I can't do it on my own

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In this chapter I argue for a change in our understanding of our human capacity for self-organisation. Rather than thinking of this as a capacity of autonomous and independent individuals, I argue that we can only make sense of self-organisation as a capacity of mutually dependent and cooperative companions.

The main premise of my argument is that we need to think of ourselves as people with a voice. Self-organisation for human beings is a matter of having a voice of their own, a matter of being capable of making their voice heard. But, fascinatingly, that is not something people can achieve by themselves. To make your voice heard – and even stronger, to have a voice at all – requires another person, someone who is capable of hearing your voice and who is inclined to recognise your voice as a voice worthy of being heard.

This amounts to a far more radical change than we might acknowledge at first sight. It requires a fundamental overhaul of our Enlightenment heritage. We are not independent people. We are vulnerable parts of something larger than ourselves. We essentially depend on our social and material environment, and unless we embrace and endorse this predicament, we stand no chance of organising ourselves and surviving as humankind.

Self-organisation

Throw a sugar cube, a stone, and a beetle into three separate glasses of water and see what happens. Virtually nothing will happen in the glass with the stone. The stone will sink to the bottom of the glass and that is about it. There is a little bit more action in the glass with the sugar cube, but still not very much. The cube will also sink to the bottom, where it will slowly dissolve. It will lose its shape, stop being a sugar cube and then even the sugar molecules will dissolve into glucose and fructose. The glass with the beetle, however, will be full of action. The beetle will float around floundering. It

will not sink to the bottom, but rather it will swim, although that may well be an anthropomorphism. The beetle will float. Perhaps it will slowly drift to the rim, or move towards it, and maybe then it will try to push itself up on to the rim. The beetle will be trying to save its skin, to use yet another anthropomorphism.

Here is a more challenging test: swallow a sugar cube, a stone, and a beetle. What will then happen to these objects? Again, nothing much will happen to the stone. It will come out again, through your excrement. For the sugar cube it will also be the same, but this time with an interesting twist: the glucose will be absorbed by your blood and the fructose by the liver. The sugar will become an energy source. The beetle may well meet the same fate. I can imagine that it will be floundering for a while, but the acid in your stomach will do away with the beetle, and then any useful substances will be absorbed by your blood and the rest will leave your body.

This is what we call metabolism. It is at the heart of the circle of life, and Maturana and Varela have been writing about it since the mid-1970s (e.g., Maturana & Varela 1980). Their focus is on the difference between lifeless chemistry, for example the process taking place in the glass with the sugar cube, and what they call *autopoiesis*, the metabolism that is characteristic of living organisms, of organisms that practise self-organisation, such as the beetle in the glass of water, or – intriguingly enough – the absorption of glucose as an energy source in your gut. Well, what exactly is going on there?

I will take you through it in leaps and bounds and I will just point out a few basic concepts. There is a difference between an organism and a stone. The stone retains its identity, you might say, in a static way. An organism does the same, but in a dynamic way, through its metabolism, by ingesting and secreting substances. An organism changes its composition all the time, but that is precisely its way of remaining what it is, of maintaining its identity. An organism has a boundary – a cell wall or a skin – and this boundary is porous. Substances can pass through it, can go in and out. An organism has an interior and an exterior, and the boundary marks the exact transition between the environment and the integral whole that forms the organism. *Autopoiesis* is a characteristic of organisms: it is the self-organisation that allows them to remain a unity despite all the traffic crossing their boundary.

Like the stone, the sugar cube is not an organism. It only has an accidental shape. It disintegrates into a glass of water, just as a stone can also disintegrate if the forces acting upon it are large enough.

Yet the beetle is an organism, just like a frog, a toadstool, a leopard, or a human being. Even a single-celled alga is an organism. It has an organisation, an internal structure, which ensures that it is preserved, a structure that organises its own wholeness, its own integrity. Unlike a stone or a sugar cube, you cannot simply break off part of an organism. A fracture or any other damage needs to be repaired, and often this is possible. This is the *autopoiesis*. An organism will try to preserve its wholeness. It cares about this wholeness. Its integrity matters to it; it is meaningful. We should be reluctant in using these anthropocentric notions, but the purposefulness found in these kinds of organic processes seems to be a characteristic of autopoietic organisms, i.e., organisms that preserve their identity by maintaining relationships with their environment. Organisms look out for interactions with their environment that support their integrity, and they avoid interactions that threaten their survival. We can see this in the beetle trying to climb out of the water and in your blood taking up the glucose. We can also see it in one of Varela's favourite examples: bacteria moving towards a higher sugar concentration (Varela 1997). Haematopoietic organisms show their adaptability through their typical interactions with their environment.

Three fascinating qualities are involved here. Firstly, organisms are committed to their environment. Because of their self-organisation, what happens in their environment always has meaning for them – whether it is positive or negative. This may be quite simple, for example bacteria that prefer more rather than less sucrose around them, but also quite complex, for example a reader who feels that this text is getting just a bit too much, and who closes this book and shuts his eyes because he wants to ponder it for a while.

Secondly, organisms are active. They arrange their own self-organisation. They regulate their interaction with their environment. They can detect stimuli from their environment and systematically link these to appropriate responses, to ensure their integral survival. This is also seen in simple single-celled organisms that can detect the difference between lower and higher

sugar concentrations and that can coordinate their cilia such that they move towards the higher concentration. And, of course, we can also see it in the beetle trying to get out of the water.

Thirdly, organisms exist in time. They have a temporal existence, registering stimuli to which they respond appropriately, in continuous dynamic cycles. This gives them a previous time and a later time, a past and a future, or as Di Paolo has put it so beautifully, a valanced rhythm of tension and satisfaction (Di Paolo 2005).

You will understand that this chapter does not really deal with beetles and sugar cubes. What it is about is the extraordinarily intriguing continuity between the *autopoiesis* of the simplest single-celled organisms and the self-organisation of our complex society that is ostensibly heading for catastrophe. What is involved in dynamic self-preservation? What remains and what changes? How can we think in such a way that we gain insight into our identity, into our integral survival? What does it mean to maintain our identity as a specimen of *Homo sapiens*? And what does it require to survive as humanity, as the species that is seemingly destroying its environment in the Anthropocene, and that does not really appear to be entitled to claim the wisdom that it has attributed to itself in its name. To discuss these questions, I will be making good use of the five basic concepts mentioned above: *autopoiesis*, adaptivity, commitment, activity, and temporality.

I will do so via text, and there is a reason for this; we are a literate species. By doing so, I am taking a risk, a risk that is going to play an uncomfortable role in this text, namely the risk that it will go no further than this text, a long series of letters, a chapter in a book that will end up on a pile, a pile of texts that nobody has time for, and which therefore will not change anything. And consequently, everything will then sadly change, and life on earth will disintegrate, like a sugar cube in a glass of water.

Having a voice

Human beings are linguistic animals (Cassirer 1923; Gibson & Ingold 1993; Deacon 1997; Kenneally 2008). More than anything, this has made a major difference; the difference that eventually led us to the Anthropocene, in which we totally dominate life on Earth, having produced so much dead

matter that it now outweighs the total biomass on our planet (Elhacham et.al. 2020). We need to worry about the future of all life on Earth because in the foreseeable future the home that we have built from the Earth will turn into an uninhabitable hovel. And it could have been so good! For it is precisely our linguistic competence that has also opened the door to understanding; to mutual understanding, enabling cooperation in a way that does not imply power relations, which is not a matter of pushing, pulling, threatening, and manipulating, but rather one of agreement, fine-tuning and consent. Notice how indispensable the human voice is to reach the situations described by these last three words, and you will see why I want to talk about our voice, mine, and yours. *Our* voice.

Language makes a huge difference, because language makes it possible to interact in a radically different way. Symbolic interaction is not about your metabolism but about an exchange of ideas. What remains the same is that something goes in and something comes out. The boundary remains porous and the adaptive *autopoiesis* is still unmistakably present, but people who exchange words or thoughts are engaged in self-regulation in a completely different way. Nevertheless, particularly in an exchange of ideas, we can find genuine *autopoiesis*.

I will take three steps to clarify this analogy. The first step is to see that the identity of the meaning of a symbol is of a different order than the identity of the materiality of that symbol. Think of a chess move, such as c5. I can pass the code on to you, as in correspondence chess. But I can also move a black piece of wood across two squares, or a nice marble pawn, or even a button, because that would also work if we were one pawn short and started with a brown button on c7. I could use a computer mouse on a screen or take two steps forward on a live chessboard on a campsite somewhere in France. The physical variation is endless, but in the right context the precise meaning will come to you without fail; it is a Sicilian opening gambit. In philosophy of cognitive science, this is called multiple realisability (Bickle 2020). That which stays the same, the opening move, my output during a game of chess, is the meaning of my move, which influences your possibilities as my opponent. That being said, how that output reaches you, how my move becomes input for you, can be realised in many ways. The interesting thing about the symbolic interaction that makes a chess match possible is that the material exchange is irrelevant, because it is really about the meaning of the symbolic interactions, about the intention of my opening gambit.

The second step is realising that something special is taking place at the precise moment that we make a distinction between the meaning of a particular exchange and the materiality of that exchange. This distinction has two implications. On the one hand, it makes it easier for us to understand that every exchange, every metabolism in which an organism is involved, has both materiality and meaning. The sugar cube that I swallow has meaning because it gives me energy, which allows me to maintain my adaptive selforganisation. The same applies to the beetle's attempt to get out of the water and for the bacteria's urge to move towards the higher sugar concentration. They are forms of adaptive self-organisation that are significant and meaningful to the organism in question. The activity that they employ matters to them. But the distinction between meaning and materiality also implies that it is conceivable that it is not about the material metabolism itself, but rather about its significance for the organism's autopoiesis. And when that sinks in, you can suddenly realise that this multiple realisability opens a new world to organisms, a world of possibilities. Sugar cubes are not my only source of energy; it may be easier for the beetle to crawl onto the straw than up the smooth inner wall of the glass; the bacteria may be mistaken because they do not see the pipette from which pure fructose will soon drip on to the place where the sugar concentration is lowest; and it may be better for you to respond with c3 rather than Nf3. Separating the materiality and meaning of the exchange makes it possible for organisms to focus on meaning and to consider the specific material realisation of behaviour as incidental or optional. This is the great added value of our language ability; it has guided us into the world of possibilities. If I want to satisfy my hunger, for example, I can do so with a Big Mac but also with a brussels sprout pasty with chestnuts and dates. The meaning of these types of options is of a wholly different order than their mere contribution to my metabolism.

Hence the third step, which states that adaptive self-organisation revolves around a 'self' that exists in the domain of meanings. It is about an integral whole that is of a different order than the purely material entity that you might at any point identify as this or that organism. This is a complicated issue that is difficult to get clear for today's Westerners because our language

is shaped so deeply along dualistic Cartesian and Christian lines. This has led to an ontology in which it is not easy to speak coherently, informatively, and meaningfully about what Merleau-Ponty calls our corps sujet, the body as a subject (Merleau-Ponty 1945). Below, I try to avoid this problem by drawing attention to our voice in this third step. People have a voice, and it is obvious that my voice – the voice that I want to be heard and that expresses what is important to me – is of a different order than my larvnx, my vocal cords, and the sounds I produce with it. What exactly is a voice? What makes my voice mine? These are meaningful questions, and it is quite clear that when answering these questions, the old concepts of 'body', 'spirit' and 'soul' are of no use to us. My voice is not a thing, not a part of my body like my hand or my stomach. But of course, that does not mean that my voice is something intangible, part of my mind or my soul. I would like to put aside the question of what a voice is. I would prefer to ask what it means that my adaptive selforganisation as a human being revolves around creating and maintaining my voice. What makes that voice my voice? If that voice asserts itself, it will be in the realm of meanings. The voice says something, it matters, it expresses what is meaningful to me. You can lock me up, torture me, attack me, and that would be terrible, of course. However, physical violence is unnecessary; you could destroy me in my autopoiesis by not hearing me, by ignoring my voice, by silencing me, by robbing me of my voice. It is this sentiment that I wish to do right by, by perceiving the adaptive self-organisation of human beings as caring for the identity and integral survival of their voice.

Attention to the voice sheds a different, illuminating light on human behaviour. Behaviour can be conceptualised as the intelligent coupling of an act to a perception. Behaviour is the output of an organism that responds adequately to input. The beetle falls into the water and tries to save its skin. By playing Nf3, you try to respond to my c5 as best you can. It is obvious that you can regard such couplings as internal matters, as connections that are realised within the organism. They may be patterns, features of the internal structure of the organism, or specific, one-off responses of the organism to an incoming stimulus. The behaviour is of the organism, or so we might think, as the organism creates the coupling. Sometimes there may be some specific matters, such as the imitative behaviour that I remember from the time when I fed my children mashed banana and constantly caught myself opening my own mouth, too. Did I do that myself, or did it just happen, fascinatingly and

probably determined by evolution, in beautiful synchronicity with my child opening their mouth? This leads to an intriguing question that can easily be overlooked in our daily thinking about human behaviour; is behaviour indeed *of* the organism because this organism creates the coupling itself and then controls that connection?

This question suddenly seems to need a completely different answer if we are not focussing on the physical manipulation of objects in the environment, but on our communicative behaviour made possible by our voice. In fact, communicative behaviour is the primary behaviour that can be produced by a voice. This behaviour is radically different from the standard stimulusresponse coupling. Saying something, producing sound in response to a perceived stimulus is only half of what you can do with a voice, maybe even less, a flawed, mistakenly isolated fragment. If you look at what you can do with your voice, you will find that in a very fundamental way there is nothing you can do with only your voice. After all, a voice must be heard, and by someone else. It must use a common language, a language that is not only yours or mine, but that belongs to us together. Thus, having a voice is essentially a social achievement. In that case, how can an organism have its own voice? How can human beings, specimens of the linguistic species that we are, engage in adaptive autopoiesis, engage in self-organisation? How can human individuals ensure that they have their own voice, a voice that has something to say, something that fundamentally matters to the organism, to the person whose voice it is?

We all know full well that this is possible. After all, we all have our own voice. We all, each one of us, have something to say, in our own way. Yet our Western conceptual framework, firmly founded in a specific modern interpretation of the Enlightenment, does not make it easy for us to think clearly about what it is exactly that makes our voice our *own* voice.

Enlightenment, blind spots, and interconnectedness

The Enlightenment, which gave a strong boost to the modernisation process at the end of the 18th century, was an emancipatory movement with an appropriate, liberating ideology, at least at first glance. After all, each of us is in possession of reason, and therefore no one should be oppressed, neither by the arbitrariness of political power nor by the superstition of religious power.

Kant encouraged us to have the courage to think for ourselves and to only accept and believe what we can judge as correct based on our own use of our reason (Kant 1784). The image of the reasonable, enlightened, autonomous, and independent person who only relies and builds on his own judgment is an image that seems to resonate well with the idea of adaptive *autopoiesis*. It is an image that we have been exposed to for more than 200 years and that we have naturally started to associate with adulthood, the condition that we usually think we have achieved as human beings when we have successfully passed through our upbringing and education. Adults *have it made*, they can live their own lives and have gained autonomy and independence. In a way that characterises our species, adults control their adaptive self-organisation, and in the current democratic context, we can say, without a second thought, that these adults are able to and should be allowed to vote. After all, they have their own voice.

This modern thinking is traditionally deemed to start with Descartes and to culminate in Kant's Enlightenment thinking. There is an interesting lack of insight into the role of our language that underlies this thinking (Hacking 1975). In his Meditations, Descartes tries to doubt everything as fundamentally as possible, in search of certainty, looking for an unquestionable truth, a basic principle on which he can build knowledge of the world. With his magnificent command of language, Descartes takes us into his Meditations page after page; he motivates himself to doubt all his sensory impressions and eventually shares with us his unwavering belief that he is a 'thinking thing'. But who gave him these words? How could he imagine himself being fooled by a malicious demon? How can he name and set aside his physical qualities as not inescapably his? How can he distinguish between his imagination and his mind? How did he arrive at this irrefutable belief that he is a 'thinking thing'? He doesn't explain. Moreover, how can he be so uncomplicatedly convinced that the reader, whom he addresses prior to the first meditation, will be able to follow his train of thought and find it as convincing as he himself did? Descartes doesn't seem to realize the role played by his being immersed for years in the Latin in which he has written his mediation. In fact, he does not even realise that these fundamental questions can be asked. The idea that thinking is based on language, a natural one that we acquire in our early childhood, is a thought that only emerged late in the 19th century and only gained a foothold in the 20th century. It is a thought that has had a huge impact since then on our thinking and on our self-understanding (Rorty 1967).

This shift towards language through various channels has led to a primacy of pragmatism (Dewey 1925; Heidegger 1927; Wittgenstein 1953; Brandom 1994). Our language is the natural, everyday language, and there is meaning in its use, in expression, articulation and communication, in what we do with our fellow human beings by using our voice. Although this shift towards language and thus to the social practice of symbolic interaction was evident throughout the 20th century, our thinking about cognition, knowledge, intelligence, and rationality has long remained under the spell of the independent, autonomous, individual, and adult subject. We may still think that cognition is a function of the individual capacity for judgment of a self-contained person. Individuals are human organisms who have their own perspective, a potentially comprehensive and independent perspective. They also have a voice that allows them to testify to their perspective.

Fascinatingly, in this image of the autonomous, mature subject, we are in fact blind to the connection; to the mutual, shared understanding that is the necessary precondition for the possibility of having a voice at all. A voice is only a voice when it is heard. This is perhaps like the well-known question that has been posed in the philosophy of perception since the 17th century: does a tree make a noise when it falls somewhere in an immeasurably large forest if there is no organism around with an auditory sense? But the claim about the voice goes further and affects our mutual connection more deeply. Although it is incorrect to state that sound only exists in the hearer's ear, sound does require an ear for it to be sound. A voice is subject to an even greater dependence. A voice articulates meaning. A meaningful message differs from sound, not only because the person transmitting the message tries to say something, but also in a fundamentally ontological way because the hearer is needed to understand the message. The voice of an organism depends for its actual existence as a voice on the recognition by another organism of that voice as a voice. This means that the autopoiesis of a linguistic organism is an achievement of the collective of which this organism is a part.

In an interesting way, this fundamentally turns the traditional image of the human being as an independent and mature individual on its head.

This reversal was already defended by George Herbert Mead, the spiritual father of what has come to be called symbolic interactionism. In *Mind, Self and Society*, published posthumously in 1934, Mead argues that the social dimension precedes the psychological dimension. We are social beings first, fellow human beings, parts of a cooperative community, and only then do we become individuals, people with their own selves, their own minds, their own voices. This sequence is not strictly serial. Socialising and individualising are processes that largely overlap, but the primacy lies in the relationship, in the connection, in the coordination, the cooperation, the communication. The realisation of mutual understanding comes first, repeatedly; only then, as a response, comes the countermovement, making a difference, distinguishing oneself, establishing and confirming the boundary between inside and outside, between me and the other, and thus the care for oneself.

For human organisms, adaptive *autopoiesis* is thus not only a process in which links are made between input and output, but also a process in which links are broken. For people with a voice, adaptive self-organisation is above all also a developmental process in which ingrained, ill-considered habits are questioned, in which an integral whole is created by distinguishing between the impulses and tendencies that belong and the ones that do not belong. Our voice, so to speak, comes into its own not so much when we impulsively enjoy our freedom of speech, but more so when we are acknowledged for our responsibility for opinion-forming. It is not about what we utter, but about the opinions that we want to accept responsibility for, that we can appropriate, that we have the courage to stand for, that we are accountable for.

Just think about an adolescent who one day realises that so far, he has just let his life happen, that until then he had in fact allowed others to determine his life, and now the time has come to take control of his own life and to really start living. So far, his voice had been the voice of his parents, of whom he thought that they knew everything and could do anything. An untenable situation for both sides, and once the parents have fallen off their pedestal, the adolescent must try to become independent. He will have to figure out for himself what is not normal, even though it seemed normal because that is the way they used to do things at home. He is going to have to learn to appropriate what is worthwhile to him. It is a well-known scheme that we

encounter in our culture at different times. For example, in a midlife crisis: now I am really going to ride a motorcycle, and work part-time, and learn how to dance the tango. Or perhaps much earlier, in a quarter-life crisis: what am I supposed to do, now that I am well-educated, have so many opportunities, have so much fear of missing out. But what do I want? Myself. Really.

Interconnectedness, blind spots, the Enlightenment; we do not get our own voices for free. In Arendt's words, we must be born once more, but this time *socially*, to shape the human version of adaptive self-organisation (Arendt 1958).

Our own voice thanks to our language community

When we argue that human *autopoiesis* is all about having your own voice, this helps us to avoid three pitfalls that appear when we think about ourselves, about our identity and about our 'self'. The first pitfall is associating identity with being unchanging, as if self-organisation were a matter of keeping that which makes up the identity of ourselves stable and immutable. However, living organisms never stand still, as we saw in the first section; *Self-organisation*, they are always on the move, interacting with their environment. Living organisms are not like stones; their identity is not static. Paying attention to a person's voice prevents that first pitfall. After all, a voice is extraordinarily dynamic, ultimately fleeting, temporal through and through. If we wish to discover the identity of a voice, we do not look for it in its stable, immutable stasis.

The second pitfall is associating an organism with a thing. Reification; regarding processes as things, is understandable when we think about identity (Honneth 2008). Things have easily imaginable boundaries that can be readily indicated in a spatial sense. This fits in with the old substance thinking, which sees an organism as a thing, a thing that is here, rather than there. A thing takes up space, and this makes it easy and tempting to understand the integral identity of an organism in terms of where the skin is located. This has always hampered our thinking about ourselves; about our 'selves'. Cartesian dualistic thinking about our soul or our mind as a 'thinking thing' testifies to this, because it has burdened our image of man with the body-mind problem. Then again, as we saw before, reification is pointless when considering a voice. A voice has no skin, no spatial boundary. A voice

is not a thing, but a process, and the same is in fact also true for organisms. When we consider a voice, the distinction between one voice and another is not 'thing-like', but rather a question of integrity at the level of meaning.

The third pitfall is associating self-organisation with autonomy. This too is an association that is easy to make, if only because self-organisation seems to imply autonomy and, due to dominant modern individualism, we unthinkingly regard this as autonomy that can be completely isolated. Still, a voice can never be autonomous in that sense, as we saw in Section 3, because a voice must be heard to be able to be a voice at all. The self-organisation of a voice is not a matter of a stand-alone, sovereign construction, but is a relational issue of demarcation, of a meaningful and dynamic positioning between the voices of other members of the same language community.

If we manage to avoid these three pitfalls, what conclusions about the human version of adaptive self-organisation does this focus on our voice lead to? I can see five consequences that are as interesting as they are surprising:

1. What is crucial about having a voice is other people's ability and inclination to listen. This starts exceedingly early in the lives of human beings when they are still babies and notice that their parents respond to their voice. In this early interaction, linguistic meaning is beginning to materialise, a shared understanding. For example, usually parents can quickly distinguish between crying for attention, crying in pain, and crying for food. Babies also notice a difference in tone, and it is not long before this goes far beyond their own crying, because their parents are linguistically proficient, so that the baby is immersed in its mother tongue, often even before its birth. Our existence as a member of our language community begins with listening and picking up the words that carry our understanding, the words that will eventually give us a voice.

2. Just like the skin or cell wall of an organism, the boundary between my voice and another person's voice is porous. Meanings flow in and out. The conversational space in which my voice can be distinguished from yours is therefore explicitly a border area, an undetermined spatio-temporal domain in which people meet. There are clearly all sorts of partitions and dividers in this conversational space, in the form of implicit expectations, privileges,

entitlements and obligations. Just think of such tacit rules as 'children should be seen not heard' when adults are talking, or that the doctor can discuss your symptoms with more authority than a nurse can, or that the baker tells you when it is your turn, but you as a customer are not supposed to say so yourself. However, despite these rules, there are no hard and fixed boundaries between our voices in our conversational space. What happens is that our voices are given their individuality, both thanks to the connection and *in* the connection, in getting together, in fine-tuning and in consenting, as well as in mutual understanding. My voice, in the most literal sense of the word, can never be realised only by myself; instead, it is a shared, collective achievement, a merit of our encounter, something that happens because we understand each other and because we explain the truth to each other, as Badiou puts it (Badiou 2012). The same holds true for your voice; voices do not exist in the singular.

3. Adaptive self-organisation implies self-care. This self-care should not be interpreted and carried out too explicitly and intentionally. The beetle trying to get out of the water engages in self-care, just as Varela's bacteria moving in the direction of the higher glucose concentration. How does a voice do this? Fascinatingly, not by shouting louder. For a voice, self-care is a matter of learning to listen better, of hearing the meaning of one's own utterances, and although this can be a matter of an internal conversation, it is much more often a matter of learning to understand how others interpret your words. This can be quite a challenge. Think, for example, of how you learn to give expression to your mood. I remember from my childhood how I sometimes used to get up feeling there was a dark cloud hanging over my day; I remember one such day very clearly. I came home early from school because I had to go to the dentist for a check-up. At home, my mother told me that the dentist had called to reschedule the appointment. The heavy, gloomy mood that had weighed me down all day instantly lifted, just like that. Only then did I realise what I had been feeling, and I have never experienced the same depressed feeling since. I had found the words for it, words that I could understand, too. From then on, I had a name for this gloomy mood: the 'going-to-the-dentist' feeling. By the way, there is quite a good chance that readers who are much younger than me will not understand this point. At least, this is true for my own children, who looked at me pityingly when I told them this story. I fully understand they never had any cavities at all and never had to cycle alone

through the city at the age of twelve on their way to that monstrous dentist of yesteryear. I hope I will listen to them carefully when they search for the right words to express similarly indeterminate feelings.

4. The emphasis on listening and the role that listening plays in having and nurturing one's own voice involves an extremely interesting implication. This implication is a variation on Sartre's néant, on the fact that our consciousness is always immediately aware of itself as consciousness, not as a thing, nor as a content of consciousness (Sartre 1943). Our consciousness itself is 'nothing', says Sartre. It is a 'negation of presence' as opposed to something else, something that is not it itself, but something that it is aware of. About our voice, we might therefore say that our voice is not literally about itself, but that it is a voice because it is about something else, something that is worth being said, something that matters, something that deserves a voice. Having a voice becomes above all a matter of giving a voice to that which remains unheard, to the own intimate experience, but also to the marginal, the excluded, that which has not yet been put into language, but which deserves to be noticed and heard. This implication regularly emerges among defenders of sustainability and ecological awareness, people who strive to give a voice to nature, to the endangered species, to the Amazon rainforests, to Gaia, to Mother Earth. The point is fundamentally relational. Our voice is a linguistic response to what is enclosed in an environment as intelligible affordances (Heras-Escribano 2019). Greta Thunberg's voice, to give a concrete example, makes herself heard in her most authentic way by letting endangered nature speak, by giving her voice to this nature. Greta's voice thus becomes the mouthpiece of this nature, but it is precisely because of this that the voice also becomes her voice. She has a voice, her voice, because she has been able to listen so precisely and accurately to what her environment has to say. Clearly, social interaction also remains crucial; Greta only has a voice if we understand her, if we hear what she has to say.

5. This observation may help to clarify a final consequence. The identity of a voice, that which makes it distinctive and individual, is not so much a matter of uniqueness, but a question of integrity. It is not about me having a voice that is unique, making audible what no one has ever been able to make audible before. It is not the entirely unique sound that makes my voice mine. The delimitation of my voice from the voices around me, that which

happens in the conversational space, is a question of integration, of making a *coherent* whole of what I have to say. The integration of our story, of what we stand for and want to go for, this intended, striven-for unity is what gives me a voice, my voice, *one* voice (Frankfurt 2006; Korsgaard 2009). This can be quite a challenge, perhaps even a lifelong challenge. It is precisely at this point that it is relevant to look at the title of this chapter: *I can't do it on my own*. Fortunately, I *do not have* to do it on my own. It is always in conversation with other people that I form my voice, that I may or may not recognise it in other people's reactions to what I say. My voice is always a co-creation, a unity that unfolds over time, the result of an ongoing search for the right words, encouraged, and sometimes deterred, by the answers I give when other people ask me why I say what I say (Bransen 2016; Bransen 2017).

The conversation of mankind

We have always known this and if we are to believe Ubuntu, it has never been forgotten in Africa; I am because we are (Mkhize 2008; Metz 2015). The far-reaching division of labour and the exemption of scholars in the Europe of recent centuries may have contributed to the mistake made by Linnaeus, Newton, Hume, Kant, Darwin, Nietzsche, Freud, Einstein and many, many others. Namely, thinking that man may be characterised as a *Homo sapiens*, as a completely autonomous, rational and independent scholar, who alone in his study, can overlook how important all the other people are, those who care for him, support him, acknowledge and reinforce him. Those who, silent in the background for far too long, have always understood his fundamental needs.

This is what I have tried to give my voice to in this chapter, to a plea for understanding each other, for realising that we need each other, that we cannot do it alone, and that we have never been able to do so. We are what we are thanks to our social and natural environment. Our self-organisation is first and foremost a matter of metabolism, of being included in the circle of life. This entails not only a deep-seated dependence and vulnerability, but also a heavy responsibility; our self-care implies a care for our environment. As a voice, our self-organisation is a matter of an exchange of views, of discussion, of cooperation, of agreement, of fine-tuning and consent, of making the effort to understand each other. Self-care for our voice implies participating in the conversation of mankind: open-minded, listening,

committed, willing to learn, willing to accept that Linnaeus was mistaken. We are not really *Homo sapiens*. We do too many stupid things for that. But let us be specimens of *Homo educandus* instead (Bransen 2021). Let us learn; from each other and with each other, all through our lives.

How can we arrange that? Of course, not by writing a chapter in a book called *Ability to Act*, at least not *just* by writing this chapter. After all, such a book must also be read and this, readers, will be your task. As a writer, I have done my best, but I cannot do it on my own. I can already see this book with regret and pain somewhere at the bottom of a pile, a pile on a table in somebody's house, someone who reads many books, but for whom there are far more books that they do not read. Someone who, like me, does not get around to most of them. Can this reader make a difference? If so, why can they and why can't I?

More is needed. More. As well as something different. There are already more than enough books, including books written by people with a certain reputation, including books that have no other intention than to make a significant difference, including books that are full of excellent ideas. The conversation of mankind does not take place on paper, nor in the ivory towers of a university campus. It is again time for a social arrangement that will break down the boundaries between written text and spoken words, between words and actions, between knowledge and values, between attitudes and activities, and between scientists, teachers, students, artists, civil servants, entrepreneurs, and citizens. Here are some examples:

1. In the salons of the Paris of the French Enlightenment, the conversation of mankind was being conducted in a radically new way. Beyond the arbitrariness of political power and beyond the superstition of religious power, citizens gathered in these salons: philosophers, scientists, entrepreneurs, artists, connoisseurs, and writers – hommes de lettres as well as hommes du monde (Lilti 2014). These people created culture, shared knowledge, engaged in politics, and lived together; they were united by a great vision of a new world that was about to happen.

2. A second example can be found in interwar Vienna. Schrödinger, Fleck, Benjamin, and others were working towards popularising science. For them,

this meant not so much that they, as scientists, had to teach the public in simple language, but rather that they had to be inspired and be directed by what was going on among lay people (Coen 2021). The conversation of mankind had to be conducted in society and was aimed at getting people moving. The voice of science was only a voice if it was understood by lay people, just as the voice of the people was only a voice if it was understood by those who devoted their lives to critically reflective learning to articulate what needed to be said and done.

Let us use these examples to collectively get to grips with our self-organisation, as humanity. Once again, it is time for a conversation of mankind that is activist in tone, which is about doing, as much as about talking, which is about living together and learning together. Because the image of a human being as an autonomous and independent individual still dominates our culture far too much, this has led to a huge knowledge-action gap in the field of sustainability and climate crisis (Kollmuss & Agyeman 2002) among others.

Together with some 44 European scientific colleagues, I have taken an initiative to this end. Driven by the urgency of the climate crisis, we are striving to establish many Schools of Transformative Climate Action throughout Europe (Kulmala & Neuvonen et al. 2021). These schools will

accelerate sustainability transformation in education and empower citizens by introducing new climate study contents and hubs for climate action, open to all citizens across Europe. The project will overcome the knowledge-action gap related to climate change mitigation, initiate new climate actions, and enable life-wide learning of climate and sustainability competencies. The project will directly and substantially contribute to the building of the European Competence Framework for Environmental Sustainability. The work is conducted by a highly multidisciplinary consortium, combining expertise in climate and atmospheric science, engineering, economics, geography, social sciences, pedagogics, and philosophy. We will establish a Climate Citizen MOOC (Massive Open Online Course) targeted at a wide global audience, and university-led Climate Action Co-Creation Labs. The educational activities are based on research on climate and sustainability competencies and methods of transformative learning. The co-creation labs enable cross-disciplinary, intergenerational innovation

for transformative climate action, involving students, citizens, scientists, professionals, and other stakeholders. (Kulmala & Neuvonen et al. 2021)

This initiative underlines how complex human self-organisation is. I cannot do it on my own; *really*. Fortunately, I do not have to do it on my own. This gives hope, hope that goes beyond this article, beyond these, ultimately easy, powerless words.

Are you in?

old timer
fight for every meter
forward backwards
towards anything