



SHORTER NOTES

AN EMENDATION TO PSEUDO-ARISTOTLE, *PROBLĒMATATA* 19.4

ABSTRACT

*This article proposes a new emendation to a problematic passage from the pseudo-Aristotelian *Problēmata*, section 19. It surveys prior editors' strategies for emending the passage and explains why the new proposal is preferable. This emendation also is supported by the Latin manuscript tradition, as a concluding discussion of Bartholomew of Messina's Latin translation reveals.*

Keywords: emendation; ancient Greek music; *Problēmata*; pseudo-Aristotle; Bartholomew of Messina; Hermann von Helmholtz

The received text of the fourth problem of the nineteenth book of the pseudo-Aristotelian *Problēmata* (917b35–918a2) begins:

διὰ τι δὲ ταύτην χαλεπῶς, τὴν δὲ ὑπάτην ῥαδίως; καίτοι διεσίς ἐκατέρως, ἢ ὅτι μετ' ἀνέσεως ἢ ὑπάτη, καὶ ἅμα μετὰ τὴν σύστασιν ἐλαφρόν τὸ ἄνω βάλλειν;

This is a continuation of the previous problem, which concerns the difficulty of singing *parhypatē* (the second-lowest note of the Greek scalar system, which stands a small interval [διεσίς]¹ above *hypatē*.) Consequently, one could translate it as:

Why [does one sing] *parhypatē* with difficulty, but *hypatē* easily? And yet there is [only] a small interval between them. Is it because *hypatē* [is sung] with relaxation [of the voice], and, at the same time, ascending is easy after constitution?

Scholars tend to agree that the quotation's final clause requires emendation, but there has emerged no consensus as to how. Ruelle emends σύστασιν to σύντασιν: 'ascending is easy after tension'.² The resulting meaning seems to be that singing *hypatē* is easy because it is relaxed, and singing *parhypatē* is difficult because it is accompanied by tension; consequently, it is relatively easier to follow *parhypatē* with any higher note. By associating *hypatē* with the voice's relaxing and *parhypatē* with its tension, this interpretation explains the discrepancy in ease of singing the two notes. Yet it also reduces to irrelevance the text's assertion that 'ascending is easier': the mere association of *parhypatē* with tension answers the question sufficiently.

¹ The word διεσίς refers to the smallest interval in a given musical system. According to A. Barker, *The Science of Harmonics in Classical Greece* (Cambridge, 2007), 269, 'When a writer uses it to pick out one size of interval in particular, it may be anywhere between (roughly) a quarter-tone and a semitone, and only the context or an adjective qualifying the noun will reveal which it is.' The *Problēmata* offers no such revelatory context, so I translate it merely as 'small interval'.

² C.-É. Ruelle (transl.), 'Problèmes musicaux d'Aristote', *REG* 4 (1891), 233–67, at 238 n. 1. See also C.-É. Ruelle, H. Knoellinger and J. Klek (edd.), *Aristotelis quae feruntur *Problemata physica** (Leipzig, 1922), 165. In support of his emendation Ruelle adduces 905a26 ἢ ἀπὸ συντεταμένου φωνῆ. P. Louis (ed. and transl.), *Aristote. Problèmes* (Paris, 1993), 2.100–1 retains σύστασιν in his edition of the Greek, but then renders σύντασιν in his parallel translation.

Jan's approach addresses that shortcoming: accepting Ruelle's σύντασιν, he goes further, emending ἄνω βάλλειν to ἀναχαλᾶν: 'Is it because *hypatê* [is sung] with relaxation [of the voice], and, at the same time, relaxing is easy after tension?'³ The result likewise suggests a correlation of relaxation with *hypatê* and tension with *parhypatê*, but it implicitly reduces the scope of discussion to just those two notes: rather than it being easy to ascend after tension, instead it is easy to return to a state of relaxation, viz. *hypatê*.

Jan credits this interpretation to the eminent physicist Hermann von Helmholtz, who discussed this passage in his widely read *Lehre von den Tonempfindungen*. Helmholtz's concern is whether Ancient Greek scales had a referential pitch, like the tonic of modern tonality, and he plumbs the *Problēmata* for pertinent details. After surmising that Greek melodies concluded on *hypatê*, Helmholtz loosely paraphrases our passage and then interprets it thusly:

The last-quoted account by Aristotle implies in modern wording that *parhypatê* constitutes a sort of descending leading tone for *hypatê*. In the leading tone the strain is palpable, which ceases with its passage to the fundamental tone.⁴

Evidently Helmholtz approached the passage wanting to find a proto-tonal descending motion from *parhypatê* to *hypatê*, and Jan devised an emendation to support Helmholtz's desideratum.⁵

Jan's emendation need not entail such a questionable universalizing impulse, however. Forster adopts Jan's version of the text, but interprets it as asking 'Why is it easier to sing the same interval downwards than upwards?'⁶ Forster is fully aware, however, that this interpretation makes little sense in the context of the diatonic genus, in which *parhypatê* lies a semitone above *hypatê*:

There seems no reason why, in a diatonic scale, *parhypatê* should be specially difficult to sing. Bojesen and Stumpf therefore suppose that the reference is to an enharmonic scale, in which the interval from *hypatê* to *parhypatê* is a quarter-tone, which would actually be hard to take.⁷

It is certainly possible that the pseudo-Aristotelian author had the enharmonic genus in mind when composing this problem, but nothing in the surrounding context confirms that possibility.⁸ Furthermore, an interpretation that requires restricting the passage's range of

³ K. von Jan, *Musici scriptores graeci* (Leipzig, 1895), 78–9. Jan's version of this sentence is reproduced identically in the most recently published version of the Greek text, R. Mayhew (ed. and transl.), *Aristotle: Problems. Books 1–19* (Cambridge, MA, 2011), 534. Mayhew states that he takes G. Marengi (ed. and transl.), *Aristotele. Problemi musicali* (Florence, 1957) as his base text (ibid. xxvi), but in this passage Marengi simply reproduces the *textus receptus* (page 28).

⁴ 'Nach moderner Ausdrucksweise liegt in der zuletzt zitierten Beschreibung des Aristoteles, dass die Parhypate eine Art absteigenden Leitton für die Hypate bildet. In dem Leitton ist die Anstrengung fühlbar, welche mit seinem Übergang in den Grundton aufhört': H. von Helmholtz, *Die Lehre von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik* (Brunswick, 1863), 369.

⁵ Helmholtz reproduces the received text in a footnote, and he makes no attempt to account for the discrepancy between his interpretation and the text.

⁶ E.S. Forster (transl.), *The Works of Aristotle, vol. VII. Problemata* (Oxford, 1927) ad loc., n. 3. W.S. Hett (transl.), *Aristotle: Problems. Books 1–21* (Cambridge, MA, 1936), 380–1 follows the same interpretation in his translation, but reproduces Ruelle's version of the text in parallel, leading to a risible situation where 'to relax' appears to be the translation of ἄνω βάλλειν.

⁷ Forster (n. 6), ad loc.

⁸ As mentioned above, the term δῖεσις, which the passage says is common to the two notes, refers to a given scale system's smallest interval. If the context here were taken to be the enharmonic genus, then the term would indicate the quarter-tone, thereby supporting the supposition of Bojesen and Stumpf. Yet the term can also refer to various third-tones and even the semitone, so the mere appearance of δῖεσις does not substantiate their interpretation.

validity to the enharmonic genus is undesirable, particularly given that the enharmonic genus appears to have become largely obsolete by the late fourth century.⁹ Why would authors concern themselves with the relative ease of singing an interval that no one sings?¹⁰ In short, Forster has not satisfactorily addressed the troubling objection to his interpretation of why it should be harder to ascend from *hypatê* to *parhypatê* than to descend.

Instead of the aforementioned alterations to the text, I propose emending σύστασιν to ἀπόστασιν. This results in the following:

Why [does one sing] *parhypatê* with difficulty, but *hypatê* easily? And yet there is [only] a small interval between them. Is it because *hypatê* [is sung] with relaxation [of the voice], and, at the same time, ascending is easy after departing [from that note]?

The question no longer benefits from being reinterpreted, like Jan does, as asking why descending from *parhypatê* to *hypatê* is easier than the reciprocal ascent; rather, it simply is why singing *hypatê* is easier than the note just a small interval above, viz. *parhypatê*. In my interpretation the proposed answer seeks to explain the ease of singing a note via the ease of departing from that note to another. (Since *hypatê* is the scalar system's lowest note, moving to any other note necessarily entails ascending, τὸ ἄνω βάλλειν.) Furthermore, not only is *hypatê* relaxed, but since it is also one of the fixed notes in the scalar system (regardless of genus), many of the system's other notes are separated from *hypatê* by concordant intervals that are easy to sing. *Parhypatê*, by contrast, is a movable note, and leaping from it to most other notes requires more unusual intervals that would be more difficult to sing.

My emendation also results in a different construal of the passage's final clause. The start of the sentence, ἢ ὅτι μετ' ἀνέσεως ἢ ὑπάτη, clearly pertains to the opening question of why singing *hypatê* is easy. Ruelle evidently understood the sentence's continuation, ἅμα μετὰ τὴν σύντασιν ἐλαφρόν τὸ ἄνω βάλλειν, as proffering the complementary explanation for *parhypatê*, which is why he emended σύστασιν in order to indicate a sense of tension that contrasts with *hypatê*'s relaxation. Yet the crucial adjective in the last clause is ἐλαφρόν, which strongly suggests that the clause continues the preceding explanation of why singing *hypatê* is easy. True, emending σύστασιν to ἀπόστασιν adds no new meaningful content (since departing from a note is necessarily entailed by ascending from it), but the emendation makes more sense than σύστασιν does and does not steer the final clause towards pertaining to *parhypatê*, which would sit poorly with its characterization as ἐλαφρόν. The resulting interpretation of passage does leave implicit why it is harder to ascend from *parhypatê*; considering, however, that the continuation of problem four devolves into an extremely corrupted state, it is entirely possible that the original explanation pertaining to *parhypatê* has been lost.

Emending σύστασιν to ἀπόστασιν obviates the temptation to follow Jan and edit an ascent (τὸ ἄνω βάλλειν) into a descent (τὸ ἀνοχαλᾶν). It also better accounts for τὸ ἄνω βάλλειν than Ruelle's emendation does. Furthermore, my emendation is supported by the Latin tradition. It seems likely that Bartholomew of Messina consulted a Greek

⁹ M.L. West, *Ancient Greek Music* (Oxford, 1992), 165–6. A. Barker, *Greek Musical Writings* (Cambridge, 1984), 1.190 posits that the *Problēmata* were 'probably put together over a considerable period' by 'students in the Lyceum', which would place the text's composition firmly in the post-enharmonic period.

¹⁰ See also an Aristoxenus-derived passage of the Plutarchan *De musica*, which reports that his contemporaries hold the enharmonic *diesis* to be imperceptible and have eliminated the enharmonic genus from singing (§39, 1145A).

manuscript that read ἀπόστασιν when he prepared his Latin translation, the oldest extant translation of the text:

propter quid secundum hanc difficulter ypaten facile etiam diuisio alterius? aut quia cum remissione ypate et simul post dimissionem leue sursum proicere?¹¹

Of the fifty-two extant manuscripts of Bartholomew's translation, eighteen, including all those from what Coucke calls the 'Independent Tradition' (which he identifies as 'a superior branch of the tradition') read *dimissionem*.¹² In sum, not only does my newly proposed emendation lead to a stronger interpretation of the text, it also is supported by the evidence of the Latin manuscript tradition.

Max Planck Institute for Empirical Aesthetics

CALEB MUTCH 
caleb.mutch@ae.mpg.de

doi:10.1017/S0009838824000843

¹¹ This text of Bartholomew's translation derives from a critical edition of his translation of section 19 that is in preparation by the present author. Theodore of Gaza's later Latin translation, *Problematum Aristotelis sectiones duaedequadraginta Theodoro Gaza interprete* (Venice, 1504), fol. 232v reads *constitutione* where Bartholomew has *dimissionem*, doubtless rendering σύστασιν.

¹² G. Coucke, 'Philosophy between text and tradition. The reception of Aristotle's *Problemata* in the Middle Ages: Peter of Abano's *Expositio Problematum*' (Diss., KU Leuven, 2008), vol. 1, lx. Coucke's work provides an edition only of section IV of the *Problēmata*. It appears that Bartholomew wondered whether ἀπόστασιν, meaning a temporal prolongation, was a better reading: since five manuscripts contain both *dimissionem* and various words derived from *duro* (viz. *duratio*, *durationem* and *durat*), I hypothesize that he indicated *durationem* or the like as a potential alternative. Many later scribes evidently preferred that alternative, since twenty extant manuscripts read simply *durationem*.