

## Supplemental Material

### RESULTS

#### Frequencies of themes and themes by cognate

The significant  $\chi^2_{GF}$ ,  $\chi^2(8) = 1695.4$ ,  $p < 0.001$ , showed that the number of FAs overall differed between themes (Figure 1.A). Standardized residuals (Table 1) showed that *colour terms*,  $z = 27.34$ ,  $p < .001$ , and *natural elements and objects*,  $z = 24.97$ ,  $p < .001$ , included more associations than expected by chance. Moreover, five themes included less associations than expected by chance: i) *experiential (sensory and affective experiences)*,  $z = -7.16$ ,  $p < .001$ ; ii) *ambiguous words*,  $z = -8.70$ ,  $p < .001$ ; iii) *people*,  $z = 9.26$ ,  $p < .001$ ; iv) *scenery*,  $z = -11.98$ ,  $p < .001$  and v) *personal*,  $z = -13.24$ ,  $p < .001$ . Lastly, two themes included the number of associations expected by chance: i) *human-made objects*,  $z = -0.11$ ,  $p > .05$ , and ii) *abstract concepts*,  $z = -1.85$ ,  $p > .05$ .

Analogue  $\chi^2_{GF}$  for cognates separately were also all significant: *lilas*,  $\chi^2(8) = 810.33$ ,  $p < .001$ ; *pourpre*,  $\chi^2(8) = 769.85$ ,  $p < .001$ ; *violet*,  $\chi^2(8) = 450.29$ ,  $p < .001$ .

Themes chosen more	Theme chosen less
7 <sup>***</sup> , 3 <sup>***</sup>	8 <sup>***</sup> , 4 <sup>***</sup> , 5 <sup>**</sup>
	1 <sup>***</sup> , 6 <sup>*</sup>

Table 1: Standardized residuals showed themes chosen more often and less often than expected by chance. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . The non-listed themes were chosen as expected by chance. The theme numbers are *experiential: sensory and affective experiences* (1), *human-made objects* (2), *natural elements and objects* (3), *scenery* (4), *abstract concepts* (5), *people* (6), *colour terms* (7), *personal* (8), *ambiguous words* (9).

#### Association frequencies as a function of theme and cognate

The significant  $\chi^2$ ,  $\chi^2(16) = 246.41$ ,  $p < .001$ , showed that the number of FAs differed as a function of themes and cognates (see counts and words in Table 4). Standardised residuals (Table 2) showed that four themes were associated more often with *lilas* than *pourpre* or *violet*: i) *natural elements and objects*, 38.3%,  $z = 7.22$ ,  $p < .001$ , ii) *experiential*, 10.4%,  $z = 5.69$ ,  $p < .001$ , iii) *people*, 7%,  $z = 3.43$ ,  $p < .001$ , and iv) *scenery*, 3.33%,  $z = 4.5%$ ,  $p < .001$ . Four themes were associated less often with *lilas* than the two other cognates: i) *abstract concepts*, 3.5%,  $z = -6.90$ ,  $p < .001$ , ii) *human-made objects*, 6%,  $z = -5.30$ ,  $p < .001$ , iii) *ambiguous words*, 2.4%,  $z = -4.00$ ,  $p < .001$ , and iv) *colour terms*, 26.2%,  $z = -2.66$ ,  $p < .01$ .

Three themes were associated more often with *pourpre* than *lilas* or *violet*: i) *colour terms*, 40%,  $z = 6.66$ ,  $p < .001$ , ii) *human-made objects*, 15.5%,  $z = 4.51$ ,  $p < .001$ , and iii) *abstract concepts*, 12.8%,  $z = 3.22$ ,  $p < .01$ . Three themes were associated less often with *pourpre* than the other two cognates: i) *natural elements and objects*, 18.8%,  $z = -6.77$ ,  $p < .001$ , ii) *experiential*, 3.1%,  $z = -4.13$ ,  $p < .001$ , iii) *and people*, 3.4%,  $z = -2.07$ ,  $p < .05$ .

Finally, three themes were associated more often for *violet* than *lilas* and *pourpre*: i) *ambiguous words*, 9.2%,  $z = 5.95$ ,  $p < .001$ , ii) *abstracts concepts*, 13.3%,  $z = 3.73$ ,  $p < .001$ , and iii) *personal*, 3.1%,  $z = 2.51$ ,  $p < .01$ . The theme *colour terms* was associated less often with *violet* than the other cognates, 24.3%,  $z = -3.98$ ,  $p < .001$ .

<i>Violet</i>		<i>Pourpre</i>		<i>Lilas</i>	
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9 <sup>***</sup> , 5 <sup>***</sup> , 8 <sup>**</sup>	7 <sup>***</sup>	7 <sup>***</sup> , 2 <sup>***</sup> , 5 <sup>**</sup>	3 <sup>***</sup> , 1 <sup>***</sup> , 6 <sup>*</sup>	3 <sup>***</sup> , 1 <sup>***</sup> , 6 <sup>**</sup> , 4 <sup>***</sup>	5 <sup>***</sup> , 2 <sup>***</sup> , 9 <sup>***</sup> , 7 <sup>**</sup>

Table 3: Standardized residuals showed themes chosen more often (>) and less often (<) compared to the other two cognates. \**p* < .05, \*\**p* < .01, \*\*\**p* < .001. The non-listed themes were chosen evenly between cognates. The theme numbers are *experiential* (1), *human-made objects* (2), *natural elements and objects* (3), *scenery* (4), *abstract concepts* (5), *people* (6), *colour terms* (7), *personal* (8), *ambiguous words* (9).

### Association frequencies as a function of theme and country

The  $\chi^2$  failed conventional significance level,  $\chi^2(16) = 26.01, p = 0.053$ . Thus, we explored country differences per cognate finding no differences for *lilas* ( $n = 705$ ),  $\chi^2(16) = 24.14, p = 0.086$ , and *pourpre* ( $n = 686$ ),  $\chi^2(16) = 25.07, p = 0.068$ . Standardised residuals on *violet* ( $n = 684$ ),  $\chi^2(16) = 37.12, p = 0.002$  (Figure 1.B), indicated that Swiss participants associated *abstract concepts* more often than Algerian and French participants, 16.3%,  $z = 3.13, p < .01$ , and associated *experiential* less often than Algerian or French participants, 5.8%,  $z = -2.41, p < .05$ .

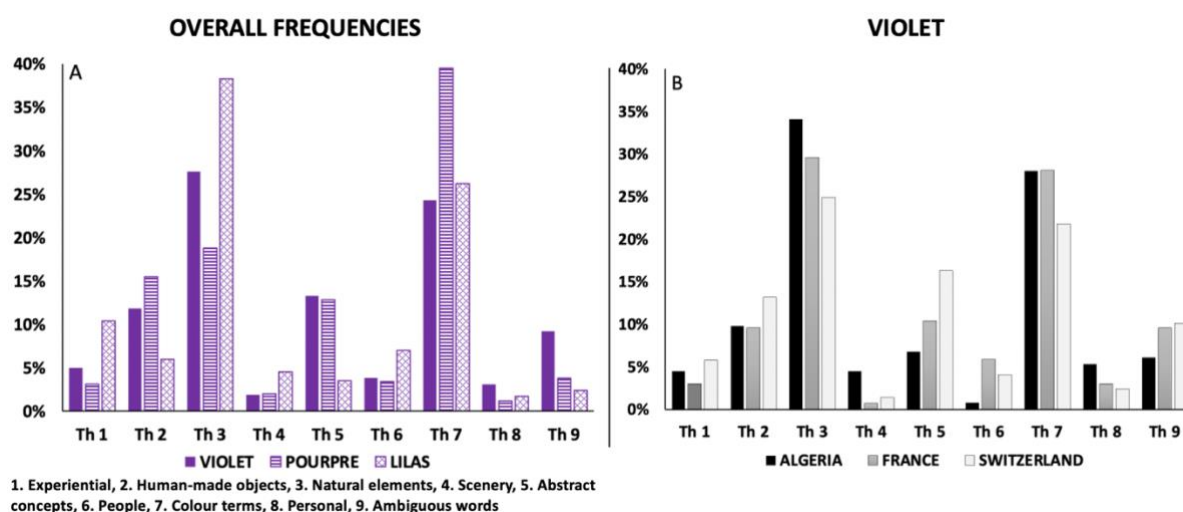


Figure 1: Percentages with which A) 2075 FAs have been allocated to the nine major themes as a function of cognate, and B) 684 FAs with violet have been allocated to the nine major themes as a function of country (B). Significant standard residuals are coded as \**p* < .05, \*\**p* < .01.

Countries	<i>Violet</i> (684)	<i>Pourpre</i> (686)	<i>Lilas</i> (705)	Total (2,075)
Algeria	132 (33.5%)	127 (32.2%)	135 (34.3%)	394 (100%)
France	135 (32.5%)	138 (33.1%)	143 (34.4%)	416 (100%)
Switzerland	417 (33.0%)	421 (33.2%)	427 (33.8%)	1,265 (100%)
Frequent FAs by cognate	Flower (107), colour (98), <i>lilas</i> (38), <i>pourpre</i> (22), mauve (21), lavender (18), rose (16), beautiful (10)	Colour (89), red (78), <i>violet</i> (74), blood (34), octopus (16), flower (14), wine (13), river (11)	Flower (215), <i>violet</i> (91), colour (54), smell (36), perfume (25), name (22), spring (22), mauve (20), soft (20), rose (15), garden (14), pretty (11)	Flower (336), colour (241), <i>violet</i> (165), mauve (41), smell (36), blood (34), rose (31), perfume (25), name (22), spring (22), soft (20), octopus (16), rose (31), garden (14), wine (13), river (11), pretty (11), lavender (18), rose (16), beautiful (10)

Table 3: We analysed 2,075 FAs coming from 274 participants. We present frequencies and percentages of words overall and as a function of cognate and country. The most frequent FAs by cognate, given by at least 10 participants. The numbers in brackets indicate the frequencies (n). See [Table S2](#) for the complete counts.