The grammar of action in the critical zone[1]

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Introduction

How might we speak of action in the critical zone, the near-surface layer of the Earth where most living things reside?[2] This region of the Earth's extended body is a complex, dense world, filled and folded, crowded with entities and processes, movement and transformation, activity and signs, whose powers and conditions of existence are hard or impossible to disentangle. The character of Gaia and the critical zone seems not just to distribute agency but to alter its very condition of possibility; we humans act within this raucous realm, and only precariously subdue its clamour into quiet lawfulness. But, as creatures of the critical zone, we also speak within and from it – and this very fact can help us express the texture of action amongst humans and non-humans here.

In order to find linguistic resources that will help us unpack the mystery of action we will have to dig down into some of the deeper layers of the living archive of our language. This digging and rummaging must be 'deep' in a temporal sense, for there have been changes in our languages that have made it harder to speak about action in the critical zone; but it must also be deep in another sense, since we will have to reach down into the taken-for-granted machinery of language. It is arguably more in its grammar than in its lexicon that the fabric of language has frayed – and it is in grammar that the closest affinity with relations between entities in the critical zone will be found. With our grammar, more than with our names, we can reach out beyond the animal, to plants, fungi, dust and sand, communicating about the arising of action in the critical zone by seeing how our grammar communicates with it. But first, let us stay in the realm of the lexical, and explore the very naming of action itself.

Initiating and bearing

What do we do, when we name something an agent? The English words 'agent', 'act', 'action' all derive from the Latin verb *agere*[3] - but as Hannah Arendt points out in *The Human Condition,* in both ancient Greek and Latin there were in fact two words used to designate the verb 'to act'. In Greek there was *archein* ('to begin') and *prattein* ('to achieve, to finish'), and in Latin there was *agere* ('to set into motion') but also *gerere* ('to bear, or sustain').[4] Although the difference between the two words in these dyads is formally one not of syntax and grammar but of semantics (that is, they have come to refer to different things in the world), they are so fundamental to the way we think that their descendants shape the very grammar of language around them.

In classical times, these two were seen as mutually dependent: a beginning perhaps made by a single entity, and the achievement in which many join by 'bearing', 'finishing' or 'carrying out' the enterprise, bringing their own powers to the task. For how can something truly be said to have begun, if the conditions for its fulfilment are not in place? But slowly, as Arendt says, a crucial division opened up in European thought about agency and action, a split surely as consequential as that between nature and culture that Bruno Latour describes as the modern constitution.[5] *Agere,* and the Greek equivalent *archein*, came to mean 'to lead', giving us the Western masculinist political imaginary of a ruler who rules alone, an 'unmoved mover' who rules because he is alone, who rules through his own isolation and is isolated because he rules, and the processes captured by words such as *gerere* and *prattein* became seen as the mere following of orders, the effects of a cause.[6]

Yet within the critical zone this isolation is always an illusion, as it was in the case of Prince Kutuzov in *War and Peace*.[7] As Arendt puts it, 'the actor always moves among and in relation to other acting beings … he is never merely a 'doer' but always and at the same time a sufferer'.[8] Amongst the multiple agencies of the Earth, there is no simple division between initiator and bearer, between leader and follower – and as we shall see later, between active and passive. In the critical zone we are in the domain of Michel Serres' helmsman whose will 'acts on the vessel, which acts on the obstacle, which acts on his will, in a series of circular interactions';[9] when we see an action, if we must cry '*agere!*', we should also cry '*gerere!*'.

Fig. 1: Herbert James Draper, The Steering Oar, study for The Golden Fleece, 1904. Chalk on paper, 36 × 43 cm. In steering a boat, an oarsman's gestures are shaped as much by the water as by the desired course.

The imperfective

But let us move our attention away from nouns and verbs, and focus more directly on the grammar that we use to talk about processes and activities. A good place to begin – if beginnings there can indeed be in the critical zone – is the grammatical 'aspect' known as the 'imperfective', which various languages use for ongoing, uncompleted, habitual or repeated actions. In English we do not really have a proper imperfective; the closest is the past progressive or continuous: for example, we say "she is/was reading a book" for ongoing action, contrasting with the perfective "she read a book" for a completed action.

Some activities we can describe in either the perfective or the imperfective, and the shift of perspective involved in that choice is interesting. If we describe an action in the perfective – 'you read this book' - the action itself becomes, as it were, a closed book: we view it from the outside, and especially from the end looking back, and the inward structure of reading is

occluded. But when using the imperfective – 'you were reading this book' – we seem to enter into the activity. The process becomes something that has an inner structure and texture, and can even serve as a surrounding milieu in which other actions can take place – for example we might say 'while you were reading this book <*imperfective*>, a thought occurred to you <*perfective*>'.[10] We can see how easily the imperfective takes on some of the complex, 'nested' feel of the critical zone.

The very name 'im-perfective' should not go unremarked; its negatory prefix is revealing, in that it suggests that this aspect is somehow derivative of and subsidiary to the perfective. The Polish word for the 'imperfective' aspect is also negative: '*niedokonany*' – 'not finished' or 'not accomplished'. But these names seem to work against a deeper truth.

We can clarify this through the distinction between *energeia* and *kinesis* that Aristotle makes in his *Metaphysics* and *De Anima*.[11] A *kinesis* is an activity with an end product, such as travelling to Berlin, baking a cake, or writing a book. During the activity it is all potential, as the end has not been actualised. Completing the action – for example taking a cake out of the oven, and seeing that a potential cake has turned into an actual cake – manifests the actual but destroys the potential, and thus destroys the purpose of the activity, which comes to a natural finish.

But an *energeia* is a kind of activity with a different temporality. Examples would include things like parenting and friendship, which are not a merely a means to an end but themselves confer value on life: there is never an end-point when they come to a natural finish and become pointless. In English, the difference between the two is revealed by the lexical choices we make. You can 'finish' a *kinesis*, by 'completing' the activity and contemplating its result; but if an activity is an *energeia* it never comes to a finish in and by itself, so you can only 'stop', 'end', 'halt' or 'terminate' a period in which you are actively engaged in it.

A *kinesis* can also be described in the imperfective, but the *energeia* has a special relationship with it. And this can help us understand the ambiguity within the names 'imperfective' and '*niedokonany*'. A *kinesis* – that is, an action that is a means to an end – is incomplete during the action itself, exactly *because* it is capable of being completed. But an *energeia*, something we do as an end in itself, is arguably complete and

(accomplished) *all the way through* – and that is because it can *never* be fully completed or accomplished.[12]

We need to overturn our dominant hierarchy, and see *energeia* as the paradigm form of activity rather than having something lacking when contrasted with the means-ends, achievement-oriented activity of *kinesis*. In *kinesis*, actualization and potentiality are incompatible – they cannot exist at the same time. But, as was the case with any unqualified separation of initiating and carrying out, this is a temporary deviation from the steady state of *energeia*. In *energeia*, potentiality and actualization can – indeed must – coexist.[13] So perhaps the name for this grammatical aspect should not be 'unfinished', 'uncompleted' or 'imperfect' but actually 'unfinishable and thereby complete and perfect'.

The human animal body – mobile, with a front-back asymmetry – seems almost to bias us towards *kinesis*. The way that our powers of locomotion, manipulation and perception are distributed around our bodies incline us to imagine time like a spatial dimension, stretching out in front and behind us.[14] We 'go forward', we are 'held back'; or we imagine time 'going past', like another animal body – what we experience first we say is be-*fore* (i.e., is at the 'front' of time's body), then is *aft*-er (at the 'back').[15] We tend to think of events as objects that we encounter and leave be-*hind*.

If we are fully grasp *energeia* as the dynamic coexistence of potential and actual, perhaps we should attend to plants. The metabolism of animals allows them to have separate rhythms of eating, digesting and expending energy, so that they can hold the actual at bay while they engage in compound actions aimed at a distal goals.[16] For plants, by contrast, nourishment, growth and activity are continuous and potentially infinite, never satisfied or pausing or giving space for other pursuits; and the plant in its endless repetition of leaf and leaf, and bud and bud, is so very different from the heroic human for whom repetition is tragic failure.[17] The living plant is neither a *state* (in which there is pure actuality and no potentiality) nor an *activity* aiming at an *achievement* (in which pure potentiality eventually gives way to pure actuality). The plant is pure *energeia*, with potential and actual always coexisting, and in its presentation is an intimation of the mystery of life itself, in which being and becoming are always inseparable.[18]

Fig. 2: A plant, in which growth and form are continuous and potentially infinite, is pure energeia, and radically open to the temporalities of light and rain. Photo by Faris Mohammed on Unsplash.

The middle voice

Another kind of grammatical relation that can help us articulate the structure of becoming in the critical zone is that of linguistic 'voice', or 'diathesis'. A voice is a particular set of relationships between the action that a verb describes and its associated nouns – the subject, object, and so on. Modern English basically has two voices – the active voice, in which the subject is the active element – 'I pick up the pen' – or the passive voice, with a passive subject – 'the pen is picked up (by me)'. But note what the active and passive voices agree on: both of them divide the world starkly into active and passive elements, agents and patients, initiators and bearers.

The middle voice, which occurs in ancient Greek, Sanskrit, Hebrew and some other languages, does not divide the world in this way – it emphasises that most of what happens in the world does not involve a heroic agent imposing their active will on a passive environment, but is a collaboration, an interaction, that entangles the entity in its milieu. And in those languages whose voice main contrast is not active–passive but active–middle, even the

active voice is more interesting, not diametrically opposed to the middle but often ready to shape-shift into it.[19]

In the middle voice, the subject is not an agent *outside* the process represented by the verb, but *inside* it, and affected by it. Emile Benveniste tries to capture this with lexical choices: the subject is the 'centre' or the 'seat' of the process; 'he achieves something which is being achieved in him'.[20] Homer often used the medial form when writing about the exploits of the heroes of his epic poems, as if they feel themselves 'immersed in the action in such a way that, at least at times, "doer" and "done to" become inadequate categories, drawing a sharp line, legislating a boundary, where none is felt'.[21]

In many languages, a middle-voice effect was also sometimes achieved by the use of 'impersonal' constructions – verbs without a subject – especially to describe processes or affects that seem to 'befall' someone. Instead of saying '*mi miseret*' ('***I*** feel compassion') or '*mi paenitet*' ('***I*** am sorry'), for example, a Latin speaker might say more by saying less: '*miseret*', '*paenitet*'.[22]

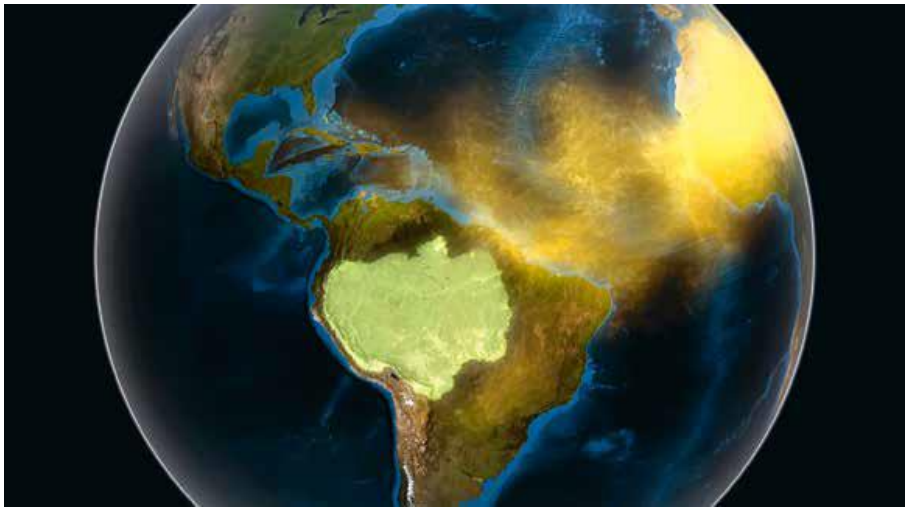
But in the centuries since, as Indo-European cultures and languages evolved, we seem to have lost our voice. As Gonda put it, with the slow decline of belief in 'gods, demons and impersonal powers affecting men and other beings with fear, panic, love, longing', humans started instead to describe these experiences as internal processes.[23] Verbs in which middle voice or impersonal forms had dominated started shifting to the stark oppositions of active and passive, in which the subject became seen as exterior to and unchanged by the process.

Yet the middle voice still seeps unbidden into our everyday ways of seeing and acting in the critical zone. 'Seeping' in the last sentence is a medial process – as would be a thought 'occurring to you' while reading this book. Think also of a conversation. 'I am talking to you' is active voice; but 'you are listening to me' is kind of middle voice: you are doing something, but in a way that opens you up to alterity, to the wider situation; in such activities we become more like plants, whose embeddedness in place confers a similar 'hetero-temporality', since their time is not their own but is oriented to the 'other' of light and rain and seasons.[24]

Recall our two action verbs, *agere* ('to initiate') and *gerere* ('to bear'). *Agere* seems to require the active voice; but verbs based on *gerere*, such as 'digest' and 'gestate', are more middle in tone. And the keywords that Lisa Baraitser uses in her book on 'enduring time' – waiting, staying, delaying, enduring, persisting – as well as having that gerund form ending in '-ing', that suggests the imperfective and *energeia*, are also weighted towards the middle voice, neither passive (having something done to you) nor active (doing something where you are in control).[25] Yet the reason Baraitser had to write a book about them, and gather them together as 'enduring time', is surely that we have forgotten how fundamental the middle voice is to human experience – and I would say more-than-human experience.

Across history, the most common uses of the middle voice seem to have been to describe emotions and moods, but also the *weather* – and this is surely no accident. Our own giving voice from the midst of our emotions and moods naturally draws on weather words, because of the affinity between the two.[26] Besides, in weather events, entities such as falling snowflakes or gusts of wind that might be said to form the 'seat' or 'centre' of the event cannot be separated from the event in which they participate, which seems to prompt us to use the middle voice. Some languages such as Finnish use atransitive 'impersonalia' rather like the Latin examples above to describe weather – with just a verb, 'rains'; others like English use dummy subjects such as 'it' to half-conceal the fact no separate agent is doing the raining. For others still, such as Malagasy, Udihe or Palestinian Arabic, it is the day or the village or the very world that is 'raining' or 'shining'.[27]

But some forms of *motion* can also call forth the song of the middle voice, especially the motion of drifting and floating things, such as air-borne plant seeds, spores or dust, sediment washed along a river, or rafts tugged by currents and waves. Drift is the motion of solid bodies moving through moving fluids, such that the motion is the result of the play between the body and its surrounding medium.[28] And to describe drifting and floating we naturally adopt the middle voice, for though a drifting seed is not forced to flow (passively) in lock-step with the surrounding fluid, neither is it (actively) in control of its actions. Attending to how things drift in this way can help us make sense of forms of action and thought that do not power themselves heroically to an end, that are entangled in their conditions of possibility such that it is impossible to say who or what acts.



Figs. 3 a-c: Phosphorus-rich dust from the Western Sahara drifts across to the Amazon in a process best described in the grammatical "middle voice."
Credit: NASA's Goddard Space Flight Center

But just because drift is a phenomenon of the middle voice, of the play between body and environment, does not mean that drift cannot be put to work. Both living and non-living entities and systems can engage in 'driftwork', in which drift is subsumed within a wider set of purposes or functions.[29] Drift built our world, pushing up mountains, concentrating minerals, laying down and building up sedimentary rocks and soils. Things without limbs – plant seeds, fungi spores, Saharan dust – use drift to disseminate (note the middle voice). And things like us that do have limbs, with the ability to propel and to steer our bodies, can *withhold* one or both of those powers. Birds can hold their wings almost still, and drift through rising air in thermal soaring or slope soaring. Shoppers in a market place can also put drift to work, allowing themselves to pulled this way and that, to increase their chances of coming across something new, or cheaper, or better, or more alluring.[30]

And when we rest or fold our limbs – as when we are travelling on a train or bus, or sitting in conversation – we turn ourselves into a washload to be carried along by a stream, not exactly like the currents around us, but in the middle voice and imperfective aspect of absorption. In creative thinking or discoursing we allow our mind to drift, to cross the streamlines of directed, purposive thought, so that we can find new possibilities through the middle voice of driftwork.

Conclusion

In our quest to see how language might help reveal the 'grammar' of action in the densely folded critical zone around the Earth's surface, we have touched on both semantics and syntax. The treasures we have found have led us on a stroll through the *umwelten* of animals and plants, seeds and dust, rain and snow.

In asking how we might properly name action in the critical zone, we were led from acting and initiating, to bearing and carrying out, and the impossibility of ever finally separating the two. Turning to grammar, while we were exploring the imperfective aspect we found ourselves considering *energeia*, processes in which potential and actual coexist in constant dynamic relation. And in adopting the middle voice, in which the subject is neither the active controller nor the passive recipient of a process, but is at the centre of it and being transformed by it, we perhaps started to glimpse how we might ourselves undergo a transvaluation.

For surely we need to appreciate the mode of being characteristic proper to *energeia*, the imperfective and the middle voice that we share with our fellow entities of the critical zone – and to see this mode of existence not as a sign of lack, privation or regression, but as more fundamental. Such a revolution of thought would share features with the medieval method of textual interpretation known as *anagoge*, in which the mind and the spirit, through attending to empirical states of affairs in a particular way, are led upwards (*agere*, again) to spiritual truths.[31] But if we are to come 'down to earth', to become terrestrial,[32] what we need now is not *anagoge* but *catagoge* – not ascent but descent, leading and carrying us not up to abstract concepts but down into the very origins and machinery of language, and not up to a singular nature but down to the multiple, entangled beings and powers of the critical zone.

Notes

[1] The thoughts in this paper have points of origin (appropriately) in two public conversations: with Bruno Latour at the *Holberg Prize Symposium 2013: From Economics to Ecology*, Bergen, Norway, 4 June 2013, and with Lisa Baraitser at *Life Forms*, Haus der Kulturen der Welt, Berlin, Germany, 25 April 2019. Many thanks are due to both of my interlocutors, to Bruno Latour also for helpful critical suggestions on this essay, and to Daniel van Olmen for linguistic fact-checking. Etymological derivations are generally from https://www.etymonline.com/.

[2] Susan Louise Brantley, Martin B. Goldhaber, and K. Vala Ragnarsdottir, "Crossing disciplines and scales to understand the critical zone," *Elements* 3, no. 5 (2007): 307-14.

[3] From the Gk *agein*, from the PIE root **ag-* – 'to drive, to move, to draw out'.

[4] Hannah Arendt, *The Human Condition* (Chicago: University of Chicago Press, 1958), 189.

[5] Bruno Latour, *We Have Never Been Modern*, translated by Catherine Porter (Hemel Hempstead: Harvester Wheatsheaf, 1993).

[6] Arendt, *Human Condition, 189*.

[7] Leo Tolstoy, *War and Peace*, translated by Nathan Haskell Dole (New York: T.Y. Crowell & Co., 1889); see Bruno Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime* (Cambridge: Polity, 2017), 40-1.

[8] Arendt, *Human Condition, 190*.

[9] Michel Serres, *The Natural Contract*, translated by Elizabeth MacArthur and William Paulson (Ann Arbor, MI: University of Michigan Press, 1995), 142.

[10] See Bernard Comrie, *Aspect: An Introduction to the Study of Verbal Aspect and Related Problems* (Cambridge: Cambridge University Press, 1976), 3-5.

[11] Aristotle, *Metaphysics*, translated by John Warrington (London: Dent, 1956); *De Anima*, translated by W. D. Ross (Oxford: Clarendon Press, 1961).

[12] Comrie, *Aspect, 18*.

[13] Jennifer Whiting, "Living bodies," in Martha Craven Nussbaum and Amélie Oksenberg Rorty, eds, *Essays on Aristotle's De anima* (Oxford: Clarendon Press, 1995), pp. 75-92, here 93.

[14] Günter Radden, "The metaphor TIME AS SPACE across languages," *Zeitschrift für Interkulturellen Fremdsprachenunterricht* 8, no. 2/3 (2006): 226-39.

[15] George Lakoff, "The contemporary theory of metaphor," in Andrew Ortony, ed. *Metaphor and Thought*, second edition (Cambridge: Cambridge University Press, 1993), pp. 202-51.

[16] Michael Marder, *Plant-Thinking: A Philosophy of Vegetal Life* (New York: Columbia University Press, 2013), 107.

[17] Ibid., 108-9, 113.

[18] Whiting, "Living bodies", 93.

[19] Emile Benveniste, *Problems in General Linguistics*, translated by Mary Elizabeth Meek (Coral Gables, FL: University of Miami Press, 1971), 146.

[20] Ibid., 149.

[21] John Peradotto, *Man in the Middle Voice: Name and Narration in the Odyssey* (Princeton, NJ: Princeton University Press, 1990), 133.

[22] J. Gonda, "Reflections on the Indo-European medium II," *Lingua* 9 (1961): 175-93, here 183.

[23] Ibid., here 192.

[24] Marder, *Plant-Thinking, 106*.

[25] Lisa Baraitser, *Enduring Time* (London: Bloombury, 2017). 'Gerund' in fact derives from the gerundival form of *gerere*, and means 'to be carried on'.

[26] Jane Howarth, "Nature's moods," *British Journal of Aesthetics* 35, no. 2 (1995): 108-20.

[27] Pål Kristian Eriksen, Seppo Kittilä, and Leena Kolehmainen, "The linguistics of weather: cross-linguistic patterns of meteorological expressions," *Studies in Language. International Journal sponsored by the Foundation "Foundations of Language"* 34, no. 3 (2010): 565-601.

[28] Bronislaw Szerszynski, "Drift as a planetary phenomenon," *Performance Research* 23, no. 7 (2019): 136-44.

[29] Ibid., 140-2.

[30] The Situationists in their *dérive* use drifting in a different way, to suspend the natural, everyday attitude, and open themselves up to other dimensions and possibilities of the city – ibid. , 137.

[31] From Latin *anagōgē*, from Ancient Greek *ἀναγωγή* ("elevation"). See Hugonis de S. Victoire, "De Scripturis et Scriptoribus Sacris," in *Patrologiae cursus completus, seu biblioteca universalis, integra, uniformis, commoda, oeconomica, omnium SS. Patrum, doctorum scriptorumque eccelesiasticorum*, Vol. 175 (Paris: J.-P. Migne, 1879), Chapter III, col. 12.

[32] Bruno Latour, *Down to Earth: Politics in the New Climatic Regime*, English edition. edition, translated by Catherine Porter (Cambridge: Polity Press, 2018).