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# Making mythopoeic meaning out of plants

Erik van Ooijen |

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Corresponding author: Erik van Ooijen, HumUS, Örebro University, Örebro 7021 82, Sweden E-mail: erik.vanooijen@oru.se

Reviewing editor: Anezka Kuzmicova, Stockholms Universitet, Sweden

Additional information is available at the end of the article

## LITERATURE, LINGUISTICS & CRITICISM | RESEARCH ARTICLE Making mythopoeic meaning out of plants Erik van Ooijen

**Abstract:** The article discusses literary and scientific discourse in relation to plant cognition. I argue that one purpose of literature is to let humans make meaning out of their environment. My focus is not on literature as fiction, or any a priori faculty of counterfactual construction. Rather, I consider literature as the inspired response to external phenomena. In this aspect, literature springs from outside; and this it shares with scientific explanation. But where science lays bare the mechanical laws of the universe, literature operates with compelling narratives of individual wills. I further suggest that the literary mode is specifically suited for envisioning non-human life. Poetic thought is considered as a mode of human cognition that, by suspending the distance between human and world, allows us to think modes of non-human cognition. In literature, we are able to represent those affects we share with other forms of biological life. My focus is on two literary representations of plant life and the blending of life forms in stories where people turn into plants. I start by considering how a few botanists have taken the literary mode as a negative point of departure for their attempts to explain plant behavior. Then, I muster two theoretical accounts in order to read two such stories. Henri and Henriette Frankfort's description of mythopoeic thought is used as the starting point for an interpretation of Ovid's take on the myth of Echo and Narcissus; and Roger Caillois' "comparative biology" for a reading of Johan Borgen's short story "Kaprifolium".

Subjects: Plant Biology; Natural History; History of Science & Technology; Philosophy of Mind; Interdisciplinary Literary Studies;

## ABOUT THE AUTHOR

Erik van Ooijen is Associate Professor of Comparative Literature. His research focuses on the relationship between human and nonhuman forms of life as it is represented in literature and the arts, philosophy, and science. He has published essays and articles on the representation of animals and meat eating in film, video games and popular music; ecological concerns in the works of poet and botanist Sten Selander; black ecology; and the plant theories of August Strindberg. He has a PhD in Comparative Literature from Örebro University; did his postdoc at Stockholm University; and has been active in KuFo, the Research Group for Culture Studies at Karlstad University. He is currently working as a Researcher at HumUS, the School of Humanities, Education and Social Sciences, Örebro University, where he organizes the seminar "Bios/Grapho – Humanistic Perspectives on Biology and Literature".

## PUBLIC INTEREST STATEMENT

This article considers literature as a way of coming to grips with the natural environment. In particular, it looks at how stories can be used to speculate upon the experience of non-human life forms, in this case plants. What is it like being a plant? What do plants and human have in common? To give a partial answer to such questions, it looks at two brief stories where humans turn into plants: Roman poet Ovid's classic take on the myth of Narcissus, or the adolescent boy who is transformed into a daffodil; and Norwegian author Johan Borgen's "Kaprifolium", where a young boy is bewitched by the smell from the honeysuckle and gradually turns into one himself. The stories are compared with some scientific attempts to describe the "psychology" of plants as I argue that myths provide us with knowledge about the natural world in general and non-human life in particular.

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#### | Keywords: mythopoesis; plant studies; Ovid; Johan Borgen; plant cognition

#### 1. Introduction

Plants play a vital role in the lives of humans. We share the same evolutionary origin and many biological configurations; they provide the very condition for our aerobic being; and they have long fulfilled many of our basic needs, be it as housing, heat or nourishment. Plants have even invaded the sphere of art, poetry and human imagination to the point where some species have turned into the most tiresome of clichés.

Still, plants also propose a challenge. They are familiar and alien at the same time. While they are often perceived as the most mundane form of life, serving as a lush backdrop for grander beings, we have a hard time imagining their vegetal way of being in the world. Even today, some of the most basic discoveries in plant science startle us: plants experience and respond to pain; they communicate among themselves and with other species; they help each other out in times of need; they remember, learn, and make decisions. While these would seem to be some of the most basic capacities for any form of life, we still seem reluctant to ascribe them to plants.

Plants form both an asset and a problem. At the very least, they prompt a response. Martin Krampen, the German artist and semiotician who founded phytosemiotics or the study of vegetal sign processes, pointed out the simple fact that plants seem to evoke a production of meaning in humans:

A study of literature and poetry, of painting, religion, and other human endeavors should convince us that plants have served as meaningful signs, indexical, iconic, and symbolic, in many cultures because they are living beings possessing features that evoke the attribution of meaning to a very considerable degree. (Krampen, 1981, p. 207)

Such a pan-cultural interest in vegetal life suggests a further biological bind between humans and plants—a bind that exceeds the physiological level of oxygenic exchange, to occur at the symbolic level. In this paper, I will consider how plants have evoked the attribution of meaning in literature and science, two seemingly distinct, yet sometimes intermingling, modes of human sense making.

My, perhaps trivial, argument is that one of the many purposes of literature is to let humans make meaning out of the things they encounter in their environment. My focus is not on literature as *fiction*, or any a priori faculty of counterfactual construction. Rather, I will consider literature as the inspired response to external phenomena in need of elucidation. In this aspect, literature springs from outside; and this, at least, it shares with scientific explanation. But where science lays bare the mechanical laws of the universe, literature lets us explore what Swedish poet Gunnar Ekelöf (1996, p. 164) once called its "vital significance" ["livsinnebörden"].

In what follows, I suggest that the literary mode is specifically suited for envisioning non-human life. Poetic thought is considered as a mode of human cognition that, by suspending the distance between human and world, allows us to think modes of non-human cognition. Thereby, it also makes visible the non-human aspects of ourselves. In literature, poetry and myth we are able to represent those affects we share with other forms of biological life and which risk falling outside of the scope of exceptionalist ideas of what it is to be human. They also provide us with a possibility to speculate on non-human ways of being in the world. Literature allows for a multitude of subjectivities and a plurality of meaning. Unlike both science and monotheistic religion, it is free from heresy.

My focus is on two literary representations of plant life and the blending of life forms in stories where people turn into plants. I start by considering how a few botanists have taken the literary mode as a negative point of departure for their attempts to explain plant behavior. Then, I muster two theoretical accounts in order to read two such stories. Henri and Henriette Frankfort's description of mythopoeic thought is used as the starting point for an interpretation of Ovid's take on the myth of Echo and Narcissus; and Roger Caillois' "comparative biology", and the association between mimesis and mimicry, as the frame for a reading of Norwegian author Johan Borgen's short story "Kaprifolium".

#### 2. Fable and science

One of the most problematic aspects of plants, from a humanist point of view, is their movements, which suggest the presence of something like a will. Beyond their visual shape and form, this is one of the features that evoke the attribution of meaning. At least since Aristotle, the power of voluntary motion has been granted the animal but refused the plant; yet any prolonged observation of plants will reveal something like the willful exploration of space, if often at a pace too slow for the human to notice. In their ability to probe and interact with their close environment, plants exhibit a rudimentary form of sentient behavior. Once this behavior is noted, the plant emerges from its static background and poses a challenge to the human imagination.

In Somnus Plantarum (translated into Swedish as Växternas sömn in 1921), Carl Linnaeus attends to what he calls the "sleep" of plants. Just like humans and other animals, plants tend to behave differently at night. Many plant species take a certain posture, which gives the impression of rest and recuperation. Rather than a clear separation between kingdoms, this suggests how life as such must relate to a specific aspect of our joint planetary environment: the diurnal course of the sun and its corresponding shifts in light and temperature. The plant's apparent awareness of its surroundings poses an obvious problem for Linnaeus. On the one hand, he concludes that plants must lack the power of perception and voluntary motion due to the absence of a nervous system which would connect its body to a brain. On the other hand, he also admits that plants exhibit behavior that only could be expected from sentient beings possessing something like will or consciousness. The physiology of the plant does not match up with its apparent behavior. Linnaeus notes the paradox, but since he is unable to explain it, he settles for a sense of marvel at the many mysteries of God's creation.

As one of his few precursors in noticing the problem, Linnaeus refers to the English 17th century "parson-naturalist" John Ray, who expressed dissatisfaction with existing explanations for the tendency among certain species of plants to shield their fruit in their leaves during nighttime. For Ray (1688, p. 1748), the idea that the pod of the tamarind tree would be able to wrap itself up as if in a blanket "had too strong a smell of a fable". "Fable" is obviously used in a pejorative sense, as a naïve and insufficient mode of explanation. Since previous attempts at elucidation have bordered on the fantastic, the tree's behavior is still in need of a more rational account. Yet, the very formulation also suggests how fable, up until this point, has served a purpose. Where rational discourse is stumped, it is the fabulous mode that provides a way to come to grips with the strange, empirical phenomenon of a fruit going to bed at night.

Sleep movements prove a hard nut for science—and in fact, it resurfaces in more modern botanical discourse. In *Plant Autographs and Their Revelations*, the early 20th century Indian naturalist Jagadish Chandra Bose (1927, p. vii) sets out to reveal the "dark profundities" of vegetal life. For Bose, it was clear that plants exhibited vital functions similar to those of the higher animals, albeit on a finer scale. By developing sophisticated technical devices he were able to register and magnify the miniscule reactions in plants as they were exposed to external stimuli. Thus, he wanted to let the plant tell its own individual "story" in a code that was decipherable by the human scientist.

Bose also noted how the phenomenon of sleep movements (or nyctinasty) had already been dealt with outside of science. Unlike Ray, however, he was less eager to dismiss the fabulous mode of human sense making as superfluous. Writing on the nightly behavior of Nymphaea, Bose states:

The poets have forestalled the men of science. Why does the Water-Lily keep awake all night and close her petals during the day? Because, say they, the Water-Lily is the lover of the Moon, and as the human soul expands at the touch of the beloved, so the Lily opens out her heart at the touch of the moonbeam and keeps watch all night long; she shrinks affrighted from the rude touch of the Sun and closes her petals during the day. The outer floral leaves of the Lily are green, and in the day-time the closed flowers are hardly noticeable among the broad green leaves which float on the water. In the evening, the scene is transformed as if by magic, and myriads of glistening white flowers cover the dark water. This phenomenon, recurring every day, has not only been observed by the poets, but an explanation has been offered for it: the Lily loves the moon and is frightened by the sun! (p. 116)

While apparently enthusiastic about the outstanding display of poetic imagination, Bose goes on to detail why the entire account is misguided. In reality, the flower also opens when her lover is absent. By exposing the flowers to a series of stimuli, he concludes that they respond neither to the light nor the gravitational pull from celestial bodies, but to changes in temperature. The poets have observed the phenomenon, and out of it they have woven the most wonderful tale; but in giving their explanation, they have been unable to eliminate all possible sources of error.

As Bose is careful to stress, however, experimental methods are not required from the poet. The poet and the scientist simply go about their business in different ways—or, as Bose (p. 116) puts it: "the poet is not expected to carry a lantern and peer about in the dark; that inordinate curiosity is characteristic only to the man of science." The former has forestalled the latter, not in providing a full account for the physical laws governing the behavior, but simply in having encountered the flower, noticed its peculiar conduct, and made it a meaningful part of the human world. The poetic account says something about what it is like being a waterlily, in a form that humans may grasp. Thus, the flower is pulled from the world considered as a mere background for human activities, to enter, instead, the realm of human significance.

Science is moved by the thrust to overcome primitive myth. Yet, science and myth are hardly exclusive means for understanding the world. As stated by Shaviro (2015, p. 13), "[e]mpirical science and rational discourse are largely continuous with other ways of feeling, understanding, and engaging with the world". Among these, Shaviro (p. 13) counts "art, myth, religion, and narrative". While complementary, these modes offer different affordances, and what may seem provocative from the scientific point of view, is natural for narrative and myth. Scientific discourse has a hard time grappling with certain aspects of physical existence, such as the inner nature of vegetal life. Whereas the project of taxonomical categorization took giant leaps during the Enlightenment period, very little happened in the understanding of plant sentience. The fabulous, or poetic, mode, on the other hand, has a natural predilection for the agency of the natural world. In this sense, fable is no mere fidget of the imagination, but rather the result of an imaginative encounter with empirical reality.

The stories of the tamarind fruit wrapping itself in its leaf-blanket, or the lily opening herself to her lover's touch, have been successful in that they have envisaged the *vital significance* of plants. They allow for plants to step forth, in all their peculiarity, and into the perceptional field of us humans. In this, they succeed even where scientific explanation falls short.

## 3. Mythopoeic thought

Instead of dismissing the fabulous, we may ask what it is that fables afford—what purpose they serve and what they make possible. As stated by Horkheimer and Adorno (2002, p. 3), "[o]n their way to modern science human beings have discarded meaning". According to their account of the dialectical relationship between myth and Enlightenment, the modern "disenchantment" of the world set out to eliminate any trace of an animistic—active, animated—understanding of the natural world, to replace it with a strict separation of the human subject from a world of inanimate objects. Thus, the human would become the ruler over a subjugated world, and capacities related to will, individuality, and cognition become exclusively human. Their point, however, is that there is no clear-cut shift of paradigm, since "[m]yth is already enlightenment, and enlightenment reverts to mythology" (p. xviii). Perhaps, the idea of two historically distinct paradigms may even be taken as the outline for two different ways of being in the world. The idea of a historical shift, from mythopoeic to modern scientific thought, is succinctly presented by Dutch archeologists Henri and Henriette Frankfort in their *The Intellectual Adventure of Ancient Man: An Essay on Speculative Thought in the Ancient Near East.* In brief, it traces how thinking gradually has broken away from the thing thought in a move from concrete personalization to abstract universalization. Like Horkheimer and Adorno, they find the central tenet of modern thought in the distinction between subject and object: the human observer contemplates the object from a distance, and thus detaches thought from the thing it thinks. They illustrate this by claiming that for the modern mind, the external world is always perceived as an "It", whereas the pre-modern, or mythopoeic, mind rather encounters a "Thou". For the latter, there is no fundamental distinction between "the realm of nature and the realm of man", but both abide by the same rules (Frankfort & Frankfort, 1946, p. 4). In nature, the mythopoeic individual encounters a world full of individuals like himself, caught up in curious situations, "unprecedented, unparalleled, and unpredictable" (p. 5). This does not mean that humans impart their human characteristics on an inanimate world but that there is no inanimate world in the first place:

The world appears to primitive man neither inanimate nor empty but redundant with life; and life has individuality, in man and beast and plant, and in every phenomenon which confronts man—the thunderclap, the sudden shadow, the eerie and unknown clearing in the wood, the stone which suddenly hurts him when he stumbles while on a hunting trip. (p. 6)

Mythopoeic thought, then, is neither purely objective nor purely subjective, but a means of coming to grips with the forces of the outer world, provoked by that world. In so doing, the individual must gather all cognitive resources at hand—"emotional, imaginative as well as intellectual"—in order to appreciate the many strange lives that are as rich as himself (p. 6):

Hence when early man is faced by an intellectual problem within the many-sided complexities of life, emotional and volitional factors are never debarred; and the conclusions reached are not critical judgments but complex images. (p. 26)

Mythopoeic thought, as the Frankforts describe it, is the pursuit of a "who" rather than a "how". Among the multitude of things and events, it looks for "a purposeful will committing an act" (p. 15). This is the mode through which it understands the world it encounters. The imaginative result takes the form of an emotionally charged story, relating the actions and wills of non-human forces. It fleshes out the individual incentives of things, rather than reduces them to universal laws. Just like mythopoeic thought finds in the world a multiplicity of subjectivities, so it strives towards a plurality of meaning.

In modern times, which in Frankforts' account begins with Greek thought, mythopoesis prevails in poetry. If we move past the idea of a radical break between mythopoeic and modern thought, the description of myth may be taken as a more general theory on mythopoesis or the mythic aspect of literature. Through literary form, the mythopoeic mind is able to explore a world of living forces, acting upon wills and desires of their own. The poet is forced to respond to the sensemaking imperative of the world. He is at work in nature, and nature is at work in him.

## 4. The myth of narcissus

Consider, now, the Roman poet Ovid's take on the myths of Echo and Narcissus as a mythopoeic vision of plant life. Both stories were already established parts of Greek mythology when Ovid decided to combine them in the third book of the *Metamorphoses*. By adding the story of Echo to that of Narcissus, it is almost as if the poet instructs us to consider the latter not only as a human allegory but also as the result of an encounter with the natural world.

To recapitulate: Echo is a talkative nymph living at Mount Cithaeron who uses her eloquence to distract Juno from finding out that Jupiter, her husband, is fooling around with the other mountain nymphs. Juno punishes Echo by stealing her voice, making her able only to repeat the last words

uttered by someone else. Thus, Echo—Greek for sound—is a mythopoeic representation of echo, the phenomenon of acoustic reflection, as it may be encountered, for example, in the mountains. In Ovid, Echo then falls in love with Narcissus, a beautiful adolescent hunter, who, in turn, only loves himself. He rejects her, and from heart-broken desperation, she withers away. All that remains is her disembodied voice, bound to repeat his self-directed declarations of love.

While the myth of Echo certainly presents an allegory over self-devouring love, it also provides something like what Shaviro (2015, p. 11) calls a "speculative extrapolation" on the presence of ethereal voices repeating the sounds we make as we call out into the woods or in the mountains. It is the acoustic phenomenon that provides the premise for the story, which then extrapolates upon this phenomenon in terms of its possible wills and desires. A proper lesson on the physics of sound waves will, however, never render Ovid obsolete. The world is made meaningful, not with reference to universal law, but by providing a singular image charged with vision, beauty, and tragic affection. It may be misdirected, but it is fabulous.

Now, consider the part of Narcissus in a similar light. According to the myth, Narcissus will be ruined once he "knows himself" (Ovid, 1977, p. 149). This happens when he sees his own reflection in the pond and falls in love with his own appearance. Unable to embrace the loved one, he slowly suffers and dies. All that remains is "a flower, its yellow centre girt with white petals" (p. 161). Narcissus is an obvious emblem for certain human traits, to the degree that we still talk about self-absorbed vanity and arrogance in terms of narcissism. Yet, in being a story about a man changing into a flower, it also provides an extrapolation on plant life.

The flower of the story is usually identified as the poet's narcissus (*Narcissus poeticus*). One of the plant's most striking features is its slouching posture; when it hits maturity, it starts to bend down its head. The English botanist Francis Darwin, who, together with his father Charles, carried out some of the most important experiments of the 19th Century in plant behavior, explained this tendency as an instance of gravitropism, or the ability of plants to sense and adjust to the gravitational pull of the Earth:

In the young condition there is a straight shaft ending in a pointed flower-bud; but as the flower opens the stalk bends close to the top and brings the flower-tube into a roughly horizontal position, where it shows off its brightly coloured crown to the insects that visit it. The flowers are guided to the right position by the gravitational sense, and they increase or diminish the angular bend in their stalk till the right position is attained[.] (Darwin, 1917, pp. 43–44)

Once the narcissus exits childhood, it begins do droop down. As stressed by Darwin, this is not merely a mechanical reaction, caused, for example, by the simple weight of the flower. Rather, gravitropical plants perceive the gravitational pull as an external signal which the plant continuously must interpret in order to best decide the direction of its growth. As Darwin shows, the acts of perception and decision-making is carried out, not by the flower itself, but by the sensitive tips of its roots, which function like an analogon to the brain in animals. By relating its position to the gravitational line, and by communicating between its perceptive and motile parts, the narcissus carefully adjusts the curvature of its stalk until it has positioned its tube so that pollinators may enter.

The posture is an outcome, not of brute mechanical forces, but of a cognitive process involving something like interpretation, analysis, decision-making and execution. Darwin (p. 53) consequently finds it reasonable to speak of a "psychic element in plants", and he further concludes that the joint evolutionary origin of both plants and humans allows for the possibility that there remains in the former a trace of what in the latter was to develop into consciousness as we recognize it. Darwin even suggests that mind, in this sense, may be present in all living things, and that the exceptional significance of the human mind is overstated. Psychology, then, would be a general discipline studying mental processes in all possible forms of life.

Even today, such a generalized idea of biotic cognition is considered heretical in large parts of the scientific community (cf., e.g., Alpi et al., 2007, pp. 135–136). Darwin is obviously struggling in his attempt to make place for non-human, and especially vegetal, subjectivities within the anthropocentric subject/object-oriented botanical paradigm. The mythopoeic mode, on the other hand, already harbors that space.

Returning to the myth of Narcissus, we find that it, too, provides an explanation for the plant's posture—one that evolves from the singular event: Narcissus hunches over the pool of water because he has become engrossed in its reflecting surface. Interestingly enough, the story even pays attention to the fact that this change sets in at a particular age, when the boy reaches adolescence. Furthermore, Narcissus is brought to the pond by his thirst, a biological need he shares with the flower—something that Ovid (1977, p. 153) highlights by pointing the reader to the grass growing around the edge of the pool, "fed by the water near". The two forms of life linger around the same spot for the same reason. Through such simple analogies, the poet begins to map the human onto the floral state well before the actual transformation takes place.

Next, the boy takes root. Fixated by his own reflection, he enters into the immobile state that has been associated with vegetal life at least since Aristotle. Uexküll (1922, p. 319), the Baltic German biologist and predecessor of biosemiotics, once distinguished the "rapid haste" of the animal world from the "soothing calm" of plants. In Uexküll's view, the plant is relieved from the strenuous task of hunting for food, and simply pulls its nourishment from the soil. Yet, it is evident that plants, too, struggle for their survival. Unable to roam about, they must still pursue their sustenance—be it moisture, minerals, shadow or light—through active means. Using roots, stalks, tendrils and leaves, plants probe their surroundings, gathering what they need. What may seem like a soothing calm from the human point of view, then, may very well be a constant state of low-intensity desperation.

When Ovid's Narcissus articulates his plight, he does so by addressing the trees surrounding him. They live their life on a different timescale, counting centuries rather than years. Fixed to his position like a wilting flower, he reaches out, frantically, without being able to grasp the object of his desire. Stretching out towards the water, his pouting lips even resemble the striking red brim of the poet's narcissus' corona:

Do you [the woods] in the ages past, for your life is one of centuries, remember anyone who has pined away like this? I am charmed, and I see; but what I see and what charms me I cannot find [...] and, to make me grieve the more, no mighty ocean separates us, no long road, no mountain ranges, no city walls with close-shut gates; by a thin barrier of water we are kept apart. He himself is eager to be embraced. For, often as I stretch my lips towards the lucent wave, so often with upturned face he strives to lift his lips to mine. (Ovid, 1977, pp. 155–157)

Both the myth of Narcissus, and the scientific account on the narcissus, struggle to wrest meaning out of the natural world. In so doing, they both seize upon the striking posture of the *Narcissus poeticus*, and both are directed by the salient attributes of the plant itself. Both struggle to make sense of vegetal life. It is wrong, however, to state, as historian Gay (1977, p. 92) does, that myths simply "populate the universe with beings resembling the believers themselves". Rather, they represent a universe already populated by such beings. Thus, they remain open to recognize instances of non-human will or desire in a way that may prove problematic to strict scientific discourse. What comes easy to the poet, comes at a price for the scientist.

## 5. Myth, mimesis and mimicry

A coherent attempt to bridge the gap between literature and the natural world was carried out by French intellectual Roger Caillois. For him, human activities, including aesthetic expression, follow the same principles that govern all of biological life (and the material universe at large). At the most fundamental level, natural processes like the course of the sun or the phases of the moon provide an "outer casing", or the "terrestrial conditioning", for the "myth-making faculty" of humans (Caillois, 2003, pp. 114–115). Myth becomes the symbolic negotiation between the inner drives of the biological organism and the external forces of its environment—or, in Caillois' (p. 116) words, it is "produced by the process whereby an inner necessity takes account of the outer demands and phenomena that offer, impose, or arrange matters".

The methodological basis for this approach lies in what Caillois calls "comparative biology". The historical dimension is present, however, in the idea that myth gradually has been removed from ritual practice to turn into "mere literature" (p. 120). Literature is based in the faculty of imagination, which is understood as empirical rather than a priori. As put by literary scholar Eidelpes (2014, p. 3), imagination in Caillois stems from "a direct confrontation with sensual phenomena". Literary expression, consequently, has an objective ground in that it is provoked by the thing encountered. There is a lyrical force belonging to the things themselves, and some objects engage the imaginative faculty easier than others:

Certain objects and images are endowed with a comparatively high degree of lyrical force because their form or content is especially significant. This force affects many, if not all, people, and so it seems to be, in essence, an integral part of the given phenomenon. (Caillois, 2003, p. 69)

Lyrical objects work on human imagination directly in that they appeal to certain biological conditions—affects, impulses, drives—related to the human organism. As one of his main examples, Caillois refers to the praying mantis, around which an abundance of myths have evolved across various cultures. One reason for this is said to be its peculiar bodily configuration which, by resembling the human body, invites "some obscure sense of identification" (p. 73). Caillois is careful to point out that this relies less on the human projecting his way of being onto the mantis and more on the recognition of a mutual biological predicament. Such instances of recognition show how the human is submerged in, rather than divorced from, the natural world:

Man is an animal like the others, his biology is that of the other living beings; he is subject to all the laws of the universe; those of weight, of chemistry, of symmetry and all the rest. Why suppose that to claim to find elsewhere the characteristics of his nature, or, on the other hand, to rediscover in him the laws that one sees operating in other species, is necessarily cranky, delusion or a mirage? (Caillois, 1964, p. 16)

As indicated by Krampen, plants, too, may be forceful lyrical objects in this sense. In Ovid, the myth of Narcissus is prompted by the flower's posture, and in his plight, we recognize a biological condition shared by humans and plants alike—desire, need, desperation, mortality.

For Caillois, however, imagination is related to disorientation. To encounter an external force that imprints itself directly on human imagination may be a terrifying experience in that it blurs the line between self and environment. In this sense, aesthetic expression follows upon a sense of being invaded. This is underlined by comparing human mimesis to the mimicry of insects. For Caillois (2003, p. 99), mimicry is not a defense mechanism but rather the horrific experience of being consumed by ones' surroundings; one loses oneself in material space and undergoes "a disorder of spatial perception". Mimesis as well as mimicry, then, relates to the sense of the individual self suddenly dissolving, and may be likened to the experiences of the schizophrenic: "He feels that he is turning into space himself—*dark space into which things cannot be put.* He is similar; not similar to anything in particular, but simply *similar.*" (p. 100)

In this violent assimilation, the individual feels his sense of personality and vitality diminishing and turns into a lesser state of life: from human to animal, from animal to vegetal. Caillois (p. 101) points out how, among mimetic insects, this only occurs "*in a single direction*: the animal mimics plant life". Interestingly enough, this turns aesthetic endeavors into a kind of vegetal becoming.

The poet becomes ensnared by the outside, he loses hold of himself, and dissolves into the vegetative state of his surroundings. Art as such becomes the symbolic space for the representation of this process—a point Caillois makes with reference to the prose of Gustave Flaubert and the paintings of Salvador Dalí.

For Caillois, then, literature becomes the imaginative response to a sense of spatial and material invasion which disrupts the fragile distinction between self and world, human and non-human. The poet is ensnared by the lyrical objects surrounding him, and his drives and desires intermingle with theirs. Among these lyrical objects we find plants, and the mimetic experience as such is a form of vegetal becoming; in it, one's biological state is reduced to the affects one shares with "lesser" forms of life. Works of art represent this experience.

## 6. Becoming honeysuckle

Norwegian author Johan Borgen's 1948 short story "Kaprifolium" ("Honeysuckle") provides an example of mimesis as the disruption of the subject/object divide. The brief story is a poetic and hallucinatory account of a young boy turning into the eponymous plant. Thus, it represents a graft or cut between human and plant phenomenology.

The story begins during a summer afternoon, with the unnamed boy crouching behind a currant bush, "waiting for something to happen" (Borgen, 1961, p. 43). From the start, he is situated among vegetal lives: the bush, the grass, white clover being visited by bumblebees. Like Ovid's Narcissus, he is also associated with the slow temporality of the surrounding trees, here the tall and venerable lindens that parry the summer breeze according to their "old wisdom" (p. 43). By detailing how the entire scene changes as the sun begins to set, Borgen then demonstrates how humans as well as other animals and plants all are "terrestrially conditioned" by the same external force, e.g., the diurnal rhythm of the sun. At this time of day, the parents of the family go inside to rest whereas the children, on the other hand, run outside to swim while "screaming like gulls over a shoal of herring" (p. 43). The likeness to animals is not limited to poetic simile. Rather, the author performs a kind of comparative biology by portraying how people and animals all share the same environment and respond to it in similar ways:

It is the mysterious hour when the grown-ups rest because they are on vacation, when the fish set off to lie boat by boat at the farthest end of the bay and the voices from one boat to another become audible from a long distance, and golden youth and children plunge from the cliffs and crawl like partly submerged submarines in parallel lines toward the edge of sea, only to lie still in the warm afternoon water, belly side up like dead fish. (p. 43)

The currant bush, in its turn, responds to the decrease in temperature by slowly bending its leaves. The crouching boy is particularly receptive to his vegetal surroundings, and for him, the significant shift occurs as the floral fragrances intensify during the afternoon. The air is filled with the scent from green plants, fresh soil and ant piss. Most notably, he is overcome by the smell from the honeysuckle growing along the wall of the house. Like the narcissus, the honeysuckle is known for its intoxicating smell, and together with its phytochemically induced effects on humans, this is another of the evident features of plants that evoke the attribution of meaning.<sup>1</sup>

The smell is described as "sweetly acidic", and it "forces" its way in "behind" the boy's senses (p. 44). Thus, his transformation begins with a dizzying sense of invasion. Caillois (2003, p. 99) describes material space as a "lure", and in Borgen's story, the boy being invaded by floral fragrances is likened to a fish caught in a net. As a result, he is overtaken by an inexplicable desire to climb the trellis, all the way up to the top where "a few lonely honeysuckle snouts confusedly sniff up in the air where there is nothing else to cling on to" (Borgen, 1961, p. 44). By providing the plant with a snout, Borgen may be accused of zoomorphizing it; yet, this is an efficient way to emphasize the plant's active behavior. It is not the plant's fault that we only grant animals the ability to explore space. The honeysuckle is a climbing vine that moves by twining its stem around

the objects it finds in its surrounding. By slightly bending its shooting tip in a clockwise direction, according to a spiraling movement which Darwin and Darwin (1880) termed *circumnutation*, it constantly probes the close environment for support. Such dynamic acts of exploration may well be likened to a snout sniffing the air.

The boy is caught by the plant's blind desire to climb, and like the plant, he is unable to explain why. Borgen highlights the non-human state of the boy by comparing him not only to a fish but also to a pollinating insect and a nimble monkey. His ascent, then, mimics the pursuit of the plant itself:

There was a dry creaking in the lattice upon which he rested, and he felt a lath yielding under his weight. Slightly, he moved to the side and arrived under the edge of the porch, in the direction where the trellis reached its highest point.

As he had climbed another six panels, his hands felt him reaching the part of the trellis which had been put up last spring. Certainly, it must be steadier, and not as frail. If it were to break under his feet, he could just hang from his arms. He looked down and the vertigo felt like lust. [...] The flowers were cool and somehow on the move, like himself—always climbing, higher and higher. (Borgen, 1961, pp. 45–46)

From an interpretational point of view, it would seem impossible to translate this climbing desire into the semantic content of orientational metaphors, such as "happy is up" or "good is up" (cf. Lakoff & Johnson, 1980, p. 15). Rather, up is up, in a literal sense—it is climbing for climbing's own sake. The boy's compulsion is presented as a kind of pre-subjectivized state of affect, where joy cannot be separated from sadness, pleasure from angst, or triumph from vertigo. Just like the impulse of his friends to plunge into the water, this state is related to what Caillois (2001, p. 44) terms *ilinx*, or the desire of the organism "to temporarily destroy his bodily equilibrium, escape the tyranny of his ordinary perception, and provoke the abdication of conscience".

Is there a vegetal sense of madness or vertigo? As stated, Francis Darwin detailed how gravitropic plants are able to grow straight because they perceive the gravitational pull of the Earth. When the plant finds itself out of synch with this vertical line, for example by having been knocked over in its pot, it tries to curve its growth to regain its position. As Darwin showed, perception and curvature take place in different parts of the plant. In a particular grass, it is the tip that perceives gravity while growth occurs in the stem. By fixing the tip in a horizontal position, Darwin was able to convince a seedling that it needed to correct itself into a vertical position. However, since the tip remained fixed, whereas the rest of the plant remained free, in a general inversion of its normal state, the plant started to curve frantically, and literally spiral out of control. (Figure 1) In this instance, growth enters into a panicked state where the plant tries, but is unable to, navigate space in a satisfying manner. In Darwin's (1917, p. 38) words, the plant is "discontent", and unable to achieve a state of satisfaction.

In "Kaprifolium", the desire to climb is expressed like a vegetal drive flowing through the boy's body without ever fully forming into the conscious experience of a human subject:

He was caught by this net of honeysuckle, by a fragrance upon which he rested and from which he was unable to tear away. The lust rose in him and it disseminated from his olfactory senses to the very skin of his body. He could feel it now: the scent of honeysuckle was perceived by his hands and knees, by his crotch. His entire body could smell it, could feel the honeysuckle scent sticking like a sweetness within the muscles under his skin, and tie them together in delightful convulsions. This was anxiety and triumph at once; intangible scent and delightful touch; vertigo and the anticipation of falling coinciding with the safety of being carried. (Borgen, 1961, p. 46)

For a slight moment, the boy passes over into a radically non-human state; he becomes one with the tall trees; experiences a heightened desire to "become one with the plants"; and, finally, even

Figure 1. Two illustrations of plant vertigo (from Darwin, 1917, p. 50).





"becomes honeysuckle" (p. 47). Now, the vegetal outside invades him in a physical, and more sinister, way, as the vines engulf him from all directions. The flowers creep closer and pushes themselves into his nostrils, filling "his entire nervous system with a numbing scent" (p. 48). As a result, he loses sense of both time, place and identity, and undergoes what Caillois (2003, p. 99) calls depersonalization through spatial assimilation: "the living creature, the organism, is no longer located at the origin of the coordinate system but is simply one point among many". Mimicry becomes a process of self-annihilation, of becoming inseparable or "simply similar" in a terrifyingly weird and alienating sense.

At this point, the family have begun to look for the boy, but they are unable to locate him since he has vanished into the greenery. The boy faintly recognizes the "deep" voice of his father and the "bright" voice of his mother, but he is unable to make sense of the impressions: "He knows the situation, but he does not understand it." (Borgen, 1961, p. 48) As he hangs from the trellis, which now cuts into the limbs of his body, he feels something like pain but is unable to understand or act upon the sensation. While drifting in and out of consciousness, he also drifts in and out of biological forms of life: "Has he always been honeysuckle, but at times—in brief flashes—at the verge of becoming human?" (p. 48) Finally, he leaves subjectivity behind to truly become one with nature:

All of them. This is what he experiences under the yoke of exhaustion. No longer honeysuckle. Not fish. He is *all of them*. He possesses the wisdom of all, of infinity and of one's own incapacity. He suffers this new experience as a confirmation of what he must have always known: at first, a vertiginous delight bordering on anxiety that belongs to the body; and then, an unbounded desolation that belongs to the mind. (p. 49)

This horrific and violent experience brings with it an awareness of "humanity's risky position within a whole" (p. 49). What the boy suffers is the dismantling of the subject/object divide. Through metamorphosis, he does not only experience what human and plant have alike but also the radical difference of what Marder (2013, p. 162) terms "ontophytology", that is, a form of being in the world that revolves around non-identity, since the plant is both inseparable from its environment and lacks a clearly delineated self. When the boy finally is rescued by his parents, and his sense of selfhood is restored, this knowledge fades away, and leaves but a trace. As his consciousness "slowly returns", it also "shrinks away", and from having included everything, from flowers to fish to the water itself, it dwindles, gradually, until all that is left is "a boy in a bed who wakes up from the fever and has but a hunch of his loneliness" (p. 49). As stressed by Caillois, becoming one with nature does not only involve a harmonious sense of belonging, but also the traumatic experience

of being invaded and devoured by otherness, and becoming none. It is becoming dark space, or "simply similar".

In Borgen's "Kaprifolium", the human protagonist mimics the vine's blind desire to climb upwards, not as an active choice, but as the result of spatial invasion; and in the process, he experiences the absolute otherness of non-human being. This desire is close to madness or vertigo; it is the desperate attempt to satisfy an inexplicable need while trying to navigate one's surroundings without being able to rely on human conceptions of time, space, or identity. Becoming plant, in this story, does not mean entering into a state of blissful serenity. Rather, it is being devoured by pure affect of a strange and foreign origin, while also being unable to understand one's bodily drives. In this way, the boy's metamorphosis into the non-human plant also represents a nonhuman state at the heart of biological being.

#### 7. Concluding remarks

My focus has been on mythopoesis or literature as a form that affords explorations in mythic thought. This means that my interest has been less in literature as fiction or the a priori construction of counterfactual narratives and more in literature as a way of exploring and extrapolating upon the things, beings and forces we encounter in our environment. Physical phenomena compose challenges to our human imagination, and literature—used here in a broad sense, synon-ymous with poetry, fable, et cetera—provides an open, imaginative and speculative domain for human sense making as we try to come to grips with the world around us. In this "mythic" aspect, literature shares its purpose with scientific discourse—but where science strives towards universal, mechanistic, law, mythopoesis works through the construction of complex images and compelling stories, fleshing out the wills and desires of the world. Through its peculiar affordances—such as personification or metamorphosis—literature is able to accomplish what still proves difficult for rational discourse: to envision non-human subjectivities, or material agencies, in a way that cannot be reduced to blunt mechanistic causality.

Consequently, I have suggested that the literary mode is specifically suited for picturing nonhuman life in a way that allows us to think non-human cognition as well as appreciate the nonhuman aspects of ourselves. Reading Ovid's take on the myth of Narcissus, I suggested that, by combining it with the myth of Echo as a speculative extrapolation on the phenomenon of acoustic reflection, the poet invited us to perceive the story as an allegory of plant life. First of all, significant elements of the myth—Narcissus staring at the pond—seem prompted by the typical posture of the Narcissus poeticus flower. The story then provides a vision of plant desire by showing how the emotional fixation of the boy coincides with his physical fixation; like a plant grounded by its roots, he is forced to reach out in an immobile state without being able to grasp the object of his desire. Ovid even calls attention to the fact that plants and humans share common biological needs by stressing how they both are "terrestrially conditioned" (to use Caillois' phrase) by a joint environment where they actively must seek out the basis for their sustenance, manifested in the story by the water of the pond.

Then, in Borgen's short story about the boy and the honeysuckle, we saw how humans, too, are governed by inexplicable desires coursing through many forms of biological life: the blind lust to climb or plunge or swim or fly, not in search of anything in particular, but as a necessary compulsion. Desire, in this sense, lets joy intermingle with anxiety, and it always risks spiraling out of control. Once more, we see how different lifeforms are conditioned by the same terrestrial circumstances, as they must navigate and relate to the diurnal course of the sun and its corresponding shifts in temperature and light. But in Borgen's story, plants also retain a sense of radical otherness, and by transforming into the honeysuckle, the boy enters into an alien state of nonhuman being which Marder terms ontophytology. Here, metamorphosis becomes the vertiginous moment when the human finds himself being part of, rather than separated from, nature—an unspeakable epiphany that entails both ecological awareness and menacing madness.

Today, we notice a growing dissatisfaction with the strict human subject/inanimate object distinction—not least apparent in the philosophical turn towards new materialism, neo-vitalism, posthumanism, actor-network theory, and object-oriented ontology. Whereas Darwin's idea of plant psychology or the root-brain hypothesis may still seem heretic, there is a growing tendency to equate cognition with life itself. Influential biologist and philosopher Humberto Maturana (Maturana & Varela, 1980, p. 13) famously stated that *"living as a process is a process of cognition"*, and, along similar lines, evolutionary biologist Lynn Margulis and science writer Dorion Sagan (1995, p. 122) concluded that consciousness, in its simplest sense, "is an awareness of the outside world". As Shaviro (2014, p. 88) summarizes the state of affairs, there is, today, "good scientific evidence that *all* living organisms including such brainless ones as plants, slime molds, and bacteria—exhibit at least a certain degree of sentience, cognition, decision making, and will". It is in this recognition that the poets forestalled the men of science.

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#### Author details

Erik van Ooijen E-mail: erik.vanooijen@oru.se ORCID ID: http://orcid.org/0000-0001-6170-0666 Associate Professor in Comparative Literature, HumUS School of Humanities, Education and Social Sciences, Örebro University, Örebro, Sweden..

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#### Note

1. Roman naturalist Pliny the Elder (1856, XXI:75) states that, because of its dulling effect, the narcissus was named from the Greek word for torpor.

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