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ABSTRACT

Towards a Refined Insight in the Shifts in Adolescents' Motivational Profiles: A Longitudinal Study

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Abstract (248 words → 100-250 words):

Apart from students' level of motivation, also the type matters, as their motives can be rather controlled in nature, such as meeting external demands (external regulation) or bolstering one's ego (introjected regulation) or rather autonomous in nature, such as perceiving the learning materials to be personally relevant (identified regulation) or inherently interesting (intrinsic motivation). Rather unfortunately, a number of studies have suggested a steady decline in children's motivation across primary and secondary school. However, some of these studies are limited because of the use of a cross-sectional designs and the restricted number of motivational subtypes. In the present study, we sought to shed a more refined light on these longitudinal shifts in a group of $N = 463$ adolescents ($M_{\text{age_time1}} = 13.37 (3.06)$; 58.96% females), thereby identifying mean-level differences in motivational subtypes and examining whether and in what sense specific motivational profiles shift across a four-year period using Latent Profile Analysis. After LPA returned five different motivational profiles, cross-tabulating the shifts within every pair of waves indicated that adolescents in the good quality motivation profile had the least chance to shift towards the extremely low quantity motivation profile and vice versa. In addition, students in the first group only jumped to adjacent profiles (poor quality and high quantity group). Most of the variation was found for the low quantity group. In terms of profile stability, most students in the high quantitative profile remained stable over time. More advanced analyses will be performed at the time of the conference.

EXTENDED SUMMARY

(1000 words, with references, without tables) → 600-1.000 words)

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Theory

Adolescents differ in the amount of motivation they display for their school work, with some of them being highly motivated and showing considerable effort and others being strategically oriented, thereby keeping their effort-expenditure to a minimum. Apart from students' level of motivation, also their type of motivation matters, as reflected in the type of reasons they have for doing their best at school. As maintained within Self-Determination Theory (SDT; e.g., Ryan & Deci, 2000), these motives can be rather controlled in nature, such as meeting external demands (external regulation) or bolstering one's ego (introjected regulation), or rather autonomous in nature, such as when students perceive the learning materials to be personally relevant (identified regulation) or inherently interesting (intrinsic motivation). These different types of motivation are said to fall along a continuum of increasing internalization, with amotivation and external regulation representing the least and intrinsic motivation the most mature form of self-determined functioning.

The predictive role of students' quality and quantity of motivation has been demonstrated in dozens of studies among middle and high school students, with autonomous motivation relating to a myriad of desirable outcomes, including engagement and well-being, while controlled motivation and especially amotivation predicting various dysfunctional outcomes, including procrastination and drop-out (e.g., Vallerand, Fortier, & Guay, 1997). Rather unfortunately, an increasing number of studies have suggested that there is a steady decline in children's motivation across primary and secondary school (e.g., Gottfried, Fleming, & Gottfried, 2001; Lepper Corpus, & Iyengar, 2005). Although these studies are informative, at least some of them are limited because of the use of a cross-sectional research design (e.g., Lepper et al., 2005) or the inclusion of only a limited number of motivational subtypes. In the present study, we sought to shed a more refined light on these longitudinal shifts by assessing all motivational subtypes (i.e., amotivation, external, introjected, identified, and intrinsic).

Apart from identifying mean-level differences vs. stability in these motivational dimensions, we also adopted a person-centered perspective, thereby seeking to identify specific motivational profiles (Vansteenkiste Sierens, Soenens, Luyckx, & Lens, 2009) and examining whether and in what sense these motivational profiles shift across the four-year period (see Hayenga & Corpus, 2010). This is

critical from both an applied and theoretical perspective. That is, these different types of motivation do not occur in isolation in reality, but they are simultaneously present within every student, yet to different degrees. As such, such profiles are well-aligned with daily reality. Further, it remains to be explored which shifts in motivational profiles may occur. One may argue that profiles characterized by controlled motivation may move into profiles characterized by more autonomous forms of motivation ('stepping stone' hypothesis). Yet, from the SDT-perspective, these different subtypes do not reflect separate stages students need to cycle through and being initially controlled motivated may even hamper one to shift towards profiles characterized by autonomous motivation over time (SDT-hypothesis).

Methods

The current study compromised $N = 463$ adolescents ($M_{\text{age_time1}} = 13.37$, $SD_{\text{age_time1}} = 3.06$; 58.96% females), which were followed during four consecutive years (i.e., from Grade 8 through Grade 11). Their study motivation was assessed with Academic Regulation Questionnaire (e.g., Vansteenkiste et al., 2009). Reliabilities were satisfactory for the different subtypes across the different waves, with measures of Cronbach's Alpha varying between .72 and .91, with an average of .85.

Results

In terms of mean-level differences, a Repeated-Measures ANOVA indicated that there is a significant interaction between motivation and time, indicating a different change over time across different types of motivation ($F(12, 170) = 2.39$, $p = .007$, $\eta^2 = .14$).

Motivational profiles were estimated at every wave through Latent Profile Analysis, with five profiles yielding the best fit (the lowest BIC) at each wave. Specifically, profiles were labeled and characterized by 'low quantity' (low levels across all types of motivation), 'extremely low quantity' (high levels of amotivation), 'poor quality' (high levels of amotivation and external regulation and low levels of identified and intrinsic regulation), 'high quantity' (high levels across all types of motivation) and 'good quality' (high levels of identified and intrinsic regulation). Cross-tabulating the shifts within every pair of waves indicated that on average 33% of students' profile membership remained stable, a percentage that was fairly similar across every comparison of consecutive years (see Table 1). In terms of profile changes, it could be noticed that participants in both the most extreme groups (the extremely low quantity and the good quality profiles) had the lowest chance of shifting towards each other. In addition, students in the first group only jumped to adjacent profiles (poor quality and high quantity group). Most of the variation was found for the low quantity group. In terms of profile stability, most students in the high quantitative profile remained stable over time.

Discussion

As the process on this study is still running, more advanced analyses and discussion points will be performed at the time of the conference.

References

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Tables

Table 1.

Average longitudinal stability (diagonal) and variation based on pairwise comparison across waves.

A	B				
	1.	2.	3.	4.	5.
1. Low quantity	30.5	13.1	19.3	12.1	25.0
2. Extremely low quantity	24.1	47.0	6.1	1.4	21.4
3. Poor quality	20.1	2.3	8.8	30.6	38.2
4. Good quality	9.5	1.7	28.7	26.3	33.8
5. High quantity	17.4	4.3	13.0	11.5	53.8

Note. Change coefficients (in percentages) represent the average change from profile A to profile B across all waves.