

**K6.1 Gender differences in the stability of personality traits over time**

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Non-cognitive skills include many characteristics and personality traits, for example the notion of the locus of control (Rotter, 1966). According to this, those who believe life’s outcomes are due to their own efforts have an internal locus of control, while those with an external locus of control think that the results of events do not depend on their own actions but on external factors (chance, luck or other people).<sup>1</sup> Persons with an internal locus of control – *ceteris paribus* – tend to achieve better school performance and are more likely to continue their studies (see Piatek–Pinger, 2016). Concerning the stability of the locus of control, Cobb-Clark–Schurer (2013) found that the locus of control did not or only minimally changed within a timeframe of 1–4 years in most people, and it is mainly young people and the elderly who tend to change substantially in this respect. Further findings show that positive life events (marriage, promotion) do not have a significant effect on the locus of control; however, very many negative life events (at least nine within four years) such as illness or unemployment will push the person towards an external locus of control.

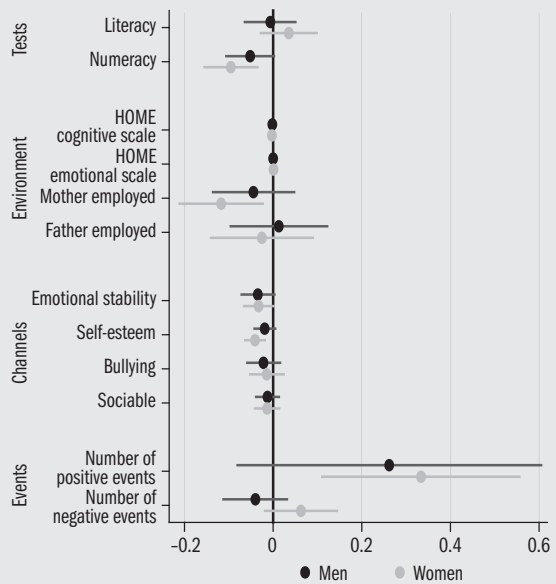
Relying on the Hungarian Life Course Survey launched in 2006, it is possible to give a detailed assessment of the situation in Hungary. The database containing 10 thousand cases provides information on family background in addition to school performance. Participants of the survey also completed a test on locus of control in 2006 and 2009.<sup>2</sup> The present study explores how stable the locus of control is and what determines changes to it.

We found that, considering the whole sample, correlation (0.179) between the values for the locus

of control measured at the two dates is lower than in the abovementioned Australian sample (0.533 across quarters), which is not surprising, since that study involved the total population, while the Hungarian survey only involved teenagers, whose personality traits have not yet fully evolved. The correlation is stronger in the case of girls: the value of the locus of control changes less in their case, while among boys it changes more considerably (in line with their later maturation) and their internal control increased in the period examined.

Regression analysis has been performed to assess what the locus of control is associated with – the results are presented in Figure K6.1.1.

**Figure K6.1.1: Association between changes in the locus of control and individual characteristics and life events**



Note: The HOME Inventory measures the extent of stimulation provided by the home environment. Items of the HOME cognitive scale include the number of books owned, newspaper subscriptions, extra-curricular activities, visits to museums and the cleanliness of rooms. The HOME emotional scale includes items such as whether the child tidies up, meets relatives, eats together with his or her parents or whether

1 When presenting the definition of the locus of control and its labour market related impact, we rely on the excellent synthesis study of Cobb-Clark (2015).  
 2 The locus of control index ranges between 0–4: the lower the value, the more internal control is characteristic of the given individual. Therefore change in the locus of control ranges from –4 to +4, with the negative (positive) change indicating that the person shifted in the direction of internal (external) control.

the mother showed positive feelings when talking to the child during the interview (Bradley *et al.* 2000).

As opposed to girls, change in the locus of control among boys is not associated with individual characteristics and life events. Girls with better results in the mathematics tasks of the National Assessment of Basic Competences in 2006 tended to shift towards internal control. This is consistent with the finding that internal control and good school performance are closely linked. The internal control of girls also increased if their mothers had a job. Increased emotional stability and self-esteem were associated with internal control, this coincided with

the expected impact. This finding is consistent with the hypothesis that children whose parents ensure a stable emotional background, peaceful environment and stress-free life are more likely to have internal control (see Carton–Nowicki, 1994, Skinner *et al.* 1998 or Stephens–Delys, 1973). When examining life events, negative life events were not found to be associated with changes in the locus of control, but positive life events increased external control for girls.<sup>3</sup>

<sup>3</sup> Cobb-Clark–Schurer (2013) report that certain positive life events reduce internal control.

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