In this presentation, we first discuss Béziau’s (unpublished) proposal to transpose his results on the logical geometry of the modal logic $S5$ to that of the subjective quantifiers many and few. We propose an alternative analysis of many and few, which seems to fare equally well from a strictly logical perspective, but which we argue to be more in line with certain linguistic desiderata. The core of Béziau’s analysis consists in treating the subjective quantifiers many$_1$ and few$_1$ on a par with the so-called ‘null-modalities’ in S5, namely the formulas $p$ and $\neg p$, which do not contain a modal operator. In $S5$, we start with a tripartition of logical space into ‘necessity’ (1000), ‘contingency’ (0110) and ‘impossibility’ (0001), and superimpose upon it a bipartition into ‘actually true’ (1100) and ‘actually false’ (0011). Analogously, the space of quantification can be tripartitioned by means of the expressions all (1000), some but not all (0110) and no (0001). Béziau’s analysis now superimposes a bipartition by means of the subjective quantifier expressions many$_1$ (1100) and few$_1$ (0011). The entailments in $S5$ from level 1 (L1) ‘necessity’ (1000) to level 2 (L2) ‘actual truth’ (1100) and from L1 ‘impossibility’ (0001) to L2 ‘actual falsehood’ (0011) get straightforward counterparts in the realm of subjective quantification. Thus, many$_1$ and few$_1$ are L2 elements: many$_1$ (1100) is entailed by all (1000), whereas few$_1$ (0011) is entailed by no (0001). This accounts for the leftmost and rightmost nodes in Figure 1. The remaining six nodes are then built by means of the Boolean operators of conjunction and disjunction. The conjunctions many$_1$ but not all and at least one but few$_1$, e.g., create the L1 elements 0100 and 0010 by excluding the extreme values of the tripartition, i.e. all (1000) and no (0001), respectively.

Although Béziau takes all (1000) to entail his one-sided L2 element many$_1$ (1100), this entailment needn’t hold. For example, in case John has read all three books in the universe of discourse, the proposition John has read all books is obviously true, but the proposition John has read many books is very likely to be considered false, for the simple reason that ‘three books’ does not really count as ‘many books’. Our alternative analysis reflects this possible absence of entailment by assigning the two-sided L1 reading 0100 to natural language many$_2$. This analysis is further supported by the fact that a lexically complex expression such as many if not all exactly allows us to turn the two-sided many$_2$ into a one-sided reading, by incorporating the all in the disjunction, thus retrieving the L2 semantics 1100 of Béziau’s many$_1$. Analogously, Béziau’s entailment from no (0001) to few$_1$ (0011) is somewhat problematic. Concluding from the truth of John has read no books to that of John has read few books runs into conflict with the existential presupposition (of ‘at least one’ book having been read) that seems to accompany the latter proposition. Hence, our few$_2$ receives a two-sided L1 analysis 0010 which is incompatible with no 0001. Again, lexically complex expressions such as few if any (i.e. few if not no) or little or no, change the two-sided few$_2$ into a one-sided reading, by incorporating the no in the disjunction. Translational equivalents for this disjunctive semantics are found in Dutch weinig of geen and French peu ou pas.

The full line arrows in Figures 1 and 2 represent the semantic complexity increasing from L1 at the top to L3 at the bottom, thus reflecting the entailment or subalternation relation. The dashed line arrows, by contrast, reflect the increase in lexical complexity, i.e. the amount of lexical material an expression consists of. Béziau’s analysis in Figure 1 has a mismatch between the increases in semantic and lexical complexity in 8 out of the 12 cases: for example, many$_1$ is lexically more primitive than many$_1$ but not all, but the former’s L2 bitstring (1100) is semantically more complex than the latter’s L1 bitstring (0100). Analogously, few$_1$ is lexically more primitive than at least one but few$_1$, but the former’s L2 bitstring (0011) is again semantically more complex than the latter’s L1 bitstring (0001). Similar discrepancies can be observed the next level up. In more visual terms, the ‘orientation’ of the two lattices for semantic complexity in Figure 1 is from the top downwards, whereas that of the two lattices for lexical complexity is from the outside inwards (i.e. with many$_1$ and few$_1$ as their respective starting points). The alternative analysis in Figure 2, by contrast, avoids these mismatches between semantic and lexical complexity: the
respective lattices share a single ‘orientation’, viz. from the top downwards. In a final step, the two analyses are compared in terms of the Aristotelian diagrams they give rise to. The two analyses share a JSB hexagon for the ordinary quantifiers, but complement it with different Buridan octagons/rhombicubes for the subjective quantifiers.