

Quodlibeta

THREE NOTES ON THE DISTINCTION BETWEEN CHANCE AND LUCK

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The following notes constitute an attempt to understand line 197b36 of Aristotle's *Physics*: ἔστι δὲ καὶ τοῦτο ἕτερον τοῦ μὲν γὰρ ἔξω τὸ αἴτιον, τοῦ δ' ἐντός.¹ The first examines the expositions of the line by Saint Thomas Aquinas and Saint Albert the Great. The second considers W. D. Ross's understanding of the παρὰ φύσιν, here the antecedent of the demonstrative pronoun τοῦτο, 'this'. The final note presents a reading of *Physics* 2.6 in light of the conclusions of these two notes.

Note One: Is the chance event rightly divided
from the lucky as having an interior cause?

The distinction between chance and luck in the consideration of 197b36 by Saint Thomas Aquinas and Saint Albert the Great suffers the following confusion. They both understand Aristotle to assign an exterior cause to the lucky and an interior one to the chance event, although each of them recognized an explicit reference to an extrinsic cause in the

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¹ But this too is other, for of the one the cause is outside, of the other within.

definition of what occurs by chance. This occurred despite the fact that Saint Albert was justly suspicious of the 'example' of what happens by chance given by Aristotle—something that happens 'against nature'—a suspicion which, in light of the Greek text (as opposed to the Latin translation), clarifies the references and illuminates the section of *Physics* 2.6 that distinguishes what occurs by luck and by chance.

Both commentators imply they are reading the *Codex Venetus*² and faithfully follow its translation of 197b36: '*Est autem et haec differentia altera; huius quidem enim exterius est causa, illius vero interius.*'³ The comment comes at the end of this passage: 'μάλιστα δ' ἐστὶ χωριζόμενον τοῦ ἀπὸ τύχης ἐν τοῖς φύσει γιγνομένοις: ὅταν γὰρ γένηται τι παρὰ φύσιν, τότε οὐκ ἀπὸ τύχης ἀλλὰ μᾶλλον ἀπὸ ταῦτομάτου γεγονέναι φαμέν.'⁴ In this context the word '*differentia*' seems to add another difference to what happens by luck or by chance. This difference is then said to lie in the presence of an extrinsic or intrinsic cause.

Deciding which cause to assign as luck, which as chance, is unfortunately made easier by the case just mentioned: things coming to be by nature when something comes to be against [παρά] nature. Both doctors present as an example the man born with a sixth finger. They understand, rightly as I shall argue, what is παρὰ φύσιν (*parà phúsin*) to be something monstrous. As such cases clearly occur through a material defect and, as Aristotle has just said, we say such a thing to have come to be by chance rather than by luck, the only possible conclusion is that the chance occurrence has its cause within.

Saint Thomas' comment reads:

² Cf. Aristotle, *Physica*, vol. VII 1.3 of *Aristoteles Latinus* (Leiden: E. J. Brill, 1990), 77

³ There is also this other difference, for of the one the cause is exterior, but of the other interior.

⁴ 197b32-35: [Chance] is most separate from luck in things coming to be by nature, for when something comes to be against [παρά] nature, then we do not say it has come to be by luck, but rather by chance.

Deinde cum dicit: maxime autem etc., ostendit in quibus maxime casus differat a fortuna. Et dicit quod maxime differt in illis quae fiunt a natura; quia ibi habet locum casus, sed non fortuna. Cum enim aliquid fit extra naturam in operationibus naturae, puta cum nascitur sextus digitus, tunc non dicimus quod fiat a fortuna, sed magis ab eo quod est per se frustra, idest a casu. Et sic possumus accipere aliam differentiam inter casum et fortunam, quod eorum quae sunt a casu, causa est intrinseca, sicut eorum quae sunt a natura; eorum vero quae sunt a fortuna, causa est extrinseca, sicut et eorum quae sunt a proposito.⁵

Saint Albert speaks along similar lines in the following phrase of this text:

Sed maximam quam potest habere differentiam casus ad fortunam, habet in operibus naturae, cum aliquid in naturae operibus fiat extra naturae intentionem, et est, sicut fit digitus sextus vel duo capita in uno corpore vel carentia digiti vel aliquorum membrorum; tunc enim non a fortuna dicitur fieri, sed a casu et ab eo quod est per se et frustra, secundum quod quidam per se frustra vocant casum. Ista igitur est alia differentia casus et fortunae quam praedicta, quia fortuiti eventus causa est tota extra, quia finis fortuitus totus est extra eum cui accidit. Sed casus in opere naturae quandam causam habet intra, quae videlicet est materialis

⁵ Saint Thomas Aquinas, *In Libros Physicorum* (Rome, 1884), L. II, 1. 10, n. 10: Then when he says: *Maxime autem, etc.* he shows in what things most of all chance differs from luck. And he says that most of all it differs in those things that come to be by nature, because there chance has place, but not fortune. For when something comes to be outside [*extra*] nature in the operations of nature, for example when a sixth finger comes to be, then we do not say that it comes to be by luck, but rather by that which is *per se* vain, that is, by chance. And so we can take another difference between chance and luck, because of the things which are by chance the cause is intrinsic, as the things which are by nature; but of the things which are by luck, the cause is extrinsic, as also of the things which are by intention.

vel diminutio materiae vel corruptio alicuius principiorum in materia, sicut nos infra dicemus.⁶

Worth noting, before passing on, is that both suggest that they are reading a text that has not been translated uniformly in this chapter. Up to this point, the Greek αὐτομάτου has been translated 'casus'; here it is translated according to the etymology just proposed by Aristotle 'per se frustra'. This occurs at 197b35. Its significance in the reading of chapter six will be discussed in the third of these notes. But the critical translation is in the following line. Where the Greek reads: ἔστι δὲ καὶ τοῦτο ἕτερον, the Latin text they possess clearly reads, *est autem et haec differentia altera*. The word, 'differentia' has appeared from nowhere.

Two difficulties arise when this 'difference' is compared with the definitions given of what happens by chance and luck some lines earlier. First, the difference assigned to the chancy is opposed to one of the elements in its definition. Secondly, it seems to confuse the manner in which luck contracts the notion of chance.

The definition of the chance event is given by Aristotle at 197b18-20: ὥστε φανερόν ὅτι ἐν τοῖς ἀπλῶς ἐνεκὰ του γιγνομένοις, ὅταν μὴ τοῦ συμβάντος ἐνεκα γένηται ὧν ἕξω τὸ

⁶ Saint Albert the Great, *Physica* (Monasterii Westfalorum: Aschendorff, 1987), 125, ll. 25-39: But chance has the greatest difference possible from luck in the works of nature, when something in the works of nature comes to be and is outside [*extra*] the intention of nature, as a sixth finger comes to be or two heads in one body or the lack of a finger or other members; for then it is not said to come to be by luck, but by chance and by that which is through itself and vain, insofar as some call the 'vain through itself' chance. So this is another difference of chance and luck than the one mentioned, because the cause of the fortuitous event is altogether outside, because the whole fortuitous end is outside him to whom it happens. But chance in the work of nature has some cause within, which is, namely, material, whether a diminution of the matter or a corruption of some principle in the matter, as we shall state below.

αἴτιον, τότε ἀπο τοῦ αὐτομάτου λέγομεν.⁷ Here the cause is explicitly said to be 'outside'.

Saints Thomas and Albert comment as follows:

. . . *sed fiunt causa alicuius extrinseci*. . .⁸

. . . *sed causa eorum est extra ipsa et intentiones eorum*. . .⁹

Neither explicitly mentions this difficulty.

The second difficulty arises when one considers how luck contracts chance. After the definition of what occurs by chance, the lucky is distinguished from it. Mention is made there only of the sort of good arrived at and those to whom it happens: ἀπο τύχης δέ, τούτων ὅσα ἀπὸ τοῦ αὐτομάτου γίγνεται τῶν προαιρετῶν τοῖς ἔχουσι προαιρέειν.¹⁰ The lucky occurrence limits 'that for the sake of which' to goods arrived at by choice, whereas the account of the chance occurrence does not restrict these, but chance is said where things happen 'for the sake of something *simply*'. Luck is further restricted, appropriately enough, to those having choice.

Insofar as the lucky is defined as a chance occurrence, the lucky seems to have an extrinsic cause. Since the things that happen by luck are all by chance, and what happens by chance is defined as having an extrinsic cause, things happening by luck have an extrinsic cause. But the reading demanded by the Latin translation discussed earlier implies that the lucky has an extrinsic cause *in distinction from* a chance event.

A facile solution presents itself. For the text proposing 'another difference' can be reinterpreted, when the Greek and Latin pronouns used are considered. The 'difference' is assigned in Greek by means of definite articles distinguished by

⁷ 197b18-20: Whence it is clear that in those things coming to be for the sake of something simply, when things whose cause is outside come to be not for the sake of what happens, then we say 'by chance'.

⁸ . . . but they come to be by reason [*causa*] of something extrinsic . . .

⁹ . . . but their cause is outside them and their intentions.

¹⁰ 197b20-22: But [we say] 'by luck', of things chooseable, whichever come to be by chance to those having choice.

the particles μέν, δέ, in the classic construction described by J. D. Denniston:

Normally preparatory μέν introduces the first limb of a grammatically co-ordinated antithesis, the second limb of which being introduced by an adversative particle or combination of particles. . . . δέ is by far the commonest answer to μέν. . . . The words standing immediately before μέν and δέ are usually corresponding elements in the contrasted thoughts, and further, the most important elements in the contrast: while the subsidiary elements in the contrast follow, often in symmetrical order, in the two clauses.¹¹

Further, as Denniston points out, 'In ὁ μέν . . . ὁ δέ, ὁ μέν normally refers to the first, ὁ δέ to the second substantive. But occasionally the order of reference is reversed.'¹²

This relation is accurately reflected by the use of the definite pronouns *huius* and *illius* in the Latin translation. Even the ambiguous reference is found. In the Classical period, the pronouns *hic* and *ille*, refer respectively to the nearest, that is last mentioned, and the farther, that is the first mentioned. Yet even in that period *hic* can refer to the substantive 'nearest' to the speaker in place or in thought.¹³ In Medieval Latin, each of the pronouns *hic* and *ille*, in that order, refer as often to the former as to the latter.

Now, luck is the first mentioned substantive in the previous passage. But chance is certainly the explicit subject and luck is discussed only in relation to it. It would not be unreasonable to understand the first pronoun as referring to the chance occurrence and the second to the lucky one. What is by chance has an external cause, in accord with its definition, and what happens by luck has an internal cause, in fact the

¹¹ J. D. Denniston, *The Greek Particles* (Oxford: Clarendon Press, 1950), 369-70, 371.

¹² J. D. Denniston, *The Greek Particles* (Oxford: Clarendon Press, 1950), 370-71.

¹³ Charlton T. Lewis and Charles Short, *A Latin Dictionary* (Oxford: Clarendon Press, 1879), 852.

will that accidentally chooses something for which one would act.

This obviates the difficulty of defining what happens by chance both by an extrinsic cause and by an intrinsic cause. Yet it still seems to undo the manner in which the lucky contracted the chancy to 'that for the sake of which according to choice.' For the remaining elements of the definition belong also to what happens by luck, namely things not coming about for the sake of what 'happens' and things whose cause is outside.

Perhaps the Latin translation helps here. For this is 'another difference' between the two, a second difference according to which a chance event 'is most separate from what is by luck'.

The foremost obstacle to this position seems to be the case given by Aristotle. For this, certainly, is something that comes about from an intrinsic cause: 'in things coming to be by nature, when . . . something comes to be against nature'. Again, Aristotle explicitly says that we say that such things 'have come to be by chance'. The doctors are quite right to associate 'what is against nature' with the chance event and with an intrinsic cause. This attempt to 'switch' differences seems to lead nowhere.

Yet the path to the solution begins with concern about Aristotle's example of something by chance. Saint Albert, after drawing the conclusion that 'chance in the work of nature has some cause within,' says,

Ego tamen in isto exemplo non multum video proprie esse casum, nisi large sumatur, et ideo etiam ipse Aristoteles talia nata in libro de animalibus vocat occasionata et non casualiter nata; casus enim est causa per accidens. Occasio autem minus dicitur quam causa et est, ut diximus, quando propter aliquid incidens aliquid causatur, sicut in moribus dicimus aliquem dare occasionem, quando innuit vel negligit aliquid, per quod aliquis damnificatur. Et ita est in talibus naturae operibus, quod abundantia materiae dedit occasionem producendi digitum sextum et diminutio fecit diminui in

aliquo membrorum et debilitas caloris vel intemperantia, quae fiunt in semine, alterius corruptionis fecit occasionem et aliquando divisio secundinae fecit iungi duo corpora et conglutinari.¹⁴

Saint Albert suggests that the example is not a case of chance simply speaking. The *παρὰ φύσιν* according to Saint Albert, is 'occasioned' by the material principle in generation.

Earlier Saint Albert distinguished 'occasion' as follows:

Est enim causa per se, quae essentialiter ordinatur ad effectum producendum, sicut aedificator est causa domus. Causa autem secundum accidens est, quae est adiuncta causae per se per aliquid, quod accidit ei quod quandoque disponit ad effectum, quandoque autem nihil, sicut tibicen est causa domus, eo quod ars tibicinandi nihil facit ad domus fabricaturam, et sicut robustus est causa domus et robur disponit, ut fortiter secet cum dolabro in factura domus. Sed occasio dicitur ad aliquid, per cuius negligentiam vel absentiam accidit aliquid, sicut absentia nautae causa est mersionis navis.¹⁵

¹⁴ Saint Albert the Great, *Physica* (Monasterii Westfolorum: Aschen-dorff, 1987), 125, ll. 39–54: Yet I do not so much see chance to exist properly in this example, unless it be taken broadly, and therefore even Aristotle himself in the books on animals calls such births 'occasioned' and not births by chance for chance is a cause accidentally. But occasion says less than does cause and is, as we have said, when because of something incident something is caused, just as in morals we say someone gives occasion, when he allows or neglects something, through which someone is harmed. And so it is in such works of nature that an abundance of matter gives occasion for producing a sixth digit, and a diminution [of matter] makes [occasion] for diminishing in some member and a weakness or excess of heat which occurs in the seed makes an occasion for another corruption, and sometimes a division of the placenta makes two bodies to join and grow together.

¹⁵ Saint Albert the Great, *Physica* (Monasterii Westfolorum: Aschen-dorff, 1987), 121, ll. 58–69: For the *per se* cause is essentially ordered to producing its effect. However the cause *secundum accidens* is that which is adjoined to the *per se* cause through something which occurs (*accidit*) to it which sometimes disposes to the effect, but sometimes to nothing, as the flute-player is cause of the house (while the art of fluteplaying does

'Occasion' is distinguished from the 'accidental' cause because the latter names something accidental to the *per se* cause, while the 'occasion' names some deficiency in it. As Saint Albert here suggests (and develops at length in his comments on *Physics* 2.8), we lead the things that occur 'against nature' back to such a 'cause'—some material deficiency in some way un-receptive of the proper form. Clearly such a cause is 'within'.

Saint Albert's concern leads to a reconsideration of the Greek text at 197b36. The Latin used by Saints Albert and Thomas has over-translated in asserting, '*Est autem et haec differentia altera*'. Nothing in the Greek corresponds to or suggests the word '*differentia*'. Without this addition (and therefore left neuter in gender as in Greek), a Latin translation can capture the natural sense of the Greek better than any English translation: *Est autem et hoc alterum*. (But one must carefully attend to the following *huius*. It need not refer to the same antecedent. In Greek two distinct pronouns are used.) In light of Saint Albert's remarks on the case of what is 'against nature', we should read the text, ἔστι δὲ καὶ τοῦτο ἕτερον: but even this is other. Here the καὶ (*et*) is emphatic, focusing the attention on the case at hand. Aristotle asserts that it is other, then shows how it is other: of the one, that is the chance occurrence (and the lucky by inclusion), 'the cause is outside' and of the other, that is what is against nature, 'the cause is within'.

Note Two: What is the *παρὰ φύσιν*?

W.D. Ross reads line 197b36 as suggested above: the *παρὰ φύσιν* is not a true instance of chance and differs from what is by chance in having an intrinsic cause. But he understands

nothing toward the house to be built) and as a strong man is cause of the house (and his strength disposes that he cut strongly with the axe in the building of the house). But occasion is said regarding something through whose negligence or absence something happens (*accidit*), just as the absence of the sailor is the cause of the ship's sinking.

the instance to be not something monstrous but spontaneous generation. I quote Ross's remarks here in full, including those suggesting how to read 197b36. Afterward I shall suggest the deficiencies I see in his recommendation that what comes to be 'parà phúsin' be understood as spontaneous generation. Commenting precisely on the passage in question, 197b32-37, Ross says:

Aristotle says here that the nature of τὸ ἀπὸ ταῦτομάτου¹⁶ (in the specific sense), as distinct from τὸ ἀπὸ τύχης,¹⁷ is best seen ἐν τοῖς φύσει γιγνομένοις.¹⁸ T.56.16 takes the reference to be to the production of monstrous births. But this can hardly be right, since in τὸ ἀπὸ ταῦτομάτου, an end-like result is always produced, whereas monsters are instances of failure in the purposive activity of nature (199b4) and are the reverse of end-like results. *Met* 1032a28-32 shows that the reference is to spontaneous generation: τούτων (sc. τῶν ποιήσεων) δὲ τινες γίνονται καὶ ἀπὸ ταῦτομάτου καὶ ἀπὸ τύχης παραπλησίως ὥσπερ ἐν τοῖς ἀπὸ φύσεως γιγνομένοις· ἕνια γὰρ ἀνακεί ταῦτά καὶ ἐκ σπέρματος γίνονται καὶ ἄνευ σπέρματος.¹⁹ In spontaneous generation an end-like result is produced; the normal teleological action of nature in producing offspring from parents of the same kind is simulated by nature's producing offspring in an exceptional way, without seed. Thus the production is both φύσει²⁰ and παρὰ φύσιν. And it is easily distinguishable from the operation of τύχη, which simulates the action not of nature but of human choice.

At the same time (197b35-7), such generation is distinct from the form of the τὸ ἀπὸ ταῦτομάτου described above. For there the production of the end-like result was due to

¹⁶ what is by chance

¹⁷ what is by luck

¹⁸ in things coming to be by nature

¹⁹ *Metaphysics* 1032a28-32: Of these [makings] some come to be both by chance and by luck in the same manner as in things coming to be by nature. For there too some of the same things come to be both from seed and without seed.

²⁰ by nature

an external concomitant (ὄν ἔξω τὸ αἴτιον²¹ b20), while here it is due to something internal, i.e. due to the fact that matter—not prime matter but partly formed matter such as rotting earth, dew, mud, excrements, wood (cf. Bonitz, *Index* 124b3-22)—has a certain power of initiating change, and the particular change that will transform it into a living body (ὅσα δὲ ἀπὸ ταῦτομάτου . . . γίνονται, ὅσων ἢ ὕλη δύναται καὶ ἀφ' αὐτῆς κινεῖσθαι ταύτην τὴν κίνησιν ἢν τὸ σπέρμα κινεῖ,²² *Met* 1034b4-6).

The case in which an illness cures itself (H.A. 604b9) would be another instance of the kind of case Aristotle here means in which the αἴτιον is ἐντός.²³

In several respects Ross reads these lines with much insight. He rightly recognizes that the chance event is defined by attaining some end, albeit accidentally. He is also right in understanding its definition to include an extrinsic cause. This allows him to see the present case as distinguished from something by chance insofar as it has an intrinsic cause. Yet several arguments suggest that he is wrong in proposing that what comes to be παρὰ φύσιν be understood as spontaneous generation.

To begin, Ross seems unmindful of the fact that luck is not only good but bad. Obviously bad luck does not attain 'that for the sake of which' but rather something to be avoided. Indeed, Themistius defines ἀτυχία, 'lucklessness, misfortune', as 'when it turns out against choice'. He uses the very preposition under consideration in the phrase παρὰ τὴν προαίρεσιν.²⁴ It seems strange to think that chance cannot be said to be the cause when, to use Ross's own phrase, 'the reverse of end-like results' occurs. For in such a use the chance occurrence

²¹ of which the cause is outside

²² 1034b4-6: Now as many things come to be by chance as there are things whose matter is able even by itself to be moved with the same motion with which the seed moves it.

²³ W. D. Ross, *Aristotle's Physics* (Oxford: Clarendon Press, 1936), 524.

²⁴ Cf. Ross's *Aristotelis Physica*, 197a25, note.

will still be defined by 'that for the sake of which' insofar as its contrary occurs. Nonetheless, I believe Ross is correct in explaining that the case under consideration is to be distinguished from something by chance.

A further difficulty with Ross's reading of *παρὰ φύσιν* is that this language is used nowhere else when Aristotle discusses spontaneous generation, but is used in many places in connection with monsters, and this is in keeping with its general character.

The only evidence that spontaneous generation can be described as *παρὰ φύσιν* is provided in Ross's quotation from *Metaphysics* 7. This depends entirely upon an adverb used in the comparison with things coming to be by nature. There some 'makings' are said to come about by chance and by luck in a similar manner [*παραπλησίως*] as in things coming to be by nature. Ross hears the use of *παρὰ* in this adverb *παραπλησίως*, where it has the sense of 'alongside', also in the phrase *παρὰ φύσιν*, 'alongside nature'. This is slim linguistic evidence. Yet I think this is certainly possible; the word *παρὰ* does have this force.

However, a number of considerations suggest that this is not so. First, the case under consideration (197b33) is 'among the things coming to be by nature', while in the *Metaphysics* text cited by Ross 'coming to be' by chance is twice distinguished from things that come to be by nature. Once, at the beginning of the section: οὕτω μὲν οὖν γίγνεται τὰ γινόμενα διὰ τὴν φύσιν, αἱ δ' ἄλλαι γενέσεις λέγονται ποιήσεις.²⁵ Again, in the complement to the adverb Ross considers significant: *παραπλησίως ὥσπερ ἐν τοῖς ἀπὸ φύσεως γιγνομένοις*.²⁶

Second, nowhere among the many places I know in which Aristotle speaks of spontaneous generation in the biological

²⁵ 1032a25-27: Thus come to be things coming to be through nature, but the *other* becomings are called makings [italics mine].

²⁶ 1032a29-30: . . . in a similar manner as in things coming to be by nature.

works does he use the phrase *παρὰ φύσιν*. He speaks of such things coming to be by chance, from slime, from earth and slime, from slime and sand.²⁷ In none of these texts does he say that they spring up 'alongside nature'.

Yet Aristotle often speaks of things coming to be and moving *παρὰ φύσιν*. In these cases he generally uses the phrase in opposition to what is *κατὰ φύσιν* or 'according to nature'. In the physical works, especially throughout *On the Heavens*, Aristotle speaks of things moving *παρὰ φύσιν*; all these texts refer to something opposed to what is according to nature. Even in moral questions, Aristotle uses these terms as contraries, according to the principle laid down in *On the Heavens*: ἡ *παρὰ φύσιν ἐναντία τῇ κατὰ φύσιν*.²⁸

In the same book, explaining that what is *παρὰ φύσιν* cannot be eternal, Aristotle sets down a principle that has bearing upon generation: What is *παρὰ φύσιν* is posterior to the *κατὰ φύσιν* and the *παρὰ φύσιν* is a certain *ἔκστασις*, displacement, in the coming to be of the *κατὰ φύσιν*.²⁹ This notion is developed in the following texts. The first, from the *Metaphysics*, manifests the generation *παρὰ φύσιν* as violating the principle that like begets like:

ἐπὶ μὲν δὴ τινῶν καὶ φανερόν ὅτι τὸ γεννῶν τοιοῦτον μὲν οἶον τὸ γεννώμενον, οὐ μέντοι τὸ αὐτό γε, οὐδὲ ἐν τῷ ἀριθμῷ

²⁷ 539a23, 543b18, 547b18, 548a15-549a15, 556b22, 569a10-570a6, 715a24, 715b26, 721a8, 732b13, 743a35, 759a5.

²⁸ 269a8-9: What is against nature is contrary to the natural. Cf. 1254a36-b2: δεῖ δὲ σκοπεῖν ἐν τοῖς κατὰ φύσιν ἔχουσι μᾶλλον τὸ φύσει, καὶ μὴ ἐν τοῖς διεφθαρμένοις· διὸ καὶ τὸν βέλτιστα διακείμενον καὶ κατὰ σῶμα καὶ ψυχὴν ἀνθρώπον θεωρητέον, ἐν ᾧ τοῦτο δηλονότι γὰρ μοχθηρῶν ἢ μοχθηρῶς ἐχόντων δόξειεν ἂν ἄρχειν πολλάκις τὸ σῶμα τῆς ψυχῆς διὰ τὸ φαύλως καὶ *παρὰ φύσιν* ἔχειν. [But one must consider what is by nature in the things that are more in accord with nature and not in things ruined. So also one must think about the man best disposed both according to body and soul, in whom this is clear. For the body of villains or of those living villainously seems often to rule the soul through evil living and living against nature.]

²⁹ 286a18-19.

ἀλλὰ τῷ εἶδει, οἷον ἐν τοῖς φυσικοῖς—ἄνθρωπος γὰρ ἄνθρωπον γεννᾷ—ἄν μή τι παρὰ φύσιν γένηται, οἷον ἵππος ἡμίονον
 . . .³⁰

Though he does not see every case of this sort as monstrous, he recognizes that in the monstrous the same principles are at work, in virtue of which the offspring is unlike the parent. He examines this in detail in *On the Generation of Animals* 4, where he studies monsters at some length. Here he discusses the relation of the monstrous and the παρὰ φύσιν:

ἔστι γὰρ τὸ τέρας τῶν παρὰ φύσιν τι, παρὰ φύσιν δ' οὐ πᾶσαν ἀλλὰ τὴν ὡς ἐπὶ τὸ πολὺ· περὶ γὰρ τὴν αἰεὶ καὶ τὴν ἐξ ἀνάγκης οὐθὲν γίνεται παρὰ φύσιν, ἀλλ' ἐν τοῖς ὡς ἐπὶ τὸ πολὺ μὲν οὕτω γινομένοις, ἐνδεχομένοις δὲ καὶ ἄλλως, ἐπεὶ καὶ τούτων ἐν ὅσοις συμβαίνει παρὰ τὴν τάξιν μὲν ταύτην, αἰεὶ μέντοι μὴ τυχόντως, ἤττον εἶναι δοκεῖ τέρας διὰ τὸ καὶ τὸ παρὰ φύσιν εἶναι τρόπον τινὰ κατὰ φύσιν, ὅταν μὴ κρατήσῃ τὴν κατὰ τὴν ὕλην ἢ κατὰ τὸ εἶδος φύσις. διόπερ οὐτε τὰ τοιαῦτα τέρατα λέγουσιν, οὔτ' ἐν τοῖς ἄλλοις ἐν ὅσοις εἰώθε τι γίνεσθαι, καθάπερ ἐν τοῖς περικαρπίοις.³¹

It is in this sense, whether called monsters or not, that Aristotle uses the phrase throughout the zoological works, but

³⁰ Aristotle, *Metaphysics*, 1033.29–33: In some certainly it is clear that the generator is such as the generated, not of course the same nor one in number, but in species as in natural (becomings) for man begets man—unless something comes to be παρὰ φύσιν, as a horse [generates] a mule.

³¹ 770b9–19: For the monster is something παρὰ φύσιν, against not every nature but that which is for the most part. For regarding the eternal nature and nature that is of necessity nothing happens against nature [παρὰ φύσιν], but in things for the most part coming to be thus but able also otherwise. Since even of these, in whichever it turns out against such an order yet always not just as it chances, it seems less to be a monster through the fact that even the παρὰ φύσιν is in a certain way according to nature, when the nature with respect to form does not rule the nature with respect to matter. So they do not call such things monsters, nor in other things, in whichever some thing customarily comes to be, just as in fruits.

especially in that part of *On the Generation of Animals* that is about monsters, the fourth chapter of the fourth book. In one place Aristotle apparently goes so far as to equate the notion of παρὰ φύσιν and monsters, in their opposition to the natural, when he says at 496b18: ὁμοίως ἐν ἅπασιν τοῖς ἔχουσι ταῦτα τὰ μόρια κατὰ φύσιν καὶ μὴ τερατωδῶς.³²

While this cannot constitute proof that Aristotle intends the phrase in this way at 197b34, it shows that this is his usual meaning and that he has described monsters in precisely the terms described: things coming to be by nature, when something comes to be against nature. Spontaneous generations are always distinguished from natural generations and are simply spoken of as coming to be by chance. For they have an extrinsic agent cause. Yet in the text being investigated he distinctly points out that we *speak* of things παρὰ φύσιν as coming to be by chance rather than luck. Such things are not properly chance events and for good reason: their cause is within. But people do use the term 'by chance' rather than 'by luck', 'insofar as,' says Saint Albert, 'some call the "vain through itself" chance.' In other uses the two words exhibit less distinction.

Note Three: *Physics* 2.6 in light of this reading.

Aristotle opens *Physics* 2.6 with consideration of the distinction in applications of the words 'luck' and 'chance'. Even in English this is difficult to sort out, yet it is more difficult in Greek. While lucky things all seem to happen by chance (197a36–b6, even here we must rely on a sign), the word for luck, τύχη, is nonetheless applied to some chance occurrences καθ' ὁμοιότητα (197b9: 'according to likeness'). As well, things that cannot act by luck (197b7–8) can suffer by luck (197b11–12). So, through a confusion of the generic and specific in the word 'luck', the distinction of the two words' formal and decisive sense is difficult.

³² . . . similarly in all things having such parts according to nature and not monstrously.

As the lucky is better known to us and has been defined by choice, Aristotle now removes this limitation in defining chance events, its genus. He does this with the word ἀπλῶς, simply. Luck has been defined at 197a5-6 as αἰτία κατὰ συμβεβηκός ἐν τοῖς κατὰ προαίρεσιν τῶν ἔνεκά του.³³ Here (197b18-20) the restriction of choice is removed: ὥστε φανερόν ὅτι ἐν τοῖς ἀπλῶς ἔνεκά του γιγνομένοις, ὅταν μὴ τοῦ συμβάντος ἔνεκα γένηται ὧν ἔξω τὸ αἴτιον, τότε ἀπο τοῦ αὐτομάτου λέγομεν.³⁴ He will restore what is proper to something lucky in the following lines (197b20-22): ἀπο τύχης δέ, τούτων ὅσα ἀπὸ τοῦ αὐτομάτου γίγνεται τῶν προαιρετῶν τοῖς ἔχουσι προαίρεσιν.³⁵

After presenting that distinction, Aristotle presents a sign that this definition is right, what happens in vain. This, as is clear from examples, is said ὅταν μὴ γένηται τὸ ἔνεκα ἄλλου ἐκείνου ἔνεκα (197b23).³⁶ We see that it is for the sake of something insofar it fails. It was done in vain: ὡς τοῦτο ὄν τὸ μάτην, τὸ πεφυκός ἄλλου ἔνεκα, ὅταν μὴ περαίνει ἐκεῖνο ὃ ἔνεκα ἦν καὶ ἐπεφύκει (197b25-27).³⁷

But this becomes a sign through the following consideration of the etymology of the Greek word for chance, τὸ αὐτόματον (197b29-32). Aristotle hears the word as derived from μάτην, vain, as if what was in fact done (αὐτό) were vain (μάτην), since the chance event occurred instead of the intended result. But through the confusion of what is vain and

³³ . . . a cause by accident in things according to choice of things for the sake of something.

³⁴ 197b18-20: Whence it is clear that in those things coming to be for the sake of something simply, when things whose cause is outside come to be not for the sake of what happens, then we say 'by chance'.

³⁵ 197b20-22: But [we say] 'by luck', of things choosable, whichever come to be by chance to those having choice.

³⁶ 197b23: when what is for the sake of another does not happen for the sake of this.

³⁷ 197b25-27: as if this is the vain, what apt to be for the sake of another, when that was not accomplished for the sake of which it was and was apt.

what is chancy, certain things are said to be by chance which are 'most separate' from the lucky. In the text here investigated he is presenting a case, something 'occasioned' or 'vain', that fits the etymology better than true cases of chance (197b32-35). The text assigning intrinsic and extrinsic causes (197b36) distinguishes this case from the chance occurrence properly said, although the name 'chance' may well be extended to such things for good reason. On this reading the discussion merely flows from the etymology provided for chance, which etymology is provided to establish the 'vain' as a sign of what occurs in chance events.

The several lines following the text add further support to this understanding. For there (198a12-4) Aristotle assigns luck and chance to a 'mode' of cause, namely agent cause: τῶν δὲ τρόπων τῆς αἰτίας ἐν τοῖς ὅθεν ἢ ἀρχὴ τῆς κινήσεως ἐκάτερον αὐτῶν ἢ γὰρ τῶν φύσει τι ἢ τῶν ἀπὸ διανοίας αἰτίων αἰεὶ ἐστίν . . .³⁸ But the cause of the παρὰ φύσιν is clearly among deficient material causes, as is evident in many places, especially in 770b9-19 quoted above.

³⁸ 198a2-4: Now of the modes of cause each of these is among those whence the beginning of motion; for it is always one of the causes by nature or by thought.