

Review on L2-Grit: Connotation and Development

Jialin Yang

University of International Business and Economics, Beijing 100029, China

Yangjl201712@163.com

Abstract

"Grit" is often considered as an important positive psychological factor for success, and has caught the attention of scholars in the field of Second Language Acquisition (SLA) recently. A thorough study of grit's influence on language learning will enrich its factor analysis on successful second language learning, and help to intervene and adjust the second language teaching methods. Therefore, this paper reviews the relevant literature on the L2-Grit, with a view to summarize the connotations of grit and its different relevant theories, exploring the positive effect of grit in promoting second language learning, and interpreting other factors affecting L2-Grit. Finally, considering the limitations of the present researches, the paper also puts forward suggestions for the future and prospects the development of L2-Grit.

Keywords

Grit; Second Language Acquisition; Psychological Factors; Language Achievement; Cultural Context.

1. Introduction

In recent years, more and more scholars have been exploring different factors that affect second language learning. Among them, in terms of psychological factors, studies found that grit, as a positive psychological factor, has positive effects on learning outcomes (Duckworth et al., 2007; Duckworth & Gross, 2014; Eskreis-Winkler et al., 2014). When grit was first proposed, two factors were included: "Persistence of Effort (POE)" and "Constancy of Interest (COI)" (Duckworth et al., 2007). Since a long-term goal should be set in foreign language learning, which requires sustained perseverance in the process, it is of great significance to explore the application of grit and the relevant factors affecting that in the field of SLA.

At present, studies on L2-Grit are already mature in western countries, but few has been done at home. Therefore, the research purpose of this paper is to sort out and analyze the articles related to grit and L2-Grit, so as to promote the research of grit theory in China. Mainly, three aspects will be discussed: firstly, the connotation and characteristics of grit and L2-Grit; secondly, the dimensions of grit; and thirdly, the related studies between grit and other factors.

2. The Meaning of L2-Grit

2.1. The Meaning of Grit

Grit is a term in psychology, which was proposed by psychologist Duckworth and his team member in 2007. They interviewed people from all walks of life and found that when asked about the necessary qualities for higher achievements, people answered "perseverance" and "diligence" as frequent as "talent" (Duckworth et al., 2007). Duckworth (2007) defined grit as the quality of persistence and passion for a long-term goal, which includes two factors: perseverance of effort and consistency of interests. The former refers to the ability to make

continuous efforts regardless of challenges and difficulties, and the latter refers to passion for the sustainable goals.

Grit needs to be distinguished from other similar qualities. First of all, grit is not equal to "self-control". Galton (1892) thinks that "self-control" is the ability to resist temptations and control impulses. In addition, researches show that it has little impact on high achievements. Secondly, grit is also different from "seriousness" in the Big Five model. Although there are many overlaps between the two concepts, grit emphasizes long-term endurance rather than short-term high-intensity. Additionally, grit cannot be simply understood as "the desire for success". McClelland (1961) believes that "the desire for success" could only motivate people to achieve the short-term goal that has quick feedback. However, such goals are generally either too easy or unrealistic, so they cannot be compared with long-term executable goals.

In many cases, grit is a necessary factor for success. Duckworth et al. (2007) finds that in terms of career development, people with grit will reach a higher education level and have fewer career changes. In terms of academic achievements, undergraduates with grit will get a higher GPA, and will perform better than others in the national spelling competition. In terms of the degree of military training, the rate of completed training courses will be higher for cadets with grit. Therefore, the application of grit is so wide that many psychologists put it in the field of education.

2.2. The Meaning of L2-Grit

Since the earlier times, scholars of SLA have attempted to find out the common personality characteristics of excellent second language learners. Naiman et al. (1978) found that when interviewers were asked about how to deal with frustration, disappointment and uncertainty in second language learning, a key answer was "perseverance". Therefore, the team defined "excellent language learners" as "people who can always find ways to overcome obstacles in language, emotion or environment". This definition is fitly consistent with one of the meanings of grit, that is, the trait of "being able to persevere in efforts regardless of setbacks or obstacles". In addition, Naiman et al also emphasized the necessity of goal-setting, which means although everyone has different reasons for learning a language, they all have a positive attitude towards it - with specific goals. Therefore, grit is applicable to the field of SLA, which is utilized to study the ability, personality, motivation and attitude of second language learners. The result is also important for teachers to understand the significance of grit in success and its relationship with second language learning (Keegan, 2017).

3. Internal Dimensions of Grit

As grit is a relatively new concept, many scholars hold different views on its internal dimension during the research process. Duckworth et al. (2007) designed the original Grit-O scale with 12 items to measure, and then the shorter Grit-S scale with 8 items to make up for the deficiency of the original one. Since then, when studying the related topics of "grit", most scholars have directly followed the two-factor structure proposed by Duckworth et al. However, some scholars (Credé et al., 2017; Datu et al., 2016; Kuruveettissery et al., 2021; Singh & Chukkali, 2021) thought that "grit" could also be measured by single-factor, three-factor or even four-factor structure after considering different internal and external factors such as environment and culture.

3.1. The Single-factor Structure

Scholars who believe in the single-factor model of grit hold that only the factor of "perseverance of effort" affects the degree of grit. Credé et al. (2017) believed that the two aspects of "grit", or POE and COI, should be studied separately. His team used the method of meta-analysis to collect 73 previous studies related to grit dimension or any other variables, and found that the overall

impact of grit on academic achievement was on the above-average level ($r=18$), but POE ($r=26$) was more closely related to academic achievement than COI ($r=10$). Thus, in order to utilize grit to the maximum, Credé et al. (2017) held the single-factor theory and suggested that scholars focus their research on "perseverance of effort" in the future, breaking the general two-factor view.

Besides, in the cross-cultural field, some studies have indirectly demonstrated the viewpoint of the single-factor theory. Since all the previous research objects are from the West, Datu et al. (2015) realized their limitations of measuring grit without considering the variables that may be brought by the environment, culture and other factors. Therefore, it is necessary to carry out the same research on grit in the East sociocultural background. In the cross-cultural studies conducted by Hofstede (1980), one of the cultural dimensions is "individualism" and "collectivism". He believes that in a highly individualistic society, people will put more emphasis on individual pursuit. While in collectivist societies (such as Japan, China, and the Philippines), people usually pursue the common goal of a group because they focus more on interpersonal relationships. In view of this cultural difference, Datu et al. (2015) believes that the factor of "consistency of interests" may not be applicable to collectivist societies.

3.2. The Two-Factor Structure

As mentioned above, the two-factor structure proposed by Duckworth et al. (2007) is the most widely recognized and used. At first, the original Grit-O scale was used to conduct exploratory and empirical researches using the data from questionnaires, POE and COI confirmed to be independent and related factors. Two years later, Duckworth & Quinn (2009) improved the original scale, deleted the items that had no impact on the research object, and updated it into a short Grit-S scale composed of 8 items. The target groups were students from the West Point Military Academy, college students from ordinary schools, and contestants in the national spelling contest. Finally, they came up with a high-order factor model, in which POE and COI were considered as first-order factors and grit as second-order factor. The two-factor model of grit has been accepted and applied to empirical researches by many scholars.

3.3. The Three-factor Structure

The three-factor model of grit adds "adaptability to situations" to the two-factor one. Previously, due to the lack of researches in the context of "collectivism", Datu & Yuen & Chen (2016) took 350 undergraduates (129 males and 221 females) from private universities in the Philippines with an average age of 19.88 as samples to explore the meaning of grit in Philippine society through qualitative research. The results provided a preliminary proof for the hypothesis of the three-factor structure" (TMGS): when students were asked how to achieve long-term goals, three key points were mentioned: "perseverance of effort", "consistency of interests", and "adaptability to situations". Here, "adaptability to situations" refers to the ability of individuals to effectively adjust themselves to the changing environment, and such people are eager to challenge, accept challenges and be flexible. Then, Datu and his team members designed a 7-item scale for the factor of "adaptability to situations" for the first time, and together with Grit-S, they conducted a questionnaire on 350 research subjects, further confirming the effectiveness of the three-factor structure in the collectivist context.

Since then, other studies have confirmed the three-factor grit model, but its connotation is different from Datu et al. (2016). Kuruveettissery & Gupta & Rajan (2021) believe that the three-factor structure should be composed of "perseverance-commitment (PC)", "interest-passion (IP)" and "goal-directed resilience (GR)". Through five sub studies, they surveyed students and employees in different regions of India aged between 18 and 25. After exploratory factor analysis and confirmatory factor analysis, Kuruveettissery et al. (2021) finally determined a new three-factor scale with 17 items and proved its high matching degree with three factors: PC, IP and GR (internal consistency: Cronbach's $\alpha=0.86$).

3.4. The Four-factor Structure

Scholars who hold the four-factor view of grit believe that the factors influencing grit are "perseverance of efforts", "adaptability to situations", "spirited initiative" and "steadfastness". Singh & Chukkali (2021) continue to study grit from the perspective of the East, and explore the meaning of grit in the social context of India. In addition to the existing "perseverance of efforts" and "adaptability to situations", they put forward two other factors based on Indian culture: "spirited initiative" and "steadfastness". The former is embodied in "titiksha" in Indian culture, which means there is enough enthusiasm and methods to solve problems when facing challenges (Srivastva & Cooperrider, 1998). The latter comes from *Bhagavad Gita*, which emphasizes that loyalty to work is to be firm, unshakable and conscientious in adversity. In order to verify the multidimensional structure (MDSG) of grit, Singh & Chukkali (2021) took the undergraduates of a private university in India as the research object through exploratory factor analysis method and designed 12 questionnaires with high relevance to these four factors. After that, through confirmatory factor analysis, they found that the relationship between the four elements and grit is more consistent with the hierarchical model than the single factor model.

4. Related Researches on L2-Grit and Other Factors

The previous empirical studies have shown that grit plays an active role in both academic and non-academic fields. Since second language learning largely depends on "perseverance of effort", many scholars (Wei et al., 2019; Yamashita, 2018; Teimouri et al., 2020; Khajavy et al., 2020; Lou & Noels, 2017; Sudina et al., 2021) begin to verify the effectiveness of grit in the field of second language learning and explore the relationship between grit and other different factors.

4.1. L2-Grit and Language Achievement

Although many studies have found that grit has a positive effect on some specific aspects of language learning, there is no consensus among scholars on its impact on overall language performance. For example, Wei et al. (2019) finds that for Chinese middle school students, grit has only a weak positive relationship with their English course performance. However, Yamashita (2018) thinks that grit was not related to their course achievements after taking 78 Japanese learners as the subjects of the survey, and even the factor of "perseverance of effort" was negatively related to the course achievements.

Regarding the contradictory outcomes between the above research results, Teimouri et al. (2020) states that a fundamental problem lies in the fact that previous studies have used the Grit-O scale of Duckworth et al. (2007), which was not designed specifically for grit in SLA. Teimouri et al. (2020) then designed the L2-Grit scale, which is applicable to the field of second language learning. After verifying its feasibility, they studied the relationship between grit and language performance. They conducted a survey on 191 Persian college students studying English translation. The data obtained showed that although grit in a broad sense has a weak correlation with language performance, the grit in the field of language learning has a strong positive correlation with language performance. Among them, compared with the overall impact of grit on students, the single factor of "perseverance of effort" has a more prominent impact on oral performance and GPA.

4.2. L2-Grit and Language Mindset

In addition to L2-Grit, language mindset is also considered as an influential factor in SLA. It refers to an individual's view of self-language learning ability. People with different language mindsets have different goals for language learning and experience different levels of learning anxiety (Lou & Noels, 2017). It is mainly divided into two categories. People with growth

mindset think that intelligence is malleable and can be improved through hard work, while people with fixed mindset think that intelligence is unchangeable and cannot be improved (Dweck, 1999).

In the research conducted by Khajavy et al. (2020) on the relationship between the two categories, 1178 Iranian college students studying general English were included in the questionnaire. After comparing the results with the course scores of each student at the end of the semester, they found that growth mindset has a weak but positive predictive effect on POE, but it has nothing to do with COI. However, fixed mindset can't affect POE, and it has negative correlation with COI.

4.3. L2-Grit and Cultural Context

When discussing the internal dimension of grit, it's learned that the dimension of grit may be different in diverse cultural backgrounds. According to the differences of environment, SLA researchers divide it into "English as a second language (ESL)" and "English as a foreign language (EFL)". The difference between the two is that the former includes countries that take English as the main language of communication, such as Canada and the United States, while the latter refers to countries that won't communicate in English in daily life, such as South Korea, China and Japan.

In order to find out the differences of grit in English learners from different cultural backgrounds, Sudina et al. (2021) distributed an online questionnaire to students from six universities in four countries. Among them, the countries representing ESL samples were the United States and Canada and the countries representing EFL were Japan and South Korea. After exploratory factor analysis and confirmatory factor analysis, they concluded that POE and COI in the connotation of grit had different relations in ESL and EFL. In the ESL samples, POE and COI were only moderately correlated ($r=.26$, $R^2=.07$); However, in EFL samples, the correlation between POE and COI was much stronger ($r=.60$, $R^2=.36$), and both had a greater impact on grit. The study also found that although students in ESL environment think that they are more persistent in the process of second language learning, POE has a stronger predictive effect in EFL student samples. In addition, in the assessment of self-language mastery, COI plays a negative predictive role in the ESL student samples, but has no relationship with the EFL samples. In other words, ESL students who are more interested in language learning have a lower assessment of their language proficiency than EFL students who are less interested in language learning. Of course, due to the subjectivity of self-evaluation, future research should apply more objective and accurate methods.

5. Conclusion

This paper introduces the connotation of grit and L2-Grit, and explains in detail the different viewpoints of scholars on the dimension of grit. There are already some achievements in the study of L2-Grit, but still more explorations are needed. First, the current mainstream grit scale uses the language of English, so the subjects in non-English speaking countries can only choose people who are familiar with English, which makes the research results not convincing enough (Wei et al., 2019). Second, most of the experiments are short-term experiments, so it is difficult to accurately measure the changes of the subjects' academic performance in the long-term. Therefore, the relationship between the results of the grit scale and the factual results may be limited. Third, many SLA researchers have directly applied the original grit scale to the learning field, but the design of the original grit scale may not be applicable to all fields. Therefore, the grit scale specially designed for the SLA field should be used in subsequent studies and a more suitable second language grit scale should be designed. Fourth, at present, most of the questionnaires are online questionnaires. Due to the impact of the environment, the results of

the subjects may be different when they fill out the questionnaires online or face-to-face (Wilson & Dewaele, 2010). Thus, the future studies should try to control this variable.

The study of L2-Grit is of great significance to both second language learners and second language teachers. The learners need to have a basic understanding of the L2-Grit in order to overcome their shortcomings and become masters of second language learning with the help of teachers. The teachers also need to understand students' perseverance level, so as to better improve their qualities of perseverance and passion in second language learning through teaching design and other teaching methods.

References

- [1] Credé, M., Tynan, M.C., & Harms, P.D. (2017). Much ado about grit: A meta-analytic synthesis of the grit literature. *Journal of Personality and Social Psychology*, 113, 492–511.
- [2] Datu, J., Yuen, M., & Chen, G. (2016). Exploring determination for long-term goals in a collectivist context: A qualitative study. *Current Psychology*.
- [3] Duckworth, A. L., & Quinn, P. D. (2009). Development and validation of the Short Grit Scale (grit-s). *Journal of Personality Assessment*, 91, 166 –174.
- [4] Duckworth, A., & Gross, J.J. (2014). Self-control and grit: Related but separable determinants of success. *Current Directions in Psychological Science*, 23, 319–325.
- [5] Duckworth, A.L., Peterson, C., Matthews, M.D., & Kelly, D.R. (2007). Grit: Perseverance and passion for long term goals. *Journal of Personality and Social Psychology*, 92, 1087–1101.
- [6] Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Philadelphia, PA: Taylor & Francis.
- [7] Galton, F. (1892). *Hereditary Genius: An inquiry into its laws and consequences*. London: Macmillan.
- [8] Gardner, R. C., and W. E. Lambert. (1959). Motivational variables in second-language acquisition. *Canadian Journal of Psychology* 13 (4): 266–272.
- [9] Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage.
- [10] Keegan, K. (2017). Identifying and Building Grit in Language Learners. *English Teaching Forum*, 55 (3), 2-9.
- [11] Khajavy, G. H., Macintyre, P., & Hariri, J. (2020). A closer look at grit and language mindset as predictors of foreign language achievement. *Studies in Second Language Acquisition*.
- [12] Kuruveettissery, S., Gupta, S. & Rajan, S.K. (2021) Development and psychometric validation of the three dimensional grit scale. *Curr Psychol*.
- [13] Lou, N. M., & Noels, K. A. (2017a). Measuring language mindsets and modeling their relations with goal orientations and emotional and behavioral responses in failure situations. *The Modern Language Journal*, 101(1), 214-243.
- [14] McClelland, D. C. (1961). *The achieving society*. Oxford, England: Van Nostrand.
- [15] Naiman, N., M. Fröhlich, H. H. Stern, and A. Todesco. (1978). *The good language learner*. Toronto: Ontario Institute for Studies in Education.
- [16] Singh, S., & Chukkali, S. (2021). Development and validation of multi-dimensional scale of grit. *Cogent Psychology*.
- [17] Srivastva, S., & Cooperrider, D. L. (1998). *Organizational Wisdom and Executive Courage*. Lexington Books.
- [18] Wilson, R., & Dewaele, J.-M. (2010). The use of web questionnaires in second language acquisition and bilingualism research. *Second Language Research*, 26(1), 103e123.