



A study of differentiation and hierarchization schemes among climbers

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Abstract *This paper examines the status relationships among climbers with the aim of identifying the differentiation and hierarchization schemes between them. To collect data about the practitioners' preferences for climbing modalities, a questionnaire was administered. Multiple correspondence analysis (MCA) was then employed to calculate and visualize the distances and proximity between modalities. This served as the basis for understanding the schemes that organize this universe as a symbolic field. To interpret the MCA graph, qualitative data was gathered through the author's participation in this universe as an amateur climber. The findings indicate that practitioners with high income introduce heteronomous status elements into the field.*

Keywords: *Sociology of sport. Multiple correspondence analysis. Status relationships.*

Un estudio de esquemas de diferenciación y jerarquización entre escaladores

Resumen Este artículo examina las relaciones de estatus entre escaladores con el objetivo de identificar los esquemas de diferenciación y jerarquización entre ellos. Para recopilar datos sobre las preferencias de los practicantes de modalidades de escalada se aplicó un cuestionario. Luego se empleó el análisis de correspondencia múltiple (ACM) para calcular y visualizar las distancias y proximidad entre las modalidades. Esto sirvió como base para comprender los

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esquemas que organizan este universo como un campo simbólico. Para interpretar el gráfico de ACM, se recopilaron datos cualitativos a través de la participación del autor en este universo como escalador aficionado. Los hallazgos indican que los practicantes con altos ingresos introducen elementos de estatus heterónomos en el campo.

Palabras Clave: Sociología del deporte. Análisis de correspondencia múltiple. Relaciones de estatus.

Um estudo de esquemas de diferenciação e hierarquização entre escaladores

Resumo Este artigo examina as relações de status entre escaladores com o objetivo de identificar os esquemas de diferenciação e hierarquização entre eles. Para coletar dados sobre as preferências dos praticantes de modalidades de escalada, um questionário foi aplicado. Em seguida, a análise de correspondência múltipla (ACM) foi empregada para calcular e visualizar as distâncias e proximidade entre as modalidades. Isso serviu como base para compreender os esquemas que organizam esse universo como um campo simbólico. Para interpretar o gráfico de ACM, dados qualitativos foram coletados por meio da participação do autor nesse universo como escalador amador. Os resultados indicam que os praticantes com alta renda introduzem elementos de status heterônomo no campo.

Palavras-chave: Sociologia do esporte. Análise de correspondências múltiplas. Relações de status.

Introduction

This study presents a sociological investigation into the practice of climbing. A questionnaire was designed to capture preferences for different climbing modalities among practitioners based on variables such as gender, age, education, income, occupation, and climbing experience, measured in years of practice. A total of 86 responses were collected. Additionally, the author, who is an amateur climber, conducted systematic observations in this sporting universe between 2018 and 2020, which were documented in a field diary.

In Brazil, climbing is not widely practiced despite its roots in mountaineering dating back to the XIXth century (Redação AM, 2011). Climbing-related sports are more prevalent in European and North American countries, as well as Chile and Argentina. Climbing is considered an expensive practice due to the need for specialized equipment, and is therefore associated with high-income

lifestyles. This association further limits access to the sport in profoundly unequal countries such as Brazil. However, with its recent inclusion as an Olympic sport in 2020, climbing has been growing in popularity.

Probably related to those limiting aspects, climbing is very little studied in Brazil by social scientists. The majority of the literature comes from sport sciences and physical education, even when authors use sociological theories to better understand aspects of it (Alves, Boschilia and Nunes, 2008; da Paixão and Tucher, 2010; Souza, Toledo and Marchi Junior, 2011).

Literature in general often approaches climbing through the risk with which the sport is associated (Palmer, 2002; Fave, Bassi and Massimi, 2003; Alves, Boschilia and Nunes, 2008; Pereira, Armbrust and Ricardo, 2008; da Paixão and Tucher, 2010; Silva and Marcelos, 2019) and interesting reflections about its links to modernity and capitalism (Spink, 2001; Alves, Boschilia and Nunes, 2008; Pereira, Armbrust and Ricardo, 2008).

According to Spink (2001), the discourse surrounding risk and adventure in sports such as climbing is related to changing experiences and sentiments in the societal developments of late modernity. It is not uncommon for practitioners to associate their extreme experiences in sports with the obstacles of their competitive and stressful daily and working lives (Alves, Boschilia and Nunes, 2008; Kiewa, 2001a).

Rather than criticizing the media and ideological capture of such sports (Palmer, 2002; Alves, Boschilia and Nunes, 2008; Bruhns, 2009; Veloso, 2018), this study explores the idea that deliberate pursuits for an “authentic” and distinct lifestyle emerge in these fields (Rickly-Boyd, 2012; Wheaton, 2013). Furthermore, in order to avoid the homogenization of groups and agents involved in climbing, their lifestyles are studied based on structures and dynamics of internal differentiation and hierarchization, as seen in Scott and McMahan (2017). In other words, this investigation seeks to understand the status relationships of a specific sporting universe.

The aim of this study is to comprehend the development of a symbolic distinction system in the field of climbing, which is a sub-field of the larger adventure sports field. Climbers often build and express discourses about their identities in terms of practices and values, which may give the impression of a cohesive community. However, from a sociological perspective, the goal is to gain a better understanding of inequalities within this world, and the role played by economic and symbolic factors in the structuring these inequalities. Through that, with the empirical material here gathered, this study also intends to offer theoretical contributions to the sociology of sport.

Approaching climbing practices through status relations theory

This analysis focuses on the lifestyles of a particular group, examining both the material and symbolic elements that are made conspicuous to them. These elements serve as markers of status and are often used to distinguish this group from others, as well as to establish rankings within the group itself. This process of differentiation and hierarchization has been extensively discussed by scholars such as Weber (1982), Zhou (2005), Bourdieu (2007b), and Chan and Goldthorpe (2007).

In the present study, climbing modalities that serve as the fundamental indicators of these markers of status are examined, enabling an investigation of the process of intragroup differentiation and hierarchization.

Status orders are established through the pursuit of recognition and distinction within a group, leading to the formation of a ranking system. Groups assert their claims for resources and recognition, seeking legitimization, which results in a process of hierarchization (Zhou, 2005). Those who successfully impose and mobilize classification and hierarchization schemes come to dominate, as principles of classification and valuation of reality become embedded within the group and its agents (Bourdieu, 2007a).

From a Bourdieusian perspective, hierarchical schemes serve to structure a particular field of activity. These schemes are based on the historical accumulation of various types of capital that have been incorporated into the habitus of social agents. When new agents enter a particular field, they find it already structured in a certain way, and their actions are conditioned by this pre-existing structure. In order to fully comprehend the forces and agencies that constitute the field, it is therefore necessary to understand the role played by different forms of capital within it (Bourdieu, 2007a; 2007b)².

The possession of economic and material resources is crucial for individuals to mobilize, consume, and potentially monopolize a certain lifestyle. These resources enable individuals to occupy specific neighborhoods, define their consumption habits, participate in certain sports practices, and express

2 Chan and Goldthorpe (2004; 2007) have suggested that Pierre Bourdieu's theory views status as the symbolic component of social classes (which correspond to economic structures). They argue for a clearer demarcation between those different social components, each with its own dynamics that may contingently intersect. These authors provide important conceptual definitions, although it should be noted that the Bourdieusian proposal of analyzing economic and cultural capital separately and in an empirical manner does not necessarily conflict with their perspective. In the present study, however, we will not be discussing social classes due to a lack of comprehensive information on agents' positions in labor markets and productive units, as suggested by Chan and Goldthorpe (2004; 2007).

artistic preferences, among other things, thereby rendering their lifestyles distinctive and characteristic of particular social groups. However, economic capital is an ambiguous determinant, since status groups often reject the indignity of valuing what they see as their own extraordinary qualities, as Weber (1982) has argued.

Bourdieu (2007a; 2007b) expands on this perspective by exploring symbolic fields, illustrating that agents within these fields deliberately attempt to conceal economic influence in favor of “pure,” charismatic, and extraordinary (i.e. symbolic) elements. Economic transactions tend to undermine the enchantment of relations that insiders, who embody, adhere to, and believe in a field’s rules or *nomos*, seek to preserve as the source of their legitimacy. Thus, even if economic capital is inevitable and highly necessary in symbolic fields, highly valued internal elements tend to be abstract, such as truth, beauty, or other ideals that signal one’s lifestyle.

In traditional analyses of occupations and social classes, preferences for art, music, and sports are often considered to be determined by such categories. In this sense, these preferences are ranked as dependent on professions, occupations, working or entrepreneurial classes, and their classification schemes. However, by examining a particular sporting universe, this perspective is inverted. In this case, it becomes evident that the universe itself creates a space where occupations are differentially distributed according to its own classification schemes.

Given the climbers’ deliberate pursuit of authentic and distinctive lifestyles, as evidenced in the specialized literature, it is reasonable to suggest that the elements necessary to characterize a symbolic field are present in the climbing world. However, the question remains: what happens when individuals with significant economic capital enter this field? Is there a straightforward relationship whereby these individuals simply acquire and concentrate more status in the climbing community due to their ability to purchase and consume material and symbolic aspects of this lifestyle sport? Alternatively, could the accumulation of economic capital have an ambiguous influence on the field and the way it organizes itself, as theory predicts?

By investigating a climbing field, we aim to test the following hypothesis based on Bourdieu’s theory: Despite the expensive lifestyle associated with climbing and the inevitability of possessing economic capital, the field tends to prioritize dedication to the sport and its symbolic elements over financial status. High-income agents may introduce marginal and alien status markers into the field concerning climbing itself.

In order to conduct this investigation, some methodological procedures were adopted.

Methodological aspects

As highlighted in influential works such as Thorpe (2010) and Wacquant (2002), the use of direct observation and active participation is imperative in comprehending the rules, principles, and hierarchies that organize a sporting field. In sociological research, it is essential to capture the experiential dimension of those engaged in sports practices (de Léséleuc, Gleyse and Marcellini, 2002; Nazareth, 2021).

In order to comprehend the differentiation and hierarchization of status within the world of climbing, the author conducted participant observation as an amateur climber and obtained responses to a questionnaire regarding climbing modalities from 86 individuals. Observations were documented in a field diary (writing journal) between 2018 and 2020 in the state of Paraná. This involved assiduous gym practices and periodic outdoor climbing, exploring a few sites throughout the state of Paraná. On such occasions, climbers from diverse regions would often camp together. These were valuable social and research experiences.

Findings were then analyzed in conjunction with existing scientific literature on climbing and climbers from around the world. The questionnaire responses were not collected using statistical sampling procedures, but rather by soliciting climbing partners and friends, who in turn referred their partners and friends. The primary aim of the questionnaire was not to make generalizations about Brazilian climbers, but rather to gather quantifiable data that could supplement and be associated with the observational data collected as described above.

In addition to collecting individual and socioeconomic information, respondents were asked to indicate which climbing modalities they practiced and whether they had experience opening routes. Using this data, a multiple correspondence analysis (MCA) was conducted to examine the differentiation and hierarchization schemes of this group. Climbing modalities encompass a wide range of techniques, equipment, styles, and approaches to the sport, making them well-suited for investigating status relations when sociodemographic variables are associated with them, as was done in this study. Opening a climbing route is highly valued among practitioners and provides an indication of high or low status within the field, which will be discussed in greater detail below.

Hence, the associations and oppositions plotted on the MCA graph are interpreted based on the qualitative material collected during observations. This technique is also commonly utilized in market research to detect consumption preferences based on variables such as gender, salary level, place of residence, education, and so on. As such, the technique does not aim to establish causality, but rather to identify preferences and characteristics linked to certain groups and individuals (Bendixen, 2003). Its epistemological assumptions are consistent with the objectives of investigating status relations, as earlier discussed (Bourdieu, 2007b; Robson and Sanders, 2009).

As with all principal component methods, MCA reduces dimensionality by creating new synthetic variables based on the initial ones. Its graphs operate with two dimensions, using a first axis that captures the largest amount of variation from all data, followed by an orthogonal axis. As pointed out by Kozłowski et al. (2019), this technique does not capture the complexities of social and cultural reality fully, leaving out significant information. Nevertheless, principal component methods, including MCA, provide an excellent tool for researchers tasked with interpreting social reality. The statistical analysis was performed using R software, and the questionnaire was administered via Limesurvey.

In the next section we will describe a climbing field based on observations and interpretations of collected material as the author started the practice of climbing. There are no intentions in describing concrete and specific interactions observed during climbing experiences. What interests the most are hierarchization and differentiation schemes that can elucidate the stated questions and hypothesis.

The Structures of a Climbing Field: a first step into the analysis of the empirical data

Whenever one starts climbing, the importance of specialized equipment is the first barrier. One cannot start without proper shoes and use of magnesium powder to dry one's hands. Shoes are specially designed and already implicate one's body adaptation – they are very tight!

A sociologist immediately sees that the ownership and utilization of specialized equipment can be viewed as indications of social status, particularly in the Brazilian context where high purchasing power is required³. The collected data

3 Although climbing has gained media exposure as an Olympic sport in Brazil, it remains an unconventional practice. As a result, climbing equipment is often scarce, either imported or acquired through personal networks of individuals who bring them back in their luggage from international trips. It's worth noting that many climbers are accustomed to traveling abroad.

from the questionnaire revealed that climbing is primarily a sport of the middle and upper classes, with 72% of respondents reporting a household income above three minimum wages.

Furthermore, the climbing community is characterized by a high level of education, making cultural capital significantly important. Almost all respondents (99.9%) were either currently pursuing higher education or had already obtained a degree. Of those surveyed, 40.6% had attained some level of postgraduate education (specialization courses, masters, and doctoral degree). It is noteworthy that only one respondent reported having an elementary school education.

During field observations, a clear dichotomy between indoor and outdoor climbing practices emerged. The urban environment versus the natural environment, gym climbing versus rock climbing, and the hustle and bustle of everyday city life versus the tranquility of the natural environment were oppositional ideas that were prevalent in conversations and speeches among climbers. These findings are consistent with existing literature (Kiewa, 2001a; Spink, Aragaki and Alves, 2005; Bruhns, 2010; Bogardus, 2012; Wheaton, 2013; Beedie, 2015).

In general, outdoor climbing practices that involve greater contact with nature are more highly valued. Among the respondents to the questionnaire, outdoor sport climbing was the most frequently practiced modality (72.1%). It was not uncommon to hear disparaging comments about individuals who exclusively engaged in gym climbing.

Indoor practices are considered important as they help climbers maintain their pace, train, and stay physically fit for outdoor climbing. Training and physical conditioning are viewed as critical to enabling practitioners to manage their own risks during outdoor practices, as previously noted by Spink, Aragaki, and Alves (2005). There is a specific habitus formation here where physical training is conducted within the climbing world's schemes and purposes. These will, through socialization, become embodied durable dispositions.

Observations also revealed that contact with nature entails ethical, aesthetic, and political-ideological dimensions. From an ethical standpoint, there exists a relationship of respect and preservation of nature. Natural environments, particularly rock formations, are essential for the continued practice of sports and are therefore an object of concern and active protection by climbers. Efforts to maintain the cleanliness of the climbing sites and conversations with newcomers about the importance of adopting good practices in cleaning and preservation are common occurrences in climbing sites and WhatsApp groups. This

somewhat idealized relationship with natural environments has been well-documented in scientific literature (Marinho, 2001; Spink, Aragaki and Alves, 2005; Bruhns, 2010; da Paixão and Tucher, 2010; Bogardus, 2012; Rickly-Boyd, 2012).

These ideals about nature often lead to ideological and political propositions in defense of societal projects consistent with them. The ethical bonds through which climbers relate to nature and to each other are expressed as parameters to critique society in general and other groups in particular for not living up to these standards. This is an interesting phenomenon that has been discussed by Kiewa (2002), who analyzed a group of traditional climbers in Australia that viewed their practices as resistance to an oppressive society. However, in doing so, they may have created a rigid and oppressive environment for themselves.

The relationship with nature is a differentiating factor among the various modalities of climbing. Outdoor sport climbing is prevalent among climbers and is likely the first outdoor modality that beginners encounter. It is safer than some alternatives because of the fixed protections, which involve drilling into rock formations to place bolts. These protections offer fixed points for the climber to pass his or her rope through, which remains tied, at one end, to the climber and, at the other end, to the practitioner responsible for the climber's safety.

The fixation of these protections is done with minimal intervention in the rock, and this process is called "opening a climbing route". This is valued not only for its effectiveness but also for its prestige among seasoned climbers. Any alteration of natural properties of the rock in the process is subject to disapproval by climbers. It is a significant activity that denotes status for those who have already done it, implicating a strong climbing *habitus*. It requires a lot of experience (as it is a risky activity), trained eyesight (to "see" a climbing route when observing a rock formation that is still unexplored), specific equipment, as well as recognition of the necessary skills by the community. As a clear strategy of domination in the field as well as for monopolizing its elements, novices are censored in an attempt to open routes even if they have the proper equipment and will to do so.

There exist certain modalities within climbing that rely on mobile protection systems, which are specifically designed to fit into crevices and irregularities in walls and mountains, and can be removed after practice. Mobile equipment also require significant financial resources, as they are expensive, basically made by foreign companies, and one has to purchase a significant variety of pieces with different shapes in order to fit infinitely different crevices.

These mobile modalities are viewed as the most pure form of climbing, as they do not involve any permanent alterations to nature⁴, at least according to the idealized view of traditional climbers⁵. Practicing mobile modalities requires a higher degree of technical skill and psychological control, as the placement of protective equipment can make the difference between safety and injury. So there is a rigorous process of physical and mental development, which is geared towards navigating challenging and often perilous situations. The mastery of these skills confers a high status on practitioners of these modalities.

Within the climbing universe, particularly among older generations, there have been significant conflicts regarding the distinction between competitive and traditional climbing (Kiewa, 2001a; Bogardus, 2012). Competition is very explicit in events such as Brazilian Climbing Championship and some everyday practice. Often, those of the group that climb the more challenging routes boast their accomplishments in social media and live gatherings, which stimulates a subtle sense of competitiveness within the community. But it is noteworthy that the focus of commentary during major competitions, which often attracted enthusiasts to watch together in communal settings, centered primarily on the athletes' technical abilities and problem-solving skills, which involved making precise movements to overcome the challenges presented by the climbing wall. These discussions reflected a high level of intellectual engagement among the participants. In some instances, climbers expressed their appreciation for the sport due to its emphasis on self-improvement and personal accomplishment, rather than on winning or defeating others in a competitive setting. It was common to hear that, in one's conception, climbing was a "non-competitive sport". It is clearly an effort to regulate agency within the field, as if the atmosphere of achievement and recognition is valued to a certain extent and maintained within acceptable limits by practitioners. A regulation that is strongly advocated by practitioners of 'purer' modalities, who are predominantly the more experienced individuals, owing to the demanding nature of the skills required. Furthermore, these modalities entail a considerably greater degree of commitment, as they are viewed more as a lifestyle choice (there's a lot of psychological training to be done), rather than merely a hobby.

4 Traditional climbing is a form of ascent that relies solely on mobile equipment, without the use of pre-installed anchors or fixed ropes. In contrast, mobile roped climbing involves scaling longer routes, typically exceeding 30 or 40 meters in length, and necessitates setting up a new support base midway through the climb on the wall or mountain, collecting the ropes, and continuing with the next stage of the ascent. This procedure of collecting ropes, and setting a new support base is what defines the "roped" modality.

5 As Bruhns (2010) calls it, a sort of myth of the untouched nature.

Fundamental to several of the phenomena under discussion is the presence of a sportive capital. This form of capital is rooted in the level of commitment demonstrated towards this particular field, along with one's experience and proficiency within it. In this study, the quantification of this capital is carried out through the analysis of data using multiple correspondence analysis. Years of practice and the creation of new climbing routes are employed as proxies for measuring this form of capital in further sections of the article.

Finally advancing towards the aesthetical aspect of climbing. Enthusiasts often adorn themselves with salamander tattoos and key chains, as certain species of salamanders are known for their climbing abilities. Climbing is a highly technical sport that places relatively little emphasis on brute strength (Kiewa, 2001a; Marinho, 2001; Bogardus, 2012; Gagnon, Stone and Garst, 2015; Nguyen, 2017). Instead, the beauty of climbers' movements is frequently praised. The requirement to concentrate and maintain a delicate balance during maneuvers, referred to as "muvs" (a Brazilianization of the English word "move", commonly used among climbers), contributes to a sense of integration with nature.

The aesthetic appeal of the walls and rock formations in climbing environments is a topic of frequent discussion. These formations exhibit diverse colors and luminous reflections based on their mineral composition. The climber's interaction with these formations involves a level of skillful and delicate movement that emphasizes balance, technique, and concentration, rather than mere physical strength. This approach, which prioritizes silence⁶ over exertion, is highly valued within the climbing community, as an ascent that relies heavily on brute force is deemed aesthetically displeasing. Consequently, this type of movement fosters an immersive and imaginative integration between the climber and the natural environment.

Experienced climbers possess a deep understanding of the climbing route and are able to anticipate and visualize their movements on the rock face. They are skilled at identifying and utilizing rock irregularities as handholds, footholds, and resting points during the ascent. The formation of calluses on the hands and feet is a common and expected consequence of frequent climbing, and is regarded as a sign of dedication to the sport and an essential resource for improving one's climbing ability. The development of calluses helps to alleviate the discomfort and pain that often accompany climbing, thereby facilitating physical and mental endurance during the ascent. The cultivation of physical

6 It is common that in a climbing sector people complain about loud conversations and music, as it is said that they disturb whoever is climbing.

and mental toughness through training and the transformation of the climbing body is crucial for achieving psychological control and composure during the ascent. Maintaining mental clarity and focus is of paramount importance for success in the sport. Climbers, much like the rocks themselves, become increasingly resilient and adaptable, developing physical flexibility and psychological fortitude in the face of adversity. It is an impressive *habitus* formation.

The interaction between a humanized rock and a climber, viewed as an integral component of nature, is shaped by the execution of an efficient and effective vertical movement. This movement, which is often contrary to novice and outsider expectations, is an essential element of the aesthetic of climbing. This aesthetic can also intersect with gendered politics, as social perceptions of climbing do not typically conform to stereotypical notions of masculinity, as seen in activities such as car racing or martial arts. However, as noted by Kiewa (2001b), gendered assumptions and biases persist in the climbing community, revealing the complex interplay of cultural and social factors that shape the practice and perception of this sport.

In the sport of climbing, while brute force is generally undervalued, muscle resistance is highly regarded and demands significant training, often resulting in the development of lean and athletic bodies among dedicated practitioners with low levels of body fat. Although women may be commonly associated with ideals of agility and gracefulness in movement, muscle resistance and a lean physique are still often considered to be predominantly masculine attributes. Additionally, in the literature and in the field, there exists a certain ideology of conquest that is often championed by male climbers. The successful ascent of a route on one's first attempt without any falls is considered a significant accomplishment, a kind of triumph over the obstacles posed by the rock face. This ideology of conquest is frequently espoused by male climbers, both in climbing communities and through social media platforms such as WhatsApp groups, reflecting the ongoing influence of traditional gender roles and expectations within the sport.

Perhaps emboldened by the intrinsic qualities of climbing that are already culturally associated with femininity, as well as the highly educated environment of the climbing community, discussions regarding the representation of women and critiques of misogynistic attitudes among practitioners were observed. Notably, such critiques were sometimes directed not only at individuals within the climbing community but also at public and/or political figures unrelated to the sport. These conversations parallel the findings of de Léséleuc, Gleyse and Marcellini (2002) as well as Cutter (2021). While not universally held,

such discussions reflect an emerging awareness of and resistance to gendered stereotypes and norms within the climbing community.

A lot of topics here, such as gender stereotypes and contact with nature point to a very interesting Bourdieusian discussion about agents reflexivity. Unfortunately that would deviate from this work's goals. Surely other research can explore those opened paths.

Having highlighted these schemes that organize the climbing field, we will proceed to analyze the questionnaire's collected data.

Respondents' characterization

From the 86 respondents, most of them were men:

Men	Women
62	24
72,10%	27,90%

Table 1 - Frequency and proportion of men and women among respondents

Source: own elaboration.

Highly educated:

Schooling level distribution							
Schooling level	Elementary	Higher Ed.	Incomp. HE	Spec. courses	Inc. Special.	Master degr.	Doctorate
N	1	26	17	21	7	11	3
Percentage	0,01	0,30	0,20	0,24	0,08	0,13	0,03

Table 2 – Schooling level distribution

Source: own elaboration.

With above average income:

Household income distribution				
Salaries	1 – 3	3 – 5	5 – 10	Over 10
N	29	24	19	14
Percentage	33,70%	27,90%	22,10%	16,30%

Table 3 – Household income distribution

Source: own elaboration.

Most of them having between 28 to 36 years⁷:

Age distribution			
Cohorts	21 to 27	28 to 36	36 to 65
N	23	43	20
Percentage	0,27	0,50	0,23

Table 4 – Age cohorts distribution

Source: own elaboration.

And have been climbing mostly from 3 to 10 years

Climbing experience distribution (years)			
Cohorts	0 to 2	3 to 10	11 to 34
N	28	40	18
Percentage	0,33	0,47	0,21

Table 5 - Frequency and proportion of respondents regarding climbing experience in years

Source: own elaboration.

Multiple correspondence analysis: reading the graph

Climbers were asked to report the modalities of climbing they practiced and whether they had experience opening routes. The resulting data was analyzed using Multiple Correspondence Analysis (MCA) to visualize the relationships among the variables in this domain. Graph 1 depicts the climbing modalities in red, which were the only variables used in statistical analysis. The green supplementary sociodemographic variables were overlaid on the modalities to detect potential associations and to facilitate further sociological inferences. Respondents were given the option to mark which modalities they practiced, resulting in the use of binary variables. For example, “b.o_yes” indicates that outdoor bouldering was marked as a modality that is practiced, while “b.o_no” indicates that outdoor bouldering was not marked.

Table 6 shows the legend for modalities abbreviations used in the graph.

⁷ Age and climbing experience cohorts were defined based on the cuts of the distribution of these variables among the collected responses. The values, therefore, refer to the cut between the minimum values up to the 1st quartile, from this to the 3rd quartile and from this to the maximum values found.

Abbreviations	Modalities
s.i	Indoor sport climbing
s.o	Outdoor sport climbing
b.i	Indoor boulder
b.o	Outdoor boulder
art	Artificial
trad	Traditional free climbing
h.mount	High mountain
fix.rop	Roped climbing with fixed protections
mob.rop	Roped climbing with mobile protections
b.w	Big wall

Table 6 – Legend of marked modalities and their abbreviations in Graph 1

Source: own elaboration.

The sociodemographic variables considered in this study were gender, age (grouped by cohorts and labeled with a prefix “a” such as ‘a.21-27’), occupation (wherein the category “students” was also included), per capita household income (grouped by salary cohorts and labeled with a prefix “s” such as ‘s.1-3’), educational level, and duration of climbing experience (grouped by cohorts and labeled with a prefix “t” such as ‘t.o-2’).

The horizontal (Dimension 1) and vertical (Dimension 2) axes capture 25,6% and 15,7% of data variation respectively. The 1st dimension is strongly based on the opposition between practicing or not traditional climbing. Practicing or not indoor and outdoor boulder cut both dimensions transversely, from top left (“yes”) to bottom right (“no”). The 2nd dimension is strongly marked by sport outdoor and indoor modalities, being those who practice them at the top and those who don’t on the bottom.



Graph 1 – Multiple correspondence analysis of climbing modalities and supplementary variables
Source: own elaboration.

Social distances between modalities and the structures of the climbing field

In Graph 1, the opposition observed in the 1st dimension represents the greatest social distance between different climbing modalities, and is directly related to the primary organizing scheme of the field. First traditional, and then fixed rope climbing are the modalities best aligned with this horizontal axis. As already discussed, these are highly valued modalities in the field, requiring skills, physical and psychological training and expensive equipment. They involve intense contact with nature, and climbing sectors, such as rock formations at high altitudes or with crevices, which are less accessible due to technical difficulties. Traditional climbing is often considered the purest modality as already stated. Overall, a hierarchy from high to low status in the climbing field goes from right to left of the graph.

The 2nd dimension of the graph is closely associated with sport climbing, specially the outdoor modality. The non-practice of this modality is located in the lower part, while its practice is found in the upper part of the graph. Sport climbing is the most widely practiced modality and is often featured in news and social media. It is also typically the first contact a climber has with outdoor practices, as it is considered relatively safe due to the use of fixed protections. Sport climbing represents a threshold in terms of psychological control, as climbers must make the decision whether or not to try more technically and psychologically challenging modalities. This second axis captured basically the opposition between what is typical and what is not in a climbing field. At the lower part of the graph are almost all the non-practice of modalities. Interestingly, the lower income levels are positioned at the top of the graph, while the higher income levels are located at the bottom.

Situated within the upper left quadrant of the chart is boulder climbing, a modality that demands a considerable degree of physical strength and, in its indoor iteration, comparatively less psychological control due to the walls' limited height and the provision of crash-pads to ensure safety in the event of a fall. While this practice enjoys considerable popularity, seasoned climbers regard it as a means to an end or a means of physical and kinesthetic training for more demanding and highly-regarded outdoor pursuits. Additional variables in this quadrant encompass students, younger practitioners, and individuals with moderate incomes.

In the lower left quadrant of the graph, individuals with little climbing experience (0 to 2 years) are shown to have a negative stance towards the more technically challenging modalities. This quadrant is characterized by professions

associated with administrative work (both public and private sectors), relatively high family incomes (ranging from 5 to 10 minimum wages), and individuals residing in capital cities. While female respondents are also present in this quadrant, the distance between genders is relatively small and not statistically significant. This group consists of beginners and maybe curious practitioners. This quadrant has the lowest concentration of sportive capital (very little years of practice and no route opening) and is associated with relatively high economic capital.

Living in a capital city appears to be associated with difficulties in gaining climbing experience, while residing in the interior of states (upper right quadrant) can facilitate access to rock formations with crevices and high altitudes, as well as an appreciation for travel and non-urban environments. For medium and high income groups, cars and road infrastructure are not limiting factors, but obstacles related to the customary practices of residents of large cities, such as more strenuous work rhythms that discourage relatively long weekend trips, habituation with the urban landscape, and a preference for indoor gym spaces over outdoor environments, may impact their ability to engage in climbing.

Traditional climbing is slightly to the bottom side of the chart, but since it is very near the origin of the 2nd axis, this means that its practitioners are spread up and down to the right quadrants. High mountain climbing, on the other side, is clearly concentrated at the lower right quadrant. This practice is associated with those who have higher incomes (over 10 times the minimum wage) and traditional professions such as lawyers and engineers. Practitioners with specialization courses (complete and incomplete “postgraduation” in the graph) and master degrees are also at this quadrant. There is a high amount of economic and cultural capital concentrated here.

Climbing in high mountains demands a high level of physical conditioning, a broad range of technical skills, and knowledge of the natural environment, including survival skills in hazardous situations, acclimation to high altitudes, and the use of specialized equipment for communication and location. Furthermore, for Brazilians, it involves coping with extreme climate conditions, including harsh cold weather, and expensive travel costs. Besides Europe, high mountain climbing is typically pursued at classical sites in neighboring countries such as Chile and Argentina.

Thus, the wealthiest practitioners and those with high levels of academic schooling are associated with a modality that is on the threshold between what is and what is not climbing. The stance these agents make for distinction in the field opens it to heteronomy as high mountain, despite its rigor and demands, combines elements from climbing and other adventure sports practices.

In the upper-right quadrant, the most esteemed climbers in terms of the specific norms of the field are concentrated, exhibiting the purest and technically demanding modalities. Here are the more experienced climbers, practicing for between 11 and 34 years, those that have opened new routes, and those who work as climbing or adventure sports instructors, as well as camping owners (labeled “adventure” in the graph). It is the quadrant where specific sportive capital is more intensely concentrated. It gathers unemployed practitioners as well as the lowest income bracket.

A notable aspect of this field is that legitimacy is attained, in part, through an almost ascetic devotion to the sport. These climbers lead a lifestyle that eschews luxury and instead prioritizes occupations that offer direct and intensive engagement with the most prestigious practices and natural sites. This approach to dominating the field is noteworthy since legitimacy is further bolstered and lifestyle rendered more “authentic” as a result of their great, and apparently total, dedication to the sport, even at the potential expense of their earnings. On the other hand, it is likely that these agents have wealthy family origins, thus being able to sustain such strategies in the field for longer periods in their lives. This, however, is a research still to be done.

Conclusions

As climbers accrue experience, they tend to gravitate towards more challenging and “purer” forms of climbing. As a result, they develop a diverse set of skills encompassing everything from route opening to exploring modalities that necessitate specialized equipment, more extensive technical training, and hence, a greater degree of psychological fortitude. These climbers exhibit a dominant presence within their field, discouraging novice climbers from attempting to open new routes. They showcase their expert abilities on social media and in social gatherings, while also engaging in highly intellectual discussions regarding the performances of athletes in major competitions. This level of commitment to the sport is both time-consuming and heavily focused on symbolic aspects, at the expense of economic considerations.

So the work’s hypothesis were confirmed. A symbolic differentiation system within the climbing field is clearly operating, and economic capital maintains ambiguous relations to status in the field. But the dichotomy between the upper and lower right quadrants serves to expand upon that working hypothesis. The observation that traditional professions and high schooling levels, besides higher income levels, occupy the lower right

quadrant merits attention. First, it shows that symbolic valued elements here are very specific, and slightly detached from academic capital. On one hand, almost all practitioners have some link to higher education and post-graduation in general. Many are still students and these are focused on physical demanding modalities, such as boulder. On the other hand, the upper-right quadrant, where practitioners with the highest amount of specific sportive capital are located, there are no schooling variables. Variables for master degree, and complete and incomplete specialization courses are all the bottom-right quadrant. A symbolic differentiation climbing system is in operation, but it evidently conflicts with other well established fields, such as the academic and that of professions.

It seems that individuals tend to prioritize their allegiance to external indicators of status more strongly when these indicators are culturally and socially esteemed. Consequently, solely pursuing elements of climbing that are overly obscure or specialized may not be sufficient to maintain one's professional and academic status beyond the climbing community. Instead, it may be more effective in these cases to demonstrate a wide range of skills that extend beyond the realm of climbing, such as traveling to far-flung destinations, engaging in cultural experiences, and pursuing other challenging activities.

For all these aspects, despite being highly indebted to the intense technological development of modern society, climbing develops interesting ideals and practices that value contact with nature and body dispositions that somewhat face up to a strictly instrumental and economically-driven way of life. Like all symbolic human activities, it raises interesting and complex elements of reflection for sociology.

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