—and a large amount of practice. Before you can *control*, and play your own music, you have to learn to *hear*. Once again we have a pragmatic feedback loop.

The human voice is (simplifying somewhat) produced by two resonance chambers, and only by learning to feel, attend to, and discriminate between these spaces of your body and how they can be altered, can you hope to learn to control them and remap the relation between your gender, your vocal intentions, and your body's production of sound.



What we are talking about here is accessing your vocal synth, your voice-egg. And once again, what you need to do when persevering in this difficult process is to keep your eye on the horizon, on the ideal continuity of the voice-egg, while pragmatically starting from where you are, learning to build your sensitivity to the instrument you are playing—your voice—and, through practice, developing the capacity to navigate, to be able to recognise the parameters and deliberately adjust the knobs and dials of your vocal synth.



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