The Wild Field. Stormbraining the Complex Rhythms of *King Lear*

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Abstract
Many ecocritical approaches to Shakespeare have focused on the storm in *King Lear* as an embodiment of the early modern anxieties about nature and the construction of the real. In most criticism, the storm has been read as a mere contextual analogy to Lear's madness. The article questions this approach and instead encompasses the early modern discourse on the storm as the visible manifestation of God's wrath. It considers how the storm was rendered in classical and early modern poetry by way of rhythmic variations. Then, it graphically displays the cumulative amount of joint variations in metre throughout the play, proving that this human turbulence does not overlap with the storm, which is instead marked by less irregularity. Shakespeare adapts the early modern discourse on storms by removing the providential, religious frame and by offering an impersonal, nonhuman gaze on the King himself, turned into an object. In this environmental approach, the nonhuman is thus used to create a new subjectivity. This process recalls the nonlinear processes of complex systems, thus offering the storm in *King Lear* as a complex environment where notions of causality and analogy are perturbed.

Key-words: early modern natural disasters, divine justice, rhythm and metre variations, emergence, turbulence, complexity, irreversibility.

1. The "contentious storm" and the discontents of analogy

Ecocriticism has taken Shakespeare studies by storm in multiple ways – as a presentist anticipation of the environmental crisis (Egan 2006: 2015), environmental ethics (Borlik 2012; Brucker-Brayon 2011), and "ecophobia" (Estok 2011); as a debate between the idealisation of natural spaces and cultural constructs (Garrard 2012); as a link between early modern anxieties about nature and the construction of the real (Watson 2006). The overall question

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seems how to address both human exceptionalism and its symbolic construction of the material, as well as the equally troubling belief in the unfiltered emergence of the nonhuman – how to study nature without forgetting culture.

The "wild field" (III.iv.118) where the storm of *King Lear* erupts is a fair ground for such questions[1]. Instead of being an omen as for the natural prodigies in *Julius Caesar* or *Macbeth*, here the storm vents a sudden poetics of nonhuman wrath that is absent in the sources. In Geoffrey of Monmouth's history (c. 1136), Lear voices his grief against the irreversible fates without any storm (Bullough 1973: 314). A thunder does bolt out in the anonymous *True Chronicle History of King Leir* (1605), but only to freeze a character trying to kill Leir. The Shakespearean storm is extraordinary also because it hardly fits the early modern accounts of bad weather in association with divine or demonic supernatural forces (Thomson 1999, Jones 2015), with a revealing twist I will show in the conclusion.

A common critical temptation is to read the storm in *King Lear* on the grounds of analogy. The sudden upheaval of nature would first anticipate and then contextualise the concomitant disruption of order within Lear's mind. Raging nature seems unaffected by humans just as his daughters show cold cruelty. This analogy also seems upheld by rhetoric: storms were conventional metaphors for unruly passion. Wright (1604: 89) warns that the choleric man, when "the passion is aflote", should not make any resolution or determination of change: "I doe thinke there be few men liuing, which haue not ouershot themselues in this point, and repented when their soules were calmed, that they committed, when they were *tempested* (emphasis mine)". Thus, the storm deceptively seems an echo chamber of Lear's concomitant outbreak of madness (Shakespeare's second addition to the story), literally "minded like the weather" (III.i.2). The "dreadful pudder o'er our heads" (III. ii.53) oppresses Lear's mind too: Timothy Bright compares the oppression of excessive melancholy to a surcharging perturbation whose vapours ascend from the spleen and obscure the mind, with a dark puddle of vapours that beclouds the soul (1587: 102).

[1] Quotations are from the .rtf text with line numbers downloadable from the Folger Shakespeare Library, https://shakespeare.folger.edu/shakespeares-works/king-lear/, last accessed February 28, 2021.

The first one to dispute such an analogy is Lear himself, who contrastively decodes the storm as a temporary, imperfect distraction from the "tempest in my mind" (III.iv.15) in a controversial application of the Paracelsian doctrine of "the similar with the similar" (*similia simillibus*) that was gradually replacing Galenic theory in contemporary England. Recent ecocritical studies have evinced deeper nuances underlying the simple analogy between human and nonhuman turbulence. The storm marks an extraordinary intrusion of the nonhuman, ringing with that apocalyptic rhetoric which informed early modern discourses on natural disasters in an eerie foreboding of much global warming discourse (Smith 2012: 751). Its sudden mayhem ponders the divide between natural, indistinct *zoe* and human *bio* (Gruber 2015), or human interdependence with a denuded, survival world that predicts our post-sustainable condition (Dionne 2016). While the analogical reading of the storm as a thematic anticipation and amplification of Lear's madness seems indeed natural (with all the ironic implications of the term), it hardly provides an arc of stylistic and psychological development, focusing eminently on III.ii and on Lear. Being too good to be true, the central placing of the storm overshadows other intriguing references to an ongoing upheaval in Lear's mind already before the onset of madness. The actual storm is preceded by references to Lear's stormy behaviour, his "hideous rashness" (I.i.169), his "unconstant starts" (I.i.347) his "flashing" into one gross crime or other (I.iii.5), the "dispositions which of late transport" him (I.iv.227).

Analogy also fails to detect a shift in perspective from tradition to Shakespeare. As I will show in section 2, the traditional explanation of the storm as a terrible, if infallible manifestation of divine retribution allotted by the thundering Biblical God informs virtually all early modern accounts of storms. Edmund inserts divine displeasure towards parricides in his faux warning to Edgar: "I told him the revenging gods / 'Gainst parricides did all the thunder bend" (2.1.44-6). A magical triplet upholds all accounts of storms that makes them profusely available for metaphorical descriptions: suddenness, brevity, intensity. In ancient tradition, moreover, the thundering God's voice could be vicariously assumed by kings: Lear's attempt to reclaim his divine prerogatives of cursing in the storm speech may be an allusion to the Roman (Pliny, II.xxviii.13ff.) and Celtic belief in the king as the creator of the weather, identifying him with the Thunderer

(William 1961, pp. 65-6): "He holp the heavens to rain" (III.vii.75). Instead, the secularised Shakespearean storm retains these three traits but reshapes and eventually eschews this providential frame, both in God's and the king's voice. The storm only enhances Lear's empty curses without a successful supernatural invocation (Jones 2015).

My point is that the storm is not only an analogical motif that partially serves metaphors or allegories, but an element of style that may unveil a nonhuman temporality in *King Lear*. Shakespeare's reshaping of nonhuman turbulence can be perceived not only during the storm but throughout the play. Differing from analogy, the tool I propose to study this pervasive influence of the nonhuman rests not on a far-fetched guess but on a rhetorical and prosodical given that tends to be forgotten or omitted in most studies on the storm in *King Lear*: the irregular rhythm of the storm corresponded to exceptionally irregular metre in ancient rhetoric and poetry, as shown by Ovid and Virgil (section 3). Of course, metre irregularities occur regularly everywhere in Shakespeare, especially in the later plays; they hardly require a storm or another natural disaster to break out. Nor are all irregularities in metre necessarily influenced by the nonhuman. Yet, interesting variations and changes become visible in *King Lear* when such irregularity is played out against the natural storm: for instance, some variations occur already before the storm as a sign of Lear's nearly divine status as a thunderer; by contrast, some characters remain unshaken by the stormy outbursts of passion; the apparent irregularity of the natural storm subsides when confronted with the human one, the very opposite to what most analogical readings claim (section 4). My hypothesis is that studying the timeline of irregular metre throughout *King Lear* lends an auscultation of a rhythm that differs from analogy. It also offers an ecocritical approach to Shakespeare that focuses not just on the metaphorical analogy between metre and nature but on the nonhuman as a technique (section 5). A different, "sad music of humanity", to quote Wordsworth, appears thanks to the dual rhythms of nonhuman and human turbulence.

2. What the thunder said – in natural philosophy and in the Bible

"What is the cause of thunder?" (III.iv.163), wonders the mad Lear. The question was truly maddening. While Post-Reformation rural

England had often to "wage against the enmity o'th'air" (II.iv.241), it was more interested in present weather changes and how they affected the daily life than in long-term observations about the climate (Behringer 2009: 89). The irregularity of meteorological phenomena and their substantial inaccessibility to the senses hampered any valid account (Martin 2009). These limits applied to physical, not to metaphysical observation: the perceived frequency and extremity of natural disasters prompted the apocalyptic discourse on God's wrath and his vengeful retribution for the wicked (a category which in Protestant England typically included Catholic countries or English Protestant communities who were not deemed Protestant enough). *King Lear* was probably highly topical for an audience traumatized by bad harvests and cold weather (Estok 2011: 19). Only gradually did a new empiricism dawn during the so-called Little Ice Age especially in the years from 1560 to 1600, which were plagued by "[t]he winds and persecutions of the sky" (II.iii.12), such as cooler and stormier winds, blighted harvests, and sudden wild storms (Fagan 2001: 90). Especially harsh winters happened over the years 1564-65 and 1601-1603; bad harvests followed from 1594 to 1597 (Hulme 2016: 33; cfr. Lamb 1995: 211). The difference with the generally milder climate of the first half of the sixteenth century offered a singular contrast between the realms of Elizabeth I and Henry VIII (Armstrong 2016: 107). When Lear laments about "this contentious storm / [That] [i]nvades us to the skin" (III.iv.8-9) and Tom frantically repeats that he is "a-cold", the allusion probably went not only to Lear's daughters' and Gloucester's coldness but to the poor unstable climate and its consequences on human society (Markley 2008: 137).

While all natural disasters remain in their sudden extremity largely incomprehensible for the early modern mind except by a leap of faith, the storm admirably enshrines these attributes. The incomprehensibility of storms had been left intact by Aristotle *(Meteorologica* 1.1.338a26-b21), who offered a quite succinct account when talking about the *meteora*, the "higher things" that happen in the sky in accordance with a more disorderly nature than that of the heavens. In his geocentric system, order decreases as one descends from the heavens into the sublunary world of fire, air, water, and finally earth, which move in opposite directions and affect one another in complex ways. As all kinds of weather were thus perceived to have

heavenly origins, meteorological events moderated the relationship between the heavens and the earth. For Aristotle, the whirlwinds and other violent phenomena of the sky prove this decrease of order in the sublunary world also in the temporal cycles that are, instead, exact and precise in the celestial realm (Wilson 2013: 4). The Stoics offered little advancement on the baffling nature of the whirlwind (Pliny, *Historia Naturalis,* XVIII.78-90, *De presagiis temporum*; Seneca*, Quaestiones Naturales* 2.18, 6.18.1). Seneca argues that whirlwinds, like other natural calamities, merely prove to us that security is impossible: knowing that we are not secure *is* our only security. The only possible answer for this enormous, unreasonable destruction was that generation constantly requires corruption and destruction (Aristotle, *De generatione et corruptione* 2.10). God destroys in order to create new things for purposes we do not know, claims the Italian philosopher and humanist Pietro Pomponazzi (*Dubitiationes in quartum Meteorologicorum Aristotelis librum*, 1563) citing other examples of cyclical destruction and generation (Martin 2010: 267-68). In a detailed account of the several theories about the wind and especially the whirlwind, the Elizabethan William Fulke adapts the Aristotelian theory of the wind as "an *Exhalation* whote and drie, drawne vp into y^{e} aire by y^{e} power of y^{e} sunne, & by reason of y^{e} wayght therof being driuen down, is laterally or sidelongs caried about the earth" (1563: 18r). In the earth there are great holes, caves, or dungeons in which the air abounds; when it cannot abide inside them, it "findeth a litle hole in or about those countries, as it weare a mouth to break out of: & by this meanes, bloweth vehemētly". The storm wind is a thick exhalation moving out of a cloud without inflammation or burning; when that abundance of exhalation is gathered together in "a darke smokye cloude", it must "haue one waye out or other: it breaketh the cloude, & causeth thonder" (30v). The storm is characterised by a suddenness that causes madness in humans, and its disruption of nature causes temporary anarchy in society:

> So soden it is, that it can not be resisted wyth sodeyn helpe. So violent it is, that feble force canne not withstande it. Finally, it is so troublesome wyth thonder, lyghtnynge, rayne and blaste, besydes these darkenesse and colde, that it woulde make menne, at so neare a pynche to bee at their wyttes endes, yf they weare not accustomed to suche tumultuous tempest. (31r)

Only an atheist like D'Amville in Cyril Tourneur could have said that the thunder is "a mere effect of Nature" (*The Atheist's Tragedy* 2.1.142). The coexistence of natural philosophy and theological explanation was evident. As wind emanated from invisible forces, it was associated with supernatural and divine powers: storms were effects of God through nature. The Protestant interpretation of natural disasters saw them as example of the rank degeneration of the aging world after the Fall and even more forcibly so after the Flood (Kempe 2003: 152). Early modern accounts of storms as divine omens typically begin with narrating the devastating impact on local communities, a sense of numbness, realisation of both survival and loss, "the search for a cause, and reflection on the potential human contribution to God's anger that then marshals fear into actions" (MacKinnon 2016: 158). Such violent catastrophes suddenly precipitate the action in early modern disaster narratives (Lavocat 2010; Pfeifer-Pfeifer 2013). The calamity invariably becomes a sign that foretells another catastrophe (Lavocat 2012: 257-58). Despite the increasing gathering of anecdotes and historical narratives at the beginning of the seventeenth century, early modern writers constantly revered the allegorical approach that had been in use from the Middle Ages to the late Renaissance (and until the present day, judging from the Covid-19 pandemics). The same event suddenly repeats itself by surprising humans and is then piled with other similar experiences in order to elicit the hidden meaning of God's inscrutable actions. Two or three days after the disaster and its providential explanation as a divine retribution for the sins (at least of those who had died), the survivors invariably thanked God.

Accordingly, the early modern storm was preferably read in apocalyptic terms: "the great and fearefull day of the Lords terrible and last Iudgement to be giuen vpon this wicked world, is at hand", and the like of its fury "hath not beene seene, nor heard of in this age or the world" (*The vvonders of this windie winter* 1613: "To the Reader", unnumbered page). Kent similarly says that he never saw "[s]uch sheets of fire, such bursts of horrid thunder, / Such groans of roaring wind" (III.ii.48-50). Preachers and laymen equally mentioned the so-called "Little Apocalypse" (Mark 13.1-8, 24-37), where Christ predicts that the coming of his kingdom will be preceded by signs and tokens in the firmament, literally by *meteora*. The storm is extreme because sins have also become

extreme. As human wickedness has exacerbated in new fashions, the early modern storm also vents God's wrath in unprecedented ways; in its extremity, it is a reminder that makes all "consider how much more violent, the wrath and anger of the Lorde is against wicked and vngodly men" (Wither 1585: 174). Albeit a theatrical term, *catastrophe* was already used to indicate a natural disaster: Randle Cotgrave's *Dictionarie* (1611, s.v. "Catastrophe") defines it as a "catastrophe, conclusion, last act, or part of a play; the shutting up of a matter; also, th'utter ruine, subversion, destruction, fatall, or final end". Storms are catastrophes also in the sense that they are the apocalyptic conclusion, or the sign that the last times at long last are approaching: in "this old, and last age of the World, we yeerly behold the strange alterations of times & seasons, and therein, wee are put in minde of Gods anger purposed against vs, by many variable and vnusuall accidents, happening in these our latter daies, to mooue sinful mankind to repentance and newnesse of life" (*The vvonders*, unnumbered page). In their extremity, they are the signs of the extreme times: God's punishment and admonition have already begun, to the sound of "the dreadfull trumpets of Gods wrath loudly blowen from heauen to the earth".

The inexplicability of storms was aggravated by their unpredictability and suddenness in terms of nonhuman (divine) temporality: the exceptionality of the natural nonhuman literally voiced the inscrutable divine nonhuman. The early modern storm suddenly alters the ordinary way of human travel, quickly gathers momentum in an unusual way, and then proceeds by irregular times of growth, each outbreak surpassing the previous one; it finally causes absolute perplexity of will and threatens sudden death – how soon is now?

> But o most mercifull God, how *soone* by thy mighty power hast *thou* ouerwhelmed the same? how *soone* haue they lost all their great hope? how *quickly* haue they beene bereaued of those goodly fruits thy great blessings? and how soone (*as it were in a moment*) haue they beene cast downe from the mount of felicity into the deepe valley of sorrow, woe, and extreame heauinesse? (*The vvonders*, unnumbered page, my emphasis)

The storm happens in an instant, and such suddenness and extremity cause absolute astonishment and the dissolution of human ties: "the

suddainnesse of this fearefull tempest, put the poore inhabitants in such extreame feare, as no man had any minde of any thing in his house, no, the husband neuer remembred his wife, nor the wife her husband, but were so exceedingly astonished, that they ran vp & downe the streetes from place to place, like mad or franticke persons" (T.C. 1600: 4^{v}-5^{r}). Astonishment is caused especially by its celerity: a "sodein and violent" tempest:

> took beginning with a rain, which fel with a wonderful force and with no lesse violence then abundance, which made the storme so much the more extream and terrible. This tempest was not simply of rain, but also of lightning and thunder, the flashing of the one wherof was so rare, and vehement, and the roaring noise of the other so forceable and violent, that it made not onely people perplexed in minde and at their wits end, but ministred such straunge and vnaccustomed cause of feare to be cõceiued, that dumb creatures with y^{e} horrour of that which fortuned, were exceedingly disquieted, and senselesse things void of all life and féeling, shook and trembled. (Fleming 1577: unnumbered page)

God's ways to humankind are inexplicable and sudden, and they surmount the human mind just as the sky is above the earth (Isaiah 55.9); the storm, that takes place in the sky, is also sudden and unaccountable; ergo, the latter may stand for the former. The storm is a visible, sudden sign of God's hidden presence. He first sends "warning thereof diuers and sundry wayes", as he did in the "Olde world" with Pharaoh and the cities of Niniveh and Sodoma, which he destroyed till fire and brimstone fell from heaven, leaving these examples "for our instruction, vpon whom the endes of the world are come, which are sufficient to forwarne vs of the like punishment" (*A most true and lamentable report*, sig. 4^{r}). The storm is the extreme manifestation of God's displeasure after His previous "louing and gentle corrections", to wit, "earthquakes, dearth and famine, plague and pestilence, monstrous birthes, fearefull thunderclaps, raging windes, straunge sicknesse and diseases, sodaine death of magistrates". Brevity overlaps with extremity: "although the tempest lasted not long, yet for the time it was most terrible and great hurt was done thereby" (sig. 5^{r}). And the concentration of God's punishment into so short a time and so restricted a place proves that it *is* God's punishment:

But if any should esteeme hereof as a matter of chance or fortune, or as a thing done by naturall course of the planets, that it should fall in that place, and worke such harme there aboue all other places, I would wish such men to consider & search in the booke of God, […] how then can so great a punishment light in so small a compasse without his speciall direction. (sig. 5^{v})

This formidable concentration of absolute suddenness and destruction on a restricted place and time made the storm divine. Like Jupiter, Baal, and other polytheistic divinities, the God of the Bible occasionally manifests himself with *meteora*: the whirlwind, thunder and lightning embody the divine traits of absence, darkness and light. The bellowing tone of thunder and the sudden propagation of lightning convey His infinite power in transmitting instantly His will to all parts of the earth, voice His indignation at human wickedness, and suddenly mete out perfect retribution. With a voice of hail and coals of fire (Ps. 17.14), He thunders from Heaven (2 Sam. 22.14; Job 37.4–5, 40.4; Ps. 17.14, 28.3; Eccles. 46.20). The thundering Lord, who "shall roar from Zion, and utter his voice from Jerusalem", promises to destroy the wicked with a tempest in the day of the whirlwind (Amos 1.2, 1.14). God jovially thunders and roars in Psalm 18 (a likely appropriation of a rival Canaanite hymn to Baal, Loic 2019: 406). He both conceals his presence in darkness and manifests it through the storm: "The Lord also thundered in the heaven, and the Highest gave his voice, hailstones and coals of fire. Then he sent out his arrows and scattered them, and he increased lightnings and destroyed them" (Psalm 18.13-14). On the wings of the wind does God ride (2 Sam 22.11) and fly (Psalm 18.10), He who "commandeth and raiseth the stormy wind" (Psalm 107.25). Together with fire, hail, snow and vapours, the whirlwind executes his word (Psalm 148.8; Daniel 11.40). He gave the earth to the children of men (Psalm 15.16), but he calls the wind only his (Psalm 147.18). God also thunders, if sparingly, in the New Testament: his voice sounds like thunder for the bystanders of Christ's baptism (John 12:28–29), and lightning accompanies the resurrected Christ's apparition (Matthew 28:3); his celestial throne is announced to John with "lightnings and voices and thunders" (Rev. 4.5). In early modern discourse, the thundering God stayed alongside the physical explanation of the thunder as the friction of clouds: the final causes of thunder are the purgation

of the air and the consumption of evil vapours, bringing showers "through which the earth plentifully yéeldeth", and, thirdly, "the almightie God thundereth in the clowdes, to the ende that men may be procured vnto a due reuerence and feare towardes him" (Hill 1528: 45-6).

3. How the thunder spoke

While failing to fully explain the causes of the storm unless in a religious framework, writers duly described its different noises. Among the four kinds of lightning listed by Fulke (27^{v}-28^{r}), Lear invokes the fourth and most hurtful kind, the *Fulmen*, which "stryketh downe steples, and hyghe buildynges of stoone, and of woode, passeth through them and setteth them on fire"; its distinctive "cracke of thonder […] is sodayne, shorte, and greate, lyke the sounde of a gonne". The thunder is a sound caused in the clouds by the breaking out of a hot and dry exhalation beating against the edges of the cloud (Fulke 1563: 23^{v}). It is variably compared to moist wood which cracks in the fire, the breaking of an egg or an apple in the fire, the sound of a gun (24r), "the rendyng of a broade clothe, whiche noyce continueth a pretty whyle" (25^{r}). Thunder also purges and purifies the air "by the swyft mouynge of the *Exhalation,* that breaketh foorthe, as also by the sounde which deuidynge and pearcyng the ayre, causeth it to be muche thynner" (25^{r}-^{v}).

The thundering nature of God's voice in the storm and the whirlwind was also a model of style. The intensity and suddenness of the noises of the storm conveyed the absolute suddenness of God's voice. The punishing God's voice is rendered by the "mighty noyse" with which God "sodainely" wants to "draw men to an awe of his Majesty" (Humphrey 1607: 70-71, 189-90), the "gr[e]at quaking, noise, and sound" (Batman 1582: F163^{v}). God's inaudible voice was thus made familiar by comparison with the common experience of the senses. In Christian tradition, *tonans* became the epithet for the authoritative, harrowing voices of eloquent preachers; bells were both the human renditions of the thundering voice of God and the apotropaic devices that were used to ward off the outbreak of natural storms (Loic 2019: 407).

Early modern writers, and Shakespeare notably so, liberally coalesced the religious meaning of Biblical motifs with the forms

afforded by ancient literature. With its extreme nature and furious abruptness, the literary storm was a choice example of hyperboles in antiquity. The storm as a hyperbolic motif occurs in Ovid's *Metamorphoses* (I.474-572), a tour de force on the drowning of Ceyx, featuring two elements reprised by Shakespeare in *The Tempest*, the battle of the winds (I.490-91) and the sea that touches the heavens (I.497-98). Lucan (*Civil War* V. 504-677) depicts Caesar's attempt to cross the Adriatic in a small boat thwarted by a storm, which externalizes Caesar's fury. Storm sequences in hyperbolic style also occur in Seneca's *Agamemnon* (465ff., 484-87) and in Statius' *Thebaid* (I.346-82).

The storm had its own sounds and measures in poetry. In classical prosody, the peculiar sound and noise of the storm was rendered by means of the spondee (two long syllables). While apparently heavy and slow, the spondee was praised for its gravity and tardiness especially in members and asides (Cicero, *Orator* 64.216) as well as for its steadfastness in opposition to the lively iamb (Horace, *Ars Poetica*, 256). For the solemnity of its tone, the lines with all spondees (with the exception of the fifth foot) were used by venerable characters like Gonzalo in *The Tempest* (and by Miranda too in her description of the shipwreck, *The Tempest* I.ii.1-13). Tudeau-Clayton (1998: 107) noted that in a quite popular edition of Virgil the onomatopoeic use of spondees was prescribed when one wanted to show the clash between a slow, ponderous movement (*mora*), and a violent clash (*colluctatio*, as it happens in tempests ("cum et mora et colluctatio alicuius rei exprimenda est, ut in Tempestatibus", Virgil 1555: fo. Aiii^{v}). Other metrical variations rendered the storm, such as two rapid dactyls (one long syllable followed by two short ones) used by Virgil to render the fury of the wind and tempest raised by Aeolus, lord of clouds and storms: at Dido's bequest, he smote with the reversed trident the hollow mountain on the side; the winds, formed in ranks, rushed out by the door he had made and whirled across the earth:

Quā dătă / pōrtă rŭunt /, & terras turbine perflant,
īncŭbŭ/ērĕ mări, / totúmque a sedibus imis (*Aeneid* I.83-4)

In the grip of anger, it was assumed by Elizabethans that words did speed up: the otherwise untrustworthy Edmund advises his brother

to "have a continent forbearance till the speed of [their father's] rage goes slower" (I.ii.173-174). To an early modern ear, if not soul, the perceived dissolution of human time and manifestation of God's (or the gods') order through nature in the storm arguably marked a different temporality, and it was through meter that the speed of rage could be directly measured. Aristotle equates motion and its measure (number) with time itself: "Time defines motion by being its number, and motion defines time" (*Physics* 4-10-14, 220b16-18). Drawing on this definition of "stir" (motion) as "the true measure of time", Puttenham (2007, II:3, p. 157) compares the different speed of poetic feet to runners who set forth from the same first goal but then proceed in different manners, depending on their unequal sounding: a foot "serveth to three purposes, that is to say, to go, to run, and to stand still, so as he must be sometimes swift, sometimes slow, sometime unequally marching, or peradventure steady".

A secularised roaring voice of thunder spoke out in Elizabethan theatres thanks to an increasing list of low-fi devices (Hamilton 2017: 116) used to imitate wind (canvas turned on a wheel), lightning (chemical powders combined with fire, fireworks attached to a flameproof rope, Butterworth 1998: 230), and thunder (a cannon ball rolled down a wooden trough, a drum to evoke distant rumbling). These effects might be highly striking in the lowly-lit artificial environment of a private theatre, but less so in the open-air Globe (Jones 2015: 9). Yet, Lear's storm was probably based less on such illusionistic stage effects and more on the noises of words and the dialogue of the characters (Viguers 2000: 354) – and on rhythm variations.

4. The speed of rage: *King Lear*'s stormy rhythms

The different temporality of the storm in *King Lear* may be perceived through the variations of rhythm throughout the play, all of which I have scanned and then grouped by selecting the lines said by fathers and their progeny (1320 lines out of 2238). Since the "natural course of most English verse seemeth to run vppon the olde Iambicke stroake" (Webbe 1964: 273), I have assigned the default value 1 to all iambic lines (the highest minority, 258 out of 1320). Then I counted the occurrences of different feet, considering only the major ones: spondee (— —), pyrrichius (UU), iamb (U—), trochee (—U),

molossus (— — —), tribrach (UUU), dactylus (—UU), anapest (UU—), listed and numbered according to their order in the line (SPO1: spondee at the first foot, etc.). Other metrical variations that disrupt the iambic sequence (enjambments, weak and light endings, feminine rhymes, alexandrines) were also considered. I then measured their incidence on the overall number of variations (1615) and assigned them inversely proportional values: most common variations, like the trochaic foot in the first position (229 out of 1615), proportionally receive smaller values, while variations like the spondee at the first foot (18 out of 1615) receive higher values. Finally, I measured the total sum of the lines and placed them in graphs, where the *x* axis denotes the number of lines and the *y* axis my approximate rendition of rhythm variation (RV).

Graphs were used to visualize especially the "spikes", the exceptional variations of metrical regularity which erupt in the topical passages of the text by imitating the elements of suddenness, intensity and brevity that were present in the metaphor of the storm. The detection of such spikes is enabled and visualized exactly by the piling up of all the occurrences and the sudden elevation of the total number by contrast: inserting only the relevant spikes without the larger context of the scene would make them less visible.

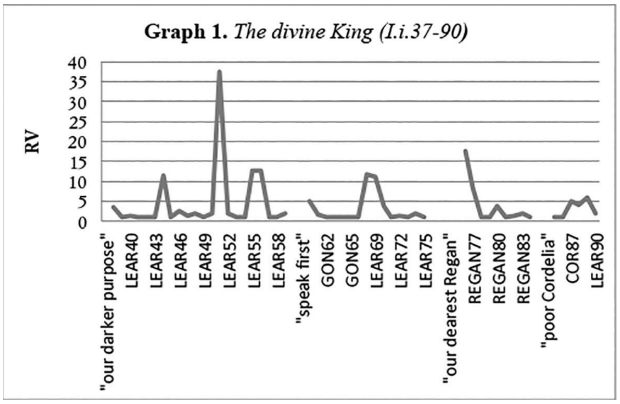
Listening to this rhythm of *King Lear,* two different storms break out, all but unlinked by analogy.

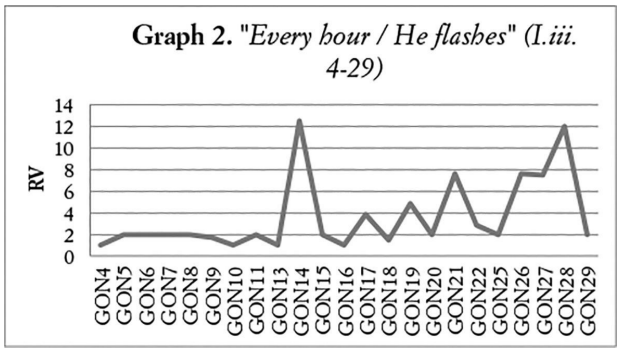
4.1. The thundering king/father: resonance and propagation (Act 1 and 2)

The first remarkable fact is that the emotional intensity that is conveyed through high irregularity in metre is already present well before Act Three and even before the breakup between Lear and Cordelia. Lear's thundering voice, one of the ancient divine attributes of the king, introduces the turbulence of a human storm in Act One. Probably remindful of his ancient role as the vicarious brandisher of thunders, Lear already begins by showing a thundering voice when he announces his "darker purpose" (*graph 1*), fully displaying the divine privilege of the punisher, with significant spikes that mark his decisions on the division of the kingdom, even before hearing Cordelia's refusal. While the interaction with the daughters still seems peaceful and

pleasing, Lear raises the emotional intensity of his metre by sudden, if regular peaks of variation. At this point of the play, the thundering voice is still overlapping with the most solemn moments when the king's will is vented, also by means of the formulaic statements of division. Lear's innate turbulence, compounded by Cordelia's refusal and her disavowal, shows also by reflection in I.iii: when describing his behaviour at her place, ("Every hour / He flashes", I.3.4-29), Goneril, who otherwise keeps a moderate, spikeless voice that befits a cold schemer, adopts a rising fragmented line (*graph 2*) as if resonating together with the king's voice.

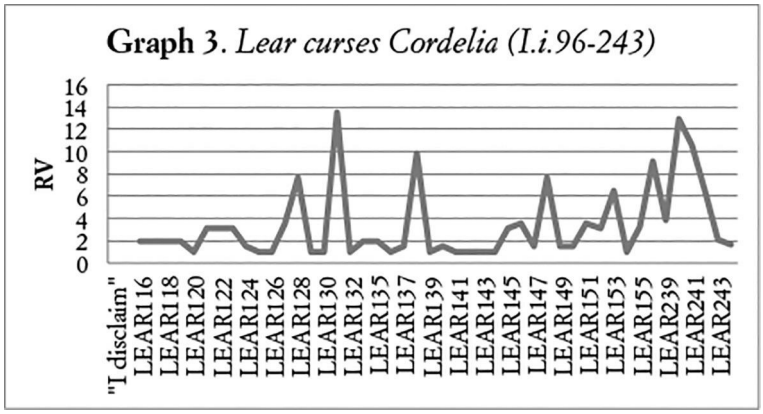
FIGURES 1-2
Blessing as cursing





Another remarkable fact is that the allegedly sudden fury of stormy Lear when he curses Cordelia is hardly sudden. Its eruption is made regular in rising patterns of slowly accelerating turbulence (*graph 3*): Lear curses Cordelia with a regularity of spikes, peaking at I.i.131 ("To gorge his appetite, shall to my bosom"), 138 ("Hence and avoid my sight!"), 241 ("To match you where I hate"), in an ascending climax. One can compare this rising turbulence with the one used later by Lear against the other daughters, when he has given up his kingly rights and, as he imperfectly learns, his privilege in imitating the thundering God. He curses Goneril (*graph 4*) first with a slow line until I.iv.289 ("Hear, Nature, hear, dear goddess hear!"), then a higher one at 297 ("Be a thwart disnatured torment to her"), then he flatlines with two violent spikes (308, "What, fifty of my followers at a clap?"; 315, "Blasts and fogs upon thee!"), and a last one at 322 ("Ha! Let it be so. I have another daughter"). When both sisters are present, he at last curses them with a dramatic display of spikes, first at the beginning (II.iv.96-152, esp. 131, "No, presently, bid them come forth and hear me", *graph 11*) especially after their response, and then with an even-paced acceleration at the end (307-25). While differently showing Lear first as an active, thunder-brandishing king and then as a self-deposed one, Act One uniformly shows his thundering voice as a gradual accumulation of rapidly subsequent peaks.

FIGURES 3-4
Cursing three daughters in a row



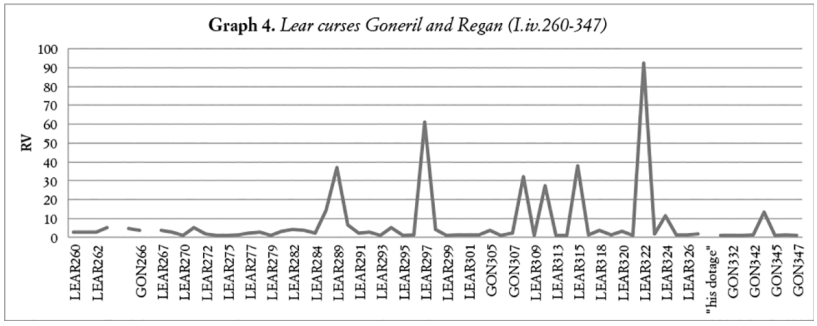
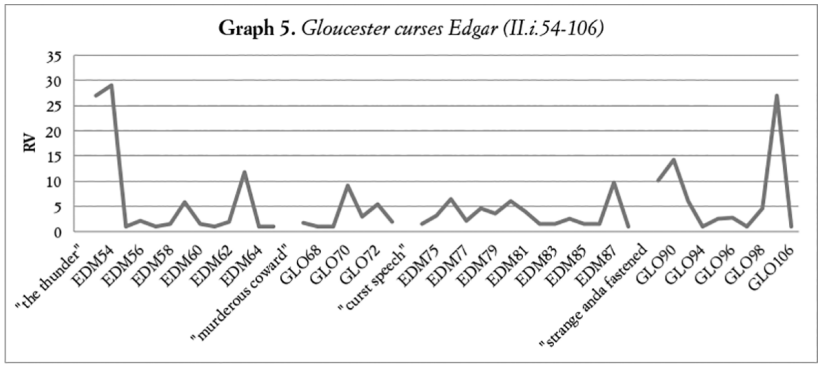


FIGURE 5
Cursing in a minor key

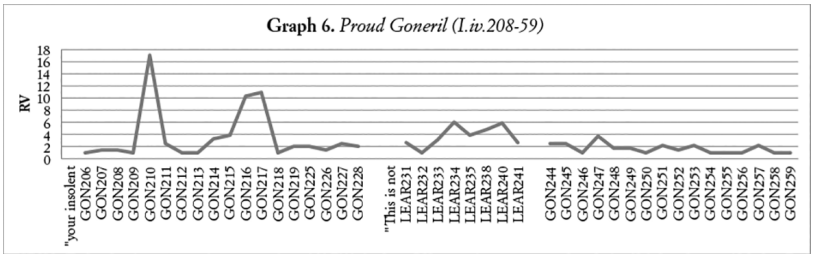


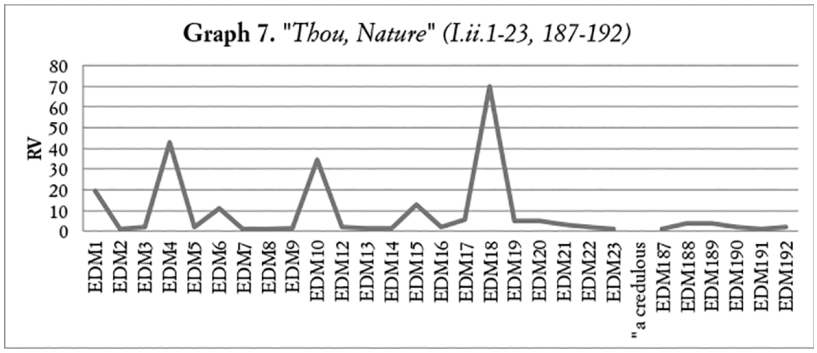
Resonance is yet another feature of *King Lear* that is discovered by way of metrical irregularity. The king's voice, which in its turn should act in resonance with God's voice, is feebly repeated not only by his daughters, with an emotional intensity in Cordelia and a more detached way by Regan and Goneril, but also by Gloucester, the other punishing father, who imitates Lear but somehow from below, without the momentum of kingly punishment (*graph 5*). While Lear brandishes the emotional pitch of kingly declarations partially regardless of the daughters' reactions in 1.i and then in 1.iii when encircled by the two cold daughters, Gloucester acts and speaks in reaction only: he curses Edgar after being prodded by

Edmund's sequence of nearly monotonous slanders (II.i.90-106), with two spikes at the beginning, 90 ("Would he deny his letter, said he?"), and the end, 106 ("O madam, my old heart is cracked; it's cracked").

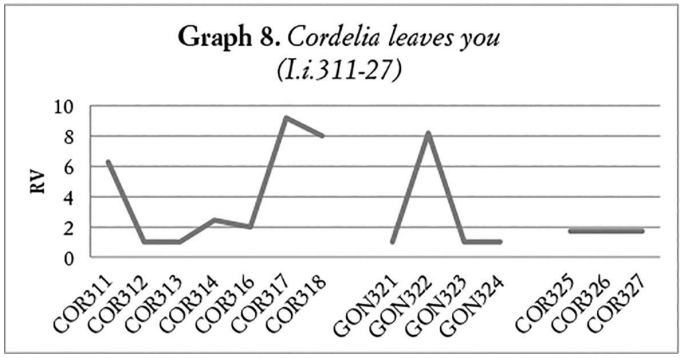
Metrical irregularity also shows the permanence of the thundering king's voice and its propagation through different voices. The cursed do not seem to react, yet with a distinction between the wicked and the good. With a visual metaphor, one might say that the wicked remain opaque, rather than averse, to the propagation of the king's thundering voice. During the division of the kingdom, Goneril's and Regan's replies follow the same calm rhythm, with a significant spike only from Cordelia's brief asides (*graph 1,* I.i.87, "More ponderous than my tongue"). During the joint curse (*graph 4*), the two sisters reply first by nearly ignoring Lear (II.4.159, 177), then by only partially responding (269-80), and then rounding off the scene with calm. These opaque characters resonate with their own irregularity, but only when their pride is smitten: Goneril shows more turbulence when outraged by the "insolent retinue" (I.iv.207) than when receiving Lear's paternal cursing (*graph 6*, I.iv.208-59). Similarly, Edmund's greatly varied utterance is mostly marked when alone, with regularly pondered intervals, and an occasional spike at I.ii.18 ("Our father's love is to the bastard Edmund", *graph 7*); after the meeting with the father, he is even calmer.

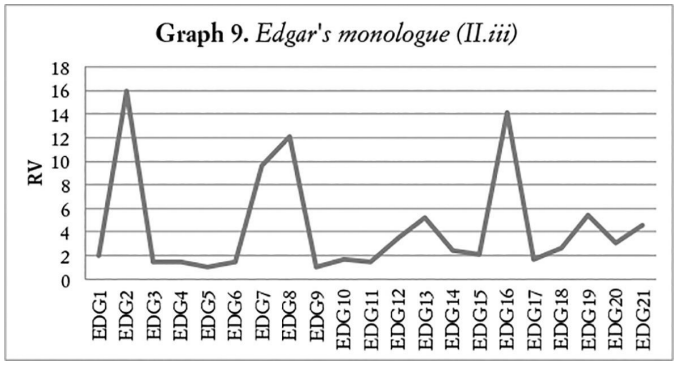
FIGURES 6-7
The calm of the wicked





FIGURES 8-9
The calm of the good



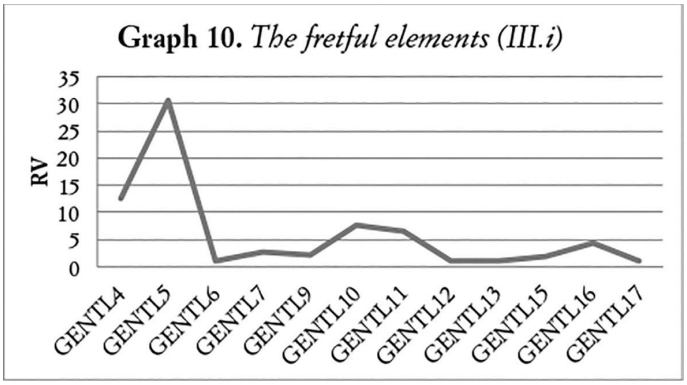


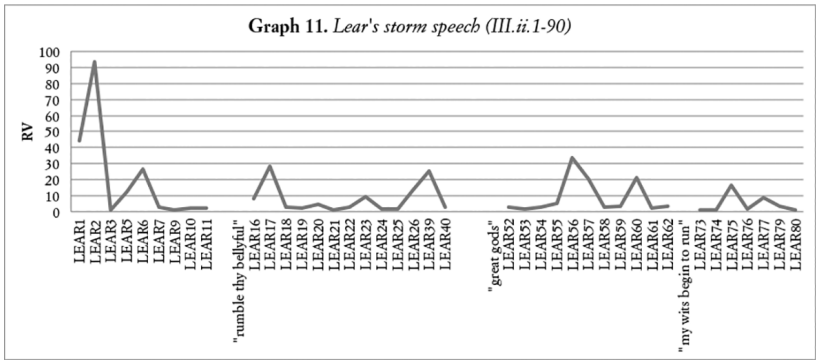
Cordelia and Edgar, the two cursed victims, show a different kind of resistance to the propagation of their fathers' irate voice, signalling their constancy in the face of adversities. Cordelia says "nothing" with only a spike at I.i.98-9 (*graph 3*); she leaves the scene with just a spike directed at her sisters ("But yet, alas, stood I within his grace", 317), and then with a singularly flat line of calm acceptance (*graph 8*). Edgar's constancy is marked in II.iii by the monologue (*graph 9*) that proceeds calmly by allowing only three nearly equally spaced spikes (II.iii.2-3, "And by the happy hollow a tree"; 7-9, "To take the basest and most poorest shape / That ever penury in contempt of man"; 16, "Pins, wooden pricks, nails, sprigs of rosemary").

4.2. The regularity of the storm scene (Act 3, scene i and ii)

The storm scene singularly shows an even stranger display of regularity. Two levels of irregularity (the storm and Lear's madness) are now simultaneously present, and their differing degrees of resonance are visible. Now that the natural disaster is approaching, the Gentleman's evocation of the storm (*graph 10*, III.i.4-17) anticipates the trochaic sequence with a spike at 5 ("Bids the wind blow the earth into the sea") and then a uniform line rising at 10-11 ("Catch in their fury and make nothing of; / Strives in his little world of man to outscorn"). When the two thundering voices are set face to face in the storm scene (3.ii), Lear's voice becomes singularly regular. A trochaic sequence returns in Lear's storm speech (*graph* 11), with fairly regular sub-sequences of falling/rising (16-40) and a rising sequence (53-61, 73-90).

FIGURES 10-11
The two storms: regularity in chaos





4.3. After the storm: the intermittence of echo (Act 3, scene iii – Act 5)

Before seeing what happens after the natural storm, it is safe to quote here two influential Protestant readings of the most obvious Biblical examples of divine storms: the episode of Christ calming the tempest at sea (Matthew 8.23-27) and God speaking out of the whirlwind to Job (Job 38.1-38).

God speaks with sudden thunder, and equally suddenly does he calm the storm. Luther (1578: 317) reads the tempest at sea as an example of what faith should be exercised in "great matters, and full of perill". The storm allegorically acts like the world which prevails over faith and

makes us live carnally: the disciples beset by diffidence on the ship with Christ embody the sinner who casts doubt over salvation. The episode is for Luther an allegory of the life of Christians – the ship is the church, the sea the world, the wind the devil, and the cause of the raging storm is Christ himself: "before that Christ and his Disciples enter into the ship, the sea is calme, & the wind quiet, but when Christ with his Disciples are entred in, by and by ariseth a tempest" (321). The association between despair, temptations, and the storm returns in several Protestant readings. The wretched sinner, overwhelmed by the "horrible tempests" of guilty conscience especially at night, is metaphysically carried away by despair: "a swift and violent winde rising suddenly, shall carie him quire away: and being by and by gone out of sight, hee shall neuer bee seene: and no marueile, seeing a mightie whirlwind hath swept him away" (De Beze 1589: 22). The wind and storm of temptations destroy the house built on sand (Matthew 7.24-7) not because of themselves but of folly, for "it is not the nature of tentacions & assayles: that causeth the house, to stande nor fall, but the appoyntement and disposicion of the mynde" (Whitford 1541: 33^{r-v}).

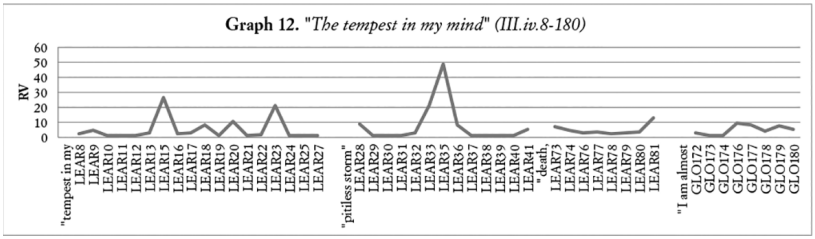
Out of the whirlwind (*ex turbine*) does Eliu speak back to Job, who has dared to dispute with him. God's speech (38.1-38), which reveals to dumbfounded Job his unsearchable wisdom, made manifest by his works, including the whirlwind, is based on a list of anaphoric rhetorical questions repeated in association with things impossible for humans (*adynata*) and focussed on enormous natural phenomena, especially *meteora,* along the lines of *who has done this?* and *have you done this?* – "Canst thou send the lightnings that they may walk, and say unto thee, Lo, here we are?" (38.35). A similar list enhances the thunderous voice of God in Psalm 28.3 (Loic 2019: 406): "The voice of the Lord is upon the waters; the God of majesty hath thundered". Calvin (1574: 178) read allegorically the "extraordinarie maner of dealing" of God speaking *ex turbine,* in the whirlwind: it is again a model of sudden and life-changing stylistic extremity, due to the extreme corruption in which we live as reprobate sinners. The whirlwind stands for the extreme temptation of despair, but also for the extremity we deserve: although we have the wit "too looke vpon God with a cleare and pure eyesight", our dull wits must be touched "more to the quicke", for "we neuer come vnto him except he driue vs perforce: it is for our behoofe too bee touched by the chaunges that are made", especially if they are sudden and violent, "when we see the weather fayre, and then sodainly the ayre is troubled".

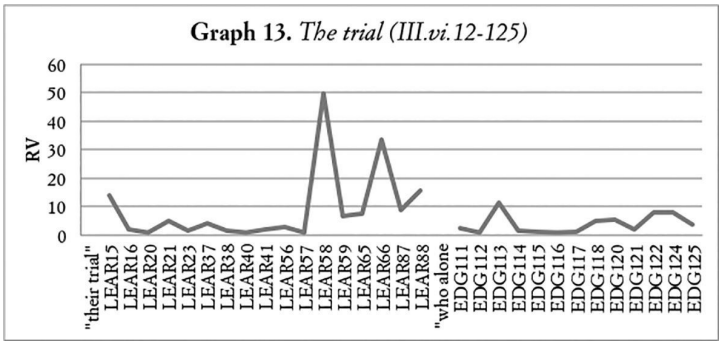
According to Calvin, God is listing these changes while exactly raising a whirlwind to make Job fear and revere him (753), in a rare conjunction between text and gloss. Calvin does not solve the apparent contradiction between a God who lies in terrible darkness and wants us to believe in invisible things, and who yet from time to time chooses to manifest himself audibly in the whirlwind because our hardened heart must be smitten with sudden extremity. The conclusion points instead to the twofold emendation of Job's pride: abated in his pride by the double whirlwind, the one formerly raised by the devil against his cattle and the one out of which God is now speaking, Job learns to be patient and confesses that he is nothing, "tamed as a little lambe, and he goeth not aboute to replie any more" (790).

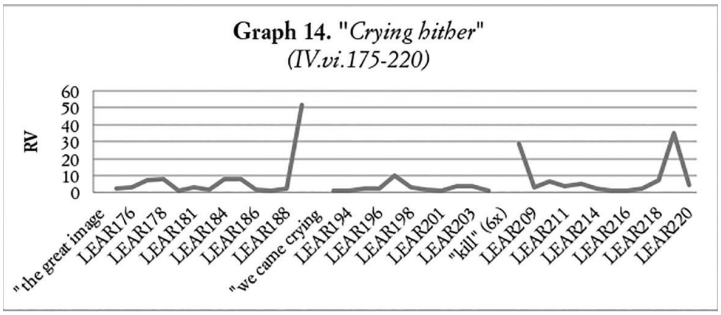
There is indeed silence after the storm in *King Lear,* but it is the silence of madness and melancholy, not of contrite reconcilement. Against analogy, the storm in fact benumbs Lear's personal thundering voice and gives it regularity by way of rising/falling pattern. It hardly reinforces by analogy the storm that is breaking out in his mind and impairs his botched attempts at using the language of kingly and divine cursing. After the storm, a strange kind of intermittence and a paradoxical regularity set in. Benumbing sequences are occasionally stirred by spikes that seem intermittent echoes of past events: both cursers (Lear and Gloucester) seem to have been humbled, as shown by their general low tone. Regularity imposes itself also on the chaos of madness, with a strikingly mild turbulence. The "tempest in my mind" (III.iv.15) paradoxically employs a regular pattern (*graph 12*), after the singularity of III.iv.33 ("That bide the pelting of this pitiless storm"), 35 ("Your looped and windowed raggedness defend you") and 76 ("Death, traitor! Nothing could have subdued nature"), nearly demented echoes of past curses. This numbing, regular effect is extended to Gloucester's sedate reprisal of the paternal curse on lower pitches (173-80). Also, the trial scene (*graph 13*, III.vi.12-125), which should be yet another manifestation of the demented king's thundering voice, in fact iterates the numbed sequence, both in Lear's lines (with two peaks at 58, "Arms, arms, sword, fire! Corruption in the place!", and 87, "Make no noise, make no noise", like distant rumblings), and in Edgar's meditation on suffering in the mind. Edgar's meditation evokes a sense of echo that after the storm regularly follows Lear's lines: his resonating voice, that in Act 1 and 2 mildly caused some reactions in his daughters, is now turned to a voice that is feebly echoed and

commented upon. The storm is the manifestation of an impersonal, nonhuman justice, far away from both the thundering gods and the cursing king. Scene IV.vi.175-220 (*graph 14*) is also marked by the plain-with-sudden-peaks line, with two extraordinary pitches at 188 and at the unique repetition of "kill" (205).

FIGURES 12-13-14
Humbling the cursing fathers

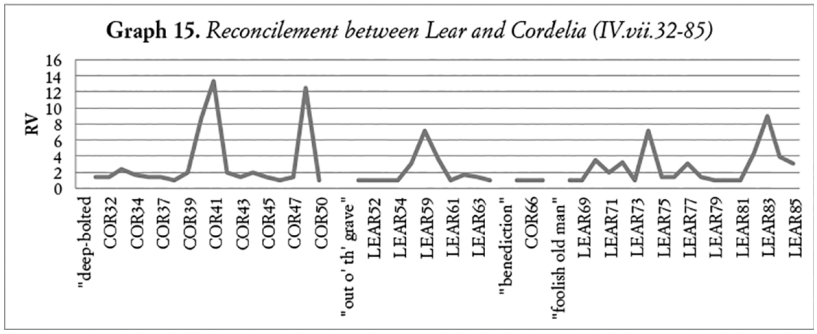


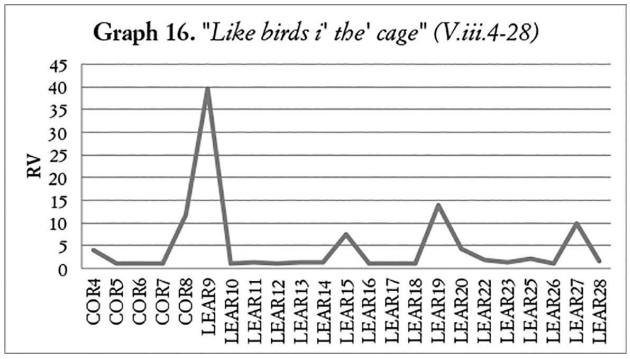


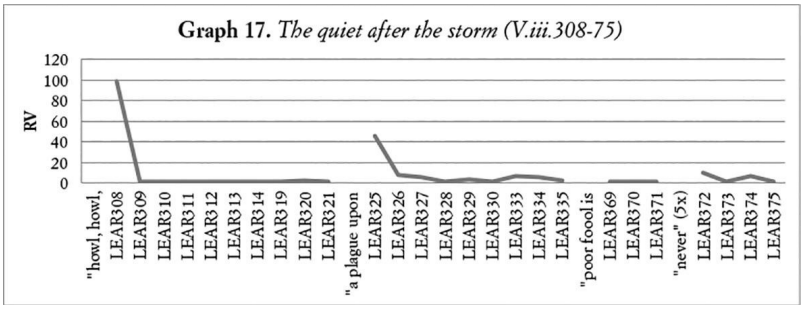


The intermittence of echo also occupies Act 4 during the reconcilement between Cordelia and Lear. None of the thundering traits of his voice linger on, nor is the natural storm more than a context for the revelation of the most unnatural cruelty, the harshness of her sisters' human nature, that causes Cordelia to show a few pitches. The reconcilement between Lear and Cordelia (IV.vii.32-85, *graph 15*) sees Cordelia peak when recalling the direness of the natural elements (38-41, 48), calming the father with her unaccelerated tone. Lear's peaks (59, "Where have I been? Where am I? Fair daylight?"; 74, "Yet I am doubtful, for I am mainly ignorant"; 83, "I know you do not love me, for your sisters") echo the memory of the past. Scene V.iii.4-28 (*graph 16*) also marks the low uniform tone in the moment of absolute danger, with the sudden benign reversal of Lear at 9 ("No, no, no, no. Come, let's away to prison"). The last scene (*graph 17*) also conveys this flatline, with the violently dactylic structure of a sudden surge ("Howl, howl, howl! O, you are men of stones!", 308) and a last faint curse (325, "A plague upon you, murderers, traitors all!") petering out in the distance.

FIGURES 15-16-17
Humbled blessing

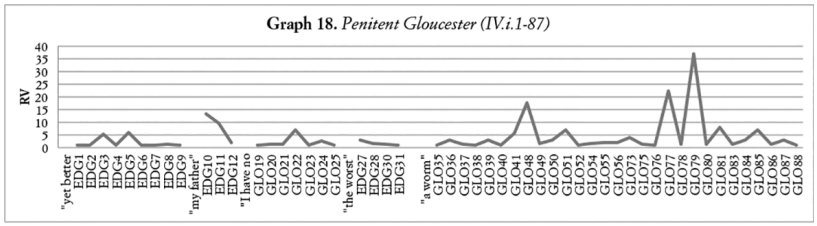


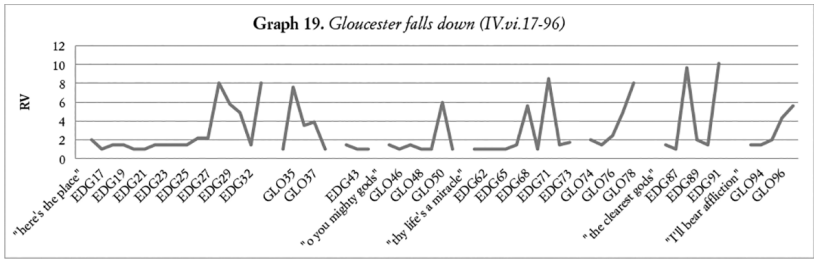




Conversion after the storm, but significantly only for the cursing father, also informs Gloucester's penitence scenes. The uniform line, with a peak at 48 ("Then prithee, get thee away. If for my sake"), rises with the peaks of 77 directed at the "superfluous, and lust-dieted man" (*graph 18*, IV.i.1-87). In the cliff scene (*graph 19*, IV.7. 17-96), Edgar describes the high-pitched quality of the imaginary place (15-29), in a sudden rise that is only faintly imitated by Gloucester when addressing the mighty gods (44). After the 'fall', Edgar also raises the line at 71-73 when describing the "miracle".

FIGURES 18-19
Falling fathers





5. The "indistinguished space": unframing the subject in a nonhuman dynamic environment

The wild field of *King Lear* reassembles and secularizes the features of the early modern storm differing from analogy. Although it adapts the temporality of the storm rendered by its suddenness, intensity, and brevity, the absolute otherness of God, it is a rashness more prepared than the human turbulence that precedes it: the storm speeches are less irregular than the previous curses, portraying a more orderly form of chaos than the human realm. While the storm is usually read analogically, human turbulence in fact precedes the storm as the king's (and the father's) divine privilege. Lear and (on a lower note) Gloucester sound already engulfed with turbulence from the start. This human turbulence proceeds by way of resonance (from the past and from Lear's voice) and gradually changes into intermittent echo. Echoes are more powerful than actual events: repeating curses move the cursers just like their first utterances. The suddenness of the intermittent king's (or father's) fury is retained, but

with a limited resonance: the other characters are either untouched by turbulence (the wicked) or decide (the good) to use constancy to benumb the rhythm of their raging (or dejected) fathers. In a reversal between nature and culture, the natural storm is artistically shaped (probably as an echo of classical storms in poetry) and feebly repeats the triplet of suddenness, intensity, and brevity, while the human storm admits the temporality of the past, annihilates time in an instant when fathers vainly curse, and slowly abates over time by subsequent waves of echo.

Seen against its two irregular rhythms, *King Lear* displays some interesting implications for ecocriticism. Its wild field seems to portray more the crisis of the human environment than of the natural one. Ironically, environmental ethics is applied to the veritable nonhuman environments represented by the court and the family: humans are more unnatural than storms. And if fear needs be, it regards the human family: the nonhuman storm can be embraced and imitated, while the human storm remains utterly inexplicable. The same reversal between nature and culture concerns the idealisation of spaces: the nonhuman storm offers paradoxical reconcilement, while cultural constructs such as kingship and family prove nonhuman by contrast. Nature here engenders no anxiety, and the real that is constructed as nonhuman belongs to humankind, displacing the early modern anxiety on fellow humans rather than on nature or God. Human exceptionalism is literally the exceptional nature of the worst, the underlying clouds of dark turbulence in the human heart that the nonhuman storm barely imitates. "Is there any cause in nature that make these hard hearts?" (3.v.81-2). More radically than the early modern storm, human nature remains a causeless, inexplicable thunder: thanks to the filtered experience of the natural storm, the deep, monstrous nonhuman emerges in humankind – "humanity must perforce prey on itself, / Like monsters of the deep" (4.ii.60-61).

In Shakespeare's odd twist, the artificial renders the nonhuman, while the human storm remains unanswerable, with the same stubborn resistance to interpretation that used to mark the early modern account of storms if deprived of their reading as manifestations of God's wrath. The utter strangeness of the early modern storm conveyed absolute signification as the manifestation

of God's wrath and retribution. In *King Lear,* retribution and conversion are instead dislodged from their didactic frame and reassembled with no clear direction either in time or morals: cursers get humbled by submission, and the cursed stay either wicked or good depending on their inherent human nature, a bottom that is unmoved by the outward storm. The storm causes a paradoxical conversion in the alleged punisher. Lear does not cause, amplify, or reflect the storm: he is no longer the subject of it, but its object. Thanks to this nonhuman temporality, the "subject quakes" (4.5.104) and is replaced by the I of the storm as "this horrible object" (2.3.17). In that period, *object* still meant primarily a terrible sight: the wild field of *King Lear* shows the subject as a secularised object made visible through its primal materiality. The "forked animal" (III.iv.97) appears once all dialectical bifurcations provided by human temporality have been swept away by the whirlwind and survivors are left alone to face the "bias of nature" (I.ii.117) in an indifferent world. And it is not simply secularisation: this shift unveils a more subterranean one from the king as a subject of superior justice and vision to the king as object. More radically, the intermittent subject of the early modern mind becomes the object of an impersonal, nonhuman gaze, the disenchantment of scepticism.

Thus, the "indistinguished space" (IV.v.259) is no longer an imitation of nature, but a portrait of the mind as a landscape full of "thwart disnatured torment" (I.iv.238). I follow Warde-Robin-Sörlin (2018) in using the term "environment" instead of 'nature' in a more dynamic concept of a system. As belied by its patterns of intermittence, resonance and echo, *King Lear* somehow resembles a complex environment. God's unsearchable temporality, with its sudden fury and abatement, is misplaced on human fathers: here no catastrophe or sign of the last times seems visible, and a puzzling open-endedness looms large at the conclusion of the play. "The bow is bent and drawn; make from the shaft" (I.i.144) – in terms of temporality, the wild field of *King Lear* is an uncanny anticipation of complexity, for it resists the illusion of the arrow of time, the irreversible direction in classical Newtonian physics according to Prigogine's definition. Having reached with Lear the end of certainty, life after the storm does resemble a "nonequilibrium universe":

the physics of nonequilibrium processes describes the effects of unidirectional time and gives fresh meaning to the term irreversibility... [which] can be no longer identified with a mere appearance that would disappear if we had perfect knowledge. […] Figuratively speaking, matter at equilibrium, with no arrow of time, is "blind", but with the arrow of time, it begins to 'see' [... it is] precisely through irreversible processes associated with the arrow of time that nature achieves its most delicate and complex structures. Life is possible only in a nonequilibrium universe. (Prigogine 1997: 26-7)

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