

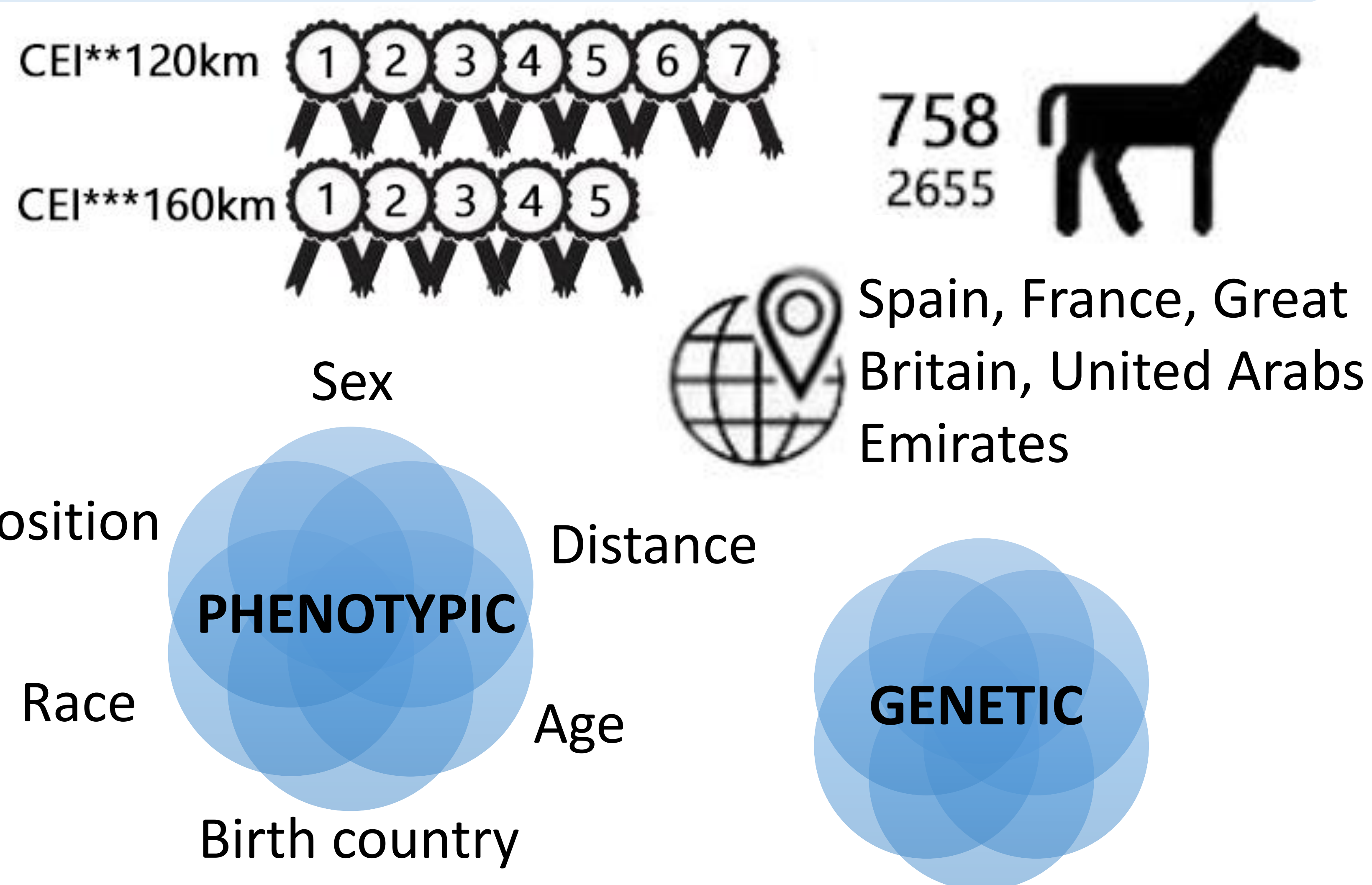
INTRODUCTION

Endurance is a **long-distance competition against the clock** testing the speed and endurance of a horse and challenging the rider over their effective use of pace, thorough knowledge of their horse's capabilities and ability to cross all kinds of terrain.

OBJECTIVES

1. To evaluate the **genetic effect** and the **effects of the ancestry** on the performance of the **horses** in endurance competitions.
2. To estimate the **genetic correlations** between the **cause of elimination** and the **performance** in the competitions.
3. To evaluate the **effect** of certain **phenotypic parameters** in the **performance** of the horses in the competitions.

METHODOLOGY



RESULTS

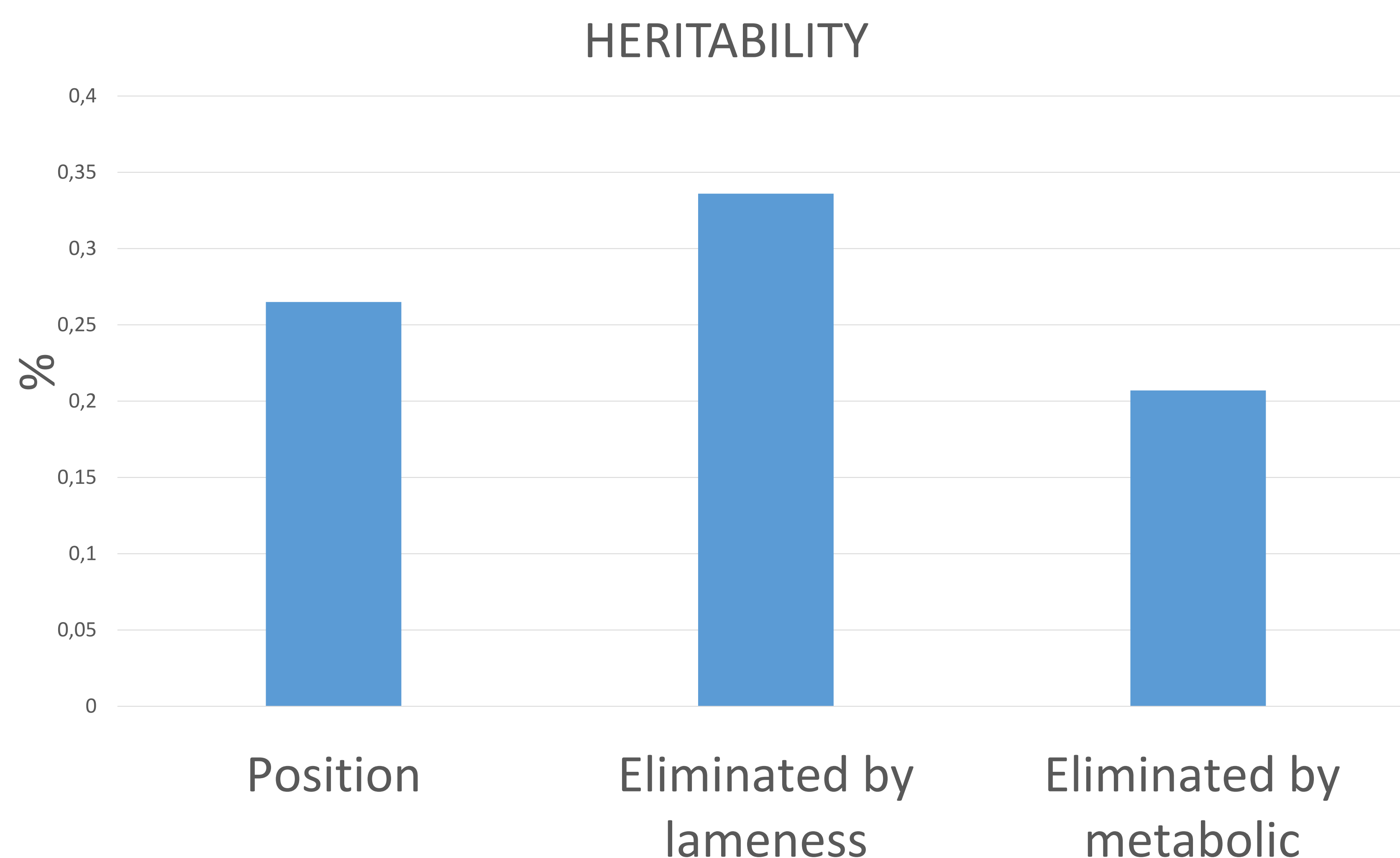


Fig. 1 Averages of each variable in relation to the heritability. These results are clearly significant and different from 0.

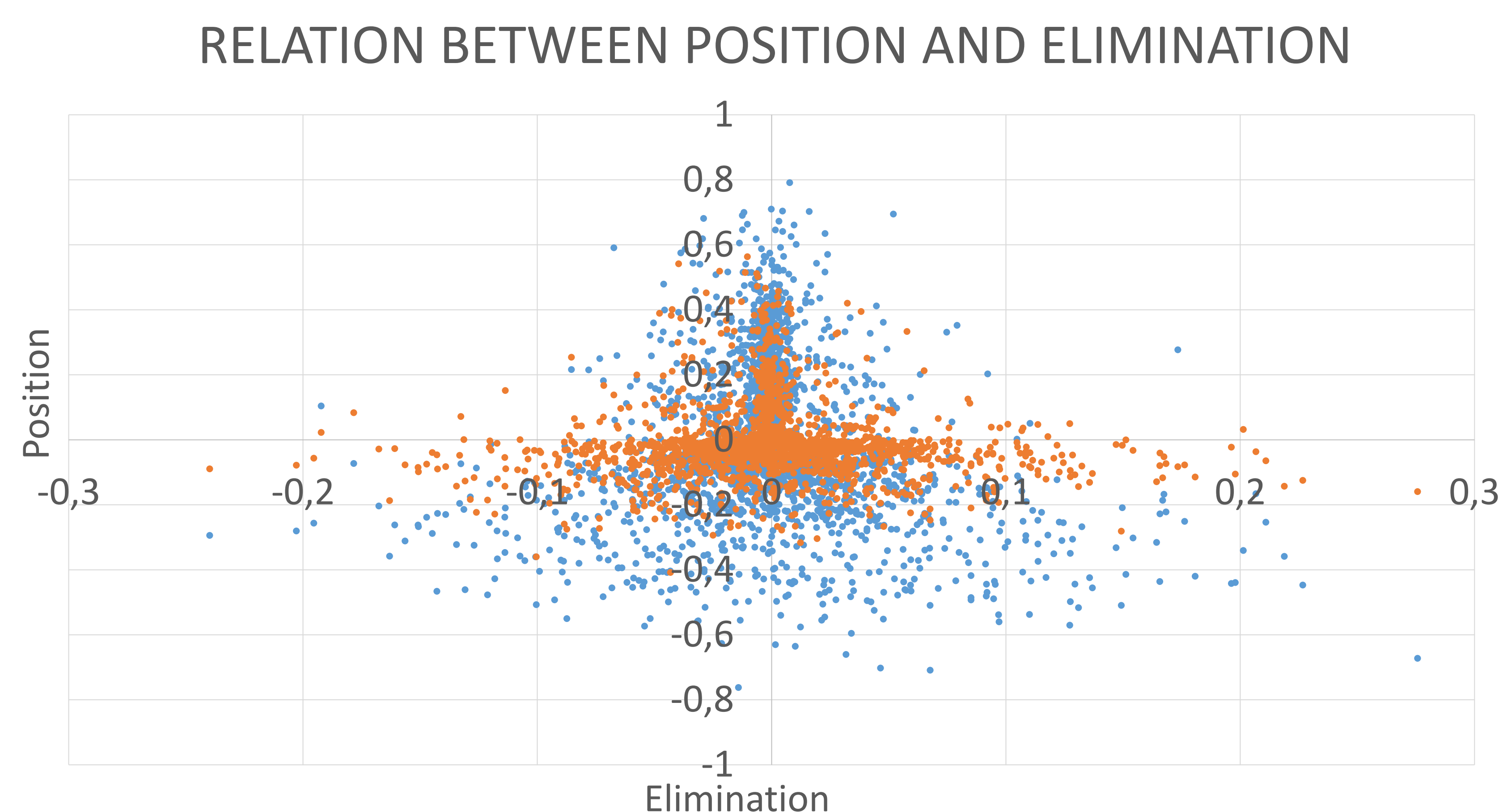


Fig. 2 Relation between position and elimination. Blue, represents elimination by lameness and orange represents elimination by metabolic problems.

CONCLUSIONS

1. None of the **fixed effects** included in the study influenced in a significant way to the **endurance horse**, suggesting that **will not be decisive** to characterizing a future champion.
2. **Genetics explains that 20-30 % of performance of the horses** in the endurance competition, highlighting the possibility of implementing programs of genetic selection to obtain better animals.
3. **Genetic relations have not been observed between the position and the possibility of elimination by metabolic problems or by lameness**, discarding that could give him genetic answers correlated in case of not including three variables in the same program of selection.