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CHAPTER

2 Amelioration as Course Correction

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Abstract

Ameliorative inferences are normally read as practical: let w henceforth mean N , because N is somehow better than (its earlier meaning) M . So, let “meat” have a meaning that holds of Impossible Burgers. We suggest a theoretical reading: w does mean N , because M (once thought to be the meaning) is problematic. Supporting the theoretical reading is a metasemantic principle of reference electromagnetism, according to which words are repelled by unfortunate meanings and gravitate towards fortunate ones. Metasemantic electromagnetism falls naturally out of Davidsonian/Lewisian principles of charitable interpretation. Speakers are lovers of the good; otherwise, we couldn’t make sense of them. But it may take a while for the good to reveal itself.

Keywords: [amelioration](#), [conceptual engineering](#), [semantic externalism](#), [pragmatism](#), [normative externalism](#), [metasemantics](#), [charity](#)

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She had sacrificed herself to a conception of loyalty that was private and unalterable.

—George Orwell, *1984*

If we want everything to stay as it is, everything has to change.

—Giuseppe di Lampedusa, *The Leopard*

1. Introduction: Is and Ought in Semantics

An *ought* cannot be derived from an *is*, according to Hume. He had moral *oughts* in mind; but we might consider as well *oughts* from other domains. What a word means has implications, we're told by Kripke and others, for how it ought to be used:

The point is not that, if I meant addition by '+', I *will* answer '125', but that, if I intend to accord with my past meaning of '+', I *should* answer '125'. Computational error, finiteness of my capacity, and other disturbing factors may lead me not to be *disposed* to respond as I *should* ... The relation of meaning and intention to future action is *normative*, not *descriptive*.

(Kripke 1984, 37)

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If meaning facts have normative implications, it seems by Hume's dictum that meaning cannot be captured descriptively. Or perhaps, we should reject the \hookrightarrow normative-implication thesis precisely on the ground that it makes meaning irreducible. Either way, we are thinking like Hume.

Whether an *is* can be derived conversely from an *ought* was not discussed by Hume. But the prospects appear just as dim. Oughts do not even appear to get much non-deductive—predictive, say, or explanatory—*traction* on the descriptive facts.¹ Counting P likely on the basis that it ought to be the case is a well-known fallacy, the fallacy of wishful thinking. Explanations of the form $\langle\langle P \text{ is the case because it ought to be that } P \rangle\rangle$ have a famously poor track record. Air does not really rush in because nature abhors a vacuum. It is not because efficient motion is "better" that objects follow the principle of least action. One might as well try to explain noses, following Dr. Pangloss, as meeting the need for something to hold up our glasses.²

Insisting that *ought* in theoretical contexts be kept at a distance from *is* seems only reasonable. But there is such a thing as insisting too much. Absurd as Panglossian explanations can be, it goes too far to try to avoid them entirely. Noses may not be for spectacles, but they are in part for getting oxygen into the bloodstream. The desirability of this outcome helps to explain both why noses exist, and why they're so good at bringing the outcome about. One should not assume out of hand that circumstances are not what they ought to be; or, that *oughts* are safely ignorable, when considering how matters stand.

Philosophers, of all people, should be open to the possibility of a nontrivial connection here. Normative influence is postulated all over the place in our field. Think of the link drawn by Davidsonians between the beliefs/desires best rationalizing an agent's behavior and the beliefs/desires she actually has. Or of Williamson's contention that the object we perceive is the one that maximizes our perceptual knowledge, knowledge being the best and highest form of belief. Or the proposal by Robbie Williams that I'm to be interpreted so as to come out as responsive as possible to the reasons I'm presented with.³

No one should be scandalized, then, by oughts putting pressure on how matters stand descriptively—least of all in the theory of content. And yet, people do seem scandalized by projects in semantics that fit precisely this template. What *w* ought to mean, or what some expert tells us ought to be meant by it, is no guide at all, they say, to the word's actual semantic properties. Just the opposite, in fact. When a new-sounding meaning *N* is recommended to our attention, one assumes that *w* as it is means something else. Why would *N* have to be urged on us, if it was the meaning *w* already had? $\langle\langle w \text{ ought to mean } N \rangle\rangle$ is accordingly seen as a premise in practical reasoning, not theoretical; the intended conclusion is $\langle\langle \text{Let } w \text{ mean } N \rangle\rangle$ rather than $\langle\langle w \text{ does mean } N \rangle\rangle$. We'll eventually be pushing back on this, defending the theoretical argument. But let's explore first the practical argument for replacing *w*'s current meaning *M* with *N*.

Meaning replacement projects have been criticized on a number of grounds. Some object that the proposed modifications are not feasible; they cannot as a practical matter be carried out.⁴ Others question instead the

advisability of switching M out for N . They'll be our focus for the next few sections. *Advisability* worries arise when existing meanings \hookrightarrow are glorified or romanticized in some way. M comes with built-in advantages that its replacement will find it difficult to overcome.

Three forms of conceptual romanticism can be distinguished, according to the reasons given for sticking with M . Type-1 (Nature) romanticists point out that M has stood the test of time, meeting our expressive needs over, as Austin puts it, "the lifetimes of many generations." The idea is sometimes given a natural-selection-y spin. A meaning that's survived trial by evolutionary fire is unlikely to be improved on by a theorist guessing at costs and benefits.

Type-2 (Fidelity) romanticists are impressed by the fact that M is the meaning that got us here.⁵ The questions we care about are framed in terms of w^M , not w^N . To abandon these questions in midstream would be counterproductive. Inquiry is supposed to be cumulative, new results building on old. This will not be possible if the words used to state these results are at constant risk of being reinterpreted.

The crux for type-3 (Workability) romanticists is that w 's existing meaning "works" for us, which cannot always be said for the alternative. We know what we are doing with w^M ; it can be deployed *autonomously*, to borrow a term from Kant. Our practice with w would be *heteronymous*—involving constant checks with an alien-feeling, hard to internalize, rulebook—were we to try meaning N by it instead.⁶

Structure of the paper: Conceptual romanticism is reviewed in the next three sections (secs. 2–4). Section 5 considers how we might cope with meaning change, should amelioration require it. Section 6 raises the possibility that amelioration does not require it. Section 7 introduces the problem of semantic identity over time, on the theory that words are evolving abstract particulars, not unlike songs. Section 8 lays out Lewis's eligibility theory of meaning-determination. It is suggested in section 9 that eligibility-makers range more widely than Lewis allows. A notion of reference *electromagnetism* is introduced in section 10 to accommodate eligibility-makers relating to us and our practices. The Frege-inspired "through a glass darkly" model (section 11) takes a first stab at how reference electromagnetism might work. Section 12 looks at the metaphysics of meaning. Meanings are a special sort of object-kind, like STATUE or SHIP, except that the objects in this case are interpreted words. Disputes about the meaning of terms are like disputes about which of the ship-like objects earlier in the harbor the owner can/should lay claim to. They are resolved not by bringing in further ships (words), but clarifying which of the ships (words) already in play it makes sense to be going on with (section 13).

This helps the ameliorist only if w -qua- N (N , recall, is the new meaning) was already in the pool, which might seem ruled out by charity to our former selves (section 14). We respond (in sections 15–17) with a form of charity aimed at minimizing *unforgiveable* error. Misapplications reflecting limited information, missed opportunities, or the distorting effects of ideology are not unforgiveable. This leads in section 18 to an alternative model of meaning retention: the "course correction" model.

Semantic campaigns are liable to get off on the wrong foot. They are sometimes *put* on the wrong foot by social forces operating in the background. A corrective is needed, and that's what ameliorists (the kind we're interested in, anyway) try to provide. Some see the \hookrightarrow ameliorist as attempting a hostile semantic takeover. Their hostile takeover is from our perspective the correction of wrong (or suboptimal) turns taken earlier. Mark Wilson speaks in this connection of semantic "detoxification" projects, aimed at undoing distortions (Wilson 2006: 545). Important, too, are "desanitization" projects, aimed at exposing awkward details that had been airbrushed out.⁷ Debunking accounts can be seen as playing precisely this role (section 19). The final section attempts to draw these various threads together.

2. Romanticism (1): Nature

Start with the idea that existing meanings, forged in the crucible of usage, are unlikely to be improved on by anything reform-minded engineers can devise. This is a common theme in ordinary language philosophy. According to Austin,

our common stock of words embodies all the distinctions men have found worth drawing, and the connexions they have found worth making, in the lifetimes of many generations: these surely are likely to be more sound, since they have stood up to the long test of the survival of the fittest, and more subtle, at least in all ordinary and reasonably practical matters, than any that you or I are likely to think up in our armchairs of an afternoon.

(1956: 8)

Austin's remarks here fit with a larger tradition of treating naturally evolved products as superior.⁸ The link he draws between linguistic evolution and biological evolution was there already in Darwin.

A struggle for life is constantly going on amongst the words and grammatical forms in each language. The better, the shorter, the easier forms are constantly gaining the upper hand, and they owe their success to their own inherent value.

(Darwin 1981: 60, quoting Max Muller)

Similar sentiments are expressed in nineteenth-century social theory by Herbert Spencer, to whom the phrase "survival of the fittest" is due (Spencer 1872). His "Over-Legislation" is a paean to the subtlety and complexity of existing social arrangements, described as "utterly beyond human grasp" (Spencer 1865: 62). Attempts at reform run into the law of perverse effects:

In their efforts to cure specific evils, legislators have continually caused collateral evils they never looked for.

(1865: 63)

There is no substitute in the end for judgment, the kind that comes from immersion in a culture. Of course, judgment can lead us astray. But the solution is not to install further guardrails; this only exacerbates the problem by impairing judgment further:

p. 9 The ultimate result of shielding men from the effects of their folly, is to fill the world with fools.

(Spencer 1865: 349)

So, Austin had predecessors. A perhaps surprising successor was Chomsky, who seems to have picked up the baton when the two met in the mid-1950s.⁹ Chomsky's target was aspiring social engineer B. F. Skinner¹⁰:

Why should the design of a culture be left so largely to accident? Is it not possible to change the social environment deliberately so that the human product will meet more acceptable specifications? (Skinner 1965: 426–427)

If a science of behavior can discover those conditions of life which make for the ultimate strength of men, it may provide a set of "moral values" which, because they are independent of the history and culture of any one group, may be generally accepted.

(Skinner 1965: 445)¹¹

This bears on semantic/conceptual engineering insofar as meaning reduces to a kind of socially inculcated behavioral disposition.

Behavior which is effective only through the mediation of other persons has so many distinguishing dynamic and topographical properties that a special treatment is justified and, indeed, demanded. Problems raised by this special mode of action are usually assigned to the field of speech or language... The term “verbal behavior” has much to recommend it ... it emphasizes the individual speaker and, whether recognized by the user or not, specifies behavior shaped and maintained by mediated consequences.

(Skinner 1957: 2)

Supposing with Skinner that verbal dispositions are shaped and maintained by externally organized contingencies of reinforcement, they can be pulled in any direction one likes by rearranging the contingencies. This assumes, however, as Chomsky points out in a scathing review of *Verbal Behavior* (Skinner 1957), that “the contribution of the speaker is quite trivial and elementary” (Chomsky 1959: 27–28). Which could not be more wrong, Chomsky thinks; most of the heavy lifting is done by the (brain-based, speaker-internal) language faculty. Skinner’s approach is so caught up in the quest for new solutions that it misses (i) the solutions that have already, over the course of history, been found, and (ii) the way these already found solutions restrict the search space in which reformers necessarily operate.

3. Romanticism (2): Fidelity

p. 10 A second objection to replacing M turns on historical resonance. Impressive as N might be in itself, w^N ’s relevance to issues framed with w -as-traditionally-understood \hookrightarrow is obscure. Thus Strawson in a famous discussion of Carnap-style conceptual explication:

Philosophical problems about the concepts used in nonscientific discourse cannot be solved by laying down the rules of exact and fruitful concepts in science. To do this last is not to solve the typical philosophical problem, but to change the subject.

(Strawson 1963: 505)

Useful work may be done with the spiffed-up concepts; Strawson does not deny it. But this work is liable to bypass the problems originally under discussion. It is loyalty to those original problems that prevents us from replacing M with N .

A popular case study here involves formal theories of truth. Tarski believes that “the attempt to set up a structural definition of the term ‘true sentence’ applicable to colloquial language is confronted with insuperable difficulties” (Tarski 1936/1956: 164). These difficulties stem from the semantic paradoxes, which on the ordinary, colloquial notion of truth are inescapable. When he says:

I now abandon the attempt to solve our problem for the language of everyday life and restrict myself henceforth entirely to formalized languages (165),

he is abandoning the traditional Liar problem as handed down from Eubulides. The dialectic is replayed a few decades later in Kripke:

Liar sentences are *not true* in the object language, in the sense that the inductive process never makes them true; but we are precluded from saying this in the object language by our

interpretation of negation and the truth predicate... The necessity to ascend to a metalanguage may be one of the weaknesses of the present theory. The ghost of the Tarski hierarchy is still with us.

(1975: 714)

But what is to stop us from making Kripke's interpretation of negation and the truth predicate standard? Children could be raised into the new meanings at logic-themed kibbutzim. Since it would never occur to them to use *L is not true* to record the fact that *L* is never in the inductive truth-assigning process made true, *L* would not cause them the problems it causes us.

A population that is not even *tempted* to call *L* untrue, despite its acknowledged failure to be true, may have in some sense evaded the paradox; but they have hardly solved it. It is not as if it was just an unforced error on our part to have adopted meanings given which *S*'s failure to be true entailed the truth of *S isn't true*. Various facts become inexpressible (e.g., that *The king of France is bald* is not true) if this entailment is sacrificed. Kripke-English is expressively impoverished in a way that rightly bothers us. Sweeping trouble under the rug is not the method of true philosophy, especially if it creates an ugly bulge.

p. 11 Not much is lost, and a good deal is gained, according to Tarski and Carnap, if for scientific purposes we adopt spiffed-up meanings not found in ordinary language. Strawson doesn't necessarily disagree, where *scientific* purposes are concerned. But he has his eye also on the unscientific purposes served by the meanings in use today. One thing we are in danger of losing if these are supplanted is dialectical traction *vis à vis* existing debates. (How is the new jargon supposed to make contact with the old issues?) Another thing we're in danger of losing is access to the claims we used to make with *w*^M.

These sorts of worries have taken on a new urgency lately in light of proposals to rework the meanings of words like woman, parent, disability, married, and race. When Cappelen says that "if the revisions succeed, they do not provide us with a better way to talk about what we were talking about," or Sundell, that "if conceptual engineering takes place, then the representational tools we use to make certain claims will have changed their intensions and extensions," the focus seems more on expressive access. Dialectical traction comes to the fore when Cappelen adds that

answers employing terms with new extensions fail to answer the original questions. These answers concern something new—not what we were originally talking about when we used the [original expressions]. We have the illusion of an answer, but it's a purely verbal illusion. There's a lack of continuity of inquiry; the old questions are not being answered.

(Cappelen 2018: 100–102)

And Sundell, that

speakers who express disagreement using the respective meanings will semantically express propositions that are logically consistent. And yet, in many of the cases in which conceptual engineering is said to have taken place, inquiry is continuous, and disagreement is substantive.

(Sundell 2020: 588)

An author who has been critiqued on this score herself agrees: "Revisionary projects are in danger of providing answers to questions that weren't being asked" (Haslanger 2000: 34).

4. Romanticism (3): Workability

An Adamic ur-language was once postulated in which things went by their true and rightful names (https://en.wikipedia.org/wiki/Adamic_language; Losonsky 1992). Spoken originally by everyone, the language fractured at Babel into a confusion of tongues whose word-meaning connections were unprincipled and haphazard. Taken to extremes, this gives us a pure conventionalism according to which any meaning ingenuity can devise is attachable in principle to any old string of phonemes.

p. 12 Conventionalism, the idea of meaning assignments as arbitrary, strikes many as just common sense. But it cannot claim a whole lot of support from linguistic theory. Few think any longer of *syntactic* rules as arbitrary; there are universal constraints on the range of humanly possible grammars and language-specific constraints depending on how certain parameters are set by French, say, as opposed to Tamil (Baker 2008; Dutilh Novaes 2020). And this is just the beginning. As not any old way of sequencing words makes for a possible sentence, not any old way of stringing phonemes together makes for a possible word. Chomsky and Halle (1968), reviewing phonetic variations on a common English noun, suggest

a three-way distinction among such [expressions] as /brik/ (in the lexicon), /blik/ (accidental gap), and /bnik/ (inadmissible). The “accidental gaps” are the items that did not appear in the lexicon but were not ruled out.

(470)¹²

The proposed distinction is too coarse, they decide:

The matrices /bnik/ and /bnzk/ are both inadmissible in English, but the difference between them is at least as linguistically significant as the difference between these two matrices and /brik/, /blik/. Hence a real solution to the problem of “admissibility” will not simply define a tripartite categorization of occurring, accidental gap, and inadmissible, but will define the “degree of admissibility” of each potential lexical matrix.

(470–471)

Rule-stretching words do exist: *tmesis*, *cwms*, *phpht*, *smaragd*, *chthonic*, *crwth*, *subfusc*, *uhtceare*. But their oddity is appreciable, and their pronunciation hard to guess at.¹³

If phonetic/orthographic strings can be more or less admissible as words, ways of assigning them meanings can be more or less admissible, too, a phenomenon known as sound symbolism.¹⁴

When the tongue is high and at the front of the mouth, it makes a small resonant cavity there that amplifies some higher frequencies, and the resulting vowels like *ee* and *i* (as in *bit*) remind people of little things. When the tongue is low and to the back, it makes a large resonant cavity that amplifies some lower frequencies, and the resulting vowels like *a* in *father* and *o* in *core* and in *cot* remind people of large things. Thus mice are *teeny* and *squeak*, but elephants are *humongous* and *roar*. Audio speakers have small *tweeters* for the high sounds and large *woofers* for the low ones. English speakers correctly guess that in Chinese *ch'ing* means light and *ch'ung* means heavy.

(Pinker 1995: 167)

A word's internal structure (its morphology) imposes further constraints; one doesn't have to understand “abvolated” to appreciate that it speaks of the past, not the future. Morphological cues are crucial to learnability. How does the child learn to derive *Fred was touched by John* from *John touched Fred*, without overgeneralizing and taking *John resembled Fred* to license *Fred was resembled by John*? At least part of the

p. 13 answer is that ↪ how a word is put together bears on what it can mean, and hence the kinds of clauses it can slot into.¹⁵ Even idioms like *spill the beans* and *kick the bucket*, traditionally the paradigm of phrases meaning whatever we want them to, turn out to be constrained in their possible readings by thematic and aspectual features of the words composing them.¹⁶

The reason for harping on these constraints is that they put the conceptual engineer in a tight spot. How does she know that N is the right kind of meaning for the word w that she wants to attach it to? An example to illustrate the worry is this: Going back to early work on generics, semanticists have distinguished *stage-level* predicates (“are making a mess on the lawn”) from *individual-level* predicates (“are mammals”).¹⁷ The stage/individual distinction

can be drawn intuitively, and also on the basis of linguistic patterns ((Milsark, 2014) (Milsark, 1977) (Carlson, 1977) (Stump, 2012)). Semantically, individual-level predicates express properties that normally are had by items for quite extended periods, often comprising the items’ whole existence. Stage-level predicates, on the other hand, express properties normally had by items for relatively short time intervals. Some examples of both types are as follows:

Individual level predicates

“is tall”; “is intelligent”; “knows French”; “is a mammal”; “is female”; “is a singer”; “loves Bob”

Stage level predicates

“is drunk”; “is barking”; “is speaking French”; “is taking an exam”; “is sober”; “is sick”; “is sitting”; “is on the lawn”, “is in the room.”

(Leslie and Lerner 2016)

A predicate’s level affects its grammatical possibilities. Stage-level (but not individual-level) predicates are at home, for instance, in locative and perceptual contexts:

Sonja is drunk/speaking French/sitting cross-legged by the fire.

*Sonja is intelligent/knowing French/athletic by the fire.

Fabrice saw Sonja drunk/speak French/sit cross-legged.

*Fabrice saw Sonja intelligent/know French/athletic.

Consider now a predicate that has drawn the attention of semantic ameliorators: “is a woman.” It is normally considered individual-level (Ogawa 2001), and the tests bear this out: Fabrice saw Sonja drunk by the fire, but he did not see her a woman (or being a woman) by the fire. What happens if “woman” is (re)defined in the way suggested by Haslanger?

S is a woman if and only if

- (i) S is regularly and for the most part observed or imagined to have certain bodily features presumed to be evidence of a female’s biological role in reproduction;
- (ii) that S has these features marks S within the dominant ideology of S’s society as someone who ought to occupy certain kinds of social position that are in fact subordinate (and so motivates and justifies S occupying such a position); and

p. 14 (iii) ↪ the fact that S satisfies (i) and (ii) plays a role in S’s systematic subordination, that is, along some dimension, S’s social position is oppressive, and S’s satisfying (i) and (ii) plays a role in that dimension of subordination. (Haslanger 2000)

The definiens here has extrinsic aspects; and extrinsic features are almost by definition liable to come and go even as the individual remains in relevant intrinsic respects unchanged.¹⁸ This appears to push us in the direction of a stage-level interpretation. Sonja is observed and imagined to have various bodily features in Fort Lauderdale over spring break, but not when she is alone on her private island.¹⁹ A spy keeping tabs on her over spring break could in principle witness repeated instances of Sonja perceived and imagined to have pregnancy-type features. And yet we don't want to say that Sonja is observed on these occasions (being) a woman. That it legitimates ways of talking that feel borderline ungrammatical seems like a problem for the proposed interpretation. The worry more generally is that some meaning reassignments run so strongly against the grain as to be unworkable—more trouble anyway than they're worth.²⁰ The ameliorist waltzes through this territory unawares, says the Type-3 (Workability) romanticist, not appreciating how little room there is for maneuver.

5. Coping with Meaning Change

The objections of the last few sections take the same form: *w*'s existing meaning *M* has crucial advantages given which its proposed replacement *N* is going to make matters worse.

You might expect us to argue that meaning replacement will *not* make things worse, the objections notwithstanding. That is not the plan; after this section, we will be asking why meaning replacement is thought to be required in the first place. Not to ignore old school amelioration entirely, let's consider what might be said if defending *N* against *M* were the plan.

Type-1 (Nature) romanticists wonder how invented meanings could hope to improve on meanings “forged in the crucible of usage.” Worries of this general type are discussed by A. O. Hirschman in his critique of reactionary rhetoric, what he calls the “rhetoric of intransigence.” They rest in his view on a wildly implausible thesis:

According to the *perversity* thesis, any purposive action to improve some feature of the political, social, or economic order only serves to exacerbate the condition one wishes to remedy.

(Hirschman 1991)

p. 15 It does sometimes happen that efforts at improvement are futile, or wind up aggravating the problem one was trying to solve. The Type-1 romanticist has got to maintain, however, that this is the rule, not the exception. How bizarre; it is hard to imagine a less promising candidate for social-scientific-law status than, “Everything backfires!” (Hirschman 1991: 11). The trial by fire theory is not much help here, if, as Austin admits,

superstition and error and fantasy of all kinds do become incorporated in ordinary language and even sometimes stand up to the survival test.

(Austin 1956: 185)

Must it really backfire to try to purge our meanings of superstition, error, and fantasy? Consider Enlightenment-era efforts to purge the meaning of *king* of its divine mandate aspects.²¹ The usual view is that these efforts were not pointless at all, but a step on the way to improved social arrangements.

The Type-2 (Fidelity) romanticist fears that subbing in a new meaning cuts us off from valuable old thoughts and questions. This is in line with Hirschman's

jeopardy thesis, [which] argues that the cost of the proposed change or reform is too high as it endangers some previous, precious accomplishment

(1991: 185).

But the whole point of putting *N* in for *M* may be that the old thoughts and questions are problematic and better abandoned. A related worry is that we are not, if the meanings change, engaged in a continuous line of inquiry, later generations correcting the views of earlier. But does it follow from our meaning different things by a word in *P*, that we are talking past each other when I assert *P* and you deny it (Cappelen 2018: 97ff; Sundell 2020; Knoll 2020)? This is not obvious. It ought to be enough for disagreement if the proposition that I assert entails the one that you deny.²² Or for my proposition to share a part with yours, *P* failing in your view because this shared part fails.²³ Or for *P* to be true for me due to circumstances that conflict with the circumstances that for you make *P* false.²⁴

The ameliorist too quickly assumes that her substitute meaning is workable, says the Type-3 (Workability) romanticist. More attention ought to be paid to the possibility that *N* will be so impractical that the hoped for benefits never materialize.²⁵ This is in line with Hirschman's

futility thesis [which] holds that attempts at social transformation will be unavailing, that they will simply fail to "make a dent."

(1991: 185)

But we can all agree that various choices of *N* will be less workable in this or that respect than the existing meaning *M*. The ameliorist is still in business if she can argue, of *specific* proposed reconstructions, that they are so well considered, and speak to such a definite need, that they benefit us overall. A reconstruction does not have to be cost-free to be worth the trouble, or the final word on the matter to be worth adopting now.

When Tombaugh discovered Pluto in 1930, he thought he'd discovered a planet. He resisted to his death attempts to assign it a lesser status. Assuming that Tombaugh was not simply *wrong* about Pluto, his disagreement with the International Astronomical Union's 2006 ruling must be regarded as partly verbal. Should it bother us that the ruling lands us in a verbal dispute with Pluto's discoverer—a man under no illusions about its size? Of course it should. One needn't deny the cost of the ruling to think it a cost still worth paying. The new meaning's value continues to rise as the celestial bodies pile up that are better qualified even than Pluto.

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The caesium-microwave definition of second is fantastically accurate. Its victory over the traditional definition in terms of the oscillation of quartz crystals was fully deserved. But relative fitness is just that: fitness relative to the existing competition. No one would argue on survival-of-the-fittest grounds that we should stick with the caesium definition forever—even when optical lattices show themselves to outperform caesium on the same tests that had earlier recommended caesium over quartz. One can grant that existing meanings have advantages enough to explain their survival up to now, while reserving judgment on whether they are the best to be going forward with.

6. Who Says the Meaning Must Change?

The romanticist's problems with semantic rebranding were reviewed in sections 2 to 4, and responded to in section 5. Whether you like the responses or not, there is a danger with all of them of conceding too much. This for two reasons.

First, changes in our *view* of what *w* means are not always changes in what it does mean. Fish did not acquire a new meaning when it was decided that whales should not be counted into its extension. Nor did atom when the indivisibility requirement was dropped. Jade took it in stride when the kind turned out to be disjunctive. Words can take quite a licking and keep right on ticking—ticking along with the same *M*.

Second, a word's meaning can change in qualitative respects without changing numerically; the same *M* continues as *w*'s meaning even as it evolves (Koslow 2020, 2022).²⁶ Mars has had the same enduring planet as its meaning since before the Explorer arrived. The meaning of water on some views is the scattered object consisting of all the H₂O in the universe—an object that takes changing forms over time, and that waxes and wanes and moves about.

This is all fair enough, you may say, but fish, water, and the like, are at quite a distance from the words under discussion today: married, artwork, money, meat, labor.... Granted that meaning is retained in the classic cases, the situation with married remains very much in doubt. To get clear on this, we need to consider

- (a) the meaning-retention mechanisms at work in the classic cases,
- (b) the extendibility of those mechanisms to married,
- (c) the availability or not of alternative mechanisms.

Questions arise already with (a). It would be one thing if Putnam had figured out the semantics of kind terms. The inapplicability of his model to married might then be a cause for concern. But Putnam never really explains even how water does it. He points at times to indexicality:

We have maintained that indexicality extends beyond the obviously indexical words and morphemes (e.g., the tenses of verbs). Our theory can be summarized as saying that words like “water” have an unnoticed indexical component: “water” is stuff that bears a certain similarity relation to the water around *here*.

(Putnam 1974: 710)

This explanation was rejected, though, even at the time (Burge 1979, 1982). The usual view today is that the context-dependence of water, if any, is metasemantic. An outwardly similar word could easily have stood for another substance, just as Mars would have named a different planet had Mars-appearances been caused by Venus (Stalnaker 2004). Putnam ran the contingency of reference on the setting in which a word is introduced together with occasion-sensitivity of the sort found with indexicals like *here* and *now*. He confused *w*'s potential to constitute different interpreted signs with the semantic phenomenon that is context-sensitivity properly so called (Almog 1984). Nor does it seem plausible that water is, as a matter of fixed lexical type, a natural-kind term. Putnam himself gives the example of pencil, which takes on natural-kind-y characteristics when pencils are found to be organisms. Earth, air, and (to a lesser extent) fire took the opposite route, losing these characteristics despite being pre-scientifically on a par with water.²⁷

Interestingly Putnam is careful in other passages to keep stipulative-looking features of water *out* of the meaning, casting them rather as defeasible empirical presumptions:

Suppose I point to a glass of water and say “this liquid is called water.” My “ostensive definition” of water has the following empirical presupposition: that the body of liquid I am pointing to bears a certain sameness relation (say, *x is the same liquid as y*, or *x is the same_L as y*) to most of the stuff I and other speakers in my linguistic community have on other occasions called “water.” If this presupposition is false because, say, I am—unknown to me—pointing to a glass of gin and not a glass of water, then I do not intend my ostensive definition to be accepted. Thus the ostensive

definition conveys what might be called a “defeasible” necessary and sufficient condition: the necessary and sufficient condition for being water is bearing the relation same_L to the stuff in the glass; but this is the necessary and sufficient condition only if the empirical presupposition is satisfied. If it is not satisfied, then one of a series of, so to speak, “fallback” conditions becomes activated.

(Putnam 1974: 702)

From this it appears that the arrangements underwriting meaning on a Putnam-like account are not what people often suppose. He is not pulling conditions C out of a hat that qualify any x uniquely satisfying them as the referent “no matter what.” Rather C is believed on empirical grounds to identify the thing, or sort of thing, we wanted to talk about.²⁸

p. 18 This can’t extend to Kripke, you might think, since reference-fixing stipulations are for him a source of a priori justification. But the two are not so far apart if we accept that \hookrightarrow a priori justification, too, is hostage to empirical presuppositions and, to that extent, defeasible.²⁹ Anyway it is the rare name, in Kripke’s view, that has its reference fixed by a description.³⁰ Even in the meter-stick case, Kripke does not put the referent entirely at the mercy of the associated description. The stipulator has a length he *wants to mark out*; the standard meter stick S is chosen with that end in mind. But it is an empirical matter whether stick S really is the intended length. As with Putnam, then,

we need to ask what happens if he is wrong and it is a different length than intended. It might be, for instance, that the stick is a millionth of an inch long, but emitting magnification rays that delude us into seeing it as longer. Or maybe the stick is a mile long, but much farther away than anyone had realized. I take it that it is no part of the reference-fixer’s understanding of ‘meter’ that it continues to stand for the length of S even if S is much shorter or longer than it appears.

(Yablo 2008a: 184)

This is part of the reason that Kripke moves quickly on to the model of initial baptism followed by chains of reference-preserving intentions.

Some have argued that the initial baptism stands no chance of success unless a sortal comes in to disambiguate; we know a priori that the sortal attaches if the referent exists. Kripke denies, however, that referents must turn out to be of the kind first supposed:

Even if a sortal is used to disambiguate an ostensive reference, surely it need not be held a priori to be true of the object designated. Couldn’t Dobbin turn out to belong to a species other than horses (though superficially he looked like a horse), Hesperus to be a planet rather than a star, or Lot’s guests, even if he names them, to be angels rather than men?

(Kripke 1980: 116, n. 58)

If Dobbin could turn out to be a zebra, it is hard to see why other animals, thought to be nonexistent, could not surprise us both on the score of existence and biological type. Why should unicorns not be a previously unknown sort of horse? This is one of the likelier scenarios, surely, on which unicorns wind up existing. But then it is not essential to the meaning of unicorn that unicorns are non-horses. Reference-fixing as we find it in nature is not a tool for tying ourselves to the semantic mast.

The objections in sections 2–4 were to meaning *replacement*. To take them on directly, one would argue that it is sometimes advisable, the stated concerns notwithstanding, to replace M with a distinct meaning N . (This was attempted in section 5.) But replacing M with N may not be what the ameliorator was proposing to do in the first place. Why should this seem like the only option? Part of the answer is that philosophers have

been treating decades old treatments of semantic continuity as the last word. Models that were intended only to open up space for w retaining its meaning are taken now to exhaust the possibilities for such an outcome—as though Putnam had never spoken of cats turning out to be robots, or Kripke of the possibility of discovering that Lot's guests are angels rather than men.

7. Identity over Time

Meaning retention is not such a demanding affair as we have been led to believe. Before anyone asks, “How demanding is it, then?” a caveat is in order. Words are various, multitudinous, and (see below) perhaps even plenitudinous. This casts doubt on the prospects for an answer covering every case. *How much damage can a word sustain before it gives up its meaning?* has some of the same wrongheadedness as, *How long is a piece of string?* There is no point in wondering about the length in general of a piece of string, because string can be cut to all kinds of lengths. Wondering about the resilience in general of an interpreted word is similarly confused; words can be fitted out with all kinds of identity conditions.³¹

Perhaps the question cannot be avoided entirely. Words are abstract continuants persisting through time and across modal space. *Something* will have to be said about how they do it.³² It will not be definitive or precise; why would the identity of words be any more reducible to lower-level events than personal identity turned out to be? But we can try at least to map out the territory.

One more caveat before we begin, prompted by the analogy with personal identity. An account of identity for X s appeals sometimes to identity relations among the members of another category Y . Singleton sets, e.g., {Cicero} and {Tully}, are identical iff they have the same object as their sole member (Cicero = Tully). More generally, $x_1 = x_2$ because (or, partly because) $y_1 = y_2$, where y_i is some important part or aspect of x_i . Obviously, there's a danger here of explaining the obscure in terms of the still more obscure. A (much maligned) approach to personal identity takes persons p to be bodies b amalgamated with souls or minds s ; p_1 and p_2 are the same person just if $b_1 = b_2$ and $s_1 = s_2$.³³ The amalgam theory rests on an assumption that philosophers have come to reject: that whether minds/souls are identical is *prior* to the identity of the persons p_i whose minds/souls they are. Asked to choose between

- (i) p_1 and p_2 owing their identity to some preexisting fact about souls, and
- (ii) p_1 and p_2 sharing a soul on account of being the same person,

most of us would go for the latter. (If soul identity were prior, we would have to contend with the possibility of new souls rushing in to replace the old every morning—that was Locke's objection to the theory.)

An analogy suggests itself here between persons and interpreted words. Where metaphysicians speak of bodies, minds, and persons, semioticians distinguish signifiers, meanings, and signs. Words qua signifiers—what Kaplan (1990) calls *presemantic* or *syntactic/lexical* words—line up with bodies. Another good term is *somatic* word, on account both of its bodily connotations and the nice verbal contrast with *semantic*. Somatic words w will be called words.³⁴ Kaplan's example is the word spelled c-o-l-o-r in the US and c-o-l-o-u-r in Canada. Madagascar (which he also mentions) survived both orthographic changes and referential ones; it denoted first the Mogadishu region and then an offshore island. Girl, once spelled g-u-r-l-e, was gender-neutral before being restricted in the sixteenth century to female children.

About souls s and persons p , we can be briefer. Souls line up with meanings M and persons, with meaning-infused or semanticized words w (henceforth **words**). There may be just the one Madagascar, but there are two **Madagascars**—two signs built on the same signifier. **Madagascar**₁ has the mainland referent, while **Madagascar**₂ stands exclusively for the island. Likewise there are two **girls**, one (obsolete) applying to children of either sex, another, still in use today, applying only to, well, girls.

Words as abstract continuants are individuated genealogically. There would have been a second Madagascar, had Marco Polo invented his word out of whole cloth rather than picking it up from a book. There are two **banks**, as we know, standing for financial institutions and riversides. There are also two banks, one deriving from Old High German via French *banque*, the other from Old Norse *banki*. Crucially, there would still have been two banks even if they, by some strange fluke, meant the same. And there would still have been two **banks** in that case; for w_1 does not count as the same **word** as w_2 unless w_1 and w_2 are the same word.³⁵

8. Embodied Meanings

Let's try now to read these distinctions back into the theory of personal identity. What corresponds on the sign side to the (rejected) picture of persons as composites of minds and bodies? Each w would be an amalgam of presemantic w with a pure meaning M . w_1 would be the same sign as w_2 just if w_1 was identical to w_2 and M_1 was identical to M_2 .

Such an approach seems, as with persons, to get things backwards. Meanings do not have self-standing identities any more than souls do; they are carried along by the **words** whose meanings they are. Suppose that w_1 is **meter** circa 1800, and w_2 is **meter** as we know it today. Whether $w_1 = w_2$ is not obvious, but the answer is plausibly YES. The operational definition has changed—from one ten-millionth of the distance from the equator to the North Pole then, to the distance light travels in $1/299,792,458$ of a second now. But no one thinks, to our knowledge, that **meter** circa 1800 was knocked out of circulation by a similar-sounding **word** linked constitutively to the motion of light.

According to the approach we have just described as backwards, $\text{meter}_1 = \text{meter}_2$ (partly) in virtue of a prior, independently obtaining fact about their meanings M_1 and M_2 . It is hard to think what the independently obtaining fact would be. The light-based standard is orders of magnitude more precise, and may be superseded by something more precise yet.³⁶ It is not as if **DISTANCE LIGHT TRAVELS IN $1/299,792,458$ TH OF A SECOND** was on the cards all along, the way the definition of gold as the element with such and such an atomic number was always supposedly on the cards.³⁷

p. 21 No, the reason meter_1 agrees in meaning with meter_2 is that they are the same **word**, and each **word** has one meaning. Their sameness as **words** turns in part on how **meter** has been used over time, and the causal/historical connections, between earlier uses and its uses today. (E.g., did speakers *intend* to hold later uses hostage to the methods available in 1800?) These connections would not be available as persistence-makers, if **words** owed their identity over time to independently constituted facts about the identities of free-floating meanings.

A more challenging example is **adult**. It's agreed all around that adult_1 , the **word** constituted by **adult** in 1800, was restricted to people age 21 and over, while adult_2 , the **word** constituted by **adult** today, applies also to 18- to 20-year-olds.³⁸ Does **adult** retain its meaning over this period? Is adult_1 the same word as adult_2 ? The answer depends as before on the details of **adult**'s use over 1800 to 2021, and the role **adult** has played over that period in speakers' lives. One view, of course, is that the word comes to mean something different when the age of majority changes. Alternatively, we could say (with Lampedusa) that the standards for adulthood must change for adulthood itself to remain the same.

Intuition goes with Lampedusa here. But we need not insist on the point; it's enough that a *case* can be made for **adult** meaning the same throughout. To observe that $21 > 18$ is not enough to settle the question. There are a number of ways of reconciling the drop to 18 with **adult** possessing a fixed—not to say unchanging!—meaning **ADULT** (A, for short) over the whole period.

Option 1) A does not deliver a single eternally valid cut-off. It determines a rule giving cut-offs as a function of T, the time; $A(1800) = 21$, $A(2021) = 18$.³⁹

Option 2) A determines a rule that looks to governing practices rather than time. $A(\text{Virginia law circa } 1800) = 18 \neq 21 = A(\text{Virginia law circa } 2021)$.

Option 3) A always delivers some fixed cut-off or other, but the cut-off changes as the practice evolves. Compare how games retain their identity through changes in the rules.⁴⁰

Option 4) A always delivers the same eternally valid cut-off. Our forebears were wrong about the cut-off for A; 18-year-olds were adults even then. Or perhaps the mistake is on our part, or both our parts; or perhaps it's just hard to tell.

These are roughly sketched, and not clearly distinct in some cases. But they're enough to make the point. Changes in operative standards do not force our hand where **adult** is concerned. They do not prevent adult from constituting the same **word** over this period, with (what follows from **word** identity) a single meaning.

For these reasons and others to be mentioned, we will be prioritizing semantic words **w**—aka signs—over somatic words **w** and meanings **M**. The differences are probably clear enough, but it won't hurt to lay some of them out explicitly.

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Words vs. meanings: These are wholly distinct, though **w** may of course *have* a meaning—or a bunch of them, depending on the metasemantic setting. Somatic \hookrightarrow words, though abstract, have orthographic/phonetic properties, in the way that songs do. Not so meanings; they are not the sort of thing one can write or pronounce.

Words vs. words: **w** is liable to take on a range of meanings; **w** has just the one meaning **M**. **w** has its meaning(s) contingently, but **w** cannot mean anything other than what it does. **w**'s meanings lie metaphysically downstream from **w**; they play no part in making **w** the word that it is. **w**'s meaning pertains to the very nature of **w**.

Words vs. meanings: **w** has orthographic/phonetic properties corresponding more or less to those of **w**. Like **w**, **w** is the kind of thing one can token, by typing out letters (or etc.) in the proper order. Nothing like that is possible for meanings. What one can do is token a **w** in whose nature it lies to mean such and such.

These distinctions bear on the problem of tracking meanings through time. Just as, to use an example of Montague's, we can speak of the water temperature's rising, but not of the temperature itself (90°F, as it might be) rising, it is **M** qua meaning of **w** that changes, not **M** considered in itself.

Imagine, to see why this is so, that w_1 and w_2 both mean **M** in 1800. Where should we look for that shared meaning in 2021, to determine whether it has broadened or narrowed? The problem is that it might have broadened qua meaning of w_1 , while narrowing qua meaning of w_2 . To insist on knowing whether **M** "as such" has broadened is like asking whether 90°F as such has risen. It's the same with **M**'s continued existence. Perhaps **M** hangs on as the meaning of w_1 while being succeeded as the meaning of w_2 by a numerically distinct **N**. Has **M** itself survived, or has it been replaced? A bad question, but hard to avoid if one takes meanings to be the primary bearers of semantic persistence properties rather than meaning-infused words.

You might think we could dodge the question another way—by junking dynamic meanings and confining ourselves to the changing relations between presemantic words **w** and static meanings. Adult meant **PERSON 21 OR OLDER** in 1800; what it means now is **PERSON 18 OR OLDER**. This approach obliterates crucial

distinctions, however. There is all the difference in the world between *w* applying more (less) widely because

- (a) its old meaning *M* has broadened (narrowed), and
- (b) it has taken on a broader (narrower) new meaning *N*.

In case (a), *w* constitutes the same sign *w* over time, meaning *M* throughout, as that meaning itself becomes more or less demanding. E.g., **adult** means **ADULT** early and late, but one had to be older then to meet its demands. (b) is the case where a signifier *w* that once constituted the sign *w* comes later to constitute a different sign: *w**, meaning *M**. *girl* fits the second model on the theory that it was true originally of all children. Rather than **CHILD** narrowing, so that boys were no longer **CHILDREN**, *girl* came to mean **FEMALE CHILD**. How to draw the (a)/(b) distinction in the means-at-T framework is quite unclear.⁴¹

p. 23

9. Eligibility Theory

Back now to the revisionary-sounding definition of woman as “an individual regularly and for the most part observed or imagined to have certain bodily features presumed to be evidence of a female’s biological role in reproduction, these features playing into the dominant ideology in such a way as to subordinate the relevant individuals.” One may be forgiven for wondering, with Mark Richard (2019), whether this definition

crosses the line between conceptual therapy and stipulative rebranding.

(194)

One may be forgiven, at any rate, IF the ameliorist is engaged in “a project that seeks to change the meaning of a term” (197)—where changing the meaning is putting a distinct new meaning in place of the meaning woman has had up to now.

Is that in fact the project? Amelioration is apt to be portrayed even by its advocates as involving a numerical, not merely qualitative, meaning change. And yet, if one looks at the passages that suggest this, numerical change is more often contemplated as a possibility than laid down as an absolute requirement.⁴² Haslanger (2020), in a discussion of “how conceptual amelioration is possible,” asks,

Can the content of a concept change, while it remains the same concept? Must we accept *content essentialism* for concepts?

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If concepts are meanings and contents are partitions of logical space, then she is asking whether a word can retain its meaning through changes in its intension. This is what occurred it seems with *adult*, and, to use one of Richard’s examples, *rape*.⁴³

You may be skeptical. Ameliorists speak of associating *w* with *N* *because M is/was problematic*. Isn’t that suggestive, all by itself, of putting one meaning in for another? It is. But suggestions can be implicatures rather than entailments; and that appears to be the case here. *w ought to mean N, therefore it doesn’t mean N* has all the plausibility qua entailment of *I tried to make dinner, therefore I didn’t make it*.

Your having tried to do something is evidence, on the whole, that you succeeded in doing it—granted that it may be a funny thing to say if you succeeded. The probability of succeeding, conditional on trying, exceeds that of succeeding conditional on not trying. The meaning case seems similar. *M’s ill-suitedness to the task* could be evidence that *w* has all along meant something else, granted that *N would be better* is a strange

choice of words if one thinks N is the meaning w already has.⁴⁴ *I tried to make dinner* is the right thing to say, note, to an audience who suspects you might have made it inadvertently. Similarly N *is what it ought to mean* could be the right thing to say to an audience that is shocked to find a word meaning what it should.

p. 24 This is the possibility that people seem to be overlooking in the amelioration wars. The very unfortunateness of w meaning M—the fact that no right-thinking person would want it to mean that—is, or could be, reason to think that w *doesn't* mean M. Conversely, w lending itself to another interpretation N counts, or could count, in favor of N being the correct interpretation.

Consider an analogy. Kripke asks why plus should express addition, not *quaddition* (an operation that agrees with addition until the sum gets too big, and then always outputs 5), assuming that both interpretations can be made to fit with actual usage. Lewis replies that addition is the more “eligible” interpretation—more eligible, he thinks, on account of being more natural (Kripke 1984; Putnam 1980; Lewis 1984). That N is the more eligible candidate is not only evidence, according to Lewis, that w means N rather than M; N's greater eligibility is part of what *makes* it the meaning. The evidential link tracks that underlying constitutive fact about meaning relations.

Let a *contender* for the role of w's meaning be an interpretation that fits in some sense with usage (Lewis 1974). Charity will be a factor here; an interpretation that convicts speakers of too much error fits worse with usage than one attributing less error and/or (since mistakes are a fact of life) making the errors explicable. However we fill in the details, Lewis grants to Kripkenstein that use-consonance leaves meaning radically underdetermined. (“What we say and think ... doesn't settle what we refer to” [Lewis 1984: 226].) Convinced that meaning is not as underdetermined as all that, he goes looking for a tiebreaker, and finds it in eligibility:

N is the most eligible contender.

∴ N is what w means

is an epistemically good inference, for Lewis, because that's how meaning is determined. It lies in the nature of meaning (not that Lewis would put it this way) that the most eligible candidate is the winning candidate.

10. Eligibility-Makers

The importance of eligibility as a filter on use-consonant meanings is not in dispute here. But is naturalness the only factor in eligibility?⁴⁵ A case can be made for looking, too, at some of naturalness's presumed consequences, among them normative consequences (see below). These consequences could be eligibility-makers in their own right.

Natural properties are supposed to be projectible; it is epistemically more *reasonable* to see in this green (grue) emerald evidence that the next emerald will be green than that it will be grue. Some

p. 25 relate naturalness to the fact that some true beliefs (or items of knowledge) are more valuable than others. If we care about the truth in the way we should, we will prefer the opportunity to find out whether neutrinos have mass to the opportunity to memorize the contents of a telephone directory. So long as we can make sense of naturalness for propositions as well as properties, it is tempting to explain this by claiming that the more natural a true proposition is, the more epistemic value one achieves in believing it (or knowing it, or having high credence in it), at least *ceteris paribus*.

(Dorr and Hawthorne 2013)

Further down the same road is Sider's (2013) claim that it is better "to think and speak in joint-carving terms" and "worse to employ non-joint-carving concepts" (61).

If we agree that our words are better taken to express some concepts (GREEN) than others (GRUE), must we agree, too, on the reasons for this, that GREEN is more natural, or joint-carving, than GRUE? The problem is that from a cosmological perspective, GREEN is quite *unnatural*.

Color impresses man; raven black impresses Hempel; emerald green impresses Goodman. But color is cosmically secondary. Even slight differences in sensory mechanisms from species to species ... can make overwhelming differences in the grouping of things by color. Color is king in our innate quality space, but undistinguished in cosmic circles. Cosmically, colors would not qualify as kinds.

(Quine 1969: 127)

Suppose with Quine that GREEN cuts very far from the joints.⁴⁶ What, in that case, makes it a more eligible meaning than GRUE? We need, it seems, to find another eligibility-maker. The fact that GREEN rationalizes inductive inferences better than GRUE seems a point in its favor, even without the supposed foundation in naturalness.

Further advantages suggest themselves once the evaluative door is opened. Color talk would be *irresponsible* if the properties it attributed were not visually recognizable (recognizable, therefore, without knowing the time). Colors are evolutionarily important and play a crucial ecological role. They are far more theoretically fruitful than schmolors. If fruitfulness and the like can enhance eligibility even where naturalness is lacking, then eligibility is not just a matter of naturalness.⁴⁷ Thinker-involving *offshoots* of naturalness can play a reference-determining role all on their own.

A second reason for doubting that eligibility boils down to joint-carving-ness is this. A candidate referent *x* is natural "in itself," not because of its place in the universe. The causal/counterfactual relations *x* bears to other things do not make it natural; it is thanks, in part, to being natural (e.g., nondisjunctive) that it stands in those relations. And yet relational differences, according to most philosophers, are what call the shots when it comes to breaking referential ties. An example from Williamson (2007):

Emanuel sees a stranger, Celia, standing some distance away. Looking at her face, ... he ascribes a character and life-history in considerable detail. In fact, none of it fits Celia. By pure coincidence, all of it fits someone else, Elsie, whom Emanuel has never seen or heard of... A principle of charity that crudely maximizes true belief or minimizes error therefore favors Elsie over Celia as the referent of the pronoun in that context.

(262–263)

p. 26 Many would reach here for causal history:⁴⁸

A causal theorist of reference will point out that Emanuel's use of "she" in this context is causally related to Celia ... In this case, the specific link is that Emanuel is perceptually attending to Celia and using "she" as a perceptual demonstrative.

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But what makes *that* the right sort of causal link to secure reference?

A natural idea is this. The perceptual link from Celia to Emanuel matters because it is a channel for knowledge. If "she" refers to Celia, then, in the circumstances, Emanuel expresses knowledge

when he says “She is standing in front of me” ... The assignment of Celia wins because it does better with respect to knowledge.

(262)

This is the knowledge-maximization account of reference. One take-away point is that Williamson agrees with Kripke, Putnam, Burge, and most everyone else that it takes more than naturalness to break referential ties. It takes something relational, with an emphasis on relations to us. A second take-away is that the relation may have a normative character. The normative element is to do with knowledge, on Williamson’s account, but we should keep an open mind on this: x may owe its goodness as an interpretation of w to the goodness in some broader sense of w expressing x .⁴⁹

Terminology going forward: It will be simplest just to give Lewis the phrase *reference magnetism*; it is by definition exerted by a would-be referent/meaning x entirely on the basis of x ’s naturalness. Let’s give him *eligibility* as well, as an umbrella term for factors of the right sort to break ties between use-consonant contenders x and y . Lewis’s main substantive claim in these terms is that magnetism is all there is to eligibility; it’s the sole tiebreaker. This cannot be right, we have said. Eligibility involves a great deal more, such as facts about w ’s causes and effects (or those of its tokens).⁵⁰ Particularly important are w ’s causal relations to us, including forward-looking relations to do with theoretical/practical fruitfulness.⁵¹

11. Reference Electromagnetism

Naturalness as Lewis conceives it is a feature that x has necessarily.⁵² And it seems to be intrinsic to x as well, though how to cash second-order intrinsicness out in his system is not obvious.⁵³ This is important because the non-Lewisian tie-breakers noted above—causal relations to w -talk, projectability of w -meaning- x , epistemic superiority of x -directed theorizing, knowledge-conduciveness of taking w to express x —are contingent and extrinsic. They have in most cases to do with how x relates to us and our w -involving practices.

p. 27 The idea of ranking contents on the basis of how they relate to us and our practices goes back to William James. James finds himself wondering (in “The Will to Believe”) ↯ not which x s are eligible to serve as meanings, but which propositions P are eligible to be believed. A proposition’s doxastic eligibility depends for James on its likely role in our lives—on what we can hope to *do* with it:

Let us give the name of hypothesis to anything that may be proposed to our belief; and just as the electricians speak of live and dead wires, let us speak of any hypothesis as either live or dead. A live hypothesis is one which appeals as a real possibility to him to whom it is proposed

(James 1992, 457–8).

A dead hypothesis is one that “makes no electric connection with your nature,—it refuses to scintillate with any credibility at all.” His (1992) point about doxastic eligibility-makers, that

deadness and liveness in an hypothesis are not intrinsic properties, but relations to the individual thinker,

(458)

echoes the suggestion above about expressive eligibility-makers (such as, connecting up causally with tokenings of w); some are relational, not intrinsic.

Here is the position we've arrived at: a candidate meaning x 's eligibility is a function not only of its naturalness—a feature x has intrinsically and necessarily—but also its connection with speakers and their activities—a feature x has extrinsically and contingently.

A handy name for the connection factor, given that the first is magnetism, is *electricity* (taking inspiration from James's talk of electrical connections with our nature). Putting the two together, we obtain the notion of N outscoring M on *electromagnetic* grounds. Now we begin to see how speakers and their agendas are worked into an otherwise Lewis-like scheme. The meaning of w is not the most magnetically attractive, but the most electromagnetically attractive, contender.

12. The Through a Glass Darkly Model

A model of electromagnetic attractiveness would be nice. Frege takes some first steps in the *Foundations of Arithmetic*:

What is known as the history of concepts is a history either of our knowledge of concepts or of the meanings of words. Often it is only through great intellectual labour, which can continue over centuries, that a concept is known in its purity, and stripped of foreign covering that hid it from the eye of the intellect.

(Frege 1950: xix)

He gives as examples “the notions of function, continuity, limit, infinity, negative and irrational numbers.” Where concepts like these are concerned,

p. 28

there is no development, no history... If instead ... one said ‘history of the attempt to grasp a concept’ or ‘history of the grasp of a concept’, it would seem to me far more appropriate; for the concept is something objective that we do not form and is not formed in us, but that we try to grasp and finally, it is hoped, really grasp— if we have not mistakenly sought something where there is nothing.

(Burge 1984: 7–8)

To call the concept “something objective ... that we try to grasp” is tantalizingly unclear on the issue that concerns us here: whether M is the meaning on account of features internal to M (like naturalness), or on account of M 's relations to other things (a linguistic community, as it might be). Let's dig into this a bit.⁵⁴

A paradigm of what Frege has in mind by “the concept known in its purity” is Weierstrass's quantificational definition of limit (continuity, rates of change):

the limit as n approaches infinity of x_n is L iff for all ε greater than 0, there is a δ greater than 0 such that x_n is within ε of L when n is greater than N

f is continuous at point a iff for all ε greater than 0, there is a δ greater than 0 such that $f(x)$ is within ε of $f(a)$ whenever x is within δ of a .

f 's rate of change at a is r iff for all ε greater than 0, there is a δ greater than 0 such that $|f(x) - f(a)| \div |x - a|$ is within ε of r whenever x is within δ of a .

Frege seems to think that these (nineteenth century) elucidations capture what Newton and Leibniz meant by “limit” (etc.) much earlier. Assume for the moment that he is right—and right moreover because these are the most eligible contenders. The question is this: Do they win out purely on grounds of naturalness

(magnetic grounds), or on grounds partly of hooking up in favorable ways with human practices (electromagnetic grounds)?

Some of the good-making features Frege stresses are to do with capturing arguments in the net of logic, so that they come out not just analytically but logically valid (Yablo 2010). The second definition, for instance, allows us to prove by logical means that the product of continuous functions is itself continuous. Is this a magnetic advantage? Perhaps, if one thinks logically articulated notions are especially joint-carving. Or perhaps not. Logical validity comes in handy when it comes to managing huge masses of data with a view to pulling out the information one needs. Manageability and retrievability seem like electrical advantages; \mathfrak{M} is attractive, not because it traces natural contours, but because of what it lets us do.

Applicability is a major theme in Frege's writing on concepts. He is famously keen on *fruitful* concepts, ones that facilitate proofs, confer insight, and bring disparate-seeming subject matters together (Tappenden 1995). Kant comes in for criticism on this score. He (Kant)

seems to think of concepts as defined by giving a simple list of characteristics in no special order; but of all ways of forming concepts, that is one of the least fruitful.

(Frege 1950: 100)

p. 29 Frege would have us take our cue, rather, from

fruitful definitions in mathematics, such as that of the continuity of a function. What we find in these is not a simple list of characteristics; every element is intimately, I might almost say organically, connected with the others ... the more fruitful type of definition is a matter of drawing boundary lines that were not previously given at all. What we shall be able to infer from it, cannot be inspected in advance; here we are not simply taking out of the box again what we have just put into it. The conclusions we draw from it extend our knowledge.

(100)

A concept's fruitfulness *may* owe something to its fit with natural joints. But its fit with our cognitive makeup is important too—as is what the concept can do for us inferentially and epistemologically, and (especially) what we *need* from the concept given the questions that we're in fact grappling with.⁵⁵ The utility aspect is stressed as well by Carnap (1962) when he lists fruitfulness as one of four criteria for a successful explication.⁵⁶

Suppose for argument's sake that seventeenth-century mathematicians were, indeed, confusedly en rapport with Weierstrass's \mathfrak{M} , which quantifies over real valued ε s and δ s. Why was it \mathfrak{M} they had in mind, rather than Robinson's \mathfrak{M}^* , which construes rate of change as a ratio of infinitely small hyperreals (Robinson 2016)? Lewisians will say that \mathfrak{M} is more natural than \mathfrak{M}^* . A more psychologistic answer, developed by Peacocke and others, is that \mathfrak{M} does better justice to Newton's "implicit conception" of rates of change.⁵⁷

A third and more interesting suggestion is that \mathfrak{M} is more fruitful than \mathfrak{M}^* in the sense of facilitating certain kinds of progress. This admittedly puts a word's meaning at T at the mercy of developments still to come.⁵⁸ Not only may we have been in no position at T to appreciate \mathfrak{M} 's advantages, \mathfrak{M} may not even have *had* the advantages then. The decision might not yet have been taken to pursue the projects that \mathfrak{M} facilitates better than \mathfrak{M}^* . It was the ε -favoring road that was eventually traveled, not the ratio-of-infinitesimals-favoring road. But it could at T have been either.⁵⁹

Can the through-a-glass-darkly model accommodate this sort of scenario, where velocity (say) turns out to have meant M all along, but would have all along meant M^* had the field taken later a different course? Perhaps it can, with enough fancy footwork. E.g., one could try calling it indeterminate at T whether it was N being seen through the glass darkly or N^* . But the model does seem stretched to its limits here.

Or consider Mark Wilson's example of Druidic island dwellers who, on seeing a B-52 crash land on the beach, exclaim, "Lo, a great silver bird has fallen from the sky" (let's henceforth use "burd," lest our intuitions be hijacked by the English meaning). The plane does fall, he argues, into the post-crash extension of "is a burd." But what about the pre-crash extension? Crucially, from Wilson's (1982) perspective,

p. 30

if the hapless aviators had crashed in the jungle unseen and were discovered by the Druids six months later as they camped discontentedly around the bomber's hulk, ↪ their Druid rescuers would have proclaimed, "Lo, a great silver house lieth in the jungle."

(550)

The bomber cannot be allowed into the pre-crash extension of "burd," he suggests, since depending on its mode of arrival, the islanders could just as easily have classified it as a "house" (or "hause," by analogy with "burd").

The evidence for assignment of an extension to a predicate should be limited to such linguistic behavior as can be reasonably extrapolated from the community's contemporaneous practice and should not reflect accidental features of the society's later history.

(552)

An alternative model, the course-correction model, will be suggested later that disagrees on this point; it allows for the possibility of assigning "burd," even pre-crash, a meaning B that holds of the bomber. Equally viable pre-crash was a meaning B^* that excluded the bomber. But the pool of viable candidates shrinks over time. And B^* loses its viability when the island dwellers brand the bomber a great silver bird, without worrying for a moment that

they have modified or extended the meaning of "bird" ["burd"] ... that classification appears spontaneously natural to them in the circumstances.

(551)

Our difference with Wilson is that we propose to *acquiesce* in the Druidical intuition that the meaning hasn't changed.⁶⁰ When B^* loses its viability, nothing is left for "burd" to have meant even pre-crash but B . Another way to put it is that B turns out to have been the better thing for the word to have meant all along. That the *reasons* for its betterness do not emerge until after the crash is an important point. But its relevance to the actual meaning facts may be doubted. The Shroud of Turin, taking the legend at its word, came into existence before the events occurred (serving as Christ's burial shroud) whereby it was the *Shroud of Turin* that came into existence. Lincoln's assassination took place, on some views, in the Ford Theater, before the event (his death) occurred that made it an assassination as opposed to just a shooting. What's so strange then about a word meaning M rather than M^* , before the events occur thanks to which M is the meaning?

13. Meanings and Kinds

p. 31

This is a paper in metasemantics, not metaphysics/ontology. But one might worry that an ontology of the kind needed will be on the spooky side. Actually, the framework sketched above (with its words, **words**, and meanings) can be made to jibe fairly well with standard views of time-extended particulars. The particulars in this case are \hookrightarrow abstract, not concrete, but they have concrete tokens (concrete articulations, in the terminology of Hawthorne and Lepore (2011)); that will be enough for our purposes. Start with the idea of somatic words *constituting* semantic ones.

Philosophers have been studying for a while the relations “higher” objects bear to the “lower” objects that compose or constitute them: a statue’s relation to its clay, say, or a person’s to their body. As these examples suggest, the higher object *e* is typically of a different kind κ than its constitutor *e*; *e* on a useful metaphor is the entity *e* generates when raised to the power of κ . Persons, for instance, are what living human bodies generate when raised to the power of PERSON.⁶¹ One would like to extend this if possible to the relation between semantic words *w* and the somatic words *w* that constitute them, so that *w* is *w* raised to the power \mathcal{M} . The parallel is not exact, since **words** as we’re conceiving them are *prior* to their meanings, but it will be helpful nevertheless.

An obvious point to begin with is that statues look and feel just like the corresponding hunks of matter; there’s agreement in shape, size, weight, and so on. **Words** being multiply realizable abstract particulars are not of any particular shape or size. But their realizations (“tokens”) have such properties, and when the question is referred to them, we get the expected answer: tokens of **adult** are by and large indiscernible from the corresponding tokens of adult. Written inscriptions look the same, spoken instances sound the same, and so on. All this fits with the conception of *w* as the unique *w*-generated word meaning \mathcal{M} . At the risk of multiplying terminologies, where *e* on a familiar sort of hylomorphic perspective is *e*-qua- κ , *w* on the picture under construction is *w*-qua- \mathcal{M} .⁶²

A refresher on kinds, since they will be serving as a model for meanings. Kinds are properties, more or less. But they are not “regular” properties like Sparky’s property of weighing fifteen pounds. That he weighs fifteen pounds tells us *how* Sparky is, where his weight is concerned, but not *what* he is. Aristotelians sometimes put this by saying that where a thing *has* its regular properties, it *is* (of) its kind.⁶³ The point of the *is* is that kinds are tied up with identity. Regular properties have

- (i) application-conditions—conditions distinguishing for each world *W* and time *T* the φ s in *W* at *T* from the non- φ s,

and kinds do, too. But only kinds have

- (ii) persistence-conditions—conditions endowing each κ (at *T*, in *W*) with an intraworld past and future, and a transworld career.

The kind **STATUE**, for instance, determines

- (i) which hunks of matter (at *T*, in *W*) compose a statue, *and*
- (ii) what the life histories and transworld careers are of the entities thus composed.

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A certain piece *s* of clay might qualify under (i) to constitute a statue *s* of Socrates; (ii) then comes in to tell us that

- (a) *s* cannot survive abrupt replacement/rearrangement of *s*’s clay;
- (b) *s* could not have been made originally of a piece *r* of clay disjoint from *s*;

(c) *s* goes out of existence if/when *s* is squashed flat, or formed into an ashtray.

Are meanings, or the property of meaning thus and such, anything like kinds in these respects? How does a meaning's role in raising *w* to the level of an interpreted word *w* compare to a kind's role in raising *s* to the level of a statue *s*?

Take *girl*. Given that *s*'s clay at a time is the clay comprising at *T* the hunk *s* of matter of which *s* is then composed, an (a)-counterpart would target the letters comprising the word *girl*: *g*, *i*, *r*, and *l*, in that order. One is looking, then, for something like

(a*) *w* cannot survive sudden replacement/rearrangement of its letters.

An abrupt reconstitution as *f-e-m-c-h-i-l-d* would be too much for *girl* to bear.⁶⁴ But slower, less drastic changes might be survivable; the word was once spelled *g-u-r-l-e*, after all. Corresponding to (b) is the fact, if it is one, that

(b*) *w* could not have been written originally with entirely different letters.

Loosely analogous to the limits (c) puts on changes of spatial extension, are those

(c*) *w* goes out of existence if/when *w* becomes true of very different things

puts on changes of semantic extension. The things *girl* was true of changed in the 1530s when it was restricted to females. The *word* it had formerly constituted went out of existence then, in accordance with (c*). A new *girl* took up residence in *girl* when the old *girl* left.⁶⁵

14. Many-Thingism and Many-Wordism

A classic puzzle case in the theory of material constitution is the Ship of Theseus. A certain ship starts life in the Athens harbor. Over the course of various adventures, its planks are gradually pulled out and replaced. The original planks, stored away in a warehouse, are reassembled at a later date on the same plan. The ship we started with at *T* thus winds up with two descendants at *U*, both of which have some claim to be "it." Does the *T*-ship survive as its *spatiotemporal* descendant at *U* (with planks replaced)? Or does it survive as its *material* descendant at *U*, made of the same planks as composed it originally?

p. 33 If there is a standard line on this, it's that the question should be finessed. Talk of «The ship in the harbor at *T*» has a schematic element.⁶⁶ Of the various ways this might be modeled, the simplest takes ship-descriptions («The ship ...») to be referentially indeterminate between items of slightly different kinds; the associated persistence conditions are generally in alignment but, occasionally, in philosophical puzzle cases, pull apart. One candidate referent in the case at hand is a *form*-based ship *s*₁. *s*₁ is still in the water at *U* but is made of different planks. Another, the *matter*-based ship *s*₂, sits at *U* in the town square, where it plays some kind of ceremonial or historical-marker role (Hughes 1997).

There were *two* ship-like items in the harbor initially, the thought is, coinciding at first but developing over time along different tracks. There were probably, in fact, a whole *bunch* of ship-like items, one for each of the persistence conditions between which the ordinary notion of ship is undecided (Yablo 2024).⁶⁷ No doubt only some of these are in play in a particular conversation, depending on the participants' interests and responsibilities.⁶⁸ This is a matter of conversational pragmatics, though, not metaphysics. And so, a *modus vivendi* beckons. Which ship-like items are out there is an objective matter. But which of them counts as «the ship originally in the harbor» depends sometimes on who is asking and why.

The same applies *mutatis mutandis* to words, especially the meaning-imbued variety. Why would talk of them be any less open-textured than talk of ships? «The **word** spelled a-d-u-l-t» is undecided on this view between a bunch of similar sounding **words**, all carving different paths through time and across modal space. As with **ships**, certain of these are liable to stand out from the crowd, and not necessarily the same ones to all observers.

Now, we did suggest above that *the word* spelled a-d-u-l-t in the 1960s took it in stride when the cut-off age dropped to 18. This should probably be reformulated now that we are contemplating the possibility of a pool of adult-composed **words** between which community usage was indeterminate. Some 1960s speakers may have been drawn to an inflexible **adult** whose loyalty to the higher cut-off was absolute; call it **adult**₂₁. Legal developments in the 1970s presented these speakers with a challenge, not unlike the challenge presented to **marriage**_t (“t” for traditional) fans by the Supreme Court’s decision in *Obergefell v. Hodges*. A few diehards stuck, we can imagine, with **adult**₂₁. They were the ones saying, “Not in my book, you’re not,” to their Vietnam-bound offspring in 1972. Among the non-diehards, some will have switched to **adult**₁₈, while others, to avoid further humiliation perhaps, adopted the more flexible **adult** that (we assume) everyone uses today.

People often remark on the difficulty of deciding whether it changes its meaning to put unaccustomed objects (18-year-olds, same-sex couples) into a word’s extension. This is to be expected on the present account. The answer to, “Did w suffer a meaning-change between T and U?” depends on

- (i) which word then in use was constituted by w at T, and
- (ii) where if anywhere we find that **word** still in use at U.

p. 34 These are tricky issues, especially if there were several **words** in play at T between which «The word constituted by w» is indeterminate. Uncertainty about where «The word originally constituted by w» is to be found at a later time is akin to uncertainty about the location later of «The ship originally made of those planks».

15. The Candidate Pool

Ameliorators on a common caricature are people who seek to drag words for political reasons off their natural and appointed path. That path is laid down, you say, by “a clear objective kind that is the most explanatorily useful” (Díaz-León 2020a: 185)? It doesn’t matter; they are not deterred. All one needs is to come up with “moral and political considerations that trump” these objective advantages, and then the verdict is clear:

We ought to change the meaning of the term, all things considered

(Díaz-León 2020a: 185)

Changing the meaning corresponds in our system to substituting a new **word**, with an improved meaning N, for the one that w used to constitute. This is, as Díaz-León says, “the most familiar version of an ameliorative project.”

The familiar version needs rethinking. There may well be no such thing as the w best answering to the description «Word constituted at T by w», as we’ve agreed there is no such thing as the ship-like object best answering to the description «Ship constituted at T by these planks». What we have in both cases is a pool of candidate referents whose fortunes are liable to rise or fall over time.

Say, for instance, that s_2 , the matter-based candidate, is damaged in a fire. “The” original ship’s owner makes a claim for repair costs, based on a policy issued at T for his ship. The insurers reply that “his ship” is s_1 , not s_2 . They point out that s_1 is the ship he has been leasing out and taking payment on, and that the matter-based ship s_2 was put together by archaeologists without his knowledge. One can imagine arguments on the other side as well, with one side or the other prevailing. Fruitfulness considerations are going to play a role here; it’s important for instance not to lay down a bad precedent.

As with ships, so with words. Reasons may emerge at U for seeing in w_1 a happier construal of w than w_2 . (w_2 was, on reflection, an unfortunate choice of **word**.) The pool of candidate referents for «Word constituted at T by w » accordingly shrinks, and w ’s meaning grows clearer. T-speakers are understood at U to be using one or another of (or a superposition of) the **words** still in the pool at U; shrinking the pool therefore makes it less indeterminate what they were saying.

p. 35 The ameliorator is usually portrayed, we said, as wanting to “redirect” w ; imposing a new meaning is pulling it off the course set by the previous meaning. This is not the right way to look at things, if w was undecided between **words** not all meaning the same. What the critic calls “pushing w in a new direction” might better be seen as *opting* for **words** that ↘ were going in the right direction already. There were **words** meaning N (or something near enough) in the pool and **words** whose meanings conflicted with N . Our decision is to side with the first class of **words** against the second. The **words** that conflicted with N are no longer in the running, as we see it, for the role of «Word composed by w at T».

16. Pool Rules

Hang on, you say. Why think that *anything* in the pool was going in the right direction already? Especially when it has yet to be explained how **words** make their way into the pool in the first place.

Consider our shared grasp of *adult* in 1970, before the age of majority dropped to 18. The guidance it provided in ordinary cases, the sort that speakers might realistically expect to encounter, did not extend to remoter scenarios (cf., Weissman on the open texture of language). Open texture was modeled as *adult*’s potentially constituting any one of a number of interpreted **words** all spelled and pronounced the same. Semantic stability would seem to require, on this model, that at least one of these **adults** was open to applying, under the right conditions, to 18-year-olds. Were there **adults** of this sort in the pool? One certainly hopes so; it seems more than plausible. But we would like to have more to operate on here than just hunches.

Imagine a Bush-era legal theorist⁶⁹ “discovering” in the pre-9/11 pool for torture a **word** that did not apply to waterboarding, fingernail extraction, or branding with a red-hot poker. The pool contained in particular a **word**—**torture_y**—applying only to forms of treatment liable to result in organ failure. Commentators saw this as opportunistic nonsense. Postulate such a **word** if you like. But don’t pretend it was a reading already in the running when you suddenly developed a need for it.

What is the difference, exactly, with the previous case? Why is the John Yoo line on torture more ridiculous than the standard 1970s line on *adult*?

The ship analogy helps us to answer this. Let it be the form-based ship s_1 that catches fire this time. The owner seems in for a big loss (insurance was never purchased) until it occurs to him to argue that although “his ship” started out where s_1 was, it jumped before s_1 caught fire to the town square—taking up residence there in the original planks, the ones also by then constituting s_2 . “His ship” s_3 is a gerrymandered object that was coincident with s_1 before aligning itself with s_2 . He would be coming by for it soon ... unless the mayor wanted to make a deal.

p. 36

The truth is that there is no such ship as this scoundrel claims to (still) own. There may be a kooky always-ship-shaped *object* with the history he posits. But it does not count as a ship on any sane construal of the word. How we know this is not easy to say, but part of the answer is Davidsonian charity. An interpretation that allowed for discontinuous, uncaused, relocation would be hugely uncharitable to past usage. Only a fool would attempt to track ships perceptually, predict their future whereabouts etc., if ships were the kind of thing to jump discontinuously about for no apparent reason. Between ↵ an interpretation that makes us out to be fools, and one that makes our conduct comprehensible, it is clear enough which to pick.

This is the problem with Yoo's (hence, the Bush administration's) understanding of torture as the infliction of severe pain—where pain to be severe “must necessarily be associated with “death, organ failure, or serious impairment of body functions.””⁷⁰ A lot of the most obvious-seeming pre-9/11 applications—to mock execution, branding with a hot poker, and the like—would be incomprehensible if that's what was meant. People knew that branding did not cause organ failure, yet went ahead and called it torture anyway. Yoo misjudged the contents of the pool.⁷¹

One more example before we get to our conjecture about how words gain membership in the pool. *girl* supposedly came to constitute a new **word** (meaning *FEMALE CHILD*) around 1530. Why do people believe this? Could one not equally say that girls had had to be female all along? One could try, but an explanation would then be needed of why pre-1530 speakers did not withhold the term from male children. Explanations can be imagined, just barely. Maybe they never encountered any male children, because the boys had died or gone into hiding. Maybe they did encounter them, but unwittingly; boys back then went around in disguise. That nothing like this is ever contemplated suggests that pre-1530s speakers would have been, not just mistaken, but inexplicably so, had it been *girl*_f (meaning *FEMALE CHILD*) they were using.

A pattern is emerging. What keeps *torture*_y out of the pre-9/11 pool for torture? Respect for earlier usage. Reading *torture*_y into pre-9/11 uses of torture makes a mockery of the speakers involved by foisting on them huge numbers of unaccountable mistakes. What keeps *girl*_f out of the pre-1530 pool is similar. The *girl*_f reading makes pre-1530 speakers into fools given to wanton over-application of *girl*. The idea more generally is that

w should be counted at U into the candidate pool for w-at-T if and only if it would not (at U) be uncharitable to T-speakers to read w into their use of w.

This reinforces the claim above that normative considerations can bear on “what the *actual* [meaning] of a certain term is” (Díaz-León, 2020a: 185; emphasis added). A **word** that people *should* have been using looks like one that can charitably be ascribed to them. A **w** that can charitably be ascribed to T-speakers belongs in the candidate pool for w-at-T. A **word** in that pool is one that can, *with no change in its meaning*, be the one that w expresses today.

17. Clarifying Charity

Interpretation could not get off the ground, we are told, if there were not a presumption against assigning false-making meanings to sentences sincerely held true, or normatively perverse meanings to sentences preferred true:

p. 37

We could not begin to decode a man's sayings if we could not make out his attitudes towards his sentences, such as holding, wishing, or wanting them to be true. Beginning from these attitudes, we must work out a theory of what he means, thus simultaneously giving content to his attitudes and to his words. In our need to make him make sense, we will try for a theory that finds him consistent, a believer of truths, and a lover of the good.

(Davidson 2013)

This may seem to put charity at odds with the kind of amelioration we've been discussing—with “new” meanings read back into past utterances. Mark Richard, drawing on the work of Jill Hasday, gives the example of rape:

The nineteenth-century American legal understanding of rape—and surely its dominant social understanding for at least the first two-thirds of the century—was that it occurred when a man had intercourse with a woman who was not his wife without her consent. The nineteenth-century feminist movement in America began arguing publicly in favor of the idea that a woman “has a right to her own person”—and thus has a right to refuse her husband’s demands for sex—in the mid 1850’s.

(Hasday 2000)

The legal landscape was, reformers’ efforts notwithstanding, slow to change. The Model Penal Code of 1962 finds a man guilty of rape if he has unwanted sexual intercourse “with a female not his wife.” Not until the 1990s was marital rape securely established in the United States as a legal category.⁷² (The dominant social understanding of rape got there earlier, it seems, but we will not worry too much about the social/legal distinction here.⁷³)

Did the countenancing of rape within marriage require rape to take on a new meaning? Charity as it is sometimes represented suggests the meaning did have to change. It was common knowledge, before reformers began their campaign, that

in agreeing to marry one gave irrevocable consent to having sex whenever one’s partner requested it—an idea that, as is well known, traces back to the British jurist Matthew Hale, who wrote that marital rape was impossible “for by their mutual matrimonial consent and contract the wife hath given herself up in this kind [i.e., sexually] unto her husband, which she cannot retract.”

(Richard 2020: 366)⁷⁴

Think how uncharitable it would be to construe pre-reform speakers as just mistaken about all this. If they were right in rejecting the possibility of “rape within marriage,” and we are right in accepting it (as a category with instances going back centuries), then pre-reform speakers must have meant a different thing by rape. More carefully, the word must earlier have constituted a different **word**, not synonymous with the one in use hereabouts today.

To assign a false-making meaning would indeed be uncharitable if *misstatements*—the holding-true of falsehoods—were what interpreters had to minimize. Really though, it is *inexplicable, unforgivable* misstatements. We should

prefer the interpretation that makes the utterance explainable ... it is better to attribute to [the subject] an explicable falsehood than a mysterious truth.

(Grandy, 1973: 445)

p. 38 Whether marital-rape denialists were inexplicably, unforgivably mistaken is not obvious. Certainly, they were holding-true falsehoods, if their **word** is the same as ours. But charity was never intended to vindicate everything people say.

The Greeks were holding-true falsehoods when they spoke of stars as apertures in the dome of heaven, as were the Babylonians, when they spoke of Hesperus as a star.⁷⁵ Charity is fine with this, provided one can

see why they would in this instance have found the falsehoods plausible. A vindicating interpretation is in fact *uncharitable*, where the clues speakers have to go on are misleading. For it saddles them with indefensible attitudes. To insist against the evidence on (what turns out to be) the truth is unreasonable. This is not how a charitable interpreter wants to make her subjects look.⁷⁶

What are the lessons for **rape**? If the case for meaning change turns on the inexplicability of marital-**rape**-blindness, then it is not very strong. How hard is it really to see why nineteenth-century speakers would consider *y* un-**rape**-able by *x*, when to them, *y* is *x*'s property, *y* has consented for the term of the marriage to sex on demand with *x*, etc.? Someone with hugely false beliefs (as we assume these are) from which un-**rape**-ability follows would be expected to have a blind spot here. Since their conduct makes sense *even if they are using the same rape as us*, it is not uncharitable so to interpret them. One could argue that charity requires such an interpretation. Otherwise we lose our grip on what precisely was wrong in their day with the behavior that came to be known as marital rape. Imagine someone blurting out, "Stop, this is rape!" during a sexual assault by her husband. She may have been in some sense misusing the word. She would not have been understood, probably even by herself. But it is hard to hear the statement as false.⁷⁷

18. Extending Charity

An interpretation that makes T-speakers badly wrong may be charitable nonetheless, provided we can explain the misstatements away as natural in the circumstances. The usual sort of explanation points to a prior "error or oversight"⁷⁸ from which the misstatement flows. People didn't realize back then that whales were biologically akin to elephants, or that women were morally akin to men. This is what led them to apply terms like **fish** and **property** to things that turned out not to be properly so called.

But not all of the statements an interpreter might want to forgive can be traced back in this way to prior miscues. Take, for instance, Newton and Leibniz on instantaneous velocity. A lot of what they said on this topic was baffling,⁷⁹ and some of it (we are told) was flat out wrong. They made mistakes—held-true falsehoods—that could have been avoided had they been working with epsilons and deltas. But non-adoption of the ϵ - δ analysis was not an *oversight* on their part. It didn't exist in their day; it might not have been comprehensible. Some would argue that it was not determinately the case back then that the ϵ - δ analysis would come to be seen as capturing the meaning. The ratio analysis might have won out, had the continuum come to be conceived another way—as a "non-Archimedean" manifold replete with infinitesimals.⁸⁰

Similar remarks apply to Wilson's Druids. Inability to foresee the arrival of a previously undreamt of winged metallic object hardly counts as a slip or oversight. Still less did the Druids overlook something in failing to realize that the object would first be encountered in the air rather than on the ground. Their mistakes were innocent, to be sure. An interpretation that represents them as holding-true falsehoods at T (e.g., «Burds are solid rather than hollow») is not uncharitable. But what excuses the falsehoods is not that T-speakers had been led astray. Rather, the meaning was still in some sense under construction.

A third example involves measure-words: second, meter, kilogram, etc. These do not change in meaning whenever science comes up with better ways of measuring things. The obvious way to keep the meanings aligned is for the new and improved standard to be read back into earlier uses.⁸¹ This admittedly runs the risk of falsifying statements once held true, like «This has always weighed a kilogram», said by Pierre in 2010, when a kilogram "was" the mass of a metal cylinder at the International Bureau of Weights and Measures in Sèvres.⁸² A charitable interpreter will take pains not to hold such misstatements against Pierre. But again, charity will be hard to arrange if to receive it, Pierre has to be represented as *explicitly* mistaken.

Caesium clocks are highly precise. The definition they enable of second, adopted in 1967,⁸³ represented a huge advance on the ones employed earlier:

Before 1960, the unit of time the second, was defined as the fraction $1/86400$ of the mean solar day. The exact definition of “mean solar day” was left to astronomers. Measurements showed that irregularities in the rotation of the Earth made this an unsatisfactory definition. In order to define the unit of time more precisely, the 11th CGPM (1960) adopted a definition given by the International Astronomical Union based on the tropical year 1900.⁸⁴

So good is the caesium definition that we are strongly tempted to read it back into earlier second-talk. One could, it's true, keep the old definition(s) around for old-utterance-interpretation purposes. Tokens of «The process takes fifteen seconds» would be interpreted according to the definition experts were advocating for when they were produced. This seems a funny policy, though, given that speakers (i) rarely know what measurement experts are saying, and (ii) would be just as happy deferring to experts' *considered* judgments as to whatever the best current story was at the moment in question. No doubt some old utterances need to be taken with a grain of salt, since nobody knew back then which way the definitions were trending. But that is just to say that pre-1967 misstatements should be looked on charitably.

The problem, again, is to see under what face-saving “guise” charity is to be extended. It is not as if the 1967 meaning N better captured what second-talk was driving at the whole time. There was an element of happenstance, for one thing, in science hitting on caesium clocks before, say, mercury-ion clocks. Also, the talk was driving at N only if it ∇ was NOT driving at the N^* obtained by substituting 9,192,631,771 periods for 9,192,631,770. That second had 9,192,631,770 in its sights pre-1967 rather than 9,192,631,771 would take some arguing.⁸⁵ What primarily gets in the way, however, of looking charitably on pre-1967 misstatements is that we don't know how to explain them away.

All these examples point in the same direction. A distinction is needed between two sorts of non-culpable misstatement.⁸⁶ Some misstatements are explainable away in terms of prior error or oversight. Others merely reflect that certain semantic opportunities had yet to make themselves available. There are better ways of organizing the use of w —not that anyone at time T would have known of them—adopting which would have saved T -speakers from their mistakes. The term we'll use is *missed-opportunity* misstatements, thinking here mainly of opportunities that

- a) had not yet *arisen* at T , like that of defining second in terms of the radiation emitted by microwaved caesium atoms; or
- b) had not yet at T achieved the status of *opportunities*—it was not until the late 1960s that an **adult** inflexible as to cut-off age became untenable.

Falling, arguably, into both these categories is the way of organizing rate-of-change talk proposed by Weierstrass in 1861 (with his ϵ - δ definition of the derivative). Weierstrass's definition didn't exist when Newton wrote *Principia* ($T = 1687$). And it was *opportune* (more so than Robinson's definition), thanks in part to how mathematicians came to conceive the continuum.

Speakers who are pulled off course by their errors/oversights are not the only ones deserving interpretive charity. A modicum of charity should be extended to “victims” of missed opportunity too. One probably does not want to speak in the missed-opportunity case of *explaining* the misstatements away. («Newton went wrong on account of not minding his ϵ s and δ s» has some of the same absurdity as «Newton's head hurt due to the shortage of Tylenol in his brain».) Even if Newton's misstatements are not *explained* by the unavailability in 1687 of ϵ - δ methods,⁸⁷ the possibility remains that they're *excusable* on that basis. That Newton didn't have ϵ s and δ s at his disposal does seem to throw his stumbles into some kind of saving perspective.

Consider now Pierre, who organizes his use of kilogram around that metal cylinder in Sèvres. He is wrong when he endorses «The cylinder has always weighed a kilogram». It shows him no disrespect to say so, given that he was working with an inadequate and soon to be superseded definition. Pierre had no intention, when he gave *M* (something to do with the cylinder) as the meaning, of swearing absolute allegiance to it. He would presumably have been aware that *M* had problems, like reliance on a hard to access physical prototype, that would need at some point to be addressed. He could hardly help but be aware as a general matter that *M* could be improved upon somehow or other. Pierre would likely have jumped at the chance of associating himself with *N* (something to do with Planck's constant) had the opportunity been provided.⁸⁸ Mistakes that an embrace of *N* would have prevented are understandable, which is not to say explicable.

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19. The Course Correction Model

Science as Neurath tells it is like a boat that sailors are forced to repair out at sea while remaining afloat in it. A better analogy, since science is an activity, might be the journey the sailors are taking. This preserves the holism while adding an intentional element. The course to be set today depends on the boat's present location, which is a function of the course(s) set earlier. Also important, of course, is the intended destination. That, too, is up for review, as the travelers get clearer on what they are seeking and where they are likely to find it.

This connects up with amelioration as follows: Meanings are theoretical entities, postulated to make sense, inter alia, of linguistic communication. Hypotheses about what a word means (and has meant) are defeasible, like hypotheses about anything else. This being so, a lot of what gets called "giving the meaning" is better conceived as presenting a hypothesis about the meaning. And a lot of what gets called "changing the meaning" is better conceived as revising that hypothesis. Clearly, the meanings of words are frequently (in some sense) reimagined. The reimagining need not involve the imposition of new meanings. It may be our theory of the meaning that changes.⁸⁹

Why, though, would our theories evolve in an *ameliorative* direction, with hypotheses attributing productive (fruitful) meanings *N* winning out over those attributing counterproductive meanings *M*? A couple of answers have been suggested to this (both variations on themes sounded long ago by Lewis) to which we'll soon add one more. First: The role reference magnetism played for Lewis, reference *electromagnetism* plays for us. That *N* is the more fruitful candidate makes it electromagnetically more attractive, and hence more eligible for the meaning-of-*w* role. So much the better for its chances of winning the role. *N* standing a better chance of winning the meaning role gives «*w* means *N*» an advantage qua semantic hypothesis over «*w* means *M*».

The second answer appeals to charity. *N* is not the meaning unless it's charitably ascribable to *w*-users. How could it not be a plus for *N*, in this respect, that it is a better, more useful, thing for *w* to mean? Speakers are lovers of the good, remember. The good does not quickly reveal itself, however, which gives the interpreter an opening. She can say: Yes, they accepted a falsehood. But they were doing the best they could with the tools available. They were in thrall at the time to *M*, being unacquainted with *N*. What enables this sort of missed-opportunity framing is *M*'s unproductiveness relative to *N*. This is the second reason our words might be expected, other things equal, to gravitate toward productive meanings. Among the hurdles an interpretive hypothesis has to clear are some (to do with charity) that productive *N*s clear more easily.

These "theoretical" advantages cannot be the whole story. If the ameliorist aims only to improve our theory of what *w* means, why do we find her so often *agitating* for a certain meaning? Rather than trying to bring it about that *w* means *N*, shouldn't she limit herself to observations supporting the *N* hypothesis?

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Ameliorists do make observations. They observed in connection with rape that wives are not their husbands' property. They observed that the length of a certain day in 1900 could not do much to coordinate the use decades later of second. They observed that 18-year-olds risking their lives overseas did not count for voting purposes as adults. They observed as recently as 1990 that the standard kilogram in Sèvres was hard for physicists to get ahold of, heavier on some occasions than others, etc.

So yes, the ameliorist is an observer. Why should this prevent her from trying to influence events? No one said that she was a *disinterested* observer. Bringing out awkward facts about *M* is, or can be, a way of killing its candidacy for the position of what *w* means. Highlighting *N*'s advantages is, or can be, a way of boosting its candidacy. If there's a contradiction here, then it's shared by mobilization efforts generally. Social organizers try, by stressing an outcome's potential fruitfulness, to hasten the day when that potential is realized. Amelioration can be seen as just a special sort of mobilization effort—where the sought after outcome is that semantic indeterminacy be resolved in favor of these candidates rather than those.

This in a nutshell is the course-correction model. Amelioration done right is (on the CC model) self-fulfilling. *N* really is, if all goes well, the meaning rather than *M*. *N* is the meaning because it's more eligible; because it exerts a stronger electromagnetic pull; because it is more fruitful/productive, perhaps, in part, because we've laid the ground for this outcome by popularizing *N* and setting out its advantages.

The scientific community arranged at a certain point for second to mean *N* (something to do with caesium atoms) rather than *M* (a fraction of the length of a certain day in 1900). They did it by making *N* more eligible, specifically, more productive. To be productive, a meaning has to be available for use, which *N* initially wasn't. (*M* had the eligibility advantage to begin with.) *N*'s prospects took a turn for the better when atomic clocks were developed in the mid-20th-century. From an early write-up in the New York Times:⁹⁰

Blueprints for the most accurate clock in the universe, tuning in on radio frequencies in the hearts of atoms and thus beating in harmony with the "cosmic pendulum," were outlined yesterday at ... Columbia University by Prof. I. I. Rabi, who delivered the Richtmyer Memorial Lecture under the auspices of the American Association of Physics Teachers. (34)

From this it seems that *N* had only to await the arrival of new technology. But there could have been a number of standards *N*₁, *N*₂, ... under development, each improving on *M* but none superior overall to the others. Part of the task in that case would be to build up a constituency for caesium in particular.⁹¹ Once the cognoscenti have rallied around *N*, it becomes, for the rest of us, an offer we can't refuse.⁹² Recall that the offer includes a *pardon* for any mistakes we might have been drawn into by that embarrassing early crush on *M*.

20. Debunking and Charity

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Back now to the revisionary-sounding definition of woman floated by Haslanger.⁹³ Adopting it would on the face of it change the meaning, or (as we prefer to think of it) ↪ the **word**. Appearances can be deceiving, though, as with second and adult. What looks, at first, like proposing a novel meaning is better understood in some cases as proposing a novel hypothesis about the existing meaning.

Why would these be so difficult to distinguish? There's first an act-object ambiguity. "A hypothesis" could be either an act of hypothesizing or the proposition that's hypothesized. "Proposing" a hypothesis could, second, be either proposing the act, or engaging in it, that is, advancing the proposition as true. To top it all off, proposing *N* as the meaning has the potential to boost its candidacy for the role, conceivably making it true that *N* is (and was) the meaning—in which case *N* was not really new after all. One should be careful

then about calling the proposed meaning *novel*. It may or may not be novel, depending on whether the proposal succeeds.

When second began to be explained in terms of atomic clocks, that was a *refinement* of the previous definition. Earlier judgments were not reversed; we were expected only to bear in mind their greater uncertainty. The rethinking of adult-hood in the 1970s did not reverse earlier judgments either. New legislation was passed, and the popular understanding evolved, but the classificatory effects were mostly forward-looking.⁹⁴ Haslanger's definition of woman seems different in this respect. (Amazon warrior-queens are dropped retroactively from the roster.) The transition if it took hold would not be

classificatorily conservative ... We do not hold constant the classification the concept effects in practice while flipping its emotive valence.

(Richard 2020: 374)

True, but what happened with rape was not classificatorily conservative either. Assaults that fell initially under "the marriage exemption" came to be seen in retrospect as clear cases of rape. Richard might reply that the switch was conservative in a different sense:

The purposes the feminists in effect were assigning to the concept of rape would likely appear to the target audience to be more or less continuous with the cognitive and social purposes the concept already served, even at the beginning of the nineteenth century... A consequence is that it would not feel like false advertising—it would not have been false advertising—for feminists to represent themselves as pointing out that the best way to understand the existing practice of labeling and prosecuting things as rape is as a practice whose rationale ... is to condemn sexual violation of women no matter who the agent is.

(Richard 2020: 373).

This sounds like an appeal to charity. Interpreters are entitled to correct for subjects' shaky grasp and inconsistent application of the rationale for their own labeling practices. The difference with woman is that there was an appetite in the target audience for this sort of correction in 1870; that is why it did not feel like false advertising. Whereas there is not much appetite today for the corresponding "correction" re woman.⁹⁵

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But, should speakers get to decide for themselves what counts as a charitable intervention? Debunking accounts of ideologically freighted notions are *supposed* to be uncomfortable. They come packaged, indeed, with an account of their own ↵ off-puttingness. The assumptions they target have been implanted so deeply as to seem obvious, in order that unjust social arrangements take on an appearance of naturalness and inevitability.

That patriarchy has done such a number on us looks, in principle, like a wonderful account of why we would rather not see women as ipso facto subordinated. It's the same sort of account as might once have been given of people's resistance to the idea of royalty as a social/political status rather than something divinely ordained. Or of the insistence in some quarters that civil "marriage" is not marriage properly so called.⁹⁶ The extension to same-sex marriages seems in this light like no big deal. We have, after all, a *story* to tell about why earlier generations got it wrong; can obliviousness to the possibility of civil marriage be explained away half as well?

Continuing on the theme of giving unjust social arrangements the appearance of naturalness and inevitability, gender status bears comparison with class and caste status. There is a tendency, noted long ago by Russell, to romanticize the downtrodden as if in compensation for their ill treatment:

If virtue is the greatest of goods, and if subjection makes people virtuous, it is kind to refuse them power, since it would destroy their virtue. If it is difficult for a rich man to enter the kingdom of heaven, it is a noble act on his part to keep his wealth and so imperil his eternal bliss for the benefit of his poorer brethren. It was a fine self-sacrifice on the part of men to relieve women of the dirty work of politics. And so on.

(Russell 2009: 63)

Russell's focus is on subject nations, "noble savages," the proletariat, women, and children. He might also have mentioned caste. Indian epic poetry tells of worthy and respected outcastes ("Untouchables," Dalits). The Ramayana is traditionally credited to a Dalit (Valmiki). Veda Vyasa, author of the Mahabharata, supposedly had a Dalit mother. Gandhi wanted Hindus to reconceive this group as Harijans or "Children of God."⁹⁷

Their occasional earlier veneration notwithstanding, few would insist today on keeping subordination out of the definition of outcaste, or that of Shudra, the lowest of the macro-castes (Dumont 1980). A charge of conceptual rebranding *could* be leveled in this case, too. It is not uncommon for caste's hierarchical character to be denied or downplayed.⁹⁸ The law of Varna, a precursor to the caste system, was defended by Gandhi as (in its heart of hearts) egalitarian:⁹⁹

There is no calling too low and none too high. All are good, lawful and absolutely equal in status. The callings of a Brahmin—spiritual teacher—and a scavenger are equal, and their due performance carries equal merit before God, and at one time seems to have carried identical reward before man.

(Ambedkar 2014)

Hardly anyone talks this way today, not that no one does. Denialism about caste's hierarchical character is a persistent strain in Hindu thought. It has not always seemed absurd and continues to have its advocates.

p. 45 Denialism about gender's hierarchical side has its advocates too. This is surprising given how recently it was that women acquired voting rights—to say nothing of rights over their own bodies (which are suddenly again up for discussion). Slaves of a male persuasion won the franchise soon after the Civil War. Women had to wait another five decades, and then five more for rights of bodily self-possession. This could be just a string of bad luck. But it is not *absurd* to think that women are subordinated per se. Anyone who claims to know a priori that such a view distorts the concept has not been paying attention.¹⁰⁰ The question is not to be settled from the armchair.

Quine once asked, in his attack on analyticity, what the in-principle difference was supposed to be between reforming logic "as a means of simplifying quantum mechanics," and "the shift whereby Kepler superseded Ptolemy, or Einstein Newton, or Darwin Aristotle?" (Quine 1951: 40). One might ask in a similar vein what the difference is supposed to be between Elizabeth Cady Stanton superseding Matthew Hale on the meaning of rape and people like Ambedkar superseding people like Gandhi on the meaning of caste and gender terms.¹⁰¹

21. Review and Conclusion

Ameliorists by definition are people who advocate for *N* as an opportune, fruitful, productive thing for *w* to mean. Are they advocating for a *change* of meaning? That is certainly how it looks—or has looked to philosophers who have considered the question. But while meaning change can be the goal, we don't believe that it must be. Semantic continuity seems out of the question because people are operating with over-rigid assumptions about meaning. To come at it from the other direction, continuity begins to seem less ridiculous if we keep certain semantic possibilities in mind. These are listed below in something like their order of appearance in the chapter.

FACTUAL ENTANGLEMENT: Meanings are assumed to be prior to the facts we use them to state. This runs contrary, though, to our actual practices of meaning ascription. We do in practice revise our views of what was meant in light of new empirical findings,¹⁰² and even non-empirical findings.¹⁰³

PRESUPPOSITION FAILURE: Meanings are assumed to be presuppositionless. But our ways at least of *specifying* them are apt to rest on ideas about the properties of the meaning thus identified. What to say when these ideas turn out to be incorrect? Maybe, as in the ill-chosen prototype case, that we were wrong about what the meaning was (section 6).

HISTORICITY, EMBODIMENT: Meanings are assumed to be free-floating and ahistorical. But our ways of identifying them over time run essentially through the signs *w* whose meanings they are: a signifier retains its meaning for precisely as long as it continues to constitute the same sign. Anchoring meanings in signs opens the door to variation in what a meaning requires over time, e.g., **adult** retained its meaning even as that meaning became less demanding. The door is opened, too, to retroactively \hookrightarrow operating influences on **words** already in use. If the Shroud of Turin could exist before its essential properties (serving as Christ's burial shroud) were in place, the term **rape** can predate the events given which it's the term we've been operating with (sections 7, 8).

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ELIGIBILITY: Meanings are thought to be a function of use. But theorists going back at least to Frege have questioned this.¹⁰⁴ Contents are arranged hierarchically, for Frege. Some are especially well suited to play the sense role, because they help with (for instance) the codification of valid inference patterns.¹⁰⁵ This might be seen as a precursor to Lewisian reference magnetism. Use underdetermines meaning on either view. Eligibility comes in to take up the slack (section 9).

FRUITFUL CONCEPTS: Fruitfulness considerations may seem to bear only on words' future semantic properties—on what *w* shall mean going forward. But they can bear, too, on what *w* means now, whether or not anyone is in a position to know it. (As seen with measure terms in science, mathematical terms like limit, and social/legal terms like married and adult.)

ELECTROMAGNETISM: Magnetism is a function solely of god's-eye-view naturalness. Fruitfulness looks as well to “electric” factors such as fit with our cognitive makeup and practical projects. Words are drawn to fruitful meanings because fruitfulness makes *N* more electromagnetically attractive (sections 10–12).

SEMANTIC INDETERMINACY: A further resource here is the metaphysical doctrine known as pluralism or many-thingism. Just as it can be indeterminate which of various ship-like items *s_i* is “the ship composed at *T* of thus and such planks, so and so arranged,” it can be indeterminate which of various signs *w_i* is “the word composed at *T* of thus and such letters, so and so arranged.” An ameliorist not bent on meaning change might be attempting only to reduce the indeterminacy. She might be trying to remove **words** with the wrong kind of meaning from the candidate pool: the **words** that *w* potentially expresses. No new meanings are imposed if a *w* meaning *N* was already in the pool (sections 13, 14).

EXPLICABLE MISSTATEMENTS: A **w**ord does not belong in the w -pool if it is too far out of sync with people's use of w at the relevant time T . w_i is out of sync with people's use of w at T if it is not charitably reconcilable with their verbal dispositions at T —if too many sentences that come out false, when w is read as w_i , are inexplicably held true at T . Friends of w_i are equipped in many cases to explain the misstatements away. The explanation would cite T -speakers' denial of, or insensitivity to, the facts whatever they are that confer on w_i its advantages (e.g., in the case of rape, certain moral equivalency facts). Charity favors the ascription of useful meanings, because their usefulness unlocks resources for explaining misstatements away (section 16).

p. 47 **UNDERSTANDABLE MISSTATEMENTS:** Explaining them away is not the only way of making sense of misstatements—of why a falsehood would be treated as true. Speakers base their acceptance decisions on heuristics that can lead them astray. There need be nothing irresponsible about this. Heuristics may be all we have to go on at T ; there is nothing else for the meaning to be. They take on the appearance of “mere guides” only when something better comes along (section 17).¹⁰⁶ This points to a second way charity favors the ascription of fruitful meanings. The more counterproductive $M \downarrow$ is relative to N , the easier it becomes to cast M as a heuristic issuing sometimes in false conclusions. Insofar as the misstatements are forgivable, proposing N as the meaning does not automatically make T -speakers out to be fools.

DEBUNKING ACCOUNTS: Some of the more radical-sounding reimaginings out there, like Haslanger's definition of woman, have seemed so at odds with existing usage that the meaning would *have* to change. The thought in Davidsonian terms would be that an interpreter who attempted to read N into present-day usage would saddle us with mistakes not so easy to forgive. This might be right in the end. But it's not a slam dunk if M has the backing of ideology. You'd expect in that case that speakers would see no real alternative to statements that, when the blinders are off, look rather more debatable. Gandhi thought that Shudras only happened to be subordinated; they were not “lower” by nature. This is just what we say today about women. If ideology could lead him (a moral genius!) off track about the meaning of caste terms, who's to say it could not lead us off track about the meanings of man and woman?

Notes

1. Special cases aside, such as indirect traction via an agent's desire to bring good outcomes about.
2. “Observe, the nose is formed for spectacles” (Voltaire, *Candide*).
3. Williamson (2007); Williams (2018).
4. Cappelen (2018); Koslow (2022).
5. You should, as the saying goes, dance with the one that brung you.
6. Heteronymous reasoning is “reasoning directed from the outside, by an authority that is merely assumed or imposed” (G. Williams 2018).
7. Linguists have their own notion of amelioration, to do with strengthening positive associations and/or weakening negative ones. Amelioration in the linguist's sense is the opposite of pejoration (Traugott et al. 2001: 55). A meaning adjustment that is pejorating to the linguist would be ameliorative in the philosopher's sense, if we stand to gain by bringing the unsightly details into view.
8. Sometimes the superiority has an aesthetic, or anyway, a non-cognitive, aspect. Wittgenstein (1980): “Esperanto. The feeling of disgust we get if we utter an invented word with invented derivative syllables. The word is cold, lacking in associations, and yet it plays at being language” (52). “A language which has not ‘grown organically,’” writes Carnap, seemed to Wittgenstein “not only useless but despicable” (Nyíri 1992: 85). (Carnap taught himself Esperanto as a child.)

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9. Chomsky was a Junior Fellow at Harvard when Austin gave *How to Do Things with Words* as his William James Lectures. It would be interesting to know whether Skinner (who was at Harvard too) attended the lectures.
 10. See for more along these lines “The Design of Cultures” (Skinner 1961).
 11. Skinner (1960) attempts to explain in novelistic form how the promotion of survival-conducive values might play out in practice.
 12. Pinker says of the strings *ptak thale hlad plaft sram mgla vlas flutch dnom rtut toasp nyip* that “any native speaker recognizes that *thale*, *plaft*, and *flutch* are not English words but could be, whereas the remaining ones are not English words and could not be” (1995: 173).
 13. Similar points apply to proper names, which are on some views not words at all. Kaplan gives the example of someone wanting to call the baby *Tkbtbtkbtktb*: “No way! It wouldn’t be English... There are a lot of names, you have a lot of choices, but you can’t name it that. My point here is that names, like other words, must subscribe to certain regularities. Certain of these regularities have to do with admissible sound and spelling patterns” (1990: 113). Better to say with Chomsky and Halle that certain patterns are dispreferred.
 14. See (Hinton et al. 2006). Austin took an interest in these constraints: “At the time of his death, he was developing a semantic theory based on sound symbolism, using the English gl-words as data” (https://en.wikipedia.org/w/index.php?title=J._L._Austin&oldid=1169193136, accessed September 3, 2023). The gl- words supposedly share a *phonestheme*, defined as a submorphemic sound pattern lending itself to a certain sort of interpretation. The invited interpretation in this case is to do with light and vision (*glare*, *glass*, *gleam*, *glimmer*, *glint*, *gloom*, and *glow*). (Austin might have qualified as a Type-3 romanticist too, had he lived to finish his theory.)
 15. Pinker (2013); see also Goddard et al. (1994); Jackendoff (2002); Pinker (1995); Johnson (2004); von Fintel and Matthewson (2008); Marchetto and Bonatti (2013); Gardenfors (2014); Machery (2014).
 16. Kovecses and Szabco (1996); Nunberg, Sag, and Wasow (1994); Egan (2008).
 17. “Dogs are mammals” speaks of dogs as a class, while “Dogs are making a mess on the lawn” says only that there *are* dogs behaving this way.
 18. Ogawa (2001); Haslanger (2011, 2014).
 19. Some may see this as an advantage of the analysis. Maybe woman *ought* to be understood as stage-level.
 20. Perhaps others *are* worth the trouble; who knows, when the trouble is rarely even acknowledged? See Machery (2021); Koslow (2022).
 21. Ponet (1556).
 22. The entailment ensures that one of us is wrong, if the other is right.
 23. I accept the part automatically by virtue of accepting P.
 24. Fine (2017); Yablo (2017); Abreu Zavaleta (2021, 2020).
 25. Cappelen (2018); Koslow (2022).
 26. Just as our dog’s taking on new characteristics doesn’t mean we’ve got a new dog.
 27. Jade, too, was in the market for a natural-kind-y status that it did not in the end achieve.
 28. Putnam elsewhere gives a more dramatic example where we lack even a false presupposition to point to: the pre-relativistic definition of an object’s energy as $\frac{1}{2}mv^2$. (Compare the missed-opportunity cases discussed in section 16.)
 29. Suppose, for instance, that the orbital perturbations Neptune was called on to explain turned out not to be due to a planet at all (as occurred with Vulcan).
 30. “I also think, contrary to most recent theorists, that the reference of names is rarely or almost never fixed by means of description” (Kripke 2011a: 21).

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31. Just as **statues** can; we might have a statue of Socrates coinciding for the moment with a (longer-lived) statue of a generic adult male. (See below for meanings vs. meaning-infused **words**.)
 32. Compare Thomasson (1999) on the persistence of novels and fictional characters; compare songs, poems, and ceremonies.
 33. Some might think it's enough that $s_1 = s_2$; this possibility is for our purposes best ignored.
 34. Note, we are talking so far about word-types; tokens will come in later.
 35. A real-life example of this might be **dog** in the Australian language Mbabaram sharing a meaning with our **dog** (the example is contested; thanks here to Manuel Gustavo Isaac). For more on words in all their flavors and varieties, see Hawthorne and Lepore (2011); Kaplan (2011); and Bromberger (2011).
 36. Especially if, as some speculate, light has been slowing down (Magueijo 2009). Note as well the relativity to our notion of second. See Scharp (2019) for the possibility that **meter** defined in caesium terms is incommensurable with "the minimal length" (the Planck length, say), which would seem to make the metric system essentially indeterminate.
 37. Similar issues arise, we shall see, for the meaning of **second**.
 38. Twenty-one was the original age of majority in the United States. It had been 21 (for male commoners, anyway) in England going back to the Magna Carta. It was not until 1970 that the English age of majority dropped to 18 (Family Law Reform Act of 1969). Majority is decided at the state level in the US; most states switched to 18 in the early 1970s. Mississippi seems to be the only remaining holdout.
 39. One can imagine different versions of this. T could be the time of utterance (contextualism), the time of assessment (relativism), or the ascriber-stage's position in time (subject-sensitive invariantism). The relativistic option is explored in Ball (2020a).
 40. Hacking (1985).
 41. On varieties of meaning change other than broadening/narrowing, see Traugott et al. (2001) and Koslow (2022).
 42. Haslanger (2020a, 2020b) distinguishes epistemic amelioration from semantic amelioration. The first aims at a better understanding of the content; the second aims at a better content. Amelioration of the kind discussed in this chapter belongs in a third category yet. It shares with epistemic amelioration the no-meaning-change feature, and with semantic amelioration the feature of taking a possibly unforeseeable course. This is not the place for a full discussion.
 43. When the content broadened to allow for rape within marriage.
 44. Mutatis mutandis for the probability of w meaning **N**, conditional on **N** being a suitable meaning.
 45. Importantly, Lewis has "objective" naturalness in mind rather than something cognitive.
 46. See Byrne (2003) for more on this, especially sec. 8, "Natural Properties and Kripke's Wittgenstein."
 47. Naturalness-centrism is critiqued from a different angle in Williams (2007) and Hawthorne (2007).
 48. As Lewis (1984) says himself, "Many philosophers would suggest at once that the saving constraint has to do with the causal chains that lead into the referrer's head from the external things that he refers to" (226). He worries that causal chains are too plentiful to do theoretical work here. (See the main text for Williamson's response.)
 49. See Williams (2018) for an interesting further way of working normativity into metasemantics.
 50. Lewis doesn't disagree that causes matter. He thinks he can keep causal factors out of eligibility, however, by (re)filing them under use-consonance. He relies here on a form of descriptivism that reads causation into reference-fixing descriptions. The beliefs a charitable interpreter is called on to vindicate include some about w's causal role.
 51. Tappenden (2008b) discusses natural vs. fruitful definitions in mathematics, pointing out that fruitfulness can sometimes favor a disjunctive definition, which appears only in retrospect as natural.
 52. "We should make explicit a claim about naturalness that Lewis presupposes in much of his discussion: *Necessity*: Facts

- p. 50 about a property's degree of naturalness are non-contingent. The denial of Necessity would be quite alien to Lewis's thought, and would require rethinking many of the other components of the role" (Dorr and Hawthorne 2013).
53. Egan (2004); Yablo (1999).
 54. The mathematical examples to come may seem at quite a distance from the amelioration literature as it has developed in the last couple of decades. But see "What Are We Talking About? The Semantics and Politics of Social Kinds" (Haslanger 2005): "In the history of logic and math, inquiry can seem to converge on an idea or concept that we seemed to have in mind all along, even though no one, even the best minds, could have explicated it. (Leibniz's early efforts to define the limit of a series is an example.) In such cases, it is plausible to maintain that certain experts were "grasping a definite sense, whilst also failing to grasp it "sharply." (50)
 55. See, for instance, Anderson (1995) on the question-driven-ness of inquiry and classification, especially sec. 4 on the Bureau of Labor Statistics' 1994 redefinition of "unemployment."
 56. "When we compare the explicandum Fish with the explicatum Piscis, we see that they do not even approximately coincide ... What was their motive for ... artificially constructing the new concept Piscis far remote from any concept in the prescientific language? The reason was that [they] realized the fact that the concept Piscis promised to be much more fruitful than any concept more like Fish. A scientific concept is the more fruitful the more it can be brought into connection with other concepts on the basis of observed facts" (Carnap 1962: 6). For discussion, see Dutilh Novaes and Reck (2017); Dutilh Novaes (2020a, 2020b).
 57. Peacocke (1998a, 1998b); and Higginbotham (1998). Leibniz may be another matter.
 58. Important here are Ebbs (2000); Schroeter and Schroeter (2015, 2020); Jackman (2020); Ball (2018, 2020a, 2020b); Ball and Huvenes (2022).
 59. "In the history of the calculus ... there were two rival theories of the continuum. [One] was the Leibnizian theory: the Archimedean continuum extended to a non-Archimedean one by adding infinitesimals and infinitely large numbers. Leibniz's theory was the dominant one until the Weierstrassian revolution" (Lakatos 1978).
 60. "Although such Druid contentions may seem perverse or unpalatable, we shall find that we make precisely analogous declarations about the developmental history of our own language all the time!" (ibid., 551). We do make these declarations. Better surely for the declarations to come out correct.
 61. Yablo (1987). To write it mathematically, **e** is e^k .
 62. Or perhaps, w-qua-**word**-meaning-**m**.
 63. Code (1985).
 64. Likewise for dramatic overnight changes in pronunciation; the Great Vowel Shift played out over several hundred years.
 65. The judgments here are admittedly not crystal clear. But this is to be expected on the proposed analogy; for the persistence conditions of commonsense kinds are not clear either. How much reshaping and/or matter-replacement will a statue put up with? (A perspective on the problem is suggested in the next section.)
 66. Related to what Waismann calls the open texture of language (Makovec and Shapiro 2019).
 67. Compare the neo-Lockean claim that multiple person-type things came into being when you did: a human organism, a biological person (the human being), a forensic person, and so on.
 - p. 51 68. Debt-collectors tend to focus on the forensic person.
 69. John Yoo comes to mind (Goldberg 2005).
 70. "Torture Memos, Wikipedia (https://en.wikipedia.org/w/index.php?title=Torture_Memos&oldid=1160041059).
 71. The Yoo definition could have won out; the **word** spelled t-o-r-t-u-r-e in 2002 would in that case have been **torture**_y. This would have involved a (numerical) change in meaning, we are saying, the original **m** giving way to a distinct **n**.

72. Even then, spousal rape was liable to be a *sui generis* category, not a version of the offense already on the books.
73. On Victorian conceptions (outside the law) of marital rape, see Bourke (2008).
74. The Hale quote is from *History of the Pleas of the Crown* (1716).
75. McGinn (1977).
76. “But it would be more charitable to make allowances for the likelihood that Karl’s circumstances—his life history of evidence and training, recounted in physical terms in our data base P—may have led him understandably into error. We should at least forbear from ascribing to Karl those of our beliefs and desires which, according to P and our notions of reason, he has been given no reason to share. We should even ascribe to him those errors which we think we would have made, or should have made, if our evidence and training had been like his” (Lewis 1974: 336).
77. *Satan in Society* warns against the “first conjugal act” becoming “little else than legalized *rape*” (Cooke 1871: 146). *Genesis and Ethics of Conjugal Love* applies the term to spousal sexual violence generally, “notwithstanding its legal recognition by the State and the solemn sanction of the Supervising Church” (Davis 1874: 20). *On Conjugal Happiness* says of what transpires on the wedding night that it “often amounts to nothing more or less than *rape*” (Loewenfeld 1913: 200). Quotes are from Bourke (2008).
78. Crispin Wright’s phrase.
79. Berkeley (2012).
80. Archimedean: for all positive x and y , there is a natural number n such that x is less than n times y . The reals are Archimedean, the hyperreals aren’t. Perhaps the continuum was always going to come out Archimedean; we assume for example’s sake that it could have gone either way (Lakatos 1977). See Builes and Teitel (2020) for considerations potentially favoring the infinitesimal ratio analysis.
81. With reminders, where necessary, that speakers may not have been party then to all the details.
82. Not until 2019 did it receive a definition in fundamental physical terms.
83. One second = 9,192,631,770 periods of the radiation corresponding to the transition between two hyperfine levels of the ground state of the caesium-133 atom.
84. From the website of the International Committee for Weights and Measures (CIPM) (<https://www.bipm.org/en/history-si/second>).
85. Maybe this can be argued; we don’t know the history. It’s enough that the viability of the new definition does not *depend* on 9,192,631,770 being objectively better.
86. A misstatement as usual is the holding-true of a sentence S that is, on the going interpretation, false.
87. Make this stipulative if you like.
88. Or, he would have jumped at the chance if he’d had his head screwed on right; he *should* have jumped.
- p. 52 89. Van Fraassen on measured quantities: “*There is no presuppositionless starting point for coordination*. We are, to adapt Neurath’s metaphor, sailors engaged in a continuing construction, renovation, alteration, and repair of the ways in which we measure our ship while already at sea” (2008, 137). “The parameter that is measured is identified in the historical process by the *envisioned eventual* stable measuring practice, while it is differently identified *in retrospect* by the theory that draws on that history for its credentials” (139).
90. See also Essen and Perry (1955).
91. Constituency-building is a job for organizations like the Bureau of Weights and Measures (in the US) and the General International Committee for Weights and Measures (or CIPM, in Europe). The CIPM offers “*Mise en Pratique*” guidelines on how to phase new definitions in while maintaining continuity with their cruder predecessors. From the 2019 guidelines for the kilogram: “The mass values of the IPK [International Prototype of the Kilogram] and its six official copies are now determined experimentally ... Subsequent changes to the mass of the IPK may have historical interest even though the

IPK no longer retains a special status or a dedicated role in this *mise en pratique* ... By following the change in mass of the IPK over time, one may be able to ascertain its mass stability with respect to fundamental constants, which has long been a topic of conjecture.”

92. The caesium definition had few real competitors. But there are several technologies in the running for “next big thing” after caesium (Gill 2011).
93. A woman =_{df} an individual regularly and for the most part observed or imagined to have certain bodily features presumed to be evidence of a female’s biological role in reproduction, these features playing into the dominant ideology in such a way as to subordinate the relevant individuals.
94. “A question of interest to older children arose in those states which reduced the age of majority to 18: what effect does the statutory change have on preexisting support obligations which were defined in terms of majority rather than by stating that support was to continue to a specified age? Jurisdictions which have considered this have generally said that there will be no retroactive effect. The courts hold that ‘majority’ in those agreements means the age of majority at the time of the agreement.” (Downey 1981: 29).
95. “One feels that the proposal’s analysans is pretty much discontinuous with the analysandum on all relevant dimensions” (Richard 2020: 374).
96. Civil marriage has still not achieved full legal recognition in Egypt, Syria, Jordan, United Arab Emirates, Saudi Arabia, Qatar, Yemen, Iran, Lebanon, Israel, Libya, Mauritania, and Indonesia (Wikipedia).
97. The term is considered offensive.
98. “Hierarchy is at the heart of the ‘unthought’ of modern ideology” (Dumont 1980: xvi).
99. Gandhi thought Varna more defensible than caste and, at the same time, distanced himself from its main seeming advantage (non-hereditariness): “The law of Varna teaches us that we have each one of us to earn our bread by following the *ancestral calling*” (Ambedkar 2014; emphasis added).
100. Concepts like “chastity” and “knowing one’s place” have managed somehow to survive acknowledgment of their oppressive aspects.
101. Gandhi’s views on gender are not easily summarized. But a traditionalist, sentimentalizing thread runs through them akin to what we’ve seen with caste. “Gandhi’s statements supported the sanctity of the family and the home: he reiterated that a woman’s real place was the household where she was the ‘queen’” (Bald 2003). For comparison with Ambedkar, see the introduction by Roy to Ambedkar (2014).
- p. 53 102. E.g., the discovery that the “meter” stick was longer than it appeared, and too long for the purpose.
103. See, for instance, Lakatos (2015); and various papers by Tappenden. “A common pattern in mathematics is the discovery of the proper definition of a word with an already established meaning” (Tappenden 2008a: 267), and “investigations into the structure of numbers discovered what prime numbers really are. The familiar school definition [$b \mid a \rightarrow (b = 1 \text{ or } b = a)$] only captures an accidental property; the essential property is: $a \mid bc \rightarrow (a \mid b \text{ or } a \mid c)$ ” (268).
104. Burge (1992, 1998); Yablo (2008b).
105. The transitivity of equinumerosity falls out of the transitivity of identity if \ll The Fs are equinumerous with the Gs \gg is taken to mean that the number of Fs = the number of Gs.
106. Since one never knows if something better is coming, the line between guides and true ultimate meanings is never finally drawn.

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