

Table 1

| S | E | G | I | P | U | E | G | I | P | L | E | G | I | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B |   | x | x |   | B | x | x | x |   | B | x |   |   |   |
| D |   | x |   |   | D | x | x |   |   | D | x |   |   |   |
| L |   |   |   | x | L | x |   |   | x | L | x |   |   |   |
| V |   | x |   |   | V | x | x |   |   | V | x |   |   |   |

a)

| B-slice | S | U | L |
|---------|---|---|---|
| E       |   | x | x |
| G       | x | x |   |
| I       | x | x |   |
| P       |   |   |   |

| D-slice | S | U | L |
|---------|---|---|---|
| E       |   | x | x |
| G       | x | x |   |
| I       |   |   |   |
| P       |   |   |   |

| L-slice | S | U | L |
|---------|---|---|---|
| E       |   | x | x |
| G       |   |   |   |
| I       |   |   |   |
| P       | x | x |   |

| V-slice | S | U | L |
|---------|---|---|---|
| E       |   | x | x |
| G       | x | x |   |
| I       |   |   |   |
| P       |   |   |   |

b)

| E-slice | S | U | L |
|---------|---|---|---|
| B       |   | x | x |
| D       | x | x |   |
| L       | x | x |   |
| V       | x | x |   |

| G-slice | S | U | L |
|---------|---|---|---|
| B       | x | x |   |
| D       | x | x |   |
| L       |   |   |   |
| V       | x | x |   |

| I-slice | S | U | L |
|---------|---|---|---|
| B       | x | x |   |
| D       |   |   |   |
| L       |   |   |   |
| V       |   |   |   |

| P-slice | S | U | L |
|---------|---|---|---|
| B       |   |   |   |
| D       |   |   |   |
| L       | x | x |   |
| V       |   |   |   |

The S-, U-, L- slices are visible in the first table.

c)

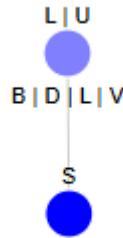
1. {B, D}, {G}, {S, U}
2. {B, D, L, V}, {E}, {U, L}
3. {L}, {P}, {S, U}

d) . A={B, D, L, V}, B={E}, C={U, L}

Lock BDLV  $\mathbb{K}_A^{23}$



Lock E  $\mathbb{K}_B^{13}$



Lock UL  $\mathbb{K}_C^{12}$



The lattice shows how attributes (B = {E}) and conditions (C = {U, L}) cluster within this subset of objects.

Extent G and Intent P => G(erman) is related to I(tablian) and P(ortugese) under some (B,C) pairs involving BDLV

L(ecture) is linked to U(niversity).

S(treet) is the most general concept, present in all combinations.

E(nglish) is not limited to one object or condition; it has broad coverage but strongest (most specific) presence with L(isbon) under condition U(niversity).

Table 2

| $\mathbb{K}_A^{23}$   | $\mathbb{K}_B^{13}$   | $\mathbb{K}_C^{12}$  |
|---|---|--|
| <ul style="list-style-type: none"> <li>- top concept: German and Portuguese are the languages most consistently used across all four cities in some shared context.</li> <li>- middle concept: in Lisbon, University settings are particularly relevant to some language(s)—perhaps only in Lisbon is a specific language (e.g., English or Portuguese) used at university. English is used in</li> </ul> | <ul style="list-style-type: none"> <li>- top concept: English is particularly prominent in university settings in Lisbon. Perhaps it's the main or a strong medium of instruction there.</li> <li>- bottom concept: English is least associated with the street context in these cities.</li> </ul> | <ul style="list-style-type: none"> <li>- top concept: English is the most widely or consistently used language across multiple cities in university and lecture contexts.</li> <li>- bottom concept: the other languages are less dominant or more context-specific under University and Lectures compared to English</li> </ul> |

|  |  |  |
|--|--|--|
| some but not all of the cities and contexts.<br>- Street is the most general condition—it appears least restrictively, but not tied to specific languages in the same way as University or Lectures. |  |  |
|--|--|--|