- 101. Aristotle's "whenever three terms". *Bulletin of Symbolic Logic*. 19 (2013) 234–5. (Coauthor: Hassan Masoud).
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Whenever three terms are related so that the last is wholly contained in the middle and the middle either is wholly contained in or excluded from the first, the extremities are necessarily related by a complete deduction.—Aristotle, PrAn, 25b32.

Commentators say that 25b32 presents Aristotle's two syllogistic deduction rules Barbara and Celarent. Let A, B, C be terms.

C is-contained-in B <u>B is-contained-in A</u> C is-contained-in A

C is-contained-in B <u>B is-excluded-from A</u> C is-excluded-from A

But without context 25b32 doesn't convey that information. 25b32 doesn't indicate whether the conclusion's subject is the first or last, or which conclusion is affirmative or negative. Moreover, 25b32 suggests the absurdity that actual containment-exclusion relations among terms determine whether they occur in deductions: *every* two terms are extremities of complete deductions. Further, placement of 'either' admits interpreting 25b32 as concerning disjunctive arguments. One such follows.

C is-contained-in B <u>B is-contained-in or excluded-from A</u> C is-contained-in or excluded-from A

Paraphrasing further highlights 25b32's deficiencies.

Whenever [two premises say that] three terms are related so that the first is wholly contained in the second and [either] that the second is wholly contained in the third or [that it] is wholly excluded from the third, the extremities are necessarily related by a complete deduction [whose conclusion either says that the first is contained in the third or that the first is excluded from the third].—25b32, paraphrase.

Supplementing [1], we enumerate further deficiencies, we describe the context, and we discuss how and to what extent that context warrants traditional interpretations. [1] JOHN CORCORAN, *Aristotle's Demonstrative Logic*, *History and Philosophy of Logic*, vol. 30 (2009), pp. 1–20.