Pointing and Cayley's theorem

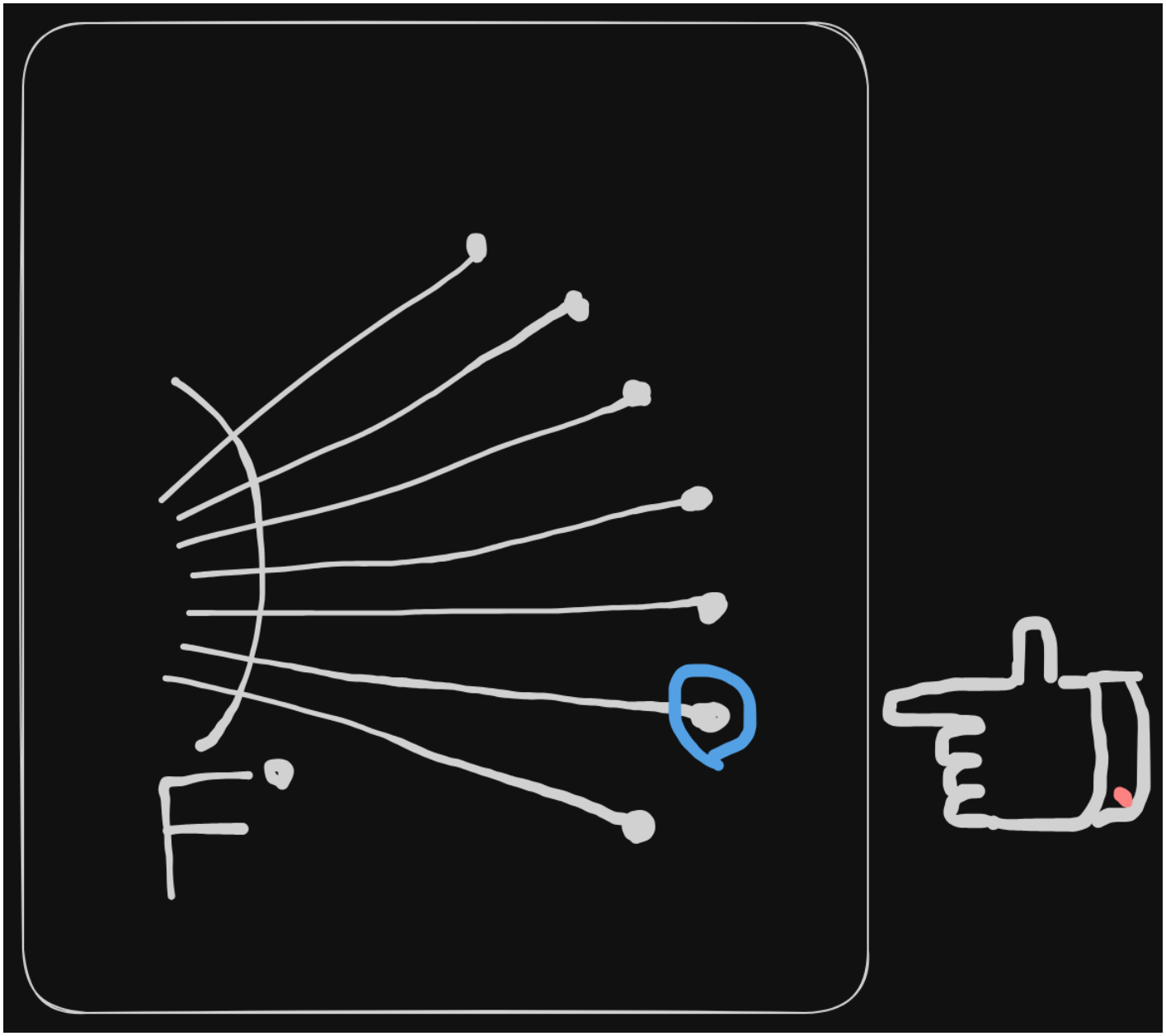
Let $F : Species of structures$

$$F^\circ := F[U] \times U$$

Transport of structure is defined by:

$$\forall U, V \in \Omega, \forall \sigma : U \longrightarrow V \in \Gamma$$

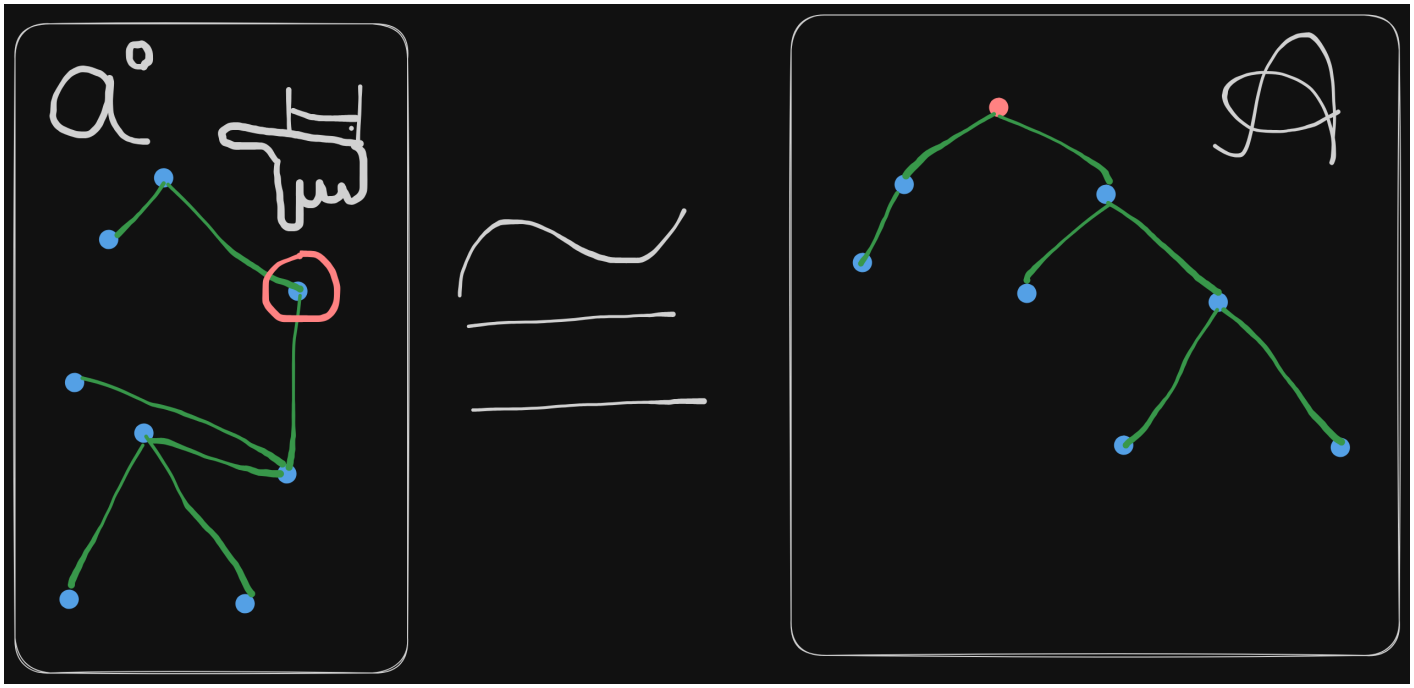
$$F^\circ[\sigma](s, u) := (F[\sigma](s), \sigma(u))$$



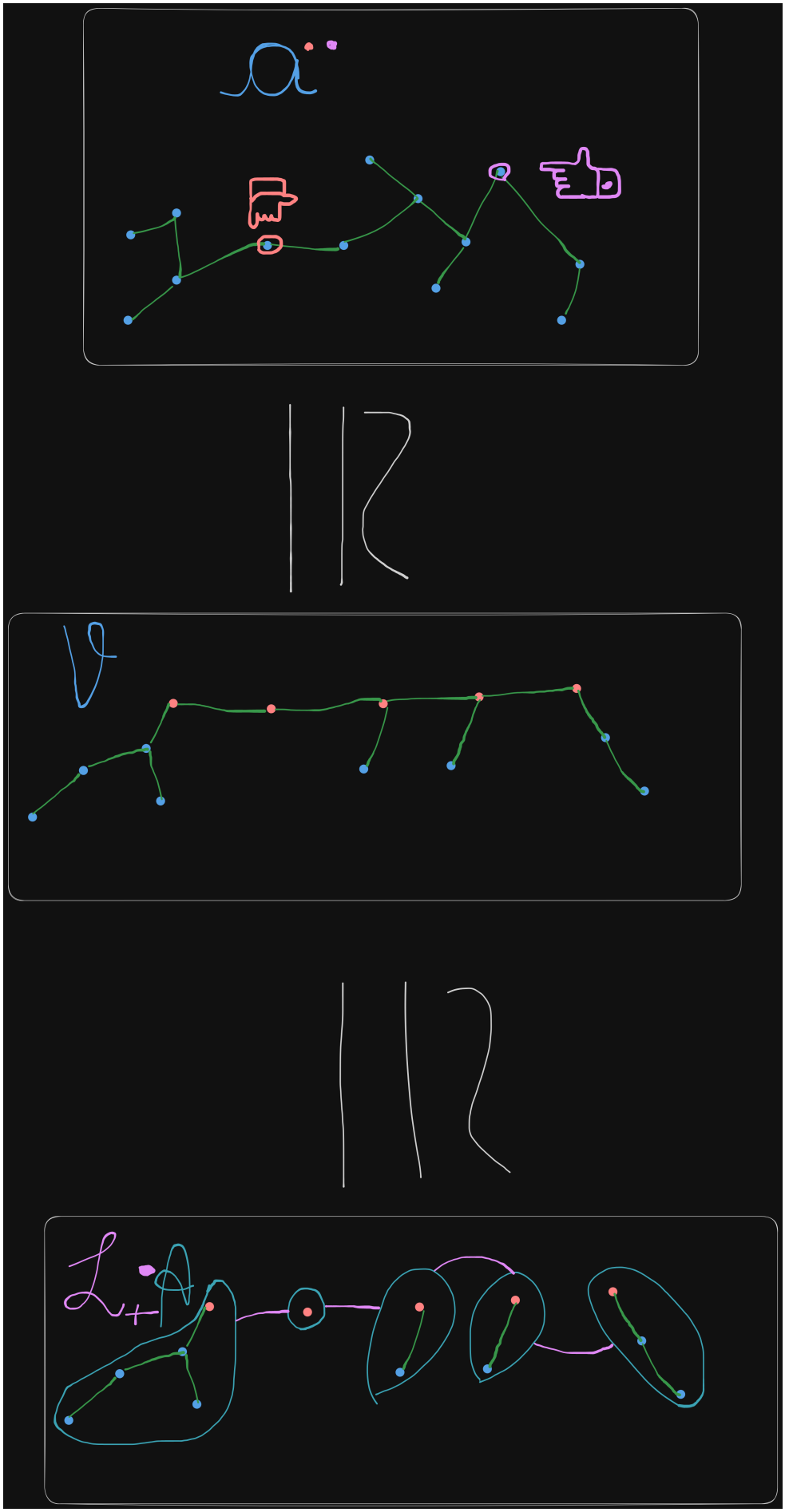
Pointing to a structure

Example

$$\mathcal{A} = a^\circ$$



$$F^\circ \cong X \cdot F'$$
$$\implies \mathcal{V} := a^{\circ\circ} \cong L_+(\mathcal{A})$$
$$|\mathcal{V}| = n^2|a|$$
$$|\mathcal{V}| = |\mathcal{L}_+(\mathcal{A})[n]| = |\mathcal{S}(\mathcal{A})[n]| = n^n$$
$$\implies n^n = n^2 \cdot |a|$$



Properties

$$|F^{\circ}[n]| = n \cdot |F[n]|$$