All roads lead to Rome? Exploring birthplace effects and the 'southern question' in Italian soccer

Gabriele Morganti[1*], Adam L. Kelly[2], Gennaro Apollaro[1], Laura Pantanella[1], Mario Esposito[1], Alberto Grossi[1] & Bruno Ruscello[1,3,4,5]

[1]National Talent Observatory, School of Sports and Exercise Sciences, Faculty of Medicine and Surgery, "Tor Vergata" University, Rome, Italy; [2]Centre for Life and Sport Sciences (CLaSS), Faculty of Health, Education and Life Sciences, Birmingham City University, Birmingham, West Midlands, United Kingdom; [3]Department of Human Sciences and Promotion of the Quality of Life, San Raffaele Roma Open University, 00166 Rome, Italy; [4]Department of Industrial Engineering, Faculty of Engineering, "Tor Vergata" University, Rome, Italy; [5]LUISS SportLab, LUISS University, Rome, Italy

***Corresponding Author:** Gabriele Morganti, National Talent Observatory, School of Sport and Exercise Sciences, Faculty of Medicine and Surgery, University "Tor Vergata", Rome, Italy E-mail: gabriele.morganti@libero.it

All roads lead to Rome? Exploring birthplace effects and the 'southern question' in Italian soccer

Abstract

The expression 'southern question' is used in reference to the poverty and economic underdevelopment, less advanced social relations, and clientelist style of politics that characterise South-Italy compared to North and Central Italy. This study aimed to investigate the presence of the 'southern question' in Italian soccer. Accordingly, we examined the birthplace distribution of 2,012 Italian soccer players who have played in any national representative team (U15: n=466; U16-U21: n=1,939; Senior Team: n=217). Chi-square analysis revealed an overrepresentation of players born in North and Central Italy, in all cohorts, compared to national norms (all *P* values <0.0001). Odds ratios showed that players born in North and Central Italy had the greatest likelihood of representing Italy internationally at both youth and senior levels compared to players born in South Italy (ranging from 2 to 3.2). Factors that negatively impact upon South-Italy players' soccer developmental journey have been proposed and discussed.

Keywords: Southern Question; Birthplace effects; Talent Selection; Birth advantages; Youth Soccer

Introduction

Since its unification in 1861, Italy has been characterised by a strong North-South divide.[1] Throughout the years, the southern region of Italy has generally been underdeveloped compared to the northern region, despite the large amount of attention that this part of Italy has received by academics, scientists, and politicians.[2] Dating back to 1861, Pasquale Villari, writing in the Milanese magazine *La Perseveranza* [Perseverance], proposed the expression 'southern question'. This referred to the banditry, the mafia, and the poverty of the southern citizens, which were typical aspects coupled with South Italy and indicates the possible historical manner of the social and political issues of this part of Italy.[3] Today, the expression 'southern question' is still used in reference to the assortment of problems (e.g., weaker economic development, less advanced social relations, and lower key aspects of civil life) that characterise the southern part of Italy compared to the rest of the country.[4]

The discourse of the 'southern question' contrasts the industrialised and civilised Northern territory, rational and orderly, to a backward South, mainly agricultural, poor, and underdeveloped from an economic perspective.[5] Typically, the expression 'southern question' depicts the South as a weight that hinders the North, also describing the South as an internal 'other' with respect to the rest of the country. These regional disparities were frequently object of national policies, which starting from the 1950s have been focussed on the industrial development of the South, particularly with the state-owned agency *Cassa per il Mezzogiorno* (Fund for the South). This was initially effective in tackling most of the dualisms present in the country, but progressively became an instrument of waste and money misallocation (i.e., poor investments and rampant corruption),[6] and ended up re-exacerbating the regional disparities that are often seen today.[7]

The territorial inequalities in Italy reveal a dualism [i.e., North vs. South] without equal in any Western countries, encompassing the entire gamut of civil and economic development indicators.[8] Gross Domestic Product (GDP) per head (i.e., a monetary measure to assess the economic output of a particular area per person) of a certain nation or region is considered a useful indicator to understand

the level of development and prosperity of respective areas, as well as being correlated to the quality of infrastructures and of institutions, scientific endowments, and levels of education.[9] In 2018, Rosès and Wolf explored Western-Europe's economic development based on 173 regions, which revealed the five poorest (i.e., the ones that recorded the lowest level of GDP per head) were all concerningly from South Italy (i.e., Apulia, Basilicata, Calabria, Campania, and Sicily).[10] In line with this, Iammarino and colleagues outlined how South Italy recorded a much lower GDP per head when compared to the European and national averages.[11] Additionally, in 2010, the Italian National Institute of Statistics (ISTAT) launched the project 'Benessere Equo e Sostenibile' (BES; Fair and Sustainable Wellbeing), with the aim of assessing the progress of society from an economic perspective as well as from a social and environmental outlook.[12] The data from the BES project are open access, released from ISTAT, and underscore the socioeconomic and cultural differences present between the North, Centre, and South of Italy. Some examples from the BES include: (a) employment rates (North = 72.9%; Centre = 68.3%; South = 48.5%), (b) the proportion of people with at least a diploma (North = 65.7%; Centre = 68.1%; South = 54%), and (c) the number of people suffering from severe material deprivation (North = 3.6%; Centre = 5.5%; South = 13.6%).[13] Moreover, recent data from ISTAT shows how families' average annual incomes are higher in the North and Central macro-regions (North = €43,908; Centre = €38,689; South = €32,801).[14]

Italian territorial inequalities are also underlined by an heterogenous distribution of sporting facilities and infrastructures throughout the nation. To be specific, six (Apulia, Basilicata, Calabria, Campania, Sardinia, and Sicily) of South Italy's *micro-regions* (i.e., distinct territorial unit with clearly marked boundaries below the regional level) are under several levels of criticality regarding their sporting facilities.[15] As an example, in 2012, the North-West had 52,330 sport facilities (354 for 100,000 inhabitants), the North-East had 37,200 (352 for 100,000 inhabitants), the Centre had 29,080 (271 for 100,000 inhabitants), and the South had 30,280 (149 for 100,000 inhabitants), which was in comparison to the national average of 264 facilities for 100,000 inhabitants. This suggested how, in 2012, the only *macro-region* (i.e., territorial entity made up of several regions; North, Centre, and

South) of Italy to have less sport facilities than the national average was South Italy. The distinct lack of sport facilities in southern Italy could have important implications on physical activity and youth sport participation, particularly since research has shown how proximity to sport infrastructures as well as both public and private recreational facilities is positively associated with physical activity and sport participation (see Wicker and colleagues for a discussion[16]), in both children and adolescents.[17]

Where someone is born and raised can directly impact their access and opportunities to engage in youth sport activities, which has a subsequent influence on talent identification and development processes.[18] For example, Côté and colleagues highlighted the extent to which one's place of birth can affect youth sport opportunities and subsequent developmental outcomes. They showed how birthplace (i.e., where someone is born) was a greater contributor to success in professional sport compared to relative age (i.e., when someone is born).[19] However, research conducted in this discipline has revealed inconsistent results. In Swedish tennis, for instance, early research from Carlson concluded how elite players predominantly came from rural areas,[20] whereas, in North American ice-hockey, Curtis and Birch demonstrated that living in remote areas negatively impacted the likelihood of being identified as talented for the National Hockey League.[21] In the same way, more recent studies that have focussed on community size and community density for investigations of birthplace effects continued to record inconsistent findings,[22] underlining a considerable variation in the advantage of where someone is born.[23]

With the exception of size and density, there are many other environmental features that characterise the community in which sport is practiced. For instance, communities' physical aspects (i.e., access to facilities, presence of green spaces, open spaces, playgrounds, and proximity to sport clubs and/or organisations) can influence the types of activities performed by the younger generation (i.e., structured practice and unstructured play), thus favouring interactions with coaches and peers.[24] Other variables that influence sport participation rates are the communities' socioeconomic and cultural status. Generally, research has highlighted a positive relationship between sports

participation and higher socioeconomic status of parents.[25] But similarly, literature has produced some inconclusive results across different nations and sports regarding the direction of the effect. For example, soccer is considered a relatively cheap sport to engage in from a very young age.[26] Based on this notion, Uehara and colleagues in their study suggested how poorer children have an increased likelihood of participating in soccer-specific play and thus facilitating their development of expertise in Brazilian soccer.[27] In contrast, however, a recent study by Allison and Barranco revealed how North American female soccer players participating in the National Women's Super League (the first soccer tier in the United States) generally derived by "whiter, less black or Latino, more suburban, and less socioeconomically disadvantaged [hometowns] than the national averages, with higher per capita, median household, and median family incomes" (pp. 8-9)[28]. This is largely due to the 'pay-to-play' model via private academies that is adopted across the United States, which subsequently limits the access to organised youth soccer activities to those who cannot afford the fees.[29] These within-sport and between-country differences may reflect variances in the youth soccer development systems of those countries (e.g., formal vs. less formal participation and recruitment systems),[30] further highlighting the need to better understand the role of birthplace effects based on individual sociocultural circumstances.

The territorial inequalities of the various macro-regions and micro-regions of Italy could influence Italian children's and adolescents' development in sport. Accordingly, the purpose of our study was to investigate the presence of the 'southern question' (i.e., birthplace effects) phenomena and its impact on Italian soccer. Specifically, our aim was to examine the birthplace of both youth and senior Italian national soccer team players and whether it influences the likelihood of being selected. Due to Italian territorial inequalities that favour the North and Centre of the country, we hypothesised that Italian soccer players born in the South are underrepresented across every national youth and senior team in comparison to those from the North and Centre who are overrepresented.

Methods

Subjects

A total sample of 2,103 Italian male soccer players were included in this current study. To be eligible for inclusion, a player must have been born from 1975 onwards (2005 was the year of birth of the youngest player), and must have been selected at least once by the date of the study (May, 2021) to play for any youth (Under 15 [U15]: n = 466; U16, U17, U18, U19, U20, and U21 [U16-U21]: n = 1,939) or senior (n = 217) national Italian soccer team. One player could have been registered in more than one youth team depending on how many times they were selected (i.e., a player could have been selected to play for the U15 team and for the U16 team during their youth career). Players not born in Italy and players whose birthplaces were not retrievable were omitted from the study (n = 180). Because all data were freely available from the internet, no approval by an ethical committee was required.

Procedures

The data for this study (i.e., player's birthplace and team selection) were obtained from the official data centre of the Italian Soccer Federation (Federazione Italiana Giuoco Calcio; FIGC), which were open access on the FIGC website (https://www.figc.it/it/nazionali/nazionali-in-cifre/convocazioni-di-un-giocatore/?squadraid=12) and Transfermarkt website (https://www.transfermarkt.it/). Italy is comprised of 20 micro-regions (see **Figure 1**), subdivided into the three macro-regions (i.e., North, Centre, and South). Players were classified based on both their macro-region and micro-region of birth. Youth and senior national teams' observed birthplace distribution was calculated for every macro-region and micro-region and then compared to the expected distribution, which was based on the general population norms that were obtained by census statistics.[31]

*****Please insert Figure 1 about here*****

Data Analysis

A Chi-Square (χ^2) goodness-of-fit test was used to compare the observed birthplace distribution of each soccer cohort against the expected birthplace distribution based on general population norms. Since chi-square statistics cannot reveal the magnitude and the direction of an

existing relationship, the effect size (Cramer's V) and odds ratios (Ors) were calculated. The Cramer's V was interpreted as follows: a value of 0.06 or more indicated a small effect size, a value of 0.17 or more indicated a medium effect size, and a value of 0.29 or more indicated a large effect size.[32] The Ors and 95% confidence intervals (CIs) were calculated for the macro-regions (i.e., North vs. Centre; North vs. South; Centre vs. South), as well as for the micro-regions, as previously conducted in other birthplace effects studies.[33] The Ors were calculated and interpreted following the procedures outlined by Szumilas,[34] with CIs including 1 (i.e., CI 0.90-1.10) marked no association. Results were considered significant for $P < 0.05$. Statistical Analysis were conducted using Microsoft Excel,[35] and maps of Italy were produced using Microsoft Excel.[36]

Results

The observed birthplace distribution of each macro-region for the youth and senior national teams as well as the general population norms presented in **Figure 2**. Descriptive statistics, in terms of frequency and percentage of distribution of players' macro-region of birth for each national team, as well as the results from chi-square statistics, are shown in **Table 1**. The observed macro-region distributions for U15, U16-U21, and the senior national team were significantly different from the general population norms (all P values <0.0001; effect sizes ranged from medium to large; North observed mean (expected mean) = 48.1% (38.9%), Centre observed mean = 27% (17%), South observed mean = 24.9% (44%)). **Table 2** shows the observed distribution of each micro-region across all Italian national soccer teams, which was also significantly different from the expected distribution ($\chi^2 = 491.15$; P <0.001; small effect size).

*****Please insert Figure 2 about here*****

*****Please insert Table 1 about here*****

*****Please insert Table 2 about here*****

The descriptive Ors for the macro-regions are presented in **Table 3**. The Ors showed an increased likelihood of players born in the North and in the Centre of being selected for the U15 national team and U16-U21 national teams compared to players born in the South, with the highest

Ors being Centre vs. South (U15: 2.41, CI 1.67–3.48; U16-U21: 2.76, CI 2.31–3.30). Furthermore, players born in the Centre and in the North also recorded an increased likelihood of being selected for the senior national team compared to players born in the South, with the highest Ors being Centre vs. South (3.21, CI 1.35–2.81).

*****Please insert Table 3 about here*****

Figure 3 shows a map of Italy's micro-regions, coloured with different gradations of blue according to Ors' values (darker colour indicate higher Ors). Ors for all micro-regions were calculated based on the likelihood of players of being selected to play for any of the Italian national soccer teams. Players born in Tuscany (a central micro-region) had the greatest likelihood of representing Italy compared to the rest of the country (OR 1.92, CI 1.50–2.45). In contrast, players born in the eight of South Italy's micro-regions recorded the lowest likelihood of being selected to play for the national squads compared to the rest of the country, having recorded the following Ors: Abruzzo = 0.53 (CI 0.32–0.88), Apulia = 0.50 (CI 0.39–0.65), Basilicata = 0.13 (CI 0.03–0.43), Calabria = 0.69 (CI 0.50–0.96), Campania = 0.83 (CI 0.69–1.00), Molise = 0.09 (CI 0.01–0.67), Sardinia = 0.55 (CI 0.36–0.83), and Sicily = 0.35 (CI 0.27–0.46).

*****Please insert Figure 3 about here*****

Additional analyses were conducted to further explore the possible Italian territorial inequalities, in terms of progressing towards national soccer squads. Three micro-regions of Italy were taken as reference (i.e., Lombardy [North]; Tuscany and Lazio [Centre]) and compared to other three micro-regions of Italy (i.e., Campania, Sicily, and Apulia [South]). The results from these comparisons are shown in **Table 4**. These underlined Lombardy, Tuscany, and Lazio (North and Centre) had an increased likelihood of being selected for the national teams, with the highest OR being Tuscany vs. Sicily (5.47, CI 3.86–7.75).

Overall, these results showed an overrepresentation of players born in North and Central Italian regions compared to their compatriots born in the South in both youth and senior teams.

*****Please insert Table 4 about here*****

Discussion

Italy is characterised by socioeconomic and cultural differences between the North, Centre, and South of the country that has been labelled as the 'southern question'.[37] To our knowledge this was the first study that has explored the 'southern question' (i.e., birthplace effects) in the Italian soccer landscape. The results highlighted soccer players born in the North and Centre of the country have, from a young age and during the initial entry point into the national pathway (i.e., U15), the greatest likelihood of being selected to play for the Italian national squads compared to their equivalents born in the South.

There is a common belief that players need to be exposed to large volumes of structured practice to acquire expertise in soccer.[38] As a result, a large proportion of countries have started offering players more practice and competition in their primary sport (i.e., soccer) during childhood.[39] In line with this, Italian soccer has adopted an early specialisation and identification pathway, which encourages children to enter soccer academies from a very young age (e.g., 6-years-old). Importantly, Italian children and adolescents' access to these optimal developmental environments is based on a 'pay-to-play' model, whereby parents are required to pay an annual fee. Accordingly, the help and financial support of parents (i.e., their socioeconomic status) may act as a constraint on Italian individuals' development in soccer.[40] In the context of the current findings, South Italy's disadvantages in terms of the socioeconomic and cultural status compared to the rest of the country,[41] may limit access to talent pathway of children and adolescents born and raised in the Southern regions, eventually limiting their long-term development in soccer. A recent study conducted by the FIGC highlighted how South Italy recorded fewer players aged between 5 and 16 years involved in organised soccer activities compared to North and Central Italy.[42] Enrolment in soccer at early ages enables children to acquire early skill advantages, which could inevitably cause a rise in performance levels.[43] As such, children from North and Central Italy are more likely to be recognised as talented and may dispose of greater openings to talent pathways later in their young career.

Research has highlighted how the sport spatial landscape (e.g., distribution of athletes and clubs, structures competitions, and location of successful underage clubs) could offer critical information regarding athletes' equity of opportunity for development in every sport association.[44] In this regard, the Italian soccer spatial landscape appears unequal across the country. More specifically, soccer in Italy has always been a place where the geographical divisions between the North and the South of the country are shown. Historically, soccer in Italy was mostly present in the North, where there were cities, green grass, free time, and, above all, finances were often held.[45] Contrarily, in South Italy, soccer has increased at a slower rate. For instance, ten years after the first world conflict, only 11% of the players lined up from the South's soccer teams were born in South Italy.[46] Today, the Italian national training soccer centre is in Central Italy. In line with this, the Serie A (i.e., Italy's top male league) has often showed an overrepresentation of teams from the North and the Centre, with northern teams generally more successful than any other team across the country,[47] while southern teams often in a struggle to maintain their elite status.[48] As an example, from 1975 onwards, on 46 seasons of the Serie A, only five of these were won by a club not from North Italy (AS Roma in 1982-83 and 2000-01; SSC Napoli 1986-87 and 1989-90; SS Lazio 1999-00). This is an important factor to consider, because from U15 onwards, the FIGC organise elite youth national championships in which professional teams' youth teams take part. Considering that the majority of professional clubs reside in the North and Centre of Italy, these two macro-regions are overrepresented across all age-groups categories.

Elite youth clubs are high-quality environment where young players can fulfil their potential. Recent findings have highlighted how proximity to successful youth clubs is a central factor in talent development,[49] as once young athletes reach a high level of performance, they are often required to leave their former local club in favour of a high-performance club where they can have access to better training facilities and are followed by expert coaches.[50] As such, young players born in North and Central Italy may have access to greater developmental opportunities, as well as benefit from the increased exposure to sport specific motor experiences, to quality coaches and facilities, and from the

regular involvement in higher competition levels from a young age.[51] In contrast, in South Italy, the lack of talent clubs and facilities means youngsters born in this macro-region have less openings for higher-level developmental opportunities in soccer. Accordingly, this creates differences in opportunity for soccer growth between players born in North and Central Italy and players born instead in the South. Moreover, young players who play in elite youth clubs are exposed to a greater social visibility, which could augment their likelihood of being selected to play for the youth national teams.[52] For instance, in Brazilian soccer, Teoldo and colleagues showed how a large pool of young talented players use to migrate from their hometowns to develop in high-performance youth teams, which ensure them better training conditions and facilities, also augmenting their visibility to youth national teams' head coaches.[53] Indeed, it is worth presuming national teams' head coaches select players from the best elite youth clubs throughout the country. As such, in our study, the lower presence of players from the South in the Italian national youth representatives could be attributed to the underrepresentation of South Italy's youth soccer clubs at national level.

Young athletes who grow up at a greater distance from high performance clubs may face additional challenges, such as requiring additional resources for transportation,[54] or may need to leave their families to be able to continue chase their dream of becoming successful senior athletes.[55] In other words, because of the distance and/or lack of elite youth clubs in South Italy, many soccer talents born in the South: (a) will not have the possibility of developing in high-quality environment, and (b) will not have a higher social visibility, unless they are willing to migrate in the North and Central regions. Therefore, presuming that the underrepresentation in the national soccer representatives of players born in the South is due to a lack of talent in these regions, it would be unfair and unlikely to be true. Rather, these birthplace effects, cause a loss of talent, as players born in the South who may have the potential to succeed are being overshadowed by players born in other regions of the country; particularly as soccer in the South is no less popular in comparison to North and Central regions.[56] As such, similarly to relative age effects (RAEs),[57] the regional disparities in the Italian soccer presented in this paper represents an unintended form of talent wastage.[58] This could

have adverse implications for the Italian Soccer Federation, as it could impact the pool of talented players to select from senior level and therefore need to be managed accordingly.

The Matthew effect is used to describe how, in society, 'the rich get richer' and 'the poor get poorer'.[59] This notion has been already explored in sport as part of a theoretical framework (i.e., the Social Agent's Model) used to explain RAEs.[60] The Matthew effect can also be used here to explain longer developmental advantages experimented by children and adolescents from North and Centre Italy. The socioeconomic constraints that characterise youth Italian soccer (i.e., the 'pay-to-play' model), may impact on children and adolescents' access to first developmental experiences in soccer. Families with lower socioeconomic and cultural conditions, mostly present in the Southern regions, may be discouraged to have children involved in soccer activities, undermining their interactions with the soccer environment (e.g., early abilities, connections with peers and coaches) and their development. This causes an initial performance gap between children and adolescents from South Italy and players from North and Central Italy, who, due to their higher social class and have greater access to facilities, are more likely of being involved in soccer practices. This will have a subsequent impact on their subsequent selection opportunities, eventually widen the already existent gap in terms of long-term developmental soccer opportunities between players from North and Central Italy and players from the South (i.e., 'the rich get richer' and 'the poor get poorer'). As such, these longer developmental advantages experimented over time (i.e., training sessions and seasons) by Italian children and adolescents born in the regions of the North and Centre impact on their likelihood of becoming the better players in the future (i.e., career), and indeed the results of our study showed how they remain to be overrepresented even at senior level.

Summing up, human development is dependent on an intertwined relationship between the individual and their environment. Our study highlighted how talent selection and development processes in Italian soccer are not done on a levelling playing field, and proposed how in South Italy, the lack of sporting infrastructures, lower socioeconomic status, and fewer professional soccer clubs and youth academies, negatively impact on soccer developmental trajectory for children born in this

macro-region. Considering that every sport association's aim should be providing equitable opportunities for participation and success in sport, the FIGC should evolve accordingly by increasing its awareness of its developmental soccer pathways to try to give every talent a chance.

Limitations

When interpreting the results of this study, it is important to consider its limitations. First, only one appearance with any of the Italian national soccer teams was required to be included in this study. However, some players could have played in considerably more games. Career duration and/or appearances could be a variable included to understand the influence of birthplace on long-term development outcomes. Second, this study did not make a distinction between playing a friendly or an official match. Considering the different requirements needed for players to play internationally during a major tournament and to play in a friendly match, a more appropriate data analysis could have included such distinction. Third, this study has only taken in consideration players' place of birth. However, a player may be born in a particular region of Italy and then moved elsewhere in the country in their younger age. Finally, we derived the sociocultural and economic status from census statistics. Another possible method could have been to investigate the sociocultural and economic status associated with national representatives. It is, however, worth considering that this evaluation of the 'southern question' provides valuable insights on birthplace effects in Italy and offers a foundational approach for future studies.

Conclusions

The *Stadio Olimpico* [Olympic Stadium] is the largest sports stadium in Rome, Italy, seating over 70,000 spectators. Rebuilt for the Men's FIFA World Cup in 1990, the Stadio Olimpico is home to AS Roma and SS Lazio as well as host of the Coppa Italia final and many national team fixtures. Indeed, thousands of young (and senior) Italian soccer players dream of representing their national team in their capital at the Stadio Olimpico. However, in the context of the male Italian national teams, we questioned whether *all roads lead to Rome*. This figurative expression means that all choices, methods, or actions lead to the same result or goal, and a metaphor that nicely queries the

reality of Italian soccer players. Based on our findings, it appears not all roads necessarily lead to Rome for aspiring Italian soccer players. Specifically, this paper was the first to examine the presence of the 'southern question' (i.e., birthplace effects) in the Italian national soccer teams, with results showing the presence of a skewed distribution of birthplaces that favours players born in North and Central Italy. Moving forward, key stakeholders employed within the FIGC are encouraged to focus their attention on creating more equitable talent pathways across the country and widen the pool of potential talent. Moreover, future research in this area would benefit from examining the socioeconomic and cultural backgrounds of selected payers and further explore the Italian soccer landscape (i.e., distribution of players across the national territory). This would highlight some patterns of migration and help to better understand the challenges that youth Italian players need to overcome to become successful senior players.

Notes

1. Pescosolido, *La questione meridionale in breve: Centocinquant'anni di storia*.
2. Capello, 'What makes Southern Italy still lagging behind? A diachronic perspective of theories and approaches.'
3. Urbinati, 'The Souths of Antonio Gramsci and the Concept of Hegemony.'
4. Pescosolido, *Questione meridionale in breve.*
5. Greco, 'Blaming the southern victim: Cancer and the Italian "Southern Question" in Terra dei fuochi and Taranto'; and Schneider, 'Introduction: The dynamics of neo-orientalism in Italy (1848-1995).'
6. Felice and Lepore, 'State intervention and economic growth in Southern Italy: the rise and fall of the "Cassa per il Mezzogiorno" (1950–1986)'; and Pescosolido, 'Italy's Southern Question: long-standing thorny issues and current problems.'
7. Greco, 'Cancer and the Italian "Southern Question".'
8. Pescosolido, 'Italy's Southern Question.'
9. Iammarino, 'Regional inequality in Europe: evidence, theory and policy implications.'

10. Rosès and Wolf, ‘Regional economic development in Europe, 1900–2010: A description of the patterns.’
11. Iammarino, ‘Regional inequality in Europe.’
12. BES, ‘Rapporto BES 2020: il Benessere Equo e Sostenibile in Italia.’
13. Ibid.
14. ISTAT, ‘Reddito medio annuale delle famiglie (in euro).’
15. CONI, ‘Il libro bianco dello sport italiano.’
16. Wicker, Breuer and Pawlowski, ‘Promoting Sport for All to Age-specific Target Groups: the Impact of Sport Infrastructure.’
17. Dowda et al, ‘Commercial facilities, social cognitive variables, and physical activity of 12th grade girls’; and McCormack et al, ‘The relationship between destination proximity, destination mix and physical activity behaviors.’
18. Hancock, Vierimaa and Newman, ‘The geography of talent development.’
19. Côté et al, ‘When “where” is more important than “when”: Birthplace and birthdate effects on the achievement of sporting expertise.’
20. Carlson, ‘The socialization of elite tennis players in Sweden: An analysis of the players' backgrounds and development.’
21. Curtis and Birch, ‘Size of community of origin and recruitment to professional and Olympic hockey in North America.’
22. Hancock et al, ‘Influences of population size and density on birthplace effects’; Lidor et al, ‘Relative age effect and birthplace effect in Division 1 female ballgame players: the relevance of sport-specific factors’; Maayan, Lidor and Arnon, ‘The Birthplace Effect in 14–18-Year-Old Athletes Participating in Competitive Individual and Team Sports’; and Turnnidge, Hancock and Côté, ‘The influence of birth date and place of development on youth sport participation.’
23. Hancock, Vierimaa and Newman, ‘Geography of talent development.’

24. Côté et al, 'Situating birth advantages within the youth sport system'; and Erikstad et al, '"As Many as Possible for as Long as Possible"—A Case Study of a Soccer Team That Fosters Multiple Outcomes.'
25. Federico, Falese and Capelli, 'Socio-economic inequalities in physical activity practice among Italian children and adolescents: a cross-sectional study'; and Vella, Cliff and Okely, 'Socio-ecological predictors of participation and dropout in organised sports during childhood.'
26. Hodkinson and Sparkes, 'Careership: A sociological theory of career decision making.'
27. Uehara et al, 'The Poor "Wealth" of Brazilian Football: How Poverty May Shape Skill and Expertise of Players.'
28. Allison and Barranco, '"A rich white kid sport?" Hometown socioeconomic, racial, and geographic composition among U.S. women's professional soccer players.'
29. Ibid.
30. Ford et al, 'The developmental activities of elite soccer players aged under-16 years from Brazil, England, France, Ghana, Mexico, Portugal and Sweden.'
31. ISTAT, 'Number of live Births per Regions, by 1975 to 1998, in Italy'; and idem, 'Number of live Births per Regions, by 1999 to 2005, in Italy.'
32. Cohen, 'Statistical Power Analysis for the Behavioral Sciences.'
33. Finnegan et al, 'The influence of date and place of birth on youth player selection to a National Football Association elite development programme'; and Rossing et al, 'The role of community in the development of elite handball and football players in Denmark.'
34. Szumilas, 'Explaining odds ratios.'
35. Microsoft Corporation, *Microsoft Excel Ver. '17.0'.*
36. Ibid.
37. Asso, 'New perspectives and old inequalities: Italy's north-south divide'; Pescosolido, *Questione meridionale in breve*; and idem, 'Italy's Southern Question.'

38. Uehara et al, ‘The role of informal, unstructured practice in developing football expertise: The case of Brazilian pelada.’
39. Ford et al, ‘Developmental activities of elite soccer players’; and Forsman et al, ‘The role of sport-specific play and practice during childhood in the development of adolescent Finnish team sport athletes.’
40. Bloom, *Developing Talent in young People.*
41. BES, ‘Rapporto BES 2020.’
42. FIGC, ‘Report Calcio 2022.’
43. Hancock, Adler and Côté, ‘A proposed theoretical model to explain relative age effects in sport.’
44. Finnegan et al, ‘Influence of date and place of birth on youth player selection’; idem, ‘Stepping stones? An exploration of internal football player migration in the Republic of Ireland’; and Rossing, ‘Influence of population size, density, and proximity to talent clubs on the likelihood of becoming elite youth athlete.’
45. McCarthy, ‘Sport and society in Italy today.’
46. Panico, ‘Il Calcio.’
47. Lewis, ‘From Alpine clubs to Baggio and Berlusconi: Italy reflected through sport.’
48. Sisti, ‘Benevento e Crotone fanno festa, ma in A la “questione meridionale” resta.’
49. Finnegan et al, ‘Influence of date and place of birth on youth player selection’; and Rossing et al, ‘Role of community in the development of elite players.’
50. Rossing et al, ‘Likelihood of becoming elite youth athlete.’
51. Ibàñez et al, ‘The relative age effect in under-18 basketball: effects on performance according to playing position.’
52. Teoldo, Cardoso and Garganta, ‘Could the human development index and birthdate of the players influence on the ability of Brazilian soccer players to enter top-level competition?’
53. Ibid.

54. Rossing et al, ‘Likelihood of becoming elite youth athlete.’
55. Finnegan, ‘Exploration of internal football player migration’; and Teoldo, Cardoso and Garganta, ‘Could human development index and birthdate influence enter top-level competition?’
56. FIGC, ‘Report Calcio 2022.’
57. Morganti et al, ‘Relative age effects and the youth-to-senior transition in Italian soccer: the underdog hypothesis versus knock-on effects of relative age.’
58. Doyle, Bottomley and Angell, ‘Tails of the travelling Gaussian model and the relative age effect: tales of age discrimination and wasted talent.’
59. Merton, ‘The Matthew effect in science: The reward and communication systems of science are considered.’
60. Hancock, Adler and Côté, ‘Theoretical model to explain RAEs in sport.’

Disclosure statement

The authors report there are no competing interests to declare.

Author Contributions

GM, AK, GA, and BR have given substantial contribution to the conception and design of the manuscript. GM and AK have participated to drafting the manuscript. GM, AK, GA, and BR have revised it critically. All authors read and approved the final version of the article.

Bibliography

Allison, R., and R. Barranco. ‘“A rich white kid sport?” Hometown socioeconomic, racial, and geographic composition among U.S. women’s professional soccer players.’ *Soccer & Society* 22, no. 5 (2021): 457-469. doi:10.1080/14660970.2020.1827231.

Asso, P. F. ‘New perspectives on old inequalities: Italy’s north–south divide.’ *Territory, Politics, Governance* 9, no. 3 (2021): 346-364. doi:10.1080/21622671.2020.1805354.

Benessere Equo e Sostenibile (BES). ‘Rapporto BES 2020: il Benessere Equo e Sostenibile in Italia.’ 2020. https://www.istat.it/it/files//2021/03/BES_2020.pdf.

Bloom, B. S. *Developing Talent in young People.* Ballantine Books, 1985.

Capello, R. 'What makes Southern Italy still lagging behind? A diachronic perspective of theories and approaches.' *European Planning Studies* 24, no. 4 (2016): 668-686. doi:10.1080/09654313.2015.1128402.

Carlson, R. C. 'The socialization of elite tennis players in Sweden: An analysis of the players' backgrounds and development.' *Sociology of Sport Journal* 5, no. 3 (1988): 241–256. doi:10.1123/ssj.5.3.241.

Cohen, J. *Statistical Power Analysis for the Behavioral Sciences*. Hillsdale, NJ: L. Erlbaum Associates, 1998.

Comitato Olimpico Nazionale Italiano (CONI). 'Il libro bianco dello sport italiano.' 2012. http://www.coni.it/images/Libro_Bianco_-_Sito.pdf.

Côté, J., D. J. Macdonald, J. Baker, and B. Abernethy. 'When "where" is more important than "when": Birthplace and birthdate effects on the achievement of sporting expertise.' *Journal of Sports Sciences* 24, no. 10 (2006): 1065-1073. doi:10.1080/02640410500432490.

Côté, J., A. Murata, J. Turnnidge and D. Hancock. 'Situating birth advantages within the youth sport system'. In: *Birth Advantages and Relative Age Effects in Sport*, ed. by A. L. Kelly, J. Coté, M. Jeffreys and J. Turnnidge. London: Routledge, 2021.

Curtis, J.E., and J. S. Birch. 'Size of community of origin and recruitment to professional and Olympic hockey in North America.' *Sociology of Sport Journal* 4, no. 3 (1987): 229–244. doi:10.1123/ssj.4.3.229.

Doyle, J.R., P. A. Bottomley and R. Angell. 'Tails of the travelling Gaussian model and the relative age effect: tales of age discrimination and wasted talent.' *Plos One* 12, no. 4 (2017): e0176206. doi:10.1371/journal.pone.0176206.

Dowda, M., R. K. Dishman, D. Porter, R. P. Saunders and R. R. Pate. 'Commercial facilities, social cognitive variables, and physical activity of 12th grade girls.' *Ann. Behav. Med.* 37, no. 1 (2009): 77-87. doi:10.1007/s12160-009-9080-0.

Erikstad, M.K., B. Tore Johansen, M. Johnsen, T. Haugen and J. Côté. '"As Many as Possible for as Long as Possible"—A Case Study of a Soccer Team That Fosters Multiple Outcomes.' *The Sport Psychologist* 35, no. 2 (2021): 131-141. doi:10.1123/tsp.2020-0107.

Federico, B., L. Falese and G. Capelli. 'Socio-economic inequalities in physical activity practice among Italian children and adolescents: a cross-sectional study.' *Zeitschrift fur Gesundheitswissenschaften = Journal of public health* 17, no. 6 (2009): 377–384. doi:10.1007/s10389-009-0267-4.

Felice, E., and A. Lepore. 'State intervention and economic growth in Southern Italy: the rise and fall of the "Cassa per il Mezzogiorno" (1950–1986).' *Business History* 59, no. 3 (2017): 319-341, doi: 10.1080/00076791.2016.1174214.

Ford, P. R., C. Carling, M. Garces, M. Marques, C. Miguel, A. Farrant, A. Stenling, J. Moreno, F. Le Gall, S. Holmström, J. H. Salmela and M. Williams. 'The developmental activities of elite soccer players aged under-16 years from Brazil, England, France, Ghana, Mexico, Portugal and Sweden.' *Journal of Sports Sciences* 30, no. 15 (2012): 1653-1663. doi: 10.1080/02640414.2012.701762.

Forsman, H., M. Blomqvist, K. Davids, N. Konttinen and J. Liukkonen. 'The role of sport-specific play and practice during childhood in the development of adolescent Finnish team sport athletes.' *International Journal of Sports Science & Coaching* 11, no. 1 (2016): 69–77. doi:10.1177/1747954115624816.

Federazione Italiana Giuoco Calcio (FIGC). 'Report Calcio 2022.' 2022. https://www.figc.it/it/federazione/federazione-trasparente/reportcalcio/.

Finnegan, L., D. Richardson, M. Littlewood and J. McArdle. 'The influence of date and place of birth on youth player selection to a National Football Association elite development programme.' *Science and Medicine in Football* 1, no. 1 (2017): 30-39. doi:10.1080/02640414.2016.1254807.

Finnegan, L. ‘Stepping stones? An exploration of internal football player migration in the Republic of Ireland.’ *Regional Studies, Regional Science* 6, no. 1 (2019): 596-606. doi:10.1080/21681376.2019.1685905.

Greco, C. ‘Blaming the southern victim: Cancer and the Italian “Southern Question” in Terra dei fuochi and Taranto.’ *Anthropology today* 32, no. 3 (2016): 16-19. doi:10.1111/1467-8322.12255

Hancock, D. J., A. L. Adler and J. Côté. ‘A proposed theoretical model to explain relative age effects in sport.’ *European journal of sport science* 13, no. 6 (2013): 630–637. doi:10.1080/17461391.2013.775352.

Hancock, D.J., P. Coutinho, J. Côté and I. Mesquita. ‘Influences of population size and density on birthplace effects.’ *J Sports Sciences* 36, no. 1 (2018): 33–8. doi:10.1080/02640414.2016.1276614.

Hancock, D. J., M. Vierimaa and A. Newman. ‘The geography of talent development.’ *Front. Sports Act. Living* 4 (2022): 1031227. doi:10.3389/fspor.2022.1031227.

Hodkinson, P. and A. C. Sparkes. ‘Careership: A sociological theory of career decision making.’ *British Journal of Sociology of Education* 18, no. 1 (1997): 29-44. doi:10.1080/0142569970180102.

Iammarino, S., A. Rodriguez-Pose and S. Storper. ‘Regional inequality in Europe: evidence, theory and policy implications.’ *Journal of Economic Geography* 19, no. 2 (2019): 273–298. doi:10.1093/jeg/lby021.

Ibàñez, S.J., A. Mazo, J. Nascimento and J. Garcìa-Rubio. ‘The relative age effect in under-18 basketball: effects on performance according to playing position.’ *Plos One* 13, no. 7 (2018): e0200408. doi:10.1371/journal.pone.0200408.

Istituto Nazionale di Statistica (ISTAT). ‘Number of live Births per Regions, by 1975 to 1998, in Italy.’ 1998.

Istituto Nazionale di Statistica (ISTAT). 'Number of live Births per Regions, by 1999 to 2005, in Italy.' 2005

Istituto Nazionale di Statistica (ISTAT). 'Reddito medio annual delle famiglie (in euro).' 2020. http://dati.istat.it/.

Lewis, A. 'From Alpine clubs to Baggio and Berlusconi: Italy reflected through sport.' *Journal of Modern Italian Studies* 14, no. 1 (2009): 96-103. doi: 10.1080/13545710802647890.

Lidor, R., M. Arnon, Z. Maayan, T. Gershon and J. Côté. 'Relative age effect and birthplace effect in Division 1 female ballgame players: the relevance of sport-specific factors.' *Int J Sport Exerc Psychol.* 12, no. 1 (2014): 19–33. doi: 10.1080/1612197X.2012.756232.

Maayan, Z., R. Lidor and M. Arnon. 'The Birthplace Effect in 14–18-Year-Old Athletes Participating in Competitive Individual and Team Sports.' *Sports* 10, no. 4 (2022): 59. doi:10.3390/sports10040059.

McCarthy, P. 'Sport and society in Italy today.' *Journal of Modern Italian Studies* 5, no. 3 (2000): 322-326. doi: 10.1080/1354571X.2000.9728257.

McCormack, G. R., B. Giles-Corti and M. Bulsara. 'The relationship between destination proximity, destination mix and physical activity behaviors.' *Prev. Med. (Baltim)* 46, no. 1 (2008): 33-40. doi:10.1016/j.ypmed.2007.01.013.

Merton, R.K. 'The Matthew effect in science: The reward and communication systems of science are considered.' *Science* 159, no. 3810 (1968): 56–63. doi:10.1126/science.159.3810.56.

Microsoft Corporation. 'Microsoft Excel'. V. 17.0, 2019.

Morganti, G., A. L. Kelly, G. Apollaro, L. Pantanella, M. Esposito, A. Grossi and B. Ruscello. 'Relative age effects and the youth-to-senior transition in Italian soccer: the underdog hypothesis versus knock-on effects of relative age.' *Science & medicine in football*. (2022): 1–7. Advance online publication. doi:10.1080/24733938.2022.2125170

Panico, G. 'Il Calcio.' In: *Storia degli Sport in Italia (1861-1960)*, ed. by A. Lombardo. Roma: Il Vascello, 2004.

Pescosolido, G. *La questione meridionale in breve: Centocinquant'anni di storia.* Rome: Donzelli, 2017

Pescosolido, G. 'Italy's Southern Question: long-standing thorny issues and current problems.' *Journal of Modern Italian Studies* 24, no. 3 (2019): 441-455. doi:10.1080/1354571X.2019.1605726.

Rosés, J.R. and N. Wolf. 'Regional economic development in Europe, 1900–2010: A description of the patterns.' In: *The economic development of Europe's regions: A quantitative history since 1900*, ed. by J. R. Rosés and N. Wolf. London: Routledge, 2018

Rossing, N. N., A. B. Nielsen, A. M. Elbe and D. S. Karbing. 'The role of community in the development of elite handball and football players in Denmark.' *Eur J Sport Sci.* 16, no. 2 (2016): 237-245. doi:10.1080/17461391.2015.1009492.

Rossing, N. N., D. Stentoft, A. Flattum, J. Côté and D. S. Karbing. 'Influence of population size, density, and proximity to talent clubs on the likelihood of becoming elite youth athlete.' *Scand J Med Sci Sports* 28, no. 3 (2018): 1304–1313. doi: 10.1111/sms.13009.

Schneider, J. 'Introduction: The Dynamics of Neo-orientalism in Italy (1848–1995).' In: Italy's 'Southern Question': Orientalism in One Country, ed. by J. Schneider. London: Routledge, 1998.

Sisti, E. 'Benevento e Crotone fanno festa, ma in A la "questione meridionale" resta.' *La Repubblica*. July 20, 2020. https://www.repubblica.it/sport/calcio/serie-a/2020/07/26/news/benevento_crotone_meridione_in_a-262886022/.

Szumilas, M. 'Explaining odds ratios' [published correction appears in *J Can Acad Child Adolesc Psychiatry* 24, no. 1 (2015): 58]; *J Can Acad Child Adolesc Psychiatry* 19, no. 3 (2010): 227-229.

Teoldo, I., F. Cardoso and J. O. Garganta. 'Could the human development index and birthdate of the players influence on the ability of Brazilian soccer players to enter top-level competition?' *Motriz: rev. educ. fis.* 19, no. 1 (2013): 34–45. doi:10.1590/S1980-65742013000100004.

599 Turnnidge, J., D. J. Hancock and J. Côté. 'The influence of birth date and place of development on
600 youth sport participation.' *Scandinavian journal of medicine & science in sports* 24, no. 2
601 (2014): 461–468. doi:10.1111/sms.12002.
602 Uehara, L., C. Button, D. Araújo, I. Renshaw, K. Davids and M. Falcous. 'The role of informal,
603 unstructured practice in developing football expertise: The case of Brazilian pelada.' *Journal*
604 *of Expertise* 1, no. 3 (2018): 162–180.
605 https://journalofexpertise.org/articles/JoE_2018_1_3_Uehara_earlyview.pdf
606 Uehara, L., M. Falcous, C. Button, K. Davids, D. Araújo, A. R. de Paula and J. Saunders. 'The Poor
607 "Wealth" of Brazilian Football: How Poverty May Shape Skill and Expertise of Players.'
608 *Front. Sports Act. Living* 3 (2021):635241. doi:10.3389/fspor.2021.635241.
609 Urbinati, N. 'The Souths of Antonio Gramsci and the Concept of Hegemony.' In: *Italy's 'Southern*
610 *Question': Orientalism in One Country*, ed. by J. Schneider. London: Routledge, 1998.
611 Vella, S. A., D. P. Cliff and A. Okely. 'Socio-ecological predictors of participation and dropout in
612 organised sports during childhood.' *International Journal of Behavioral Nutrition and*
613 *Physical Activity* 11, no. 62 (2014). doi:10.1186/1479-5868-11-62.
614 Wicker, P., C. Breuer and T. Pawlowski. 'Promoting Sport for All to Age-specific Target Groups:
615 the Impact of Sport Infrastructure.' *European Sport Management Quarterly* 9, no. 2 (2009):
616 103-118, doi: 10.1080/16184740802571377
617

Table 1 – *Birthplace distribution per macro-region for the international youth and senior Italian soccer players compared to the general population norms.*

National Team	North (expected)	Center (expected)	South (expected)	$\chi 2$	*P*	*V*	Effect
Senior National Team	96 (84.6)	67 (36.9)	54 (95.5)	44.123	**<0.0001**	0.32	Large
%	44.2 (38.9	30.9 (17)	24.9 (44)				
U16-U21	948 (756.2)	512 (329.6)	479 (853.2)	313.705	**<0.0001**	0.28	Medium
%	48.9	26.4	24.7				
U15	238 (181.7)	110 (79.2)	118 (205)	80.460	**<0.0001**	0.29	Large
%	51.1	23.6	25.3				

Bold = statistically significant at P <0.05.

Table 2 – *Birthplace distribution per micro-region for the international Italian soccer players compared to the general population norms.*

Birthplace (Regions)	N° of total players observed	N° of total players expected	*% observed*	*% expected*
Aosta Valley	4	3.6	0.19	0.17
Piedmont	146	130.7	6.95	6.22
Liguria	60	43.3	2.85	2.06
Lombardy	402	301.4	19.12	14.34
Trentino A-A	17	35.7	0.81	1.70
Veneto	177	150.9	8.42	7.18
FVG	49	35.1	2.33	1.67
Emilia-Romagna	167	112.9	7.94	5.37
Tuscany	198	103.2	9.42	4.91
Umbria	33	26.1	1.57	1.24
Marche	48	46.9	2.28	2.23
Lazio	270	188.3	12.84	8.96
Abruzzo	23	43.5	1.09	2.07
Molise	1	11.6	0.05	0.55
Campania	235	282.7	11.18	13.45
Apulia	92	182.7	4.38	8.69
Basilicata	3	23.1	0.14	1.10
Calabria	62	89.5	2.95	4.26
Sicily	80	227.9	3.81	10.84
Sardinia	35	63.7	1.67	3.03

Bold = statistically significant (CIs including 1 mark no association).

Table 3 – *ORs of the birthplace distribution (macro-regions) for the international youth and senior Italian soccer players.*

National Team	OR North vs. South (95% CI)	OR Center vs. South (95% CI)	OR Center vs. North (95% CI)
U15	**2.28 (1.69-3.06)**	**2.41 (1.67-3.48)**	0.94 **(**0.67-1.33)
U16-U21	**2.23 (1.93-2.59)**	**2.76 (2.31-3.30)**	**1.24 (1.05-1.46)**
A	**2.01 (1.29-3.13)**	**3.21 (1.35-2.81)**	1.60 (0.97-2.63)

Bold = statistically significant (CIs including 1 mark no association).

Table 4 – *ORs of the birthplace distribution (micro-regions) for gaining selection into a national Italian team.*

Comparison (Regions)	OR (95% CI)
Lombardy vs. Campania	**1.60 (2.02-1.28)**
Lazio vs. Campania	**1.72 (1.34-2.22)**
Tuscany vs. Campania	**2.31 (1.72-3.10)**
Lombardy vs. Sicily	**3.80 (2.83-5.10)**
Lazio vs. Sicily	**4.08 (2.98-5.60)**
Tuscany vs. Sicily	**5.47 (3.86-7.75)**
Lombardy vs. Apulia	**2.65 (1.98-3.55)**
Lazio vs. Apulia	**2.85 (2.08-3.89)**
Tuscany vs. Apulia	**3.81 (2.70-5.38)**

Bold = statistically significant (CIs including 1 mark no association).

638 Figure 1 – *Italian map showing the micro-regions of Italy, divided by macro-regions (North,*
639 *Center, South).*

640 Figure 2 – *Birthplace distribution per macro-regions for the Italian national soccer teams.*

641 Figure 3 – *Map of Italy with micro-regions separated by white lines and coloured according to ORs*
642 *for being selected to play for any of the Italian national soccer team.*

643