

To the Ear a Great Compassion: Listening, Counting and Number

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Numerosity

In *The Art of English Poesie*, George Puttenham introduces a contrast between strict metre and a more flowing kind of rhythm, the latter of which he characterises with the term *numerosity*:

There is an accomptable number which we call *arithmetical* (*arithmos*) as one, two, three. There is also a musicall or audible number, fashioned by stirring of tunes & their sundry times in the vtterance of our words, as when the voice goeth high or low, or sharpe or flat, or swift or slow: & this is called *rithmos* or numerositie, that is to say a certaine flowing vtteraunce by slipper words and sillables, such as the tounge easily utters, and the eare with pleasure receiueth, and which flowing of words with much volubility smoothly proceeding from the mouth is in some sort harmonicall and breedeth to th'eare a great compassion.(Puttenham 1936, 77)

Puttenham stresses that numerosity is a matter of gliding rather than hopping – as we might now sometimes say, of continuous or analogue characterised by ease, fluidity, smoothness and volubility, rather than discontinuous or digital movements. But *numerosity* makes it clear that this movement is not unnumerical, but rather 'numerous' – numerous without being numberable. It is, he says, *rithmos*, which is not exactly arithmetical, but, since inexactness, a certain kind of uncertainty, is exactly what seems to be in play here, it is not exactly *not* arithmetical either. Puttenham assumes that *arithmos* means something like 'without flow', though there is in fact no direct relationship between the words arithmetic and rhythm. Rhythm derives from $\rho\acute{\epsilon}\nu\upsilon$, to flow, that operates in words like *rheostat*, *rheum* and *diarrhoea*. *Arithmetic* is not a privative form of *rithmos*, as Puttenham wants to think, but derives more directly from $\alpha\rho\iota\theta\mu\acute{o}\varsigma$, *arithmos*, a number, itself deriving from the verb $\alpha\iota\rho\omega$, *airo*, meaning to raise, lift or take up, so presumably containing an idea of the reckoning up of number. There cannot be a pure rhythm, pure flow, since there can only be flow across what breaks or retards that flow. Amps equal volts divided by ohms. Without ohms, no amps: zero resistance, no current. To go with the flow completely is to be static; the foot must step into the river to feel the force of its current.

The word numerosity appears at irregular intervals in discussions of prosody and versification over the next few centuries, often to characterise the move from the unrhymed and accented verse of Greek and Latin poets to the more formal metres and rhymed verse of English poetry. In these discussions, numerosity usually means

subtly differentiated, but harmonious flow. Oliver Goldsmith writes that ‘cadence comprehends that poetical style which animates every line, that propriety which gives strength and expression, that numerosity which renders the verse smooth, flowing, and harmonious’ (1892, I.385). Edward Wadham deploys numerosity to articulate the traditional preference for the subtlety of Greek poetic rhythm in comparison with the plonking regularity of rhyme and metre in English verse. Wadham argues that ‘Music is as the vowel, rendered infinitely impressionable by being entirely dis severed from the consonant’, such that, in a melodious passage such as the beginning of the *Odyssey*, ‘the instances of half-rhyme, alliteration, and every variety of approach to repetition of foregone sounds, are absolutely too multitudinous to indicate; the whole verse is alive with their playing and combining, like a sunset sky with irradiate tints’ (Wadham 1869, 114). Rhyme is a kind of contraction of rhythm, a mechanical squashing together of what the melodious rhythm of numerosity generously lengthens out:

Rhyme is too intense for melody; it is the caricature of it, nothing more. Suppose it, say, the aggregation of melody into one spot — but is melody a thing that can be aggregated? Melody is rather numerosity, a blending murmur, than one full concordance. Melody is as effectually silenced by rhyme as the tones of a flute under the beating of a drum. (Wadham 1869, 114)

Thomas De Laune saw in the numerosity of Greek and Latin verse a kind of fidget that was not evident in the graver language of the Scriptures:

Illyricus says, that although we find not in the Sacred Scriptures, that idle or delicate itch of Words, that external sweetness or allurement, that numerosity of sounds, or those pleasing trifles, which the vain-glorious Orators of Greece and Rome beautified their so much celebrated harangues with, yet we find there a Grave and Masculine Eloquence, exceeding all others. (De Laune and Keach 1681, 3)

Thomas Rymer, by contrast, saw numerosity as the opposite of effeteness, affirming that

The *French* now onely use the long *Alexandrins* , and would make up in length what they want in strength and substance; yet are they too faint and languishing, and attain not that *numerosity* which the dignity of Heroick Verse requires, and which is ordinary in an *English Verse of ten syllables*. (Rapin 1674, sig.A6^r)

‘Numerousness’ could occasionally substitute for ‘numerosity’, for example in Dryden’s praise of Horace in 1685: ‘*That which will distinguish his Style from all other Poets, is the Elegance of his Words, and the numerousness of his Verse; there is nothing so delicately turn’d in all the Roman Language*’ (Dryden 1684, sig a6v). This is a highly specialised use of the term, though, and I have been able to find only two other uses of the word ‘numerousness’ in this sense in the seventeenth century. Discussing the style of history writing the English translation of René Rapin’s *Instructions for History* (1680) specifies that

The Discourse of it ought to be free, though it seem to be restrain'd; and it does not so much require Numerousness, as a rotundity of Style, that it may have that unconcernment which renders it natural. But in regard the Historian ought to read the ancient Authors, in order to the framing of a Style according to his *Genius*, we shall give him here what he shall find observable in that Study, [A note here quotes Quintilian, Inst. 9.4.129, *Historia non tam finitos finitos numeros, numeros, quàm orbem*] for his framing to himself a Method proper to his Design. The Style of *Herodotus* is gentle, evenly flowing and pleasant. That of Thucydides is more noble, and implies more Grandeur, but it is not so natural: nay, he has some harshnesses which render him obscure; and he is less remarkable for Numerousness and Rotundity than *Herodotus*. (Rapin 1680, 37)

Samuel Woodford uses *numerousness* in place of *numerosity* to characterise the subtle variety of classical Greek and Latin poetry:

The *Greek* and *Latine* Poets, as I said, admitted as the great Character of Verse, and its numerousness, this Variety; both because their Language naturally required it, and because they were perfect strangers to Rhythm, (the *Greeks* always, till grown perfectly Barbarous, and the *Latines* till after the Irruption of the *Goths* and *Vandals*, their Language became confined to the Cloyster, and durst not appear walking delicately in Verse, but with that chain of Servitude, its Conquerors had thrown upon it). (Woodford 1679, 14)

Sheridan defines 'numerosity' as both 'the state of being numerous' and 'harmony' numerous flow' in his dictionary of 1780. But the word used in this sense remained something of an exotic. In a 1762 essay on Greek and Latin prosody John Foster makes an explicit distinction between 'numerosity' and 'quantity', in arguing that appreciating the harmony of Latin verse requires that one pay attention to accent as well as beat, or 'tones' as well as 'times' (Foster 1762, 98): 'Those, therefore, who, in considering the numerosity of writings, attend to quantity alone, regard only the inferior part of the subject before them' (Foster 1762, 99). A writer on education in 1785 observed that, in proverbs, '[t]he numerosity of the sentence pleased the ear and the vicacity of the image dazzled the fancy' (Parr 1785, 3).

Sometimes the word was used in the opposite sense to that distinguished by Puttenham. Thomas Sprat uses it to mean the close adherence to regular metre in his discussion of Cowley:

He understood exceeding well all the variety and power of Poetical Numbers; and practis'd all sorts with great happiness. If his Verses in some places seem not as soft and flowing as some would have them, it was his choice not his fault. He knew that in diverting mens minds, there should be the same variety observ'd as in the prospects of their Eyes: where a Rock, a Precipice, or a rising Wave, is often more delightful than a smooth, even ground, or a calm Sea. Where the matter required it, he was as gentle as any man. But where higher Virtues were chiefly to be regarded, an exact numerosity was not then his main care. (Sprat 1668, sig b1^v)

Thomas Morell borrows Sprat's phrase to defend Chaucer's versification in his edition of the *Canterbury Tales* in 1737:

an exact Numerosity (as Bp. *Sprat* expresses it in his *Life of Cowley*, which, by the way, runs parallel with our Author's in many cases) was not *Chaucer's* main care; but that he had sometimes a greater Regard for the Sense, than the Metre: His Numbers, however, are by no Means so rough and inharmonious as some People imagine' (Chaucer 1737, xxv-xxvi)

Numerosity is perhaps, then, something like a counting that is not, in Puttenham's term, 'accomptable', that cannot quite keep count of, cannot quite account for, itself. Nowadays, 'numerosity' has acquired the meaning among psychologists and animal ethologists of the 'number sense' as it may be displayed in humans and other species (Dehaene 1999). I cannot find evidence of this usage much before the 1990s (and the OED does not even register it).

Number is a kind of irritant within the history of thinking about rhythm and metre in literary studies. There is a tension in this history between the effort to account with complete and objective precision for prosodic structures and effects, thereby reducing literary effects wholly to a matter of number, and accounts that focus on the complexity of the interinvolvement of objectivity and subjectivity in the apprehension of rhythm. Simon Jarvis, who has called urgently and sustainedly for prosody to be taken seriously as part of the distinctive kind of cognition that poetry offers, has argued that the dream of making prosody fully accountable, to itself or to anything else, is itself a sort of myth or mania: 'As well crack quantum mechanics upon the Roman Rite as set linguistics to a total calculus of metrical types... prosody cannot be grounded on the model of the measurement of an object' (Jarvis 1998, 5, 6). For Jarvis, one cannot simply and serially correct the mistakes of past theorists of versification with a more precise scientific method, since 'The `mistake' is this idea which the scientific prosodist has that his or her method is a fully demythologised one' (Jarvis 1998, 10).

But, in his opposition to the dream of full scientific explicitness, the verbal equivalent, perhaps, of accountability, Jarvis perhaps attempts to keep number at bay in an absolute way that presents difficulties. This is precisely because of the claims he wishes to push through for the role of prosody in thinking and in the formation of the subject. Jarvis quotes Henri Meschonnic to the effect that 'There can be no theory of rhythm without a theory of the subject, and no theory of the subject without a theory of rhythm' (Jarvis 58), and finds warrant for this in Hegel's description of rhyme as a figure for the coming back of the subject to itself in time:

The subject is a self-exteriorization and a return, a recollection after an excursion, for which language furnishes the most eminent model, but which is also seen, for example, in the structure of human labour. Only this excursion and return can convert the merely indifferent flow of time into the shaped and understood duration which makes subjectivity intelligible. (Jarvis 2005, 64)

Jarvis concludes that 'it can in a certain sense be said that the subject rhymes, for Hegel' (Jarvis 2005, 63). Jean-Luc Nancy has argued for something like the same

structure of resonance in the formation of the subject through rhythm, that bends time into subjectivity:

We should linger here for a long while on rhythm: it is nothing other than the stroke of time, the vibration of time itself in the stroke of a present that prevents it by separating it from itself, freeing it from its simple stanza to make it into scansion (rise, raising of the foot that beats) and cadence (fall, passage into the pause). Thus, rhythm separates the succession of the linearity of the sequence or length of time: it bends time to give it to time itself, and it is in this way that it folds and unfolds a “self.” (Nancy 2007, 17)

Nancy offers us a resonant subject in place of a subject conceived as a line of sight or point of view, which is

an intensive spacing of a rebound that does not end in any return to self without immediately relaunching, as an echo, a call to that same self. While the subject of the target is always already given, posed in itself to its point of view, the subject of listening is always still yet to come, spaced, traversed, and called by itself, sounded by itself. (Nancy 2007, 21)

But this is to make the self a particularly musical kind of counting out or self-enumeration. The I becomes itself, is able to be at one with itself, by dint of a self-division, by going out from and coming back to itself. That is, it becomes 1 by becoming 2, since it is only by being the kind of thing that can be counted as one, that is that could be counted twice, that the 1 becomes knowable to itself. There must be at least two before there can be 1.

A rhythmic self is a self that, at least in part, comes to itself through this kind of counting, or self-enumeration. A much-repeated remark of Leibniz may help us think about how music, number and the subject may be articulated. In a letter of 17th April 1712 to Christian Goldbach, Leibniz wrote that ‘Musica est exercitium arithmeticae occultum nescientis se numerare animi’ (Juschkevitsch and Kopelewitsch 1988, 182). Oliver Sacks offers a pleasingly rangy translation of this in his book *The Man Who Mistook His Wife for a Hat*: ‘The pleasure we obtain from music comes from counting, but counting unconsciously. Music is nothing but unconscious arithmetic’ (Sacks 2007, 215). Well, there is really nothing in what Leibniz says about pleasure, though one might reasonably assume that the *exercitium arithmeticae*, the arithmetical exertion of the mind might indeed be a source of pleasure. Rather more precise is the translation offered by in the English version of Book III of Schopenhauer’s *The World as Will and Representation*, in which he quotes Leibniz: ‘[Music is] an unconscious exercise in arithmetic in which the mind does not know it is counting’ (Schopenhauer 1969, I.256). *Occultum* may imply unconsciousness, but is in fact something different from *nescientis*. It may certainly be that the exercise is hidden simply because the mind is unaware that it is exerting itself in this way, but it might be hidden in some other way.

Leibniz repeats these sentiments in his 'Principles of Nature and Grace' of 1714:

What is more, even the pleasures of sense are reducible to intellectual pleasures, known confusedly. Music charms us, although its beauty consists only in the agreement of numbers and in the counting, which we do not perceive but which the soul nevertheless continues to carry out, of the beats or vibrations of sounding bodies which coincide at certain intervals. The pleasures which the eye finds in proportions are of the same nature, and those caused by other senses amount to something similar, although we may not be able to explain them so distinctly. (Leibniz 1989, 641)

If Leibniz is right and all music involves some kind of counting, then we might also say that there is reciprocally some music in all counting. It is at least the case that there is always something auditory in counting, precisely because counting is what enables us to stretch or exert ourselves beyond what can be grasped by subitism, the native numerosity that enables us to grasp and name small numbers. It is not possible to count items of any kind without engaging in some kind of recitation, some sort of counting out, where the 'out' is the extension or exteriority of time rather than of space. And, as extension is related, as etymological cousin to Greek *tenein*, to stretch, to tone and tune, extension may be thought of as a form of intonation. Leibniz seems to be pointing to a kind of numerosity, a toning or entraining of the mind, that numbers enact without explicit counting.

Oliver Sacks in fact sees this kind of inner counting as part of what knits brain to body. Someone who has been deprived of the use of a limb, may find that it drops out of their body map, and must be actively reincorporated. In fact, perhaps 'body map' is not accurate here, for it is not so much a picture of the limb that is required, especially if it is a leg or foot that is usually experienced in motion, so much as some kind of bodily tune that must be remembered for the limb itself to become oneself again a member of the orchestrated body. Tune seems better than map, because what one must remember in walking is not something one has to grasp, or keep in mind, like a picture or diagram, but something one has to know how to do without knowing quite how one is doing it. Walking is like saying your times-tables or playing a scale, or reciting a poem. Sacks describes how, following a climbing accident and the forced immobilisation of a leg for a fortnight, he had forgotten the rhythm of walking. Suddenly the Mendelssohn Violin Concerto in E Minor, which Sacks had been playing repeatedly in hospital, came to his aid:

Suddenly, as I was standing, the concerto started to play itself with intense vividness in my mind. In this moment, the natural rhythm and melody of walking came back to me, and along with this, the feeling of my leg as alive, as part of me once again. I suddenly "remembered" how to walk. (Sacks 2008, 255)

Not the least striking thing about Sacks's account is the fact that the leg is here brought to life, turned from a dead, merely mechanical appendage to something

incorporated, by something inanimate or mechanical, the music which, by dint of the fact that Sacks had been playing it over and over on the only cassette tape he had with him, started 'to play itself' in or through him. A little later, he describes a woman with a paralysed leg following a hip fracture, whose leg could not move at all, except once when 'it had kept time at a Christmas concert, "by itself," when an Irish jig was being played' (Sack 2008, 256). The rhythm of music seems to induce motion, purely and immediately through motion itself. Music seems to be an excellent way of encoding information sequentially. The songs and melodies that most of us know, as well as information encoded in rhymes, code for a kind of knowledge that we cannot hold in our minds or access all at once, but must allow to play out, diachronically in the mode of counting through: 'Thirty days hath September...'

But this points to an interesting feature of counting, which may slightly complicate the contrast between Puttenham's numerosity and arithmetic, and the apparently straightforward distinction offered by Leibniz and Serres between conscious and unconscious counting. For counting cannot perhaps be said to be something that we can ever do entirely consciously. We are able to count only if we have learned already how to count, that is, if we already have names for the numerical values that occur in ordinal sequence, and know their sequence. I do not have to think much about counting, any more than I have to think about reciting the alphabet, because they are both autonomised regimes. As I say 'five', it seems already to be toppling forward into 'six', and I cannot in any sensible way be said to 'decide' the matter of what number will follow. The transition seems to happen in a sort of cinch pucker of time, and these blinks of the mind are what propel me along the automatic sequence of counting. So, if it is true that we count things out in order to try to be more precise or explicit about how many items it may consist of, it is also true that there is something that is implicit, precoded, or already accounted for in the action of counting. I can only count therefore because I do not have to account fully for everything in the process of counting and so cannot be said ever to be fully conscious of it, or fully and equally present at every moment of it. Sacks, drawing on the work of many others, points to the likelihood that humans 'are the only primates with such a tight coupling of motor and auditory systems in the brain – apes do not dance, and though they sometimes drum, they do not anticipate a beat and synchronize to it in the same way that humans do' (Sacks 2008, 260 n.2). This may imply that there is indeed kind of 'hidden exercise' involved in music, but that the exercise or putting of oneself into play is not one of which one could be completely the subject or mistress. Exertion is *ex + serere*, the unbinding, where *serere* means both to join, bind or intertwine, whence *series*, and also to sow, strew or spread, whence serum, semen and dissemination. When I count as I listen to music, whether consciously or unconsciously, I make the music conform to some external framework. But there is a kind of music involved in counting itself, which partially swallows me up. Counting is always, in some measure, dance, or trance.

This becomes particularly apparent in the practice of counting in, whether it be sounded out, or tacit, in the beats of the conductor's baton. In the process known as

counting in, the count is set going, as an autonomous mechanism. As the music begins, it blends into the count, which blends into it. It is as though, taking up the count, the music begins to count for itself, immanently.

Counting can sometimes seem to become fully autonomous, giving itself its own law. In his account of his delusions during a period of madness and incarceration, John Perceval describes a counting routine that got out of hand in this way:

Weary at length, and unable to comprehend these commands, I sought for sleep, and recollecting what my mother had formerly told me of my father, that he used when he found himself unable to obtain rest, to keep continually counting to himself, I tried the same. But then the power of thinking numbers for myself was taken from me, and my mind or life lay in my body, like a being in a house unable to do anything but listen to the sound of others talking around him, and voices like the voices of females or fairies – very beautiful – very small, and with a rapidity I cannot describe, began counting in me, and entirely without my control. First, one voice came and counted one, two, three, four, up to ten or twenty – then a second voice took up the word twenty, and kept repeating twenty – twenty – twenty – whilst another after each twenty called one – two – three – four, and so on till they came to thirty – then another voice took up the word thirty, and continued crying thirty – thirty – thirty, whilst a voice called out after each thirty – one – two – three – four, and so on till they came to forty, and thus the voices within me proceeded, dividing the labour between them, and so quickly, that I could not possibly pronounce the numbers. (Perceval 1840, 304-5)

Like many of Perceval's delusions and heard voices, this sounds like a kind of literalisation of an experience of one's thoughts racing away which is actually quite common, especially in insomnia. It is not clear whether there is suffering or joy in this delusion. The counting eventually gets beyond Perceval's powers to follow it, so he is himself unable to keep count of the counting that is going on inside him. Yet, perhaps partly because of this fact, he pronounces the sound 'very beautiful' and, if he thinks of himself being subjected to or becoming assimilated to some kind of machinery, that machinery is female.

Richard Feynman describes a rather more willed and systematic series of experiments in internal counting. Prompted by reading an article about variations in the time sense induced by the experience of fever, Feynman established through repeated practice a kind of internal metronome, that meant he was able reliably to count up to 60 taking very close to 48 seconds every time. Having trained up this internal counting module, Feynman started to experiment with things that might disrupt it. He proved to be able to read out loud perfectly competently while maintaining his internal count, though he found it difficult to perform other counting operations, such as running up and down stairs and counting items in his laundry, at the same time:

when I put out the laundry, I had to fill out a form saying how many shirts I had, how many pants, and so on. I found I could write down “3” in front of “pants” or “4” in front of “shirts,” but I couldn’t count my socks. There were too many of them: I’m already using my “counting machine”—36, 37, 38—and here are all these socks in front of me—39, 40, . . . How do I count the socks? (Feynman 2007, 57)

Feynman does not mention listening to, or playing music while counting, but the capacity of percussionists to maintain different rhythms simultaneously suggests that this might not have made for insuperable difficulty. Listening to music seems to involve Puttenham calls a ‘compassion’, in which it is not quite clear how action and passivity are distributed. When I count, I seem consciously to be regulating something that would otherwise go beyond my control; when my mother would stand infuriated at the kerb watching the cars sweep by, she would channel her rage into counting the cars: ‘one, two, three, four, *five*, *SIX*’, she would count out, six marking the appalling limit of intolerability. Counting through to six allowed her a triumphant declaration of the unspeakability of having to wait passively that long. But at the same time, I give myself over in counting to something that seems to be counting itself out through me. The point about counting seems to be that it is never clear who or what exactly is doing it. Why else would one count in order to go to sleep? The ‘exercitium’ in Leibniz’s formula is conductive, passing from the music to which I lend my ear, to me, and then back out again to the music which seems to me to be inducing my exertion.

All this is a question of rhythm, a word which, like the word *series*, conjoins measure and flow. There can be no rhythm without flow, without the movement or exertion that carries one across from one beat to another, yet equally there can be no flow without the beats or divisions between which the flow occurs. There must be matter for there to be metre, there must be the hard for there to be soft.

Spanking and Poetry

For this reason, there is a certain measure of cruelty, the cruelty of measure itself, in rhythm. The figure of the conductor has been a late arrival in music, and, where there was a leader of an orchestra, he might very well confine himself simply to beating time. Carroll’s Mad Hatter’s tea party provides a silly but telling reminder of the agonistics of time-keeping:

“I dare say you never even spoke to Time!”

“Perhaps not,” Alice cautiously replied: “but I know I have to beat time when I learn music.”

“Ah! that accounts for it,” said the Hatter. “He won't stand beating. Now, if you only kept on good terms with him, he'd do almost anything you liked with the clock.” (Carroll 1970, 97-8)

The most well-known story of the violence and fatality that lie latent in the beating of time is the story of the death of Jean-Baptiste Lully, who is said to have accidentally struck his toe while beating time with his staff during a performance of his *Te Deum*. The toe became infected, and, refusing offers to save his life by amputating it, Lully died of gangrene. The history of conducting involves a move from the hard to the soft, from conducting as driving (*conduire* is how one drives a car in French) to conducting as subtle interchange of energy. The baton no longer strikes some surface audibly, there is no object for it to come up against in the form of an audible impact, or at least not after the imperious rap on the music stand which is the only vestige of that crudity. Instead, there is a nervous, quivering, but infinitely powerful shaping without touching in air, making out a mobile topology of feeling, a third space between orchestra and conductor in which the music can be figured, leading and led by it. The space is a space in which positions and directions are mingled and transformed, conducting becoming induction, reduction, production, seduction.

Eve Kosofsky Sedgwick has pointed to the relations between the hardness of compulsion and the softness of desire in her essay ‘A Poem is Being Written.’ This most earnest and formidably authoritative of literary critics begins this essay with the breathtaking announcement that ‘When I was a little child the two most rhythmic things that happened to me were spanking and poetry’ (Sedgwick 1993, 181). These episodes, and the memories that recall them, constitute a ‘breath-holding space’, in which control and release are held in tension, and rawly shameful excitement of exhibition coexists with sonorous and tactile rhythm:

A primal hunger to be seen was certainly not undone in these punitive moments, but only made inseparable from the paralysis of my own rage and the potency and bland denial of my parents' rage; from the tensely not uncontrolled, repressed and repressive (and yet how speaking) rhythm of blows, or beats; from the tableau itself. (Sedgwick 1993,)

There is a rhyme, amounting almost to magical identity, between the scene of spanking and the similarly breath-holding containment of the lyric poem, a containment which is a space, but also a stretch, of beating or pulsing:

The lyric poem, known to the child as such by its beat and by a principle of severe economy (the exactitude with which the frame held the figure) – the lyric poem was both the spanked body, my own body or another one like it for me to watch or punish, and at the same time the very spanking, the rhythmic hand whether hard or subtle of authority itself. (Sedgwick 1993, 184)

This beating is an alternation of scene and sound, the iambic thud of the rhythm programming a rhyme between the alternation of sound and silence and the

alternation between movement and stasis, even extending to the segmenting of the child's stripped and striped body: 'The glamorized, inbreathing theatrical space of the spanking thus contracted to the framing of a single, striped, and sectioned midbody that wanted to move and mustn't' (Sedgwick 1993, 183)

The essay, which intersperses extracts from poetry read and written at different stages of Sedgwick's life which reflections on spanking and the pornographic imagination, even proposes a link between chastisement and the poetic technique which she discovered early on, of enjambment.

I knew *enjambment*, not just for a technical word in the introduction to my rhyming dictionary, but for a physical gesture of the limbs, of the flanks, the ham. I thought then, too – in fact I thought it until I checked my dictionary just today – that a *doorjamb*, for instance, was the thing one wedged in the door to keep it open, a doorstop. From all this I visualized *enjambment* very clearly as not only (what my French dictionary now tells me) the poetic gesture of *straddling* lines *together* syntactically, but also a pushing *apart* of lines. In terms of the beat(ing) of the poem, enjambment was, in this fantasy that shaped my poetic, the thrusting up out of the picture plane in protest by the poem's body of a syntactic thigh or shank that would intercept, would retard the numbered blow: would momentarily wedge apart with sense the hammering iteration of rhythm. (Sedgwick 1993, 185-6)

Enjambment is a wedging or retarding – the leg raised to intercept the blow – and also a crossing or straddling. Like the two-stroke rhythm of poetry, or of spanking, it both arrests and accelerates, in a stutter of fluidity. Like poetry, ballet is 'a rhythmic, prestigious, exhibitionistic and highly theatricalized way of choosing the compelled and displayed body' (Sedgwick 1993, 186). And Sedgwick insists that the allure of this spectacle was the compounding in it of pained passivity and impassioned choice, as she discovered, as perhaps all children subject to violence from which they cannot escape may discover, how 'to abstract the body of one's own humiliation; or perhaps most wonderfully, to *identify with it*', so that 'the *compelled* body could be *chosen*' (Sedgwick 1993, 184). Under these circumstances, or at least when they are recollected, it is the suffering child who is 'ravenous for dominion' (Sedgwick 1993, 184), a dominion which the writing of poetry gives her.

Yet what is so disappointing and indeed a little perplexing about 'A Poem is Being Written', which seems to insist so much on the importance of rhythm, is how almost totally anacoustic it is. If there is a kind of rhythm in the complex disposition of its elements, it is the abstract rhythm of an avant-garde silent film. The writing, as clogged and clotted with qualification, anticipation and flashback as the Jamesian prose about which Sedgwick elsewhere wrote so intently, forms 'a temporality miraculously compressed by the elegancies of language' (Sedgwick 1993, 184). Not even the discussion of female anal eroticism into which the essay opens out can loosen the stiffly-compacted mass of the writing. Perhaps with some residual primness or effort to maintain propriety in the self-disclosure, the text holds back

from giving itself over to the rawly masturbatory rhythm to which it elaborately alludes, by the thickened white noise of its writing-on-the-spot. Perhaps Sedgwick's resistance to giving way, or play to the actual rhythm to which she alludes so indirectly in her text, is a way of framing the erotic impulse, a framing that simultaneously allows and disallows it – making it possible for the academic to talk dirty, as I am doing now by proxy, by making the talking the subject of the discourse.

This may in part be the influence of 'A Child is Being Beaten', the Freud essay of which 'A Poem is Being Written' is a variation, for Freud's essay focusses entirely on the complex theatricality of sadomasochism. Though Freud is at pains to separate out the temporal beat of the beating fantasies, the etiology of the different phases during which it embodies different propositions, the fantasy itself seems to compact all of these together, such that the girl (Freud focusses attention mostly on female fantasies, and indeed the essay is strongly focussed around his own daughter Anna, whose sadomasochistic fantasies he analysed, and who subsequently picked up the beat in her own essay on sadomasochism) is in several places, and indeed persons, at once: 'A child is being beaten'; '*My father is beating the child*', '*I am being beaten by my father*'; 'I am probably looking on' (Freud 1955, 179, 185).

It is a pity and a surprise that neither Freud (neither of the Freuds) nor Sedgwick pay attention to the erotic acoustics of sadomasochistic fantasy, as they might very well have. The particular play of passivity and dominion that is bound up in the experience of sound is discussed by William Niederland (1958). More specifically, the ritual of counting strokes, or, frequently, forcing the victim to count out the strokes, is a recurrent part of the sadomasochistic repertoire. Counting is part of the ordeal, from German *Urteil*, the base of Old English *adǣlan* to divide or separate, the doling out of dolour in exact and unalterable amounts. In talionic logic, exactness always participates in the pitiless hardness of exaction. Such a counting rhythm traditionally mechanises the discourse of the punisher too: '*you-will-nev-er-do-that-a-gain*'. And yet counting, in which the victim is often required to participate, also provides a scansion, which controls, contains and orientates what would otherwise be simple inundation by suffering. Counting is the means of the agony of exposure to formless and empty time, which consists blindly and indifferently of one thing after another, each moment a new agony, exactly the same, yet even more unbearable, yet it also provides the capacity for time to be enrhythmed, its indifference given an apprehensible shape and cadence.

In all discourse about the relation between regular structure and irregular, or unaccountable event, there is an implicit rivalry between the living and the dead. To force someone to count out the numbers of the strokes that are inflicted on them, is to force them into the dead condition of a mere number, to force unpredictable life into the painfully regular form of a tattoo, shape beaten out in air that hardens into visible image incised in the flesh. Such questions of life and death are prominent in the claims made by Simon Jarvis for the cognitive force of poetic music. In his

discussion of the melodies of the long poem, Jarvis focusses on the force of the line, which he represents as the primary unit of within the design of the long poem:

The metrical line is the compositional cell of the long poem, before it becomes 'the long poem'; the possibility of recomposition-in-performance, essential to all long poems before they are corralled first into orally standardised and quasi-identically recapitulated, then into written, and finally into printed texts, depends for its possibility upon the formula, a unit which is at once metrical and syntactic and semantic. When all these songs have dried into print, the formula, living repetition as the ever-exploding, ever-generating cell, looks instead like a calque: now sounds, not like the seminal word and tune it is, but like something insufficiently worked over, a dead spot. (Jarvis 609).

A merely formulaic poem is one that has dried into 'rational but helpless quantification' (Jarvis 2010 609). Jarvis finds an example of a long poem that resists this desiccation into mere number in William Collins's 'The Passions: An Ode for Music'. He characterises the poem as 'a war to the life, in which line must show itself the equal of design, if the whole body is not to become sclerotic' (Jarvis 2010, 617). But the battle between the life of the line and the parched death of the design can only be represented as a way between quantity and quality if one pulls back far enough for the jags and spikes of numeration to be smoothed out into curves. Close in, and the relation between quantity and quality looks like a relation between greater and lesser variation, with the 'compositional cell' as the indispensable unit of quantification:

the individual line is coloured with the most delicate, the subtlest, instrumentations, not alone with chiasmic ornaments of vocalic and consonantal material, but also with interior rhythmic patternings. Now there will be a perfectly antithetical poise between two halves of a line, in which the same tune rings out in both; now the line will bunch all its emphases together in the middle or at the end of the line; now a whole series of lines will run two metres against each other simultaneously, so that a whole passage can be construed either as tens or as sixes; so that the same passage is, as it were, at once epic and lyric. (Jarvis 2010, 618)

Try as he might, Jarvis cannot really get number, quantity and measure to stay on the side of death against life. If there is indeed a war to the life against number, it is fought through number.

To bring time under tension – the word that links exertion and music – is to coordinate the ordinal and the cardinal, to fold together counting out and counting up. Beckett, who is much preoccupied with the question of how knowledge might be said to build or be retained through the dispersing effect of time's passage, often enacts this coincidence between succession and accretion in the form of his writing,

especially in passages like this one from Arsene's speech in Watt, which are full of Biblical echoism:

And if I could begin it all over again, knowing what I know now, the result would be the same. And if I could begin again a third time, knowing what I would know then, the result would be the same. And if I could begin it all over again a hundred times, knowing each time a little more than the time before, the result would always be the same, and the hundredth life as the first, and the hundred lives as one.

The message of the utterance seems to be utter redundancy. No difference is made by repetition, since, though something extra has been learned every time, this accretion is immediately annulled, as the extra learning makes no difference to the result. And yet this echoic vacancy, this empty returning to itself is in fact the difference that the utterance itself makes. It is a nothing that has become something by being repeated.

As one listens to music, one listens out for, or listens in on, the count that one is keeping oneself. Leibniz's unconscious counting involves both recognition of pattern, and conditional projections of those patterns into the open future of what is being listened to. Listening is conducted in the subjunctive. The ear is always conducting what it is conducted by, leading what is leading it. This is as true of an utterance as it is of a melody, for every utterance has its distinguishing prosodic profile. Understanding a language or dialect is a matter very largely of tuning in to these profiles, learning their landscapes of likelihood.

Just as the human eye looks by default for a face amid a random distribution of visual information, so the ear listens for a voice amid formless noise. What one means by a voice is a particular kind of redundancy, a kind of ligature of the sound that binds it into resonant self-similarity. In this sense, we may say that a voice is simply the personification of a rhythm. If a rhythm is the articulation of a flow in recurring patterns, a fracture that is itself refracted back into iteration, then it is only number that can register this flexure, since only number allows for this particular kind of segmentation and reordering, this decomposition permitting recomposition. Voice and melody are both probability distributions, precipitates of a calculus.

The world is always between being and number. This is one of the reasons that it is hard to accept formulations like Alain Badiou's regarding the ontology of number as such, let alone his more extravagant claim that number may be Being itself. It does not even seem right to say with Galileo that everything is written in the language of number. We should rather say that nature everywhere tends toward or converges upon number. The Pythagoreans were concerned at the possibility that there could be irrational numbers in nature, but it is in fact whole numbers that are elusive and anomalous. Everywhere there are approximations, distributions, fluctuations around values. Everywhere the real suggests the approach to the rational, but nowhere are the real and the rational absolutely equivalent.

Counting, calculation, and music, occupy this gap. Michel Serres alludes to Leibniz's remark about the unconscious counting of music in the course of his own evocation of the omnipresence of music in the universe:

Corporal and formal music, in which, uttering a sort of mute word, the body counts without knowing the numbers. In science, the mind knows that it is counting, it gives the numbers names; music counts by means of unnamed numbers. Inundated by noise, we would be unable without music to enumerate this innumerability. (Serres 2011, 43-4; my translation)

It is for this reason that music is the intersection for Serres between what he calls the hard – teeming, chaotic, churning materiality – and the soft – form, intelligence, information. Music passes, and itself permits the passage, between the numerous-innumerable and the enumerated.

It is perhaps in this sense that Serres's musical metaphysics construes music as immanent in nature, and lying between form (hard) and number (soft), music as sounded event and music as summable form. But despite appearances, his view is not Pythagorean, for it does not see number as underlying or regulating the universe. Rather nature moves toward number, which arises from it, as a coin being tossed moves towards an absolute 50:50 ratio of heads to tails, without ever settling into absolute invariance. The sunflower cannot choose the number of seeds that is packed in its seed head, stacked optimally according to the golden ratio, because the sunflower just is that ratio. It does not perform a calculation or demonstrate the outcome of a calculation, because it is that calculation in the making. The act of listening to music or, what may come to the same thing, the act of listening musically, occupies a similar space of number in the making, between reality and ratio, between arithmetic and rhythm. Music occurs between the *natura naturans*, and the *natura naturata*, nature counting out and nature making a reckoning. Music is image and enactment of the oscillating passage between the two.

When I listen to music, what do I hear? Well, I hear 'the music' to be sure, though perhaps I never hear all of the the music, and not being able to hear all of it may be part of what that listening involves. Listening is a counting that is not able to take account of everything. But the fact that I must bring myself into a condition of intonation in order to listen means that I listen to something more. Music is a making manifest of listening itself, a listening made musical by lending an ear to itself. Music is a sort of imaginary matter of listening. What is manifested is what is ordinarily occult in listening, but it is manifested not as a making-conscious or as a making-explicit, but as a realising or making actual. Or, it is a making apparent of how much is not apparent to me of how I make myself up as I go along. This kind of listening is not exactly an *exercitium arithmeticae occultum*, an unconscious arithmetical action, or it is not only this. It is an arithmetising, a making arithmetical, of unconscious action, a realising of thinking and auditory awareness as a form of counting. The numerosity of music as a production or 'existing' of consciousness as countable means that listening is not just one mode of

consciousness among others, consciousness simply setting itself to the work of listening; it is a way for consciousness to give itself to itself as listening. The Russian philosopher of music A.F. Losev sees music as ‘the expression of the life of numbers, a “numeric matter,” a meonic-hyletic element that rages inside numeric constructions’ (Zenkin 2004, 161). To call it ‘meonic-hyletic’ means that this numeric matter exists between the condition of being nothing, meontic from τὸ μὴ ὄν, that which is not, and something, hyletic from ὕλη, primal matter (literally, in fact, wood). For Simon Jarvis, music is bound up in the process of binding up the experience of duration, as the actualising of a sequence of nothings made into a something, into some continuous thing:

Emphasis cannot but claim that our experience of duration is real. When hours, minutes and seconds drain away in front of us as this sequence of nothings universalised into the measure of life, then outworn iambs, trochees and dactyls carry the promise of a real duration, and, with it, the almost unimaginable promise that our experience might also be for real. (Jarvis 1998, 6)

What kind of thing is a listening consciousness? It is consciousness as a mode of self-collecting, in the way, perhaps, in which one is said to ‘collect one’s thoughts’. Collecting in this manner is founded upon the movement from one to two, in something of the way it is described by Fred Kersten

The form “Pair,” or “the form “Plurality,” is actualized (or conferred) by virtue of an active collecting (specifically, an active counting or colligating). In the presentation of a pair, we discriminate not only the perceiving, grasping and objectivating “This” and “That,” each as self-identical and numerically distinct from one another, but we also can discriminate the active grasping of “This” and then going on to actively grasp “That,” still holding “This” in grip, but still keeping “This” and “That” separate. Indeed, the constituting of a pair proves to be the foundation for collecting and counting. (Kersten 1974, 342)

Collecting, like counting, means adding items one by one (they have to be items, or functionally identical units) to a loose, mobile, quasi-totality, without having to hold the whole of the growing sum and all its constituent elements. In counting, letting go is continuous with retention, because the number series continues to contain what is at each moment left behind or gone beyond. One need not be or remain conscious of everything one experiences, or experiences of oneself, precisely because one has the relation to oneself of being able to count through. Number, and perhaps only something like number, allows for this kind of coherence in dehiscence, this ‘numeric matter’. Alluding to Schopenhauer’s grandiose rewriting of Leibniz’s *Musica est exercitium arithmeticae occultum nescientis se numerare animi* as ‘*Musica est exercitium metaphysices occultum nescientis se philosophari animi*’ - ‘Music is an unconscious exercise in metaphysics in which the mind does not know it is philosophizing’ (Schopenhauer 1969, I.264). Fred Kersten proposes the further

modulation 'Consciousness is a hidden activity which does not know that it is an activity' (Kersten 1974, 353).

This may account for some of the pleasure of listening. Listening gives our listening to itself in a way that seems to externalise or automatise it, relieving us of the need to keep hold of ourselves. We do not need to keep the count as long as music is doing the counting, and that counting forms a numeric matter that lets us hear ourselves. It is the pleasure of a work that just 'works', a work that does all the work for itself.

Let me enumerate the suggestions that I have been making here.

I suggested that there was a kind of numerosity, an unconscious counting, in all rhythm, and that the subject is structured on this resonant self-enumeration.

I suggested that the relation between counting and music is reversible: that there is music in counting, just as there is counting in music.

I suggested that the affective tone imparted by counting depends upon the articulation together of the active and the passive, pleasure and pain.

Finally, I proposed that music can be regarded as the enactment of the movement of things from existence to number, or from the numerous to the numerable.

Music is associated with animation, while number is conventionally on the side of death, the mechanical or the inert. But number commutes between the organic and the inorganic, and cannot be stably assigned to either. The sheer indifference of number comes from the fact that all numbers are equivalent, or equatable, in that they are made up of units that are exactly the same. Number therefore represents the possibility of a world of absolute indifference. The kind of unconscious counting that is at work in music, that is the work of music, is the effort to capture and neutralise this indifference. But this is in the service of a life that must thereby depend upon and pass through that deathly admixture of indifference that number is.

[NB Sacks, number twins Man Who Mistook

Rousseau and scores by numbers -

<http://www.unicamp.br/~jmarques/pesq/RamRoussEng.pdf>

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