The Anthropology of Intensity

Language, Culture, and Environment

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Conclusion: The Ecological Self

At the end of July, there was no longer enough water for all the trees.
  Despite the evidence they had seen, they were not yet angry enough to take a stand.
    When they finally began to act, it was already too damaged to make a difference.

Enough Already

The primary focus of this book has been *intensity*, loosely understood as significant degrees of salient dimensions in shared worlds. Broadly speaking, it offered a natural history of the wording and worlding of intensity among speakers of Q'eqchi', living in and around the cloud forests of highland Guatemala.

Each of its three parts analyzed a relatively shared set of interpretive resources that speakers of Q'eqchi', and most other languages, depend on: grounds, tensors, and thresholds. As was shown, such a set of resources, as a kind of semiotic commons, not only enabled speakers to judge intensities, but also to draw inferences, communicate and critique values, act effectively, experience affectively, interrelate socially, distribute agency, and both imagine and inhabit possible worlds.

Part I focused on causal and comparative *grounds*: the way people come to understand, and alter, the relative intensity of entities and events; and, concomitantly, the way people come to understand, and

alter, the sequencing of events, and the channeling of forces. Through such a lens, it took up the relation between gradients, grading, degradation, and grace.

Part II focused on *tensors*: the semiotic resources speakers of Q'eqchi' have, understood as context-sensitive and culturally salient arrays of values, for registering intensities and/or regimenting tensions. By analyzing the grammatical structure, semantic features, pragmatic functions, and social history of such values it offered a genealogy of intensity.

Part III focused on *thresholds*: particular moments (along a timeline) when the truth of a statement changes from true to false (or vice versa); and particular degrees (along a dimension) where the relative intensity of some condition makes an otherwise acceptable action unacceptable (or vice versa). It focused on replacement – which includes replenishment – as an ensemble of Q'eqchi'-specific practices, to better understand the mutual mediation of temporality, modality, and intensity.

I will now draw out some of the stakes of this analysis for a slightly wider set of concerns. Building on the analysis of similar operators in Q'eqchi', the next two sections summarize certain key functions of modal intensifiers (*too* and *enough*) and temporal adverbs (*still, already, no longer*, and *not yet*) in English. A third section brings both sets of operators together, as evinced in the three utterances that open this chapter. In so doing, it reframes certain aspects of the Anthropocene (global warming, mass extinction, and environmental mediation more generally), in terms of tensors and thresholds. The final section returns to the five ways of framing temporality that were introduced in Chapter 9. It reinterprets one key facet of the Anthropocene as a layered series of interpretive grounds, themselves signified and interpreted, or 'written' and 'read', by a radically distributed agent, *the ecological self*.

Conclusion

Modal Intensifiers

Let us return to the analysis offered in Chapters 11 and 12, but focus instead on English terms that serve (somewhat) analogous functions. While words like *enough* and *too* have a range of meanings, one particularly important role they play is as modal intensifiers. Loosely speaking, to say that *John is too sick to travel* is to say that John's degree of the dimension at issue (sickness) exceeds a certain threshold, such that he *cannot* (or *may not*) undertake the action in question (traveling). Similarly, to say that *Jane is fast enough to win* is to say that Jane's degree of the dimension at issue (speed) exceeds a certain threshold, such she *can* (or *may*) achieve the goal in question (winning).

While the meanings of such words turn on specific degrees of certain dimensions, they do so in a way that is different from more typical intensifiers like *very* and *somewhat*. In particular, we can say things like: *it is not too cold* (even though it is very cold); *it is too cold* (even though it is only somewhat cold); *it is hot enough* (even though it is only somewhat hot); *it is not hot enough* (even though it is very hot). That is, the semiotic grounds associated with modal intensifiers (say, what counts as *too cold* [to touch]) differ from the (implicitly) comparative grounds associated with non-modal intensifiers (say, what counts as *very cold* [for a winter's day]). If the latter turn on typical degrees of the dimension for the figure in question (say, colder than average, around here, in the speaker's experience), the former turn on a very particular kind of threshold: certain degrees along a dimension which, when crossed, make a formerly possible action impossible, or a formerly permissible action prohibited (or vice versa).

For many dimensions, in relation to many actions, there are arguably two distinct thresholds, such that the degrees of the dimension between those thresholds constitute an acceptability range. Take, for example, a dimension like sweetness in relation to an action like eating. If we say that something is *too sweet*, we say that its degree of sweetness is *outside*
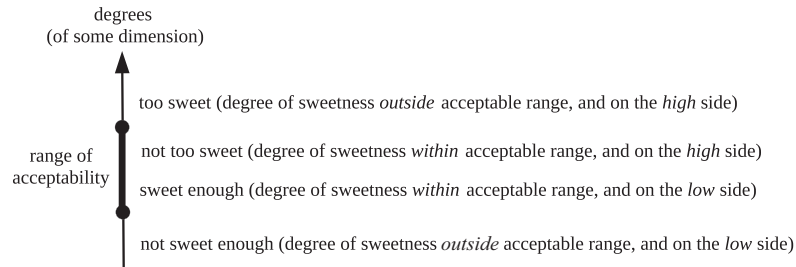
degrees
(of some dimension)

too sweet (degree of sweetness *outside* acceptable range, and on the *high* side)

range of
acceptability

not too sweet (degree of sweetness *within* acceptable range, and on the *high* side)

sweet enough (degree of sweetness *within* acceptable range, and on the *low* side)

not sweet enough (degree of sweetness *outside* acceptable range, and on the *low* side)

Figure C.1 Partitioning degrees

of some acceptable range (and on the *high* side). If we say that some-
thing is *not sweet enough*, we say that its degree of sweetness is also
outside of some acceptable range (but on the *low* side). If we say
something is *not too sweet*, we say that its degree of sweetness is *within*
some acceptable range (and on the *high* side). And if we say that
something is *sweet enough*, we also say that its degree of sweetness is
within some acceptable range (but on the *low* side). Figure C.1 repre-
sents such an acceptability range, and organizes the modal intensifiers
along it.

As seen in the above glosses, words like *too* and *enough* are inherently
modal. They indicate that, insofar as the figure is within the range of
acceptability, for the dimension at issue, the action in question is
permissible, possible, or likely. Conversely, insofar as the figure is
outside of the range of acceptability, they indicate that the action in
question is not permissible, impossible, or unlikely. Such operators
thereby link thresholds of intensity to modal notions like deontic,
epistemic, and dynamic possibility – and hence potentiality, or virtual-
ity, more generally. Such a linkage ensures that such operators are not
just content-dependent (insofar as they are sensitive to the figures,
dimensions, and actions in question, qua arguments of themselves as
operators), but also radically context-dependent (insofar as they are
sensitive to a wide range of intensity thresholds and modal grounds).
Figure C.2 summarizes such dependencies.

Conclusion

The car is too expensive (to buy):

i.   The car is expensive to a certain degree;

ii. That degree exceeds a certain threshold, or ground, which is itself dependent on:

    a.   the dimension (expensiveness);

    b.   the figure (cars of a certain kind);

    c.   the action (buying);

    d.   and various other aspects of context:

        A.   the stance of speaker;

        B.   the identities of, and/or relations between, the participants;

        C.   the situation/world in which they find themselves;

        D.   various norms, ideals, models, rules, regularities pertinent in that world (and thereby projectable by such participants);

        E.   and so forth.

iii. Because of such an excess, in the context of such (projected) regularities, the car:

    a.   *cannot* be bought (e.g., one does not have enough money to buy it);

    b.   *may not* be bought (e.g., one is not permitted to buy it);

    c.   *should not* be bought (e.g., it would be unwise, or undesirable, for one to buy it);

    d.   and/or is *unlikely* to be bought (e.g., it is not probable that one will buy it), (where precisely which modality is active is context-dependent).

Figure C.2 Content- and context-dependence of modal intensifiers

Temporal Operators

Let us return to the analysis offered in Chapters 9 and 10, but focus instead on English phrases that serve some somewhat analogous functions. A temporal adverb like *no longer* may be understood as a two-place predicate: one argument is the proposition within its scope; and the other argument is a reference time (or event). Recall our discussion, in Chapter 10, of Loebner's (1989) analysis of similar operators in German. For example, if I say that John was no longer awake when I arrived, I presuppose that he was awake before I arrived, and I assert

that he was not awake when I arrived. I thereby highlight the fact that a change in state occurred: his movement from awake to asleep, as two salient phases linked by a kind of threshold – such that a phase transition occurred sometime prior to the reference time. Other operators within this set have complementary semantics, as Figure C.3 shows.

Given the fact that a narrated event (or proposition) may have both an onset (transition from false to true) and an offset (transition from true to false), we can think of these four operators as partitioning the dimension of time into four domains related by two thresholds. Rather than focus on degrees of a particular dimension (sweetness, temperature, etc.), as per the preceding section, we focus on moments along a particularly important dimension (time). See Figure C.4.

Not only do such temporal operators relate to the modal intensifiers in terms of the thresholds and acceptability ranges they project onto particular dimensions, they also relate to them as similarly structured

(1) 'already'	(2) 'not yet'
$<=\|=$ 'onset of E^n is before E^r'	$\|<==$ 'onset of E^n is after E^r'
(3) 'still'	(4) 'no longer'
$=\|=>$ 'offset of E^n is after E^r'	$==>\|$ 'offset of E^n is before E^r'

Example: When I arrived at the house (= E^r), he was still (no longer, not yet, already) drunk [= E^n].

(i)   **speech event** (E^s): the time (moment, duration, interval) when the utterance was made

(ii)   **reference event** (E^r): the time I arrived at the house (i.e., first clause)

(iii)   **narrated event** (E^n): the time he was drunk (i.e., second clause)

   $==$ narrated event; $>$ offset of narrated event; $<$ onset of narrated event; $\|$ reference event.

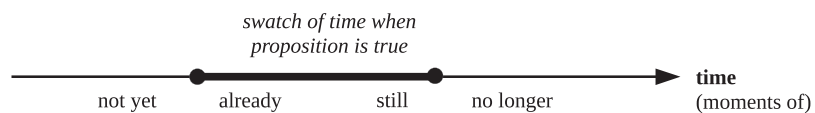Figure C.3 Temporal adverbs and phase transitions

Figure C.4 Partitioning time

dual groups: just as 'still alive' is more or less equivalent to 'not yet dead', 'too cold' is more or less equivalent to 'not hot enough'; and just as 'already old' is more or less equivalent to 'no longer young', 'tall enough' is more or less equivalent to 'not too short'. From a somewhat abstract perspective, then, such groups of operators have very similar semantics. Not just dual groups, they are also duplex categories – in particular, *shifters*, and hence a kind of sign whose meaning is inherently context-dependent.

We will now use the foregoing analyses to examine utterances in which both kinds of operators are present (modal intensifiers and temporal adverbs); we will move from the semantics of such operators to their pragmatics; we will link such dynamics to nonlinguistic practices and affective processes; and we will return to concerns that are tightly linked to the Anthropocene, as a particularly tense and timely coupling of temporality and intensity.

The Chronotopology of Intensity

Each of the three judgments that opened this chapter involves three events, or intervals, located at various points in time. Focusing on the third judgment, there is the time the judgment was made (the speech event), the time someone began to act (the reference event), and the time something was too damaged to make a difference (the narrated event).

Focusing on the second clause of this third judgment, the referent of 'it' is the figure (say, the planet Earth, itself the ur-ground for an infinity of other figures and, as far as we know, all figurations). The referent of 'damaged' is the dimension (say, some generalized notion of harm or degradation, as applicable to the figure, that can occur to various degrees, and hence with greater or lesser intensity).

An adverb like 'too' indicates that the degree of the dimension at issue, for the figure in question, is outside of some acceptable range of

degrees. As we just saw, such a range of acceptability is dependent not only on the figure and dimension in question, but also on the stance of the speaker and the standards of some collectivity (where such standards and stances are themselves dependent on some causal model of the world, and/or some intensity imaginary more generally).

An adverb like 'already', as it occurs in the second clause, indicates that the onset of too much damage occurred before the time of action. Such an adverb, then, relates the narrated event to the reference event (onset or offset, before or after), just like the tense (or modality) of the first clause relates the reference event to the speech event (earlier or later, actual or counterfactual).

Figure C.5 shows a salient portion of the possibility space of such judgments, and is thus applicable to a wide range of figures, dimensions, events or intervals (reference, speech, narrated), stances, standards, collectivities, models, and imaginaries. Indeed, somewhat eerily, across this incredibly wide range of (possibly) possible worlds, while such a
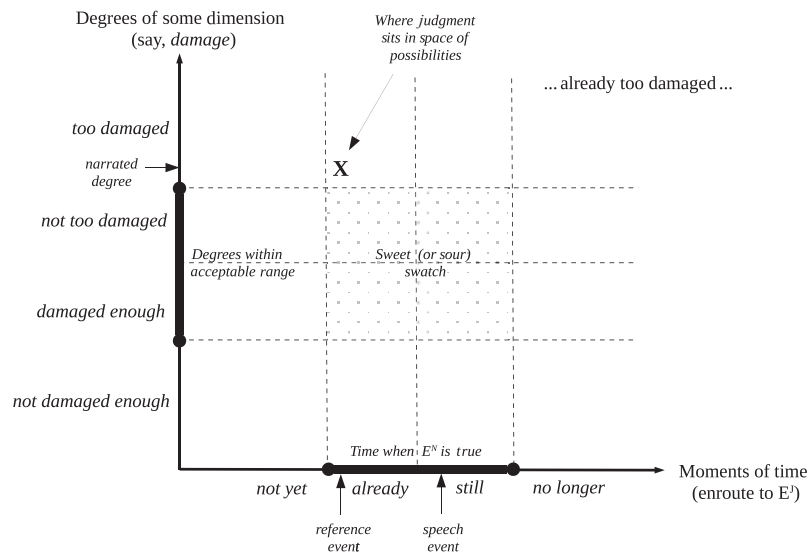

Figure C.5 Thresholds of time and intensity

diagram might be stretched and strained indefinitely (much like a rubber sheet, that ur-figure of topological intuition), the overarching relations between relations showcased within it remain relatively invariant.[1]

The vertical axis shows the degrees of some dimension, or the intensity of some phenomenon, from lesser to greater. The thicker part of the vertical axis indicates those degrees (of the dimension at issue) that are within an acceptable range (for the figure in question). Loosely speaking, degrees outside of the acceptable range (be they above or below) indicate that some action or condition, as salient to the figure in question, is impossible, prohibited, or unlikely. Depending on where a degree lies (along a salient dimension, for a given figure, given some standard, from some stance, and so forth), the adverbs shown on the left of the vertical axis are differentially applicable.

The horizontal axis shows moments in time, from earlier to later. The thicker part of the horizontal axis indicates those moments of time when the judgment is being treated as true: some figure has a certain degree of some dimension (as located in relation to an acceptable range). Depending on where the reference time falls along this axis, the adverbs shown on the bottom of the horizontal axis are differentially applicable. Moreover, just as the reference time can fall within or outside of this range, the speech event can occur more or less before or after the reference time (assuming the latter is actualized).

Following the analysis undertaken in the preceding two sections, black circles denote critical *thresholds*, either temporal (horizontal axis) or intensive (vertical axis). They may be more or less extended, or thick, and hence able to encompass as much as to segment the dimensions (and durations) in question.

Not all 16 (= 4 × 4) possible judgments exist for all dimensions, at all moments. For example, there are many today who would claim that you can be 'too rich'. And predications like 'no longer dead' only make sense

in a world where resurrections are possible (or zombies are actual). Precisely what constrains this possibility space is an open, labile, and somewhat unsettling question.

While the possibility space of such judgments is here being explicated in terms of linguistic categories, similar interpretive grounds arguably exist as affective attunements, engenomed instincts, ethical standards, embodied practices, institutional arrangements, infrastructural layouts, commodity aesthetics, design features, ecological feedback mechanisms, and computational algorithms (Kockelman 2020a, 2020b). What is too high a temperature for a coral reef? Not enough promise for a speculative investment? Too steep a slope for a wheelchair ramp? Not enough hunger for a humanitarian intervention?

Dimensions, figures, acceptability ranges, truth conditions, salient events, and so forth are incredibly wide and far-reaching. In some sense, each collectivity, and individual within such a collectivity, may have a different ensemble. Part of what it means to belong to a collectivity is to take up residence in such a space, and to represent the spaces that other collectivities reside in. Indeed, no small part of one's identity is one's imaginary of acceptable degrees (for various dimensions). For example, what kinds of subjects believe that it is still too early to tell, or feel that it is already too late to act? And what are the conditions of possibility for such modes of subjectivity?

Our judgments are not just sensitive to thresholds within such imaginaries, they can also function to set such thresholds. Moreover, such judgments not only conform to the world, they also transform the world, perturbing it in ways that can cause it to become both more and less like their own contents.

That said, the Earth itself will set, or has set, certain essential dimensions, acceptability ranges, and reference times (qua privileged points and periods). To some degree, along certain key dimensions, it is arguably indifferent to our collective imaginaries. Indeed, some say that it is not just subject to our judgments, it is also a kind of ultimate agent:

that which will one day judge – if it hasn't done so already – the soundness of our judgments.

Grounding the Anthropocene (Continued)

Having just reframed the Anthropocene – and, arguably, just about every scene – in terms of tensors and thresholds, let us now reframe it in terms of grounds. During our discussion of landslides, affect and earth gods in Part I, we focused on grace in a very specific sense: a small prayer giving thanks. As mentioned in Chapter 4, this word has many other meanings, from fluidity of movement to a free and unmerited gift. While the gift-based definition often refers to something like a divine favor – such as the salvation of sinners – that is overly optimistic. Indeed, it could be argued that the largest gift bestowed upon humanity in the last 500 years or so was fossil fuels, understood as easily exploited reserves of free energy, qua untapped gradients of chemical potential. To be sure, like the witch's apple in Snow White, such a gift turned out to be poisoned. (And all currently available evidence suggests that there is no Prince Charming.)

We might therefore return to the 'time machines' we took up at the end of that chapter. However, rather than using this phrase to refer to the heat engine (as that gradient-tapping technology that spurred us on to a degraded future), I want to use it to refer to the geologic timescale.

To some *potential* ecological self, qua self-reflexive, spatially and temporally distributed, ontologically heterogeneous, and thermodynamically evaluative interpretive agent, such a semiotic technology serves as a record, reminder, and theory of the eras and epochs the Earth has been through (or is going through). Insofar as such an ecological self has the wherewithal to perceive its signs, interpret their meanings, and thereby come to know what has happened and what is happening, what could happen and what could have happened, such a radically agentive agent might come to respond affectively and act effectively.[2] For example, it

might act to safeguard the shared interests of all Earth's inhabitants in light of such an abrupt and intense foreshortening of their shared future. See Figure C.6.

As may be seen in this figure, such an affective, inferential, and agentive capacity – qua vibrant propensity and semiotic potential – is

Privileged periods (at a certain scale, such as epochs)

Geological time

Interpretive grounds (#1)
Projecting certain features onto geological time by framing entities and events in terms of: reckoning and regimentation; irreversibility and reversibility; repetition and interruption; roots and fruits; worldviews and cosmologies; etc.

Privileged points (qua transitions, however thick, between periods)

Figures in the ground (qua signals in the noise)

The 'ground'

orbis spike

radio-nuclides

techno-fossils

other signals

Interpretive grounds (#2)
(used by scientists, and other semiotic agents, to link signs to objects, and/or evidence to inferences)

colonization of americas

atomic testing

factory farming

other activities

Objects of signs (the past [and present] processes and activities stood for by such signals)

Interpretive grounds (#3)
(what do such past and present processes portend, and/or what do they enable us to infer and predict)

irreversible losses

unbearable extremes

uncalculable suffering

Interpretive grounds (#4)
(what we should think, do, and feel in light of such projected potentialities)

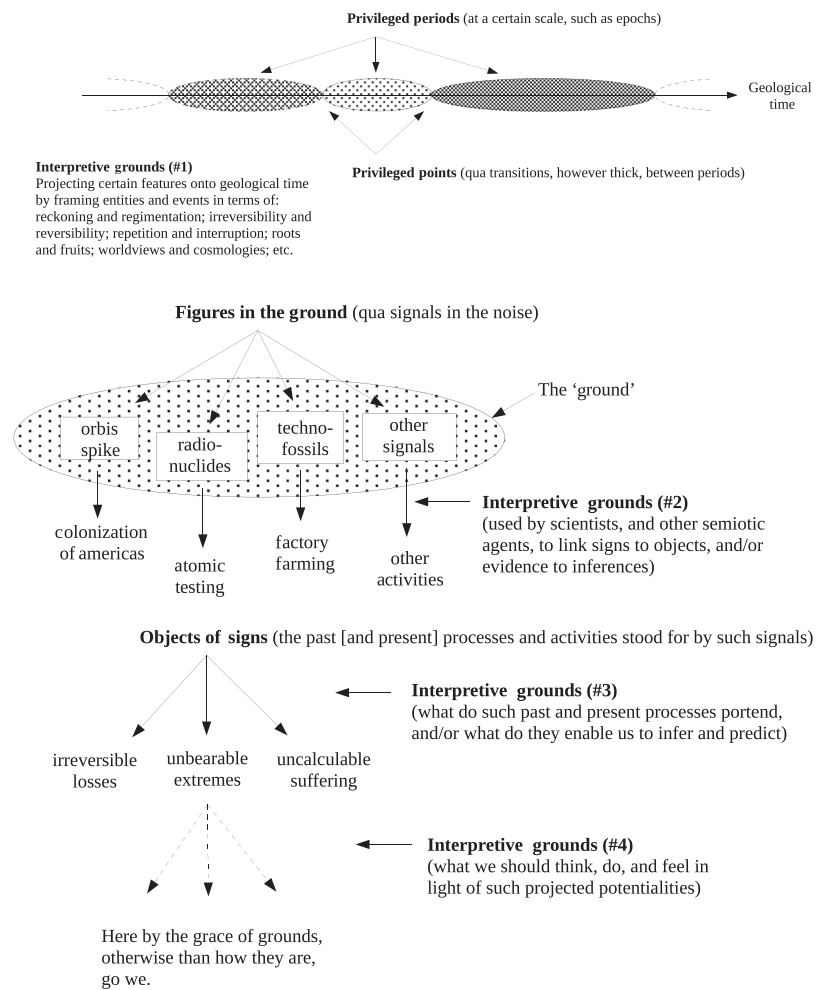Here by the grace of grounds, otherwise than how they are, go we.

Figure C.6 Grounding the Anthropocene

Conclusion

grounded in a variety of interpretive grounds, understood as the sensibilities and assumptions such an agent has insofar as they enable that agent to pick out signals in noise (as figures in the ground), project types onto tokens (or kinds onto individuals), link objects to signs (or signs to objects), and interpret such sign–object relations (affectively and effectively) in ways that make sense given the diverse and otherwise disparate interests and identities that constitute it (Kockelman 2012).

To be sure, and to return to those comparative constructions with which we began, it is no more likely that there is an ecological self than it is that there is a God or Prince Charming. But at least in this third case, there is the slim chance we residents-in-the-world (who are more or less coterminous with *the* world, itself the springboard and threshold for other worlds) might performatively manage to make such a possible agent actually so. To intelligently, intentionally, and gracefully (rather than stupidly, inadvertently, and disgracefully) etch a new epoch into the grounds of the geologic timescale – one that could ensure the existence of future agents capable of reading it (or at least receiving it) – say, by replacing profit with replenishment, as many speakers of Q'eqchi' would say. Which is as good enough a place to end (or at least direct our aim, channel our affect, and ground our action) as any.

Notes to Conclusion

1 On topology as method, see the essays in Gros, Russell, and Stafford (2020).
2 On distributed agency, and the history and limits of agency, see the essays in Enfield and Kockelman (2017); on precursors to the ecological self, see Gibson (1979) and Neisser (1988), as well as James (1985), Kleidon (2012), and Kockelman (2011). For superb work on related concerns from alternative perspectives, see Dove (2020), and Barnes and Dove (2015). On grounds in this quasi-archaeological sense, see Kockelman (2012).