

Locus of Control among Individual, Combat and Team University Sportspersons: Overall and Gender-Wise Comparative Evidence

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Abstract

Locus of control describes generalized expectations about whether outcomes are connected primarily to one's own actions or to external forces. In competitive sport, these expectations may influence attribution after success and failure, persistence, information seeking and the interpretation of controllable versus uncontrollable performance factors. This analytical study compares locus-of-control scores among individual, combat and team university sportspersons and examines whether the pattern is reproduced within male and female subsamples. The approved design includes 300 athletes aged 19–25 years from selected Haryana universities, with 100 athletes in each sport category and 150 males and 150 females. Locus of control is measured through the 36-item Hasnain and Joshi LCS-HJ, on which higher total scores indicate a stronger internal orientation. In the model analytical dataset used in the current thesis draft, combat sportspersons record the highest overall mean ($M=55.00$, $SD=9.21$), followed by team ($M=50.55$, $SD=9.76$) and individual sportspersons ($M=48.52$, $SD=7.82$). The individual–combat and combat–team contrasts are statistically significant overall, whereas the individual–team contrast is not. Among males, combat athletes differ significantly from both individual and team athletes; among females, only the individual–combat contrast reaches significance. The results suggest that sport structures characterized by immediate personal feedback and direct opposition may coexist with stronger internal control orientation, while team sport introduces shared and distributed responsibility. The findings argue for controllability-focused attribution training that promotes personal agency without ignoring genuine external constraints.

Keywords: locus of control; internal control; attribution; combat sports; team sports; individual sports; gender; university athletes

1. Introduction

Sport is one of the most organized activities of man and has been a part of human civilization since ancient times. Historically, people have engaged in sport for survival, physical preparation, to pass the time, socialization and achievement. Running, wrestling, throwing, practices for combat, and team games

gradually evolved into organized sports with rules and a competitive system and participation. Today sport is not just a means of entertainment, but is also regarded as a most significant social institution that is linked to the Education, Health promotion, Professional development, National identity and Human excellence. Participating in sports greatly helps in physical development, strengthening and increasing the endurance, flexibility, coordination and motor skills. Besides the physical aspects, the significance of sports is not just limited to physical fitness; sports also have a role in psychological growth, emotional stability, social relationship and personality development. Regular training and competition help the athlete to acquire the skill of facing challenges, as well as the ability to collaborate, discipline, responsibility, goal orientation and competence.

With the advent of sports psychology, the way that athletic performance is perceived has evolved to a focus on the interaction between the physical capabilities and psychological processes. Sports psychology is the scientific study of thoughts, feelings, behaviours and mental skills that affect involvement and performance in sports. It offers scientific knowledge on topics such as motivation, personality, coping with anxiety, stress management, building confidence, emotional regulation, decision making and mental skills training. The field understands that the successful athlete is not only physically prepared, but mentally prepared as well to perform successfully on a consistent basis. Psychological training can enhance the athlete's concentration, self-confidence, goal setting, relaxation and coping skills to support their performance in stressful situations. Frustration tolerance, self-efficacy and locus of control are among the factors that have come to the fore as psychological factors that affect athletic performance. Frustration tolerance is the capacity to endure frustration, failure and stress without losing purposeful behaviour. Everyone involved in sports has faced adversity in some form, whether it is losing a game, making a mistake, getting injured or getting unexpected results, being able to tolerate frustration becomes a key factor in keeping them motivated and emotionally stable. Self-efficacy is the athlete's confidence in his/her ability to execute necessary behaviors and complete tasks that will result in success. Higher self-efficacy is associated with increased confidence, effort, persistence, and ability to handle challenging situations among athletes. Locus of Control is the sense of who or what is responsible for people's behaviors and results, whether it is their own efforts and actions or their own luck, fate, circumstances, etc. These traits are psychological and are very helpful in understanding the athlete's response to demands of competition.

As the psychological needs of competitive sport are becoming more complex, the study of sportsperson groups' frustration tolerance, self-efficacy and locus of control become significant. These variables all represent a comprehensive view of the athlete's handling of difficulties, confidence and perceptions of responsibility for performance outcomes. The present study builds upon the idea that participation in sports gives rise to competition, competition puts pressure on performance, performance pressure triggers psychological responses, and these psychological responses impact on athletic behaviour and adaptation to performance. A study of these psychological qualities of individual, combat and team sportspersons can therefore be of great benefit to coaches, physical educators and sports psychologists in designing successful psychological training programs for sportspersons. Locus of control adds a distinct question to sport psychology: not simply whether an athlete believes he or she can act effectively, but whether outcomes are expected to depend on personal behavior in the first place. Rotter's (1966) framework conceptualizes internal and external control as generalized expectancies, not rigid categories.

In sport, the distinction is especially relevant because every competition contains both controllable and uncontrollable influences. Preparation, effort, attentional choices and tactical decisions may be personally controllable, whereas weather, officiating, opponent behavior and teammates' actions may not be.

The practical issue is therefore not maximal internality. Adaptive athletes need enough personal agency to learn from outcomes while also recognizing authentic external constraints. If failure is habitually attributed to luck, officials or other people, opportunities for corrective action may be missed. If every negative result is internalized without regard to context, self-blame may become excessive. The present study uses a comparative sport-category design to examine where athletes from individual, combat and team environments are located on this continuum.

2. Theoretical Background and Literature

2.1 Meaning of Locus of Control

Locus of control is a personality construct that involves the degree to which people believe that they are responsible for the occurrence of outcomes and reinforcements versus outside forces. The concept was derived from Rotter's social learning theory, and is often represented as a continuum from end to end ranging from internal to external. Those with internal orientation seem to be attributing their results to their action, effort, ability, choices, etc. External orientations believe that things occur by chance, fate, luck, powerful people and/or circumstances. Rotter pointed out that there is no discrete continuum between external and internal orientation, rather there is a continuum, and that situational internal/external orientation may vary.

Please keep in mind that the term locus of control is not synonymous with control. There can be an external-oriented athlete who's internal-oriented to the situation; or an internal-oriented athlete who's in an external-oriented situation. The psychological aspect is in the expectation – what the athlete expects in general determines results. In sport, it motivates an athlete to seek out any controllable changes at the end of a sporting activity, their idea of what success is and what it is not, as well as their definition of what it means to persevere with their efforts when they are not guaranteed. A balanced athlete knows where their limits are and takes responsibility for their behaviours that they can control. The construct is particularly relevant to achievement as it is important to explain repeated success and failure. Once the competition is over, participants can blame their results on effort, ability, preparation, tactics, opponent quality, officiating, weather, chance or team performance. These explanations have a bearing on future expectations. If a sportsman continually blames failures on uncontrollable factors, he or she may not see any point in preparing differently, while if the athlete is convinced that the failure was caused by factors that he or she could control, he or she can make a plan to fix it. At the same time, over-blame is not useful if the outcome is due to an out-of-control situation. The aim of the functional goal is not to be maximally internal in every case, but rather to be as internal as is possible in a realistic way.

Internal locus of control – having confidence in their own actions having a strong influence on their outcomes. Internal types focus on effort, preparation, development of skills and decision making. This orientation can be helpful in personal responsibility in sport because after the play athletes will be more likely to ask what is their responsibility to change after the play. You might suspect that this type of athlete is not training well, that they aren't executing a shot correctly, that they aren't looking for the ball, or that the ball is not even in their hands. The same chapters in the book describe internal persons as high in the following traits: skill and effort predict achievement, readiness to seek out useful information, belief that the outcome results from one's own skill and effort.

If the athlete believes that if he or she puts in effort, they won't get results, a high external focus could result in a drop in persistence. If success appears to be largely a function of luck, and failure due to external factors, there is less incentive to learn from experiences and make changes in preparation. Keep in mind, if something is likely to be frustrating, externality can contribute to feelings of helplessness as well. In fact, boundary recognition can help to avoid the athletes' inappropriate blame. The most adaptive pattern is then realistic: embrace what is beyond your control and invest it in what is within your control. A context that is helpful to consider this balance of personal and situational outcomes is sport. For an individual athlete the preparation and execution is controlled by the athlete and not the opposition. A combat athlete will control tactics, not reaction(s) of the opponent, or referee(s) decisions. The team athlete is responsible for his/her own contribution, but not for the contribution of others. These complexities are presented in explanations and expectations for future actions that are shaped by locus of control.

The relationships between Locus of control and sport performance may be indirect, involving the mediation of motivation, attribution, persistence, information seeking and coping. There is a correlation between athletes' belief that there is a meaningful link between behavior and outcomes and their commitment to controllable preparation. If the athlete performs well, then an internal attribution to good performance would increase their confidence for a successful performance since they know how their performance was successful. Failure can keep a child motivated when failure is internalized, i.e., when it is attributed to something the child thinks he or she can control and thus the attribution that a new action would result in a better outcome. Thus, locus of control plays a role in the organization of the meaning of competition in learning. Failure interpretation is particularly important. When a player thinks that bad luck has cost them a game, he may think that he is doing fine, but may be missing out on good information. He/she may choose to work on preparation if he/she feels he was not adequately prepared due to a lack of preparation, as long as he/she is specific and can change his/her mind. If the athlete perceives failure as a representation of low self-worth (personal failure), however, motivation is likely to fall. Therefore, with real and manageable explanations, rather than with a blame the world mentality.

Locus of control is also conceptually related to coping with stress. When athletes think about how they can influence the next behavior, they are able to concentrate on task relevant behavior. If they feel that everything they do is futile then their feelings of anxiety, anger or resignation may increase further. This is why LOC is significant for frustration tolerance; LOC might be a difficulty which has solutions instead of an intolerable barrier. However, there are real aspects of sport that are uncontrollable and an acceptance of uncertainty is also part of adaptive coping, not believing that everything is controllable. Rotter's theory is

complemented by attributional approaches that distinguish causes of success and failure according to dimensions such as locus, stability and controllability. Weiner (1985) argued that these interpretations influence subsequent emotion, expectancy and motivation. Sport provides repeated attribution episodes, making the quality of post-performance explanation potentially important for future preparation. A useful attribution is not simply “internal”; it identifies a cause that is accurate enough to guide the next action.

2.2 Locus of Control across Sport Contexts

A relatively direct link between individual action and outcome may be found in individual sports, where the athlete's performance is measured on a per-person basis. Feedback can be given repeatedly (scores, times, accuracy, rankings etc.) to reinforce personal accountability. It does not guarantee more internally oriented LOC, but does offer a context where a clear relationship between preparation and outcome is evident. Those who use controllable factors as a motivational tool for athletes might be particularly motivated to improve their technique and routines. With combat sports, also an individual focus but the results are achieved through a real confrontation with the opponent. The athlete needs to take responsibility as well as acknowledging an opponent who is an active external influence. Who can blame oneself for their shortcomings and the opponent's strategy is good. This can make combat sport psychologically interesting as the person who externalizes every loss will not learn while the person who internalizes every loss will over-criticize him/herself.

In team sports, there are roles to be shared between the players, the coach, and the team's strategy. This may result in more valid external or shared attributions to the individual sport than to this structure because there is no one athlete who can completely control the result. In team sports however, team athletes remain in control of their effort, communication, position, decision making and role execution. So, an adaptive team-sport locus of control is a personal responsibility in a collective reality. In the present study, it is possible to investigate and examine whether or not a generalized control orientation differs across these contexts without having to make an assumption that a sport requires more internal or more external control. Empirical sport research supports the relevance of control orientation while also showing that its expression depends on context. Amar et al. (2023) reported meaningful relationships between locus of control, self-confidence and pre-competitive anxiety in highly trained soccer players. Prosoli et al. (2023) found that combat athletes' explanations for successful and unsuccessful performances differed in internality, stability and controllability, illustrating how attribution processes operate in direct-opposition sports. Uludağ et al. (2022) likewise examined locus of control as part of the motivational and achievement-goal structure of national sailing athletes. Together, these studies support comparative work but do not justify a universal assumption that one sport category will always be more internally oriented.

Team sports create a particularly complex attribution environment because the outcome is jointly produced. A player may execute a role correctly while the team loses, or play poorly while the team wins. The athlete therefore has to distinguish personal contribution from collective result. Team participation can provide social support and shared efficacy resources (Zuckerman et al., 2021), yet distributed responsibility may also make external explanations more readily available. Individual sports, by contrast, often provide a more direct link between personal execution and measured outcome. Combat sports

combine personal accountability with an active opponent who is simultaneously trying to disrupt the athlete's plan. These structural differences motivate the present three-category comparison.

2.3 Gender and Control Orientation

Gender-specific analysis is included because aggregate group means can conceal subgroup patterns. The study does not assume that male and female athletes should differ in locus of control; rather, it asks whether sport-category contrasts observed in the full sample remain when male and female groups are examined separately. This approach is important in applied work because psychological support based only on overall rankings may overstate differences that are not reproduced within both gender-defined subsamples.

3. Methodology

Participants were required to be between 19 and 25 years of age, to be affiliated with one of the selected Haryana universities, to participate in one of the sports specified in the approved synopsis, and to have reached at least the Inter-University participation level. They also had to be willing to participate and able to complete the three psychological measures under the standardized instructions provided by the researcher. These conditions ensured that the comparison involved active competitive sportspersons rather than recreational participants.

The study is delimited to 300 sportspersons, to five selected universities of Haryana, to three psychological variables and to nine specified sports. The age range is 19 to 25 years and the competitive threshold is at least Inter-University participation. These boundaries increase manageability and internal comparability but also define the limits of generalization. The findings should therefore be understood as evidence about this selected university-sport context rather than universal psychological profiles of all individual, combat or team athletes.

Three standardized instruments were selected in accordance with the approved synopsis. Each instrument measures one principal psychological variable, allowing the study to retain a direct correspondence between construct, tool and statistical outcome. The use of established instruments also permits the researcher to describe administration and scoring consistently across respondents. The tools are the Frustration Tolerance Scale/Test attributed in the synopsis to S. N. Rai, the General Self-Efficacy Scale developed by Ralf Schwarzer and Matthias Jerusalem, and the Locus of Control Scale developed by N. Hasnain and D. D. Joshi.

The Locus of Control Scale developed by N. Hasnain and D. D. Joshi was selected to measure generalized internal-external control orientation in an Indian context. The supplied manual explains that the scale was developed with reference to Rotter's internal-external framework and was standardized to provide a practical Indian measure with straightforward administration and interpretation. The final form contains 36 statements, of which 16 are positively keyed toward internal control and 20 are negatively keyed.

The response alternatives are Always, Sometimes and Never. Positive items are scored 2, 1 and 0 respectively, whereas negative items are reverse scored 0, 1 and 2. The final possible score ranges from 0 to 72. According to the manual, higher scores represent stronger internal orientation and lower scores stronger external orientation. The standardization reported separate male and female norms. The manual reports test-retest reliability of .76 over a two-week interval and a validity coefficient of .76 against another locus-of-control measure, both reported as statistically significant.

Because the three instruments use different response formats and score ranges, their raw totals should never be compared directly with one another as if they were measured on the same numerical scale. The Frustration Tolerance Test, General Self-Efficacy Scale and Locus of Control Scale each represent a distinct construct and have their own scoring logic. Chapter IV therefore compares sport groups within each construct rather than comparing, for example, the numerical size of a self-efficacy score with a locus-of-control score. Where a cross-variable visual profile is useful, standardized scores are employed so that differences in original scale ranges do not distort the graphical presentation.

Direction of scoring is equally important. The supplied General Self-Efficacy Scale has a possible range from 10 to 40, and higher scores indicate stronger generalized self-efficacy. The supplied LCS-HJ manual uses positive and reverse-scored negative statements and yields a final score from 0 to 72; higher scores correspond to stronger internal orientation according to the manual's interpretation scheme. The exact direction and interpretation of the Frustration Tolerance Test must follow the scoring manual attached to the edition actually administered. The synopsis identifies the S. N. Rai instrument, but the year and detailed scoring information appearing across secondary sources are not completely consistent. The final thesis should therefore reproduce the details from the physical/manual edition used in field administration rather than harmonizing conflicting secondary descriptions.

This attention to score direction prevents a common interpretive error in psychological research. A higher numerical value is not automatically a 'better' psychological result unless the instrument defines it that way. In the present study, interpretation is anchored to the manual of each tool. Statistical tables report the observed direction of group means, while Chapter V explains the substantive meaning cautiously and avoids assigning value judgments that are not supported by the scale construction.

A common administration procedure is essential because psychological scores can be affected by differences in instructions, testing environment and respondent understanding. The researcher therefore followed the same sequence of explanation and administration for all eligible participants. Respondents were informed that the study concerned psychological characteristics of sportspersons and that the responses would be used for research purposes. Instructions were provided in clear language and participants were encouraged to seek clarification about procedure without receiving hints that could influence their answers.

Each instrument was scored according to its prescribed key. For the GSE, the ten item values were summed. For the LCS-HJ, positively and negatively keyed items were scored in opposite directions and then summed. For frustration tolerance, the scoring procedure of the instrument was applied to obtain a

total score from the puzzle performance. The resulting three total scores formed the continuous dependent variables used in analysis. Classification variables were coded independently so that psychological scores could be summarized by sport category and gender without altering the original scale metrics.

The first stage of analysis summarizes the data using frequency, percentage, mean, standard deviation, minimum, maximum and selected distributional indices. Sample frequencies verify the intended representation of sport categories, gender and universities. Means provide the central score for each psychological variable, while standard deviations show the degree of within-group variability. Skewness and kurtosis are examined as descriptive indicators of distribution shape, and graphical displays are used to identify broad patterns without substituting visual impressions for statistical tests.

The approved synopsis specifies the t-test as the principal inferential technique. Independent-samples t-tests are therefore used to compare the mean scores of two independent sport groups for each stated hypothesis. The twenty-seven hypotheses consist of three sport-pair comparisons for each of the three variables at three analytical levels: overall, male and female. Because group variances may not always be identical, the analytical draft reports the Welch form of the independent-samples t-test, which is robust to unequal variances while testing the same null hypothesis of equal population means.

The significance level is fixed at .05. A p-value below .05 is interpreted as evidence against the corresponding null hypothesis, while a p-value equal to or above .05 results in retention of the null hypothesis. Statistical significance is interpreted together with the direction of the mean difference and an effect-size estimate. Cohen's d is reported in the analytical draft to indicate the standardized magnitude of a two-group difference. As a general descriptive guide, absolute d values near .20 are small, near .50 are moderate and near .80 are large; these conventions are used cautiously rather than as rigid thresholds.

Because the study contains three sport categories, a one-way analysis of variance is presented as a supplementary omnibus analysis for each psychological variable in the overall, male and female samples. This follows the useful three-group presentation observed in the supplied comparative thesis on individual, team and combat sportspersons. The omnibus test answers whether at least one group mean differs from the others, while the approved pairwise t-tests identify the specific contrasts linked to the objectives. The supplementary analysis is therefore confirmatory and descriptive rather than a replacement for the stated hypothesis-testing plan.

The LCS-HJ is interpreted so that higher total scores represent a stronger internal orientation. The study therefore treats mean differences directionally: a higher group mean indicates a greater average tendency to expect outcomes to be connected with personal effort and behavior. Pairwise comparisons are conducted for individual versus team, individual versus combat, and combat versus team sportspersons in the complete sample and then separately among males and females. Statistical significance is evaluated at $p < .05$ and Cohen's d is used to describe standardized magnitude. A supplementary one-way ANOVA evaluates the three-group mean difference at each sample level.

4. Results

Table 1. Descriptive locus-of-control scores by sport category

Sport category	Overall M (SD)	Male M (SD)	Female M (SD)
Individual	48.52 (7.82)	50.00 (8.40)	47.04 (6.97)
Combat	55.00 (9.21)	57.04 (9.71)	52.96 (8.29)
Team	50.55 (9.76)	51.14 (10.40)	49.96 (9.14)

Table 2. Pairwise locus-of-control comparisons

Sample	Comparison	t	p	Cohen d	Decision
Overall	Individual vs Team	-1.623	.106	-0.230	Not significant
Overall	Individual vs Combat	-5.361	<.001	-0.758	Significant
Overall	Combat vs Team	3.315	.001	0.469	Significant
Male	Individual vs Team	-0.603	.548	-0.121	Not significant
Male	Individual vs Combat	-3.876	<.001	-0.775	Significant
Male	Combat vs Team	2.932	.004	0.586	Significant
Female	Individual vs Team	-1.797	.076	-0.359	Not significant
Female	Individual vs Combat	-3.865	<.001	-0.773	Significant
Female	Combat vs Team	1.719	.089	0.344	Not significant

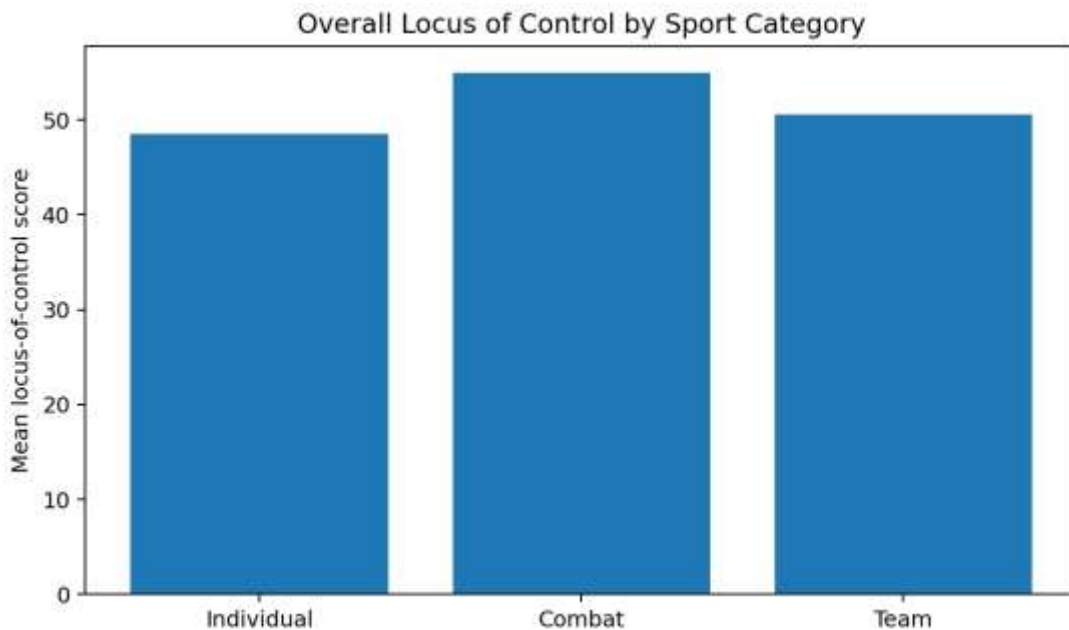


Figure 1. Overall locus-of-control means by sport category.

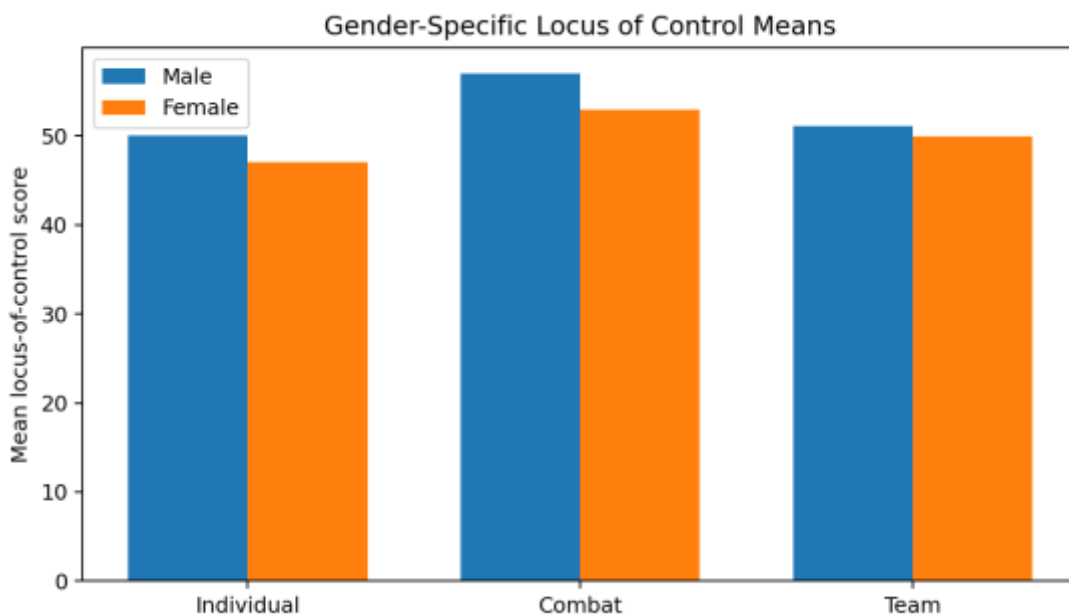


Figure 2. Gender-specific locus-of-control means by sport category.

In the overall sample, combat sportspersons score 6.48 points above individual sportspersons, a statistically significant difference with a moderate standardized effect ($|d|=.76$). Combat sportspersons also score 4.45 points above team sportspersons ($p=.001$; $d=.47$). The 2.03-point individual–team difference does not reach significance ($p=.106$). The supplementary overall ANOVA is significant, $F=13.655$, $p<.001$, confirming that the three category means are not all equivalent.

The male subsample follows the same broad pattern as the overall sample. Combat males score higher than individual males (57.04 vs 50.00; $p<.001$; $|d|=.78$) and team males (57.04 vs 51.14; $p=.004$; $d=.59$). Individual and team males are highly similar ($p=.548$). The male omnibus ANOVA is significant, $F=7.841$, $p<.001$. The female pattern is more selective: combat females score significantly above individual females (52.96 vs 47.04; $p<.001$; $|d|=.77$), whereas individual–team ($p=.076$) and combat–team ($p=.089$) comparisons do not reach .05. Even so, the three-group female ANOVA is significant, $F=6.545$, $p=.002$, indicating that the combined mean pattern contains meaningful variation.

5. Discussion

The clearest result is the repeated individual–combat difference. Combat sportspersons display a stronger internal locus-of-control orientation in the overall, male and female analyses. Direct-opposition sports offer frequent episodes in which the athlete’s preparation, tactical choice and execution have immediate visible consequences. Although an opponent and referee remain external influences, the athlete cannot delegate the next response to a teammate. This high density of personal action–consequence feedback provides a plausible context in which internal control expectations may be reinforced or selected.

The result is conceptually consistent with attribution research in combat sport. Prosoli et al. (2023) showed that combat athletes make differentiated attributions for successful and unsuccessful performances and that controllability and internality are meaningful dimensions of those explanations. The current model data do not measure event-specific causal attributions, but the stronger average internal orientation among combat athletes is compatible with a sport environment in which personal decisions are repeatedly evaluated against an active opponent.

The combat–team contrast is gender-dependent. It is significant overall and among males but not among females. Team sport outcomes are distributed across individual execution, teammate behavior, coaching decisions and tactical systems. This can make accurate attribution more complex. A team athlete may be appropriately internal about preparation and role execution while recognizing that the final result is not fully controllable by one player. The absence of a significant individual–team difference in all three analytical levels also demonstrates that performance structure alone does not dictate control orientation. Personal history, coaching, competitive level and broader learning experiences remain important.

The findings should therefore not be interpreted as evidence that external attribution is inherently maladaptive. In sport, some causes genuinely are external. The adaptive skill is discrimination: identify what can be influenced, accept what cannot be changed in the moment, and direct effort toward

controllable next actions. Amar et al. (2023) demonstrate why this matters by linking locus of control with pre-competitive anxiety and self-confidence in trained soccer players. Athletes who feel powerless in the face of competition may experience pressure differently from those who can identify effective actions, but unrealistic beliefs of total control can also generate unnecessary self-blame.

From an attribution-theory perspective, coaches can improve learning by shaping the specificity and controllability of post-performance explanations. A statement such as “we lost because the referee was against us” may prevent useful analysis if it becomes habitual; a statement such as “I am simply not good enough” is internal but equally unhelpful because it is global and difficult to change. More functional explanations focus on modifiable preparation, tactical timing, communication, recovery or decision processes. This approach is consistent with Weiner’s (1985) emphasis on the motivational consequences of causal interpretation.

6. Practical Implications

Sport-psychology and coaching programmes can use controllability-focused debriefing after practice and competition. Athletes can be asked to separate factors into three categories: directly controllable, indirectly influenceable and uncontrollable. The exercise helps preserve agency without encouraging unrealistic responsibility. Combat athletes can be trained to move quickly from an opponent-imposed setback to the next tactical action; individual athletes can use process cues to convert personal responsibility into constructive correction rather than self-blame; team athletes can distinguish individual role accountability from shared outcome responsibility.

University sport services should avoid using locus-of-control scores as labels or selection criteria. A scale score is a developmental indicator, not a diagnosis of character. The most useful application is to combine assessment with reflective coaching, goal setting and follow-up measurement so that athletes learn to identify controllable performance behaviors and respond flexibly to uncontrollable circumstances.

7. Limitations and Future Research

The principal limitation is that the current thesis draft reports model statistics from a simulated dataset; empirical publication requires replacement or verification using the final field responses. The approved design is also cross-sectional, so the direction of influence cannot be established. The three sport categories contain heterogeneous disciplines, purposive sampling limits population inference, and the study does not directly measure event-specific attributions. Future research should combine generalized locus-of-control measures with attribution questionnaires administered after real competitions, include coaching climate and competitive experience as covariates, and use longitudinal or intervention designs to test whether controllability-focused training changes attribution patterns and performance adaptation.

8. Conclusion

The model analysis identifies combat sportspersons as the most internally oriented group on the LCS-HJ, with the most consistent separation occurring between combat and individual athletes. Team sportspersons occupy an intermediate position, but several differences—especially among females—do not reach statistical significance. The findings reinforce a contextual interpretation of control beliefs: sport structures differ in how responsibility and feedback are distributed, yet adaptive performance requires a realistic balance between personal agency and recognition of external constraints. Once verified with the actual field dataset, the analysis can provide a useful basis for attribution-focused psychological support in university sport.

References

- Amar, I. B., Gomni, C., Chortane, O. G., Khmiri, A., Ghouaiel, R., & Baker, J. S. (2023). The relationship between locus of control and pre-competitive anxiety in highly trained soccer players. *Frontiers in Psychology*, 14, 1227571. <https://doi.org/10.3389/fpsyg.2023.1227571>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Filipiak, S., & Łubianka, B. (2020). Locus of control in situations of successes and failures and personality traits in young athletes practicing team sports. *Health Psychology Report*, 8(1), 47–58.
- Hasnain, N., & Joshi, D. D. (1992). *Manual for Locus of Control Scale (LCS-HJ)*.
- Prosoli, R., Jelić, M., Barić, R., Sisneros, C., & Lochbaum, M. (2023). Croatian combat athletes' attribution patterns for their successes and failures. *Youth*, 3(1), 381–391. <https://doi.org/10.3390/youth3010025>
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1–28. <https://doi.org/10.1037/h0092976>
- Siggayo, M. (2023). Grit and locus of control as correlates to psychological well-being among athletes: Basis for a proposed sports training program. *Psychology and Education: A Multidisciplinary Journal*, 15(1), 81–92. <https://doi.org/10.5281/zenodo.10123746>
- Uludağ, S., Çakır, L. Y., & Yıldız, M. (2022). The role of locus of control and motivation in determining the achievement goal model in Turkish National Sailing Athletes: Preliminary study. *Mediterranean Journal of Sport Science*, 5(3), 651–663.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92(4), 548–573. <https://doi.org/10.1037/0033-295X.92.4.548>

Zuckerman, S. L., Tang, A. R., Richard, K. E., Grisham, C. J., Kuhn, A. W., Bonfield, C. M., & Yengo-Kahn, A. M. (2021). The behavioral, psychological, and social impacts of team sports: A systematic review and meta-analysis. *The Physician and Sportsmedicine*, 49(3), 246–261. <https://doi.org/10.1080/00913847.2020.1850152>

