The motivational antecedents of perseverance

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Perseverance has a rather long history of study within achievement motivation literature (McClelland, 1961, 1987; Heckhausen, 1980, 1989) and recently in positive psychology as one of the important character strengths (Peterson, Seligman, 2004). Peterson & Seligman defined it as voluntary continuation of action or behavior that is goal directed and typically in the face of difficulty or obstacles.

Recently a new similar construct appeared in psychology, namely grit which was defined as perseverance and passion for long-term goals (Duckworth et al., 2007). Grit was found to be a predictor of different types of educational attainment among variety of samples. Our own studies confirmed this relation, grit accounted for 8% of the variance in academic achievement of university students (Gordeeva et al., 2011; Gordeeva, Sychev, 2012). The role of perseverance or grit couldn't be overestimated as it's a source of achievement in every field. However, it remains unclear what lays behind grit or persistence, what moves a person to display grit? The aim of present study is to investigate the motivational antecedents of grit. In accordance with structural-dynamic model of achievement motivation (Gordeeva, 2006, 2011) it was hypothesized that three sources of perseverance could be distinguished: 1) a module standing from the profile of intrinsic and extrinsic motivation, 2) self-regulatory module responsible for effective goal attainment, including self-control and purposefulness, and 3) cognitive components module including positive expectations, optimistic attributional style, and self-efficacy.

To measure perseverance and motivational variables a battery of tests was used including Grit scale (Duckworth et al., 2007), Aidman's perseverance scale (1990), Intrinsic and extrinsic motivational orientation scale (Amabile et al., 1994), Flow scale (Leontiev, 2011), academic motivation scale (AMS-C, Vallerand et al., 1992), self-control scale (Tangney et al., 2004), hope scale (Snyder et al., 1991), academic perceived control scale (Perry et al., 2001), modified version of ASQ (Peterson et al., 1982, Gordeeva et al., 2009), and LOT (Scheier, Carver, 1985). The sample comprised 432 participants, students from three departments of Moscow State University and from four departments of Altay State Academy of Education (M= 18 years, SD=1.3).

Summary of the results. As expected perseverant students outperformed their less perseverant peers. Grit and perseverance scores were consistently associated with higher GPAs. The cluster analysis showed that most gritty students were from cluster with high learning motivation, intrinsic achievement motivation, identified and applied practical motivation. The main hypothesis and overall model of three types of persistence's antecedents were confirmed. The most reliable SEM model predicting persistence was comprised by intrinsic achievement motivation, consistency of interests, and optimistic attributional style (RMSEA=.04). However, the results show that high perseverance is not the only way to academic success. The second path to achieve academic success is through high and predominant intrinsic motivation accompanied by moderate level of perseverance. This second pattern was twice more rare in our overall sample (19% compared to 40% to the first pattern). The theoretical advancements and implications for future research will be discussed.