# ORIGINGS OF SELF-COUNSCIOUSNESS

## Interview with Kristina Musholt, Professor of Cognitive Anthropology in the Department of Philosophy at Leipzig University

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Welcome to 'Sciences of the Origin' where we delve into the philosophical and methodological foundations of the scientific quest for the origins of the universe, life, and mind. The main aim of this project is to discuss common methodological challenges of cosmology, biology, and archaeology. The 'Sciences of the Origin' interviews are supported by the University of Oxford project 'New Horizons for Science and Religion in Central and Eastern Europe' funded by John Templeton Foundation.

We bring you an interview with Kristina Musholt, Professor of Cognitive Anthropology in the Department of Philosophy at Leipzig University. She is also co-director and principal investigator at the newly established Leipzig Research Centre for Early Child Development, and a faculty member of the International Max Planck Research School on Neuroscience of Communication. Her research interests include self-consciousness, social cognition, the distinction between conceptual and non-conceptual forms of representation, the relation between personal and sub-personal level explanations, and the nature and origins of normativity. The interview is hosted by Janko Nešić, postdoctoral researcher at the Institute for Philosophy, University of Belgrade.

**Janko Nešić: Welcome, Kristina, and thank you for agreeing to do this interview.**

Kristina Musholt: Thank you very much for the invitation.

**JN: I wanted to talk to you about some topics regarding philosophy of mind, self-consciousness, social cognition, conceptual and non-conceptual forms of representation. Your work on these issues relates to problems of the origin that we are exploring. Let's start with some themes that you have written about in your book 'Thinking About Oneself'**

**[2015] and in several articles. You talk about self-consciousness, by which we mean the ability to think 'I' thoughts, as well as discuss the relationship between self-consciousness and intersubjectivity. And you develop a sort of a solution to the problem of self-consciousness—how it develops in human beings, why it is important, what it encompasses, and what we mean by it. So what would be the origins of self-consciousness? What do you mean by self-consciousness, what other types of self-consciousness, or self-awareness, are there in human beings? And why is it so crucial to try to understand how self-consciousness develops in humans?**

KM: There are several different ways in which people talk about self-consciousness. As you already said, and how I understand it, it is the ability to think 'I' thoughts; something like 'I'm sitting here talking to you right now' would be an example of an 'I' thought. And the reason that I think self-consciousness in this sense is particularly interesting is because it lies at the heart of what I take to be specific human abilities regarding our capacity to develop an identity, a sense of self, ask questions about ourselves, and ultimately questions of moral significance.

So to ask yourself the questions of who you want to be, what kind of person you want to be, what kind of values you have, what kind of decisions you take to be the right ones, you need to be able to think thoughts of that kind. In my book I don't really talk very much about identity and morality, but it's something that ultimately motivates a lot of my thinking in this area; I'm rather interested in how this sort of fundamental ability to really think about yourself, reflect on yourself, and then ultimately ask those kinds of questions, develops and how it arises out of more basic forms of being aware of yourself, such as having a sense of your body and your surroundings. And my idea is that self-consciousness in this sense of thinking about yourself, reflecting on yourself, develops hand in hand with your ability to think about others. So I try to sketch the process of development of a sense of self, which proceeds in several different degrees, where we can distinguish different degrees of self-awareness on the one hand, and different degrees of understanding others and being aware of others on the other hand. And I think that these two, being aware of yourself and being aware of others, really go hand in hand.

So self-consciousness in this sense is kind of a contrast notion in the sense that you develop the ability to think about yourself by contrasting yourself, by contrasting your perspective on the world, and ultimately your values, your identity, and so on, with the perspectives of others. And

to be able to do so you need to understand that there are others who have their own perspective on the world.

**JN: So the preceding kind of self-awareness that, let's say, we have from birth is like pre-reflective self-awareness, and later comes the reflective type of self-awareness that we call self-consciousness in this context of thinking 'I' thoughts, having a narrative self. Do you think that in this layering of the self, there's a minimum self in pre-reflective self-consciousness, and then something like an intersubjective or narrative self, and how do you feel about those notions?**

KM: I think you can distinguish a kind of more primitive or basic sense of self. And a lot of people call this pre-reflective self-consciousness, or some people call it minimal self or basic self-awareness, which is often, like I said, associated with just a basic sense of your body. I'm sometimes hesitant to call that self-consciousness because I think that in having this awareness you're not really representing yourself as such, and so we have to be careful with how we use that notion. But when you look at certain phenomenological accounts, for example the one provided by Dan Zahavi, who uses the notion of pre-reflective self-consciousness—he is very adamant that we should call this a form of self-consciousness, but at the same time, he defends a non-representationalist view of it. So in that sense, I think I'm in agreement with him.

There are other researchers who think that already at the very basic level there is a form of self-representation involved. And I would want to question that; I would rather call it something like implicitly self-related information or self-concerning information. I think that the self is not really represented as an intentional object in these basic forms of awareness or consciousness; and that this kind of explicit representation of yourself as an 'I', as a subject, only arises at the reflective level. But then I also think that the danger with these dichotomies is that we lose sight of the different levels in between the very basic and the reflective. So part of what I'm interested in is kind of what happens in between, how do we get from one to the other.

**JN: Can you tell us more about this process between the pre-reflective and the reflective, how we get to the reflective self-consciousness? That is the basis of your research.**

KM: In philosophy we often have these dichotomies. So we distinguish between the pre-reflective and the reflective, or some people distinguish between the non-conceptual and the

conceptual. And I think these distinctions are important, but again, human cognition is more complex than that, so there are things happening in between. And with respect to the development of self-consciousness, and related to that our understanding of others, I think one thing that we as philosophers can also learn from developmental psychology is how this develops in children, so that's partly why I'm interested in looking at the development of children in this area. We can see, for instance, that children are very much social beings from the start, that they are very sensitive to social cues. We have the phenomenon of infants shortly after birth already being able to imitate faces, for instance. But I would say that that's probably a process that occurs kind of at the automatic level, that there is some kind of matching going on, but it's not like the infant is really aware of itself as being a separate entity. So I wouldn't over-interpret that, but I think it's important that we are very sensitive to social cues from the start.

And then later on, we find at the age of nine months for instance, children begin to engage in these, what developmental psychologists call, triadic interactions; so they point to things, they want to engage the other person's attention, they want to make sure that both people are attending to the same thing, are aware of the same thing. And I think what we find here is that at the procedural level, at the level of knowledge-how, there is a kind of interaction with the other as another subject that can be attending or not attending to the same things. But still it's not quite clear yet that the child is really explicitly distinguishing between themselves and the other; they're engaged in this kind of interaction, and in being engaged in this, they have knowledge of how to attract the attention of the other, or how to pick up on emotional cues. But I wouldn't go so far as to say that there is already an explicit self-other differentiation going on.

The next level I would distinguish is at the age of 14 to 18 months, when we have things like mirror self-recognition, so the children are able to recognize themselves in the mirror, which often is taken as an indicator for self-awareness. But what makes it particularly interesting is that it goes hand in hand with social phenomena such as showing basic forms of empathy, showing forms of shyness, or embarrassment, or kindness, and interacting with others in a way that suggests that we now have a more explicit sense that ‘Here am I and there are you, and you can see me, and I can see you’, and that has an emotional effect on the child as well. But it might not be something that the child is able to explicitly express in terms of concepts yet. So it's not clear to what extent that really is reflective or conceptual knowledge. And so this continues to

develop, and at the age of two years, we have an increasing ability to understand visual perspectives, to understand that what I can see is not necessarily what the other can see and vice versa.

And then finally, at the age of four to five years, we get what people call an explicit theory of mind, where children are able to understand that what they believe is not necessarily what the other person believes. And also that beliefs, that representations about the world, can be wrong, so they can attribute false beliefs to others, and that's another important step towards really understanding ourselves as subjects, as beings in the world that represent the world a certain way, and that can disagree with respect to how we represent the world. And then of course the development continues, but basically at that age from four to five I would say we have at least the fundamental abilities for something like a reflective self-consciousness, and an understanding of yourself and others as beings that represent the world in a certain way.

**JN: So would you say that being a person is something formed, and that before that you're a subject, and that when you know that you're a subject, you become a person? Something like the birth of a personality?**

KM: Maybe. Though of course, every parent, and everyone who interacts with young children will probably say that they have a personality right from birth, so babies are different from the start. The whole question of character traits and personality is a very interesting one, but maybe a slightly separate issue. But in the sense in which we talk about personhood in philosophy, namely a person being a subject that can reflect upon itself, that can ask questions of moral significance, that can ask whether—to use Frankfurt's notion—your first order preferences are something that you should really be endorsing, or that you should be rejecting. So those are rather demanding abilities that we associate with personhood in philosophy. And for that, I think you need a more reflective conceptual understanding of yourself.

**JN: So, you say that when we develop self-consciousness in this reflective sense, we have relations with other subjects, so intersubjectivity is the basis of this development, it is what makes the development possible. You say that our self-understanding and understanding of others go hand-in-hand, that it is a parallel process. So, if we have like a first person perspective of ourselves and a third person perspective when we observe others, is the second person perspective important when discussing development? Is the second person**

**perspective something real or something that exists in the more phenomenological approaches to this topic?**

KM: Yeah, absolutely. I think the second person perspective is actually extremely important because the way in which we engage with others is really not so much in terms of observing them and establishing theories about their behaviour as some cognitive scientists would actually characterize it. Some of the literature is kind of framed in those terms, but I think that's misguided because our interactions with others are as other subjects—they affect us, they have emotional repercussions, but they also have this normative dimension. What I find really fascinating is that the child is being treated by their caregivers as an intentional being from the start, even when it's not really clear yet whether and what kind of intentions the child really has. Take a basic example—the baby might just be randomly moving its hands, but the mother or the father interprets this as, 'Oh, you want the rattle, right?' And you give them the rattle, and so you read them as an intentional being, you treat them as an intentional being, you address them as a 'you'. And I think that's actually fundamental for the process of the child actually becoming a subject that can respond to these kinds of demands.

So, to treat someone as a subject also means that I have certain expectations, that I have certain demands on them; and once they are a fully developed person, I expect them to act on the basis of reasons for instance, and I can demand that they provide reasons for their decisions. So you can analyse this in phenomenological terms. There's also a really interesting tradition in German idealism when you think of the works of Fichte for instance, or Hegel. In general, I think it's very important to understand that we don't engage with others as objects, but always as two subjects. So we're mutually recognizing each other as subjects, we have certain expectations. At the beginning this is very much scaffolded by the adults because the child is not really a fully intentional subject yet, but it becomes a subject through being treated as such by others.

**JN: There's another question there. Would you say some even go so far as to claim not just that the development of self-consciousness is scaffolded on intersubjectivity or interactions with other subjects, but that we as subjects at the beginning of our development are dependent on our caregivers, on those that are near us, that a co-subject depending happens very early on. Of course, we do not have conceptions of ourselves, that is something that happens very later on. But even in this pre-reflective sense some argue that**

**subjects are anonymous, or something undivided from others. So would you say that the pre-reflective notion of a minimal self could be constituted, or made possible, or somehow enabled by intersubjectivity, or sociality, or something besides the subject itself?**

KM: Yeah, I would agree with this. Some people deny this, and they say that at the very minimal level this self-other relation doesn't really play such a fundamental role yet, it only comes in later when we're at the level of the narrative self or the reflective self. And I think logically speaking, it's not necessary that the minimal self is constituted through others. But as a matter of fact if you look at the kind of beings that we are, I would say that for human beings it is the case that our subjectivity, our sense of self, even at the very minimal level is very much intertwined with others, and actually even more so at the minimal level, kind of along the lines that you just suggested. When you think of the infant, or even before birth, during pregnancy—that would be a different topic, the ontological relation between the unborn child and the mother—but in any case, there is certainly a very strong co-regulation going on. But that also continues after birth, of course. So the way that the baby experiences themselves, the way they regulate their homeostatic balance, whether they experience hunger or not, what kind of emotions they experience, is all very much dependent on their interactions with their caregivers. And at the start I would say the baby probably doesn't distinguish between itself and the caregiver, and this process of self-other differentiation, and really gaining a sense of yourself as being different from the other, is something that I think actually only develops over time.

**JN: Yeah, that's basically the process of individuation or the separation of subjects from others. And this is based on cognitive science and psychological empirical evidence that there is a great deal of co-regulation and connection between the caregiver and the child in the first few months, if not even before birth.**

KM: Yeah, there's a lot of really fascinating research in that area currently of course. I mean, a lot of empirical research. That's really interesting.

**JN: So are there any dangers of selection effects or biases that could happen in psychological research when it comes to the early development of human beings and their sense of self? For example, in the research itself, in the findings, or when thinking about these concepts, when applying these concepts to the early stages of human development?**

KM: If we talk about social sciences in general, of course there's always a danger of basically drawing an analogy from your own experience to others without sufficiently reflecting the way in which we're all biased, we're all kind of influenced by our society, by the way in which we were raised, the different social norms and so on. One example for that is things like gender stereotypes. So there are interesting experiments where you show videos of very young infants, for example, the same video of the same baby reacting to something. I think one famous experiment was you have a jumping jack—like this thing that jumps out of the box, and babies often start crying when they see that—so you show people the same video and tell one group of people that it's a boy and tell the other group it's a girl, and you ask them to interpret what they're seeing. And the group that's told that it's a girl will describe this as the baby being scared and afraid of the jumping jack; whereas the group that's been told that it's a boy will often describe what they see as the baby being upset or angry, even though it's the same video.

So, we certainly have these biases that go into the interpretation of our findings, but also that have an influence on the kind of questions that we ask to begin with and the way in which we set up our experiments; and this applies not just to social science, but also to philosophical thinking. One reason there is not very much thinking, with some notable exceptions, on for example pregnancy and the ontological status of the unborn baby in relation to the mother, is partly because that's maybe not a question that occurred to many of the more dominant male philosophers over the past centuries. It raises interesting metaphysical questions and there are now some projects that attempt to address these questions. But for a long time people were engaging in very abstract thought experiments to raise these questions of identity, rather than looking at actual real world examples that are right in front of our eyes. So there's always that danger, and I think the only way to address it is by on the one hand, being aware of the fact that as researchers we are all biased in certain ways whether we want to or not, and to try to become aware of our biases, and on the other, by increasing diversity and engaging with researchers from other cultures, other backgrounds, other disciplines. And yeah, just basically making research as diverse as possible.

**JN: So, assuming that cognitive science and empirical research is critical for the foundation of philosophical research in these matters, such as the development of consciousness, self-consciousness, personhood, and so on, would you say that studying disorders of the self and**

**self-consciousness in psychopathology is also critical, or that it can provide new evidence and insights for philosophical debates?**

KM: Yes, definitely. I'm not sure whether I would say that cognitive science is fundamental to philosophy, or the other way around. I think it's a kind of back and forth relationship. I would see them more as on an equal footing perhaps. Depending on what your starting point is, you might say philosophy in terms of being focused on conceptual analysis is perhaps prior to the empirical research, because you need to clarify concepts before you can ask empirical questions about them. But to come back to your question—yes, I think we can gain really interesting insights from the study of psychopathology. Like the self for instance, usually when we introspect, or when you look at philosophical analyses of the self, it generally appears to be very unified. And it's only through certain breakdowns in the experience of the self and through the study of psychopathologies that we become aware of the fact that the self might be much more fragile and much less unified than it appears to us. So that can raise really interesting new philosophical as well as empirical questions for sure. At the same time, I'm a little bit wary of being too quick in drawing very general conclusions about the self and consciousness on the basis of abnormal or pathological experiences, so we have to be a little bit careful there as well.

**JN: In your book for example, 'Thinking About Ourselves', there's a part on how intersubjectivity influences the development of self-consciousness, and how we can use the research that we have on infantile autism for example, but again have to be cautious not to overgeneralize something that is perhaps just about one psychopathology.**

KM: Yes, especially since with autism it's particularly difficult because it's a really a spectrum disorder, and it's very difficult to draw any general conclusions from that.

**JN: But what could we see, for example, from autism for the development of self-consciousness, or for the importance of intersubjectivity in humans in general, or the development of personhood and self-understanding of ourselves and others?**

KM: Generally speaking, people think that people with autism have certain difficulties in understanding others, and there's some controversy as to where exactly that difficulty lies. So in the past it was thought that people with autism don't really have a theory of mind. I think nowadays the consensus is more that actually they can acquire a theory of mind in the sense of—

if you give them rules for interpreting behaviour, they're quite good at learning those rules and using those rules in trying to interpret what others are up to. What they lack is this more basic embodied and affective kind of way of relating to others. And so that makes it very hard for them to engage in more intuitive kind of day-to-day interactions. Of course, you could also look at it from the other side and say that because the way in which they engage with the world is different from the way in which neuro-typical people engage with the world, we have as much trouble understanding them as they have trouble understanding us. But what it reveals, I think, is that there are these different aspects or different dimensions to understanding others and ourselves, some more at the kind of explicit theoretical level, some more at this more basic, intuitive, emotional, effective level. And by looking at ways in which these processes of engaging with each other can be disturbed, our attention can be drawn to these different dimensions, and we can try to make conceptual distinctions that perhaps we weren't previously able to make in the same way.

**JN: Yes, and that would affect philosophical conceptions and debates. So, would you agree with the enactive approaches to consciousness and human interaction for example, and what is your view of them?**

KM: Not really. In terms of my training, I come more from the analytical tradition and I have to admit that I sometimes have trouble completely understanding this literature. But I do like the general approach and to try to characterize interactions in terms of things like participatory sense-making and there being these loops that are continuously happening between two subjects interacting with each other. That to me seems very plausible and makes a lot of sense, but I'm not very much engaged in that particular kind of literature myself just because my background is slightly different.

**JN: So you would defend a more representationalist approach to consciousness rather than a relationist?**

KM: One issue actually I have with the enactivist literature perhaps is that there's this strong tendency towards an anti-representationalism. And I tend to think on the basis of engaging with cognitive science and neuroscience that the notion of representation is a useful and important notion that I would not want to give up on. Of course it's important to appreciate, and that's why I'm interested in non-conceptual content, that there is such a thing as a non-linguistic non-

conceptual understanding and engaging with the world. But it seems to me that throwing out the notion of representation altogether is going a step too far. That said, I think that some parts of the enactivist literature are certainly compatible with the way I would characterize things, so it really depends.

**JN: Would you agree with Christopher Peacocke's approach? I think he has a representationalist approach to self-consciousness and intersubjectivity.**

KM: I'm very sympathetic to a lot of the things in Peacocke's work and I engaged quite a bit with his work on non-conceptual content of course, and his recent book is very interesting. And I think in a lot of aspects, we agree with each other. There are maybe certain minor points where we disagree, where he would characterize even a basic level of consciousness as entailing a kind of de se content and I would disagree with that. But generally speaking, I think there's a lot of overlap between our work.

**JN: Can we talk about something more general? For instance, what is your position on the nature of consciousness?**

KM: I was a bit worried about that question (laughs) because I don't really have a position on that. But generally speaking, I'm very sympathetic to so-called non-reductive naturalistic approaches—so positions that describe consciousness as an emergent phenomenon for instance, that seems to me to make intuitive sense. I think consciousness is something that certainly has to do with complexity and with the ability to engage with the world in intentional terms. But I don't see it as opposed to a naturalism that's broadly construed, so it depends on how we understand naturalism.

**JN: That is the next question. (laughs) How do you see naturalism in general? Would you say that you are defending the naturalist theory of self-consciousness?**

KM: Yeah, I would say so in so far as I see myself as trying to establish a theory that acknowledges that as humans we are part of the natural world, we are in a sense animals. But because we have self-consciousness—and that kind of brings us back to the start—we're sort of transcending nature if you wish, because on the basis of our abilities for reflection and thinking about ourselves we are able to set our own aims and goals. So we can ask: What do I want to achieve? Who do I want to be? I'm not tied to my nature in the same way as an animal is; you

can't even really speak of there being one particular human nature that we're kind of tied to. So in a sense, we are able to transcend this. But I liked the way in which McDowell and others framed this in terms of the distinction between a first and a second nature. So we have this first nature as embodied organisms, as animals of a certain kind. And then with our conceptual abilities, with our abilities for self-consciousness and self-reflection, we acquire our second nature, which is still a natural phenomenon, it's not something mysterious or outside of nature, but it enables us to set our own aims and define our own goals, and change and shape our own trajectory of how we move through life.

**JN: So, apart from being able to think 'I' thoughts and have reflected self-consciousness, what would you say distinguishes us from other animals, other living beings? Could it be that intersubjectivity or sociality is different in humans, allowing us to acquire self-consciousness and the ability to think 'I' thoughts?**

KM: Yeah, I mean many animals, many organisms are extremely social, but I think that what makes us perhaps slightly different—people like Michael Tomasello and other anthropologists put forward this idea, which I find quite plausible—is that over the course of evolution, we needed to evolve ways of interacting with each other that allowed for cooperation across much larger groups and on a much broader scale. And one idea is that in order to do so we became particularly sensitive to social cues, but also particularly sensitive to something like social norms; we developed a kind of a norm psychology, if you wish. And that then ultimately feeds into these processes that we've talked about, the development of self-consciousness and inter-subjectivity, and also things like morality. So yeah, I think in contrast to other animals we developed this ability to ask questions of moral significance, to ask about values as an individual, but also as a society: How do we want to live? How do we want to structure our lives together? That is not unnatural in the sense that I think you can tell a story about how we evolved these abilities, but then at the same time it enables us to move in a certain way beyond nature.

**JN: As I understand, you are currently researching the origin of normativity? You end your book with questions about the narrative self, the diachronic sense of self, questions that haven't been answered in the book. Are you working on these topics now?**

KM: Yes, exactly. I'm very much interested in trying to understand better the origins of normativity, and also the way in which our identities are shaped through interacting with others

at the individual level, as well as tat he kind of broader societal cultural level. I'm very much interested in these mind-shaping approaches that are getting more traction in developmental psychology at the moment. I’m generally asking how a sense of self, our sense of identity, including our sense of our ethical identity, is really shaped by the way in which we engage with others at the individual level as well as at the broader cultural and societal level.

**JN: You said you have more of an analytical approach, but do you think that phenomenology is also important for understanding these problems?**

KM: Yeah, absolutely. A lot of my training was in analytical philosophy, but I've always been interested in engaging with phenomenological literature as well, and of course literature from different disciplines. Generally speaking, the so-called divide between analytical and continental philosophy seems misguided to me, so I've always been more interested in the kind of questions that people ask. And if I feel that someone has a similar question, it doesn't really matter whether they come from a different so-called philosophical tradition. So I think it's definitely very valuable to engage with literature from different traditions, as long as there is some common ground and some kind of common questions.

**JN: Yes, because there's a lot discussion in phenomenology on the topics of intersubjectivity, sharing experiences, sociality. And I think even the most famous phenomenologists would agree with you that it is intersubjectivity and our relations with other subjects that shape or help us develop our sense of self. So would you say that there is no personal identity at the minimum level, or do you think that personal identity is something at the narrative level, something that is made possible by an ‘I’ content that one has of oneself, the story that he tells of himself, or is there a more diachronic persistence theory of the self that is more basic than that?**

KM: That's an interesting question. I don't really have a fully developed theory of personal identity, but I would agree that a large part of that is based in something like a narrative, which again is shaped by ourselves as much as by others. So when you think of young children, a lot of their narrative sense of self comes from the stories that their caregivers and their surrounding community tells about them. And then later on, we kind of pick that up and maybe gain a little bit more authority in telling our own narrative, but still it's always influenced by others, be it by our direct family, friends, but also cultural narratives that influence us, etc. So, this kind of

narrative level is where I would probably locate personal identity in that stronger sense. Of course, even at the pre-reflective level there might be something like a personality, or certain predispositions, certain character traits that we may come equipped with from birth onwards, and that also feeds into this basic fundamental level in how we experience the world.

**JN: But you would say that at the pre-reflective level, some kind of self-awareness if there is such a thing, would be non-representational? There wouldn't be any representation of the self in that kind of awareness?**

KM: Yes, I'm not an intentional object in that sense at the pre-reflective level.

**JN: That's true on a phenomenological level, but what do you think self or subject is on a metaphysical level?**

KM: I generally try to stay out of metaphysical questions, I'm not really sure what to think about that. So I don't know.

**JN: But again, for most people the phenomenological aspect is more important for our real life basically, but for philosophy it is metaphysics in a way.**

KM: Yeah, but I mean both are very important and both are very interesting questions, but I have to admit I don't have a firm view on the metaphysics of the self. I mean, I would probably tend towards views that identify the self with the kind of organism that we are.

**JN: Perhaps for the end, what is the coronavirus situation where you are now like? Is it the same, bad?**

KM: It's bad. So I'm in Berlin right now, and it's like we came through the so-called first wave quite well, and now the second wave was quite bad. It's not clear where things are going. At the moment we have a lockdown, which is not very strict, but my child for instance is at home, so she doesn't go to childcare, and I've been working from home basically since March. We have a lot of people dying at the moment every day and a lot of people are still getting infected every day. So my personal view is that I hope we would have stricter measures even than we have at the moment to really bring the numbers down.

**JN: So you support the lockdown and stricter measures?**

KM: Yeah, I would like a really concerted effort, where we really do a proper lockdown for a limited period of time, given that we are now starting to vaccinate people. There's some light at the end of the tunnel, but at the moment it seems to me a little half-baked—certain things are closed and then other things are open, and that doesn't seem to me to be a very good strategy because I don't really see where it's going.

**JN: So, would you say that isolation, quarantine, has changed our intersubjectivity, our relationships with people, to the degree that it may have influenced some aspects of our personalities?**

KM: I'm not sure about that. Sure, the situation is very difficult for many people, and there's a lot of stress and a lot of anxiety involved. At the same time, it is still a limited period of time. And so I don't actually think that it will have fundamental effects, but then again I'm not qualified to really give a prognosis on that. You'd better ask psychologists, sociologists, and so on. Like many philosophers I'm rather an introvert, so I quite like being on my own, and for me, the situation has actually been the opposite of isolation in the sense that my husband and my child are at home all the time now, so I have very little time on my own. Of course, I do miss direct interactions with my students, and people like you, and workshops, and so on, everything is happening on the screen, and people are getting a little bit tired. But in some sense my social interactions are more intense now than they used to be. And in another sense with respect to colleagues, and students, and friends, of course I have a lot less social interactions, but it's an interesting experience anyway.

**JN: Thank you, I think that would be about it. It was great talking to you. I hope everything works out well. Stay healthy and in good care at home, and I await your next paper, or whatever you're working on at the moment.**

KM: There are different things I'm working on, papers on different topics, and a book, which unfortunately I haven't made as much progress on, partly due to the pandemic. Hopefully this coming year will be a little bit more productive in that respect. Very nice talking to you too.

**To find out more about the 'Sciences of the Origin' project, make sure to follow us on Twitter, subscribe to our YouTube channel, or visit our webpage.**