

# Of Trees and Signs

*by Martin Fortier*

---

**Trees think, explains E. Kohn, because they have the ability to represent the world and today's anthropology can help us go beyond the distinction between the human and the non-human. The risk here, though, is giving a weak definition of thinking.**

---

*Reviewed:* Eduardo Kohn, *Comment pensent les forêts : Vers une anthropologie au-delà de l'humain*, trans. Grégory Delaplace (Paris: Zones Sensibles, 2017), 334 p., 23 €. Translation of *How Forests Think* (Berkeley: University of California Press, 2013).

Anthropologists traditionally study the different ways humans represent the world. In doing so, they assume that anthropology can only study humans because only humans are capable of forming representations. Eduardo Kohn's book intends to do away with this kind of anthropology. Running counter to tradition, he contends that humans do not have the monopoly on the ability to represent things; an anthropology beyond the human is not only possible, it is also desirable. In order to do just this, he draws on his fieldwork with the Ávila Runa, in Ecuador's Upper Amazon. This explosive book, initially published in English under the title *How Forests Think*, is now also available in French thanks to the work of publishers Zone Sensibles and Grégory Delaplace's outstanding translation.

## **Toward an anthropology beyond the human**

In what sense can thought and representation be said to extend beyond the human? E. Kohn draws on Charles S. Peirce's semiotics. Peirce is known for having distinguished between *symbols* (that are referential due to arbitrary convention), *indices* (that are referential due to a causal link), and *icons* (that are referential due to intrinsic likeness). For example, the

word 'dog' is a symbol because it refers to the object dog by linguistic convention. A dog's pawmark in the snow is an index because it is an effect that points to a cause (to the dog that walked by a few minutes earlier). Finally, a drawing of a dog is an icon because it refers to the object dog not by convention or by any causal link but through intrinsic likeness. Based on these conceptual distinctions, E. Kohn shows two things: (1) that language, considered the symbolic artefact *par excellence*, is sometimes based on the iconic; (2) that the faculty of representation, traditionally reduced to the symbolic, in fact covers all three of Peirce's semiotic regimes.

The first point is illustrated by the case of ideophones – words whose signifiers are the same as their signified (for example, the word 'bang' that refers to a gunshot by miming its very sound). Ideophones are specific in that they signify and represent things without drawing on arbitrary convention. The book's opening chapter offers a magnificent description of the omnipresence of iconic words in the Runa language. When the Runa recount hunting scenes, they draw less on linguistic conventions than on each individual's sensitivity to the sensory and iconic features of the world. However, what is remarkable is that this sensitivity is not specific to humans.

Which brings us to the second point: processes of representation are at work throughout the animal and vegetable kingdoms. The tropical forest offers a perfect example of this. Leafcutter ants leave their colonies after the bats have gone to sleep and before the birds are awake (p. 78 sq).<sup>1</sup> In some way, the ants therefore have a representation of their predators' point of view; their flying hours seems to have adjusted through evolution. It therefore seems perfectly possible to redefine selves as centres of semiotic (or representational) activity and souls as the capacity to perceive selves – to perceive other beings perceiving signs (chap. 2 and 3). It then follows that there are more selves and souls in the world than humans alone. If anthropology is to look at the varied ways in which beings represent the world, then it must become an anthropology open beyond the human, which deals indifferently with humans, ants, and trees across the full range of their representational activity.

There is an evident resemblance between this proposition and what is known as the *ontological turn* of anthropology.<sup>2</sup> This recent school of thought also breaks with classic anthropological practice. Rather than focusing on how different cultures represent the world, ontological anthropology sets itself the task of studying the world itself (or even the putative existence of several worlds). E. Kohn stands apart from acolytes of the ontological turn insofar as he does not reject the notion of representation (p. 40–41). Where they endeavour to place the world, rather than representations, at the heart of anthropology, he remains satisfied with the concept providing it is extended to all living beings.

---

<sup>1</sup> All in text references are to the English-language edition.

<sup>2</sup> Martin HOLBRAAD and Morten PEDERSEN, *The Ontological Turn: An Anthropological Exposition* (Cambridge: Cambridge University Press, 2017).

When all is said and done, anthropology beyond the human is an anthropology that looks at all non-symbolic (or sub-symbolic) forms of representation – at indices and icons. The place of photographs<sup>3</sup> – icons – in the book is revealing in this regard. E. Kohn sees in Amazonian thought a way of thinking that is attentive to nonsymbolic signs; through photographs and, in his most recent work, through drawings – i.e. with the help of icons – he invites us in turn to engage in sylvan thinking.

## **A somewhat illusory revolution**

*How Forests Think* offers a diagnosis (1): hitherto, anthropology has contented itself with studying symbolic and linguistic representations and has failed to see that subsymbolic representations exist among non-humans. The book also provides a remedy for this diagnosis (2): the subsymbolic dimension of the living can be understood with the help of Peirce's semiotics. Both arguments seem highly debatable.

For Philippe Descola,<sup>4</sup> argument (1) is the cornerstone not only of E. Kohn's theoretical endeavour but also of the ontological turn of anthropology. Upon closer inspection, though, there is nothing terribly novel in the idea that representation might also function at a subsymbolic level. Cognitive anthropology in the United States has been consistently developing this notion for over 40 years now,<sup>5</sup> drawing on models of the brain that Paul Smolensky rightly labels as 'subsymbolic'.<sup>6</sup> While it is heartening that symbolic anthropology, going beyond Lévi-Strauss's legacy, is endeavouring to remedy some of its own shortfalls, making the latter a mark of anthropology as a whole would betray a particularly narrow view of the field.

Argument (2) seems no less problematic. At the end of the book, some readers will have the impression they have learnt something extraordinary: 'so it's actually true, trees do think!' However, this discovery falls somewhat flat if we look to what E. Kohn actually means by *think*. For him, all representation – symbolic as well as indexical and iconic – equates to thought. The definition of thinking E. Kohn uses here is therefore very minimalistic. Under such a definition, a wide range of things could be said to think. However, this is no

---

<sup>3</sup> The French edition of the book contains many photographs (including some in colour, unlike the English language edition).

<sup>4</sup> Philippe DESCOLA, 'Préface : La forêt des signes', in Eduardo Kohn, *Comment pensent les forêts : Vers une anthropologie au-delà de l'humain* (Paris: Zones Sensibles, 2017), p. 13.

<sup>5</sup> See in particular: Roy D'ANDRADE, *The Development of Cognitive Anthropology* (Cambridge: Cambridge University Press, 1999); Naomi QUINN, 'The History of the cultural models school reconsidered. A Paradigm shift in cognitive anthropology', in David KRONENFELD, Giovanni BENNARDO, Victor de MUNCK and Michael FISCHER (eds), *A Companion to Cognitive Anthropology* (Malden, MA: Blackwell, 2011): 30-46.

<sup>6</sup> Paul SMOLENSKY, 'Subsymbolic Computation Theory for the Human Intuitive Processor', in Barry COOPER, Anuj DAWAR and Benedikt LÖWE (eds), *How the World Computes: Turing Centenary Conference and 8th Conference on Computability in Europe* (Berlin: Springer, 2012): 675-685.

revolutionary discovery; it is simply a semantic shift giving the illusion of novelty.<sup>7</sup> As Tyler Burge has implacably demonstrated,<sup>8</sup> there are more or less strong definitions of both ‘mind’ and ‘representation’. Saying that lots of beings think in a weak sense is a commonplace; the real feat would be to prove that a range of beings are thinking beings in a stronger sense.

## Over-extensive and under-intensive

The productive scope of E. Kohn’s theoretical framework also seems to be limited by two flaws: it is too extensive and not intensive enough.

Reading *How Forests Think*, one is struck by the Runa’s propensity to use nonsymbolic words (ideophones), to pay attention to the signs of the world, and to adopt the point of view of the living beings surrounding them. But is that faculty specific to the inhabitants of Amazonia? E. Kohn’s reply is that while the Runa and other populations of the tropical forests do not have the monopoly on sylvan thinking, they do provide a particularly prototypical and exacerbated illustration of it.<sup>9</sup>

This, however, is never actually proven. Each time the author gives an example of sylvan thinking and Runa perspectivism, an equivalent can be found elsewhere. For example, E. Kohn underlines that when the Runa are careful to sleep in the right position – faceup rather than facedown (p. 1 sq.) – they are taking the jaguar’s point of view. There is nothing exceptional about this, though. When, as a teenager, I went to live in the Rocky Mountains in British Columbia, one of the first things I was taught was to act differently before a grizzly bear than before a black bear: with the former, it is best to retreat with a submissive air, whereas with the latter, one should appear as fearless as possible. This is a striking example of ursid perspective-taking! Can this really be framed as British-Columbian perspectivism? Similarly, E. Kohn makes much of the omnipresent ideophones in the Runa language. But what, then, of the rich ideophonic system of the Japanese language?<sup>10</sup> And why not also point out that Pyrenean hunters make copious use of ideophones?<sup>11</sup> E. Kohn also sees an example of the Runa taking a bird’s perspective in the scarecrows (or ‘scare-parakeets’) they place in their cornfields (p. 89). But do Western farmers not also do the same? In short, the notion of sylvan thinking seems to be applicable to so many cultures and regions that it suffers from being over-extensive.

---

<sup>7</sup> This kind of semantic shift is fairly characteristic of the authors of the ontological turn (cf. Martin FORTIER, *Étude sur la modélisation de l’animisme par Viveiros de Castro et Descola*, Master’s diss. (Paris: École des Hautes Études en Sciences sociales, 2013).

<sup>8</sup> Tyler BURGE, ‘Perception: Where Mind Begins’, *Philosophy* 89, no. 3 (2014): 385-403.

<sup>9</sup> Eduardo KOHN, ‘Further thoughts on sylvan thinking’, *HAAU: Journal of Ethnographic Theory* 4, no. 2 (2014): 276 and 280 (note 2).

<sup>10</sup> Shoko HAMANO, *The sound-symbolic system of Japanese* (Stanford: CSLI Publications, 1998).

<sup>11</sup> Andrea ZUPPI, *La chasse, l’élevage et le ‘naturalisme’: Enquête sur les relations homme-animal dans les Pyrénées-Orientales*, Master’s Diss. (Paris: École des Hautes Études en Sciences sociales, 2015).

Conversely, the analytical framework also suffers from a lack of intensity. It is too weak to explain the phenomena examined, for example, by Amazonian ethnographers. By redefining the soul in semiotic terms, E. Kohn seems to make sense of Amazonian animist inclinations: ascribing a soul to a being means recognising its semiotic faculties; as all living beings are semiotic, it is not outrageous to ascribe souls to them all. However, this solution does not function for all the Amazonian cases in which the soul means much more than what E. Kohn would have it mean – particularly those where the soul is strongly anthropomorphised.<sup>12</sup> E. Kohn's semiotic soul is too weak a notion to fully account for the wealth of Amazonian conceptions of the soul.

## **Environmental determinism and animism**

E. Kohn masterfully contrives to capture something of the logic underpinning the teeming activity and the crashes and cries of the flora and fauna inhabiting the tropical forest. This is both the strength and weakness of his book. Beyond the rich and diverse Amazonian forests, what can he teach us about, for example, the bare, snow-covered Inuit land? The ecosystems of the circumpolar zones are the complete opposite of what E. Kohn describes. Now, the author fairly explicitly suggests that sylvan thinking originates solely in the semiotic richness of certain ecosystems.<sup>13</sup> Some may find this degree of environmental determinism surprising.

One of the great merits of Philippe Descola's work is that it has shown that very different ecosystems – for example the Lowland South America and the Arctic and Subarctic North America – could nevertheless have similar systems of thought, and, in this case, an animistic cosmology.<sup>14</sup> Now, if animism only emerges in rich and diverse ecosystems, how can semiotic regimes as different as a tropical forest and a desert of snow give rise to such similar thought systems?

## **The ontological turn and the death of ethnography**

As we have seen, E. Kohn openly states his affiliation to the ontological turn. It is remarkable that most partisans of this critical trend, who critique the concept of 'culture' and suggest replacing it with 'ontology', are ultimately only ever talking about the age-old concept

---

<sup>12</sup> For example the Achuars' *wakan*, characterised, among other things, by the capacity for linguistic communication (Philippe DESCOLA, *In the Society of Nature: A Native Ecology in Amazonia* [Cambridge: Cambridge University Press, 1996] p. 324-325.

<sup>13</sup> E. KOHN, 'Further thoughts on sylvan thinking', art. cit., p. 282.

<sup>14</sup> Philippe DESCOLA, *Beyond Nature and Culture* (Chicago: University of Chicago Press, 2013), p. 13-14.

of culture repackaged in different terms. For does talking about animistic or naturalistic *ontology* not simply equate to talking about animistic or naturalistic *culture*? Arguing that ontologies are located below the categories of nature and culture is just playing on words, because cognitive anthropologists, who also focus on humans' subsymbolic diversity, have no qualms about using the term culture to describe the nonsymbolic multiplicity of nervous systems.<sup>15</sup>

Conversely, when E. Kohn says he wants to be rid of culture, he does not content himself with simple nominal changes. He focuses so much on the world and so little on human cultures that, when Amerindian thinking contradicts his system, he dispenses with it without any scruples.<sup>16</sup> The following passage could not be any clearer:

I recognize of course that those we call animists may well attribute animacy to all sorts of entities, such as stones, that I would not, according to the framework laid out here, consider living selves. (p. 94)

Taking the maxims of the ontological turn seriously and following them through to their logical end, the author exposes the real agenda of this critical school, which is nothing less than *the death of ethnography*. If studying cultures – for example the Runa's ways of thinking – is old-fashioned, if we must look beyond humans, then ethnographers must become metaphysicians and endeavour to construct high-flown theoretical systems rather than to describe the human diversity surrounding them.

## **Taking stock of sylvan thinking**

Upon closing *How Forests Think*, one question springs to mind: if E. Kohn's aim is not ethnographic, then where does his book's true contribution lie? Most of his reflections on the role of semiotic mechanisms in the living can already be found in Deacon's work.<sup>17</sup> E. Kohn does, admittedly, give them substance in a new context – the tropical ecosystem of the Ávila Runa – but this contribution remains limited. His book seems to waver indecisively between the temptation to describe the world as Deacon does – but this cannot be done without an appropriate experimental method – and the temptation to describe the Runa's thinking and lifestyle – but this cannot be done by crushing ethnography beneath the weight of theoretical constructions.

I have focused a lot on the problems of *How Forests Think*. Of course the book still has its qualities. Chapter 3, for example (to only cite the most significant), is full of precious

---

<sup>15</sup> Andreas ROEPSTORFF, Jörg NIEWÖHNER and Stefan BECK, 'Enculturing brains through patterned practices', *Neural Networks: The Official Journal of the International Neural Network Society* 23, no. 8-9(2010): 1051-59.

<sup>16</sup> E. KOHN, 'Further thoughts on sylvan thinking', art. cit., p. 281-282.

<sup>17</sup> Terrence DEACON, *The Symbolic Species: The Co-evolution of Language and the Brain* (New York: Norton, 1997); *Incomplete Nature: How Mind Emerged from Matter* (New York: Norton, 2012).

ethnographic materials. More generally, the author should be credited with not having given into fads. Where most proponents of the ontological turn have consistently lambasted the concept of representation, E. Kohn takes it up and reworks it. Furthermore, we can be grateful to him for having drawn inspiration from serious and rigorous thinkers – Peirce and Deacon – rather than recondite postmodern theorists. One can, indeed, only hope that his book will help garner broader readership for Deacon’s fascinating but little known work.

**Acknowledgements:** I would like to thank Eduardo Kohn and Terry Deacon for our discussions and their clarifications regarding several points discussed in this review.

First published in *laviedesidees.fr*, 1<sup>st</sup> March 2018. Translated from the French by Lucy Garnier with the support of the Florence Gould Foundation.

Published on [booksandideas.net](http://booksandideas.net), 14 May 2018.