Loneliness and Attitudes Toward Aloneness in Belgian Adolescents: Measurement Invariance Across Language, Age, and Gender Groups

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Loneliness and Attitudes Toward Aloneness in Belgian Adolescents from Different Educational Tracks

A limitation of our study is that both samples include only participants following the academic track. We elaborated on this issue by examining whether the percentages of students that are in the academic track are comparable across Flanders (i.e., Dutch-speaking part of Belgium), Brussels (i.e., capital region of Belgium), and Wallonia (i.e., French-speaking part of Belgium), and by investigating whether adolescents from different educational tracks score differently on peer- and parent-related loneliness and positive and negative attitudes toward aloneness.

We checked how many adolescents were enrolled in the academic track during past

school years in Flanders1, Brussels2, and Wallonia2. We believe these percentages can give us a first idea of whether the percentages of students that are enrolled in the academic track are comparable across the three regions and whether adolescents from the academic track are representative of the general population of adolescents in the three regions. Table 1 presents the percentages of adolescents in the academic track and in other educational tracks (e.g., technical, vocational, and artistic track) in Flanders, and Wallonia and Brussels during the academic year 2016-2017 and 2015-2016, respectively.

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| Table 1  *Percentage of adolescents in the different educational tracks in Flanders (academic year 2016-2017), Wallonia, and Brussels (academic year 2015-2016)* | | |
|  | Academic track | Other educational track |
| Flanders |  |  |
| Grade 9 and 10 | 46.8% | 52.3% |
| Grade 11 and 12 | 35.9% | 64.1% |
| Brussels |  |  |
| Grade 9 and 10 | 57.9% | 42.1% |
| Grade 11 and 12 | 45.8% | 54.2% |
| Wallonia |  |  |
| Grade 9 and 10 | 49.8% | 50.2% |
| Grade 11 and 12 | 38.7% | 61.3% |

These percentages seem to indicate that in Flanders, Brussels, and Wallonia, about half of the students follow the academic track and that the percentages of adolescents following the academic track are comparable across the different regions. However, the other 50% of students follow one of the other educational tracks. As a consequence, these percentages suggest that our samples are not representative for the entire population of Belgian adolescents. Nevertheless, based on additional analyses, we did not expect that our study findings would be much different if adolescents from other educational tracks were included in our study samples as well. More specifically, in two other Flemish datasets, we investigated whether adolescents from different educational tracks scored differently on loneliness (i.e., peer-related loneliness and parent-related loneliness) and attitudes toward aloneness (i.e., positive and negative attitudes). The differences that were found were very small. More specifically, in the first of these additional samples, a total of 294 adolescents followed the academic track and a total of 187 adolescents followed the artistic track. All adolescents were in Grade 9 or 10. No significant differences were found between adolescents from the two educational tracks regarding peer-related loneliness (*F*(1, 474) = .1.295, *p* = .256, η2 = .003) and negative attitude toward aloneness (*F*(1, 474) = .304, *p* = .582, η2 = .001). However, adolescents from the artistic track reported significantly more parent-related loneliness (*F*(1, 474) = 7.450, *p* = .007, η2 = .015) and had a more positive attitude toward aloneness (*F*(1, 474) = 4.371, *p* = .037, η2 = .009) compared to adolescents from the academic track. Effect sizes (i.e., η2)were small, as were themean score differences, that is, 0.11 and 0.15, on a scale ranging from 1 to 4. In the second of these additional samples, a total of 281 adolescents followed the academic track, 218 adolescents followed the technical track, and 59 adolescents followed the vocational track. All adolescents were in Grade 10 or 11. Adolescents from the different tracks did not differ significantly on peer-related loneliness (*F*(2, 554) = .299, *p* = .742, η2 = .001), positive attitude toward aloneness (*F*(2, 554) = .679, *p* = .508, η2 = .002), and negative attitude toward aloneness (*F*(2, 554) =.445, *p* = .641, η2 = .002). However, there was a significant difference in parent-related loneliness across the different educational tracks (*F*(2, 554) = 3.616, *p* = .028, η2 = .013). More specifically, adolescents from the vocational track scored significantly higher on parent-related loneliness than adolescents from the academic track, but the mean score difference was small (i.e., -0.21 on a scale ranging from 1 to 4).

To summarize, we conclude that the percentage of adolescents in the academic track is roughly comparable across Flanders, Brussels, and Wallonia. Furthermore, results from additional analyses indicated that there were some differences among students from different educational tracks regarding loneliness and attitudes towards aloneness. Although these differences were very small, we believe caution is warranted when generalizing our findings to the general population.