Examining Determinants of Success in Competitive Sports

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Introduction
- There has been a recent resurgence in research investigating what personality traits and characteristics contribute to success.
- Perhaps the most fundamental and most debated dichotomy that exists is that of innate ability vs. grit, which is defined as passion and perseverance for long-term goals. Other important factors are type of passion (i.e., obsessive or harmonious) and inclination to participate in deliberate practice.
- Overall, past research suggests that grit is a greater determinant than innate ability. Harmonious passion is a greater determinant than obsessive passion, and deliberate practice (defined as activities specially designed to improve performance) is also important for success.

Purpose
- The purpose of this study was to 1) examine the relationship between success determinants, specifically in an athletic setting, and 2) determine both athletes’ and coaches’ perceptions of the relative importance of the determinants of success in athletics.

Methods
- The athlete survey consisted of 19 questions. The first 8 were the Grit-Scale, and the remaining 11 examined athlete perceptions, type of passion, and inclination towards deliberate practice.
- The coach survey consisted of four sections. Three sections gathered information on coach perceptions of relative importance of success determinants. The other section obtained data that provided rankings for which athletes contribute most to the success of their teams.
- Surveys were distributed via email to both players and head coaches of several Division III, skill-oriented, athletic teams.
- 48 athletes responded to the athlete survey; and 5 coaches responded to the coach survey.
- Relationships were examined between all the variables included in the surveys.

Results & Discussion

Grit Score
- Athletes with higher grit scores viewed innate ability ($r = .269, p = .067$) as more important than grit ($r = .117, p = .435$).
- Grit may be more of an innate quality than a developed quality. Although neither relationship was strong or significant, the weak relationships found may also suggest that a gritty personality over time results in improvements which the individual may attribute to innate ability rather than prolonged effort.

Perceptions
- A negative relationship ($r = -.462; p = .001$) was found between the importance athletes attribute to grit and to equipment/facilities as contributing to athletic success.
- Athletes who consider grit to be more important (but not necessarily athletes who are grittier) seem to believe that success and failure are determined by internal rather than external factors (i.e., they have a greater internal locus of control).
- Athletes who consider innate ability more important believe that a competitive environment is less important ($r = -.384; p = .007$).
- Athletes who perceive innate ability as important do not see themselves as dependent on fellow athletes’ high ability level to push them towards improvement.
- This could be because athletes with higher innate ability are accustomed to being among the most talented in their environment, and therefore have not felt pushed to improve by teammates and opponents.

Type of Passion
- A weak inverse relationship ($r = -.263; p = .084$) was found between obsessive passion and coach-given rank.
- Coaches may associate athletic competence with athletes’ training intensity, while athletes who may enjoy practice more are perceived as less competent.
- The three correlations below suggest a mutual relationship among these factors:

Obsessive Passion

Strength-Reinforcing Training

Greater Energy Spent Outside Practice

Deliberate Practice
- Coaches perceived athletes who enjoy deliberate practice more as less competent ($r = .366; p = .014$), but perhaps not athletes who valued deliberate practice more ($r = -.026; p = .867$).
- Since researchers have shown that deliberate practice is related to success and also is less enjoyable, this finding could indicate that athletes who claim to enjoy deliberate practice more are actually not familiar with what deliberate practice entails. Since 1) these athletes claim to enjoy deliberate practice, 2) these athletes are being perceived as less competent by coaches, and 3) this relationship does not exist for athletes who claimed to value deliberate practice more, it may be inferred that athletes who do not have as clear of an understanding of deliberate practice are less able to engage in it, and therefore are perceived as less competent.

Conclusions
- It appears that grit is actually more of an innate rather than cultivated quality. It is also possible that gritty athletes simply self-perceive their grit to be innate rather than developed.
- Assigning importance to both grit and innate ability are associated with a greater internal locus of control.
- Coaches may associate athletic competence with athletes’ training intensity, while athletes may be relationally involved in “economical” training; it is negatively related to deliberate practice yet is associated with more energy spent on training.
- Results of this study suggest that athletes who enjoy deliberate practice more are less clear as to what deliberate practice entails and are perceived as less competent.
- The main practical applications of this study offers for Division III-oriented athletes are: 1) obsessive passion towards the sport may lead to less effective training, and 2) deliberate practice is an effective training approach but should not necessarily be more enjoyable than other training types.

Literature Cited

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