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Study of perceptions regarding health in people who use bicycles as a means of transport

Estudio de percepciones sobre la salud en usuarios de la bicicleta como medio de transporte

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ABSTRACT In recent years, the development of specific promotion policies in some Spanish cities has led to increased use of bicycles as a means of transport. In the case of the city of Seville, bicycle commuting within the metropolitan area has gone from being quantitatively insignificant to amounting to more than 6% of the modal share. Based in ethnographic research carried out in the region of Andalucía between 2013 and 2015, implementing interviews, focus groups and participatory forums in which 320 adults took part, this article analyzes from a sociocultural point of view perceptions about the health of those who use bicycles as a means of transportation and evidences some challenges that need to be faced in promoting bicycle transportation in the city. Among the effects reported by users, those relating to the perception of improvements in their state of health and emotional well-being can be highlighted. The article concludes by problematizating the analysis of the relationship between health and physical exercise in the city from a socio-anthropological perspective.

KEY WORDS Bicycling; Exercise; Health Promotion; City Planning; Social Perception; Spain.

RESUMEN El desarrollo de políticas de promoción específicas en algunas ciudades de España en los últimos años ha propiciado un mayor uso de la bicicleta como medio de transporte. En el caso de la ciudad de Sevilla, los desplazamientos diarios en este vehículo dentro del área metropolitana han pasado de ser cuantitativamente insignificantes a suponer en solo cinco años más del 6% del reparto modal. A partir del trabajo etnográfico desarrollado en la región andaluza entre 2013 y 2015, centrado en la implementación de entrevistas, grupos de discusión y foros participativos, en los que participaron 320 personas mayores de edad, en este artículo se describen desde un punto de vista sociocultural las percepciones sobre la salud de los usuarios de la bicicleta como medio de desplazamiento, visualizando algunos retos a afrontar en la promoción del transporte ciclista en la ciudad. Entre los efectos referidos por los usuarios, destacan los relativos a la percepción de mejoras sobre su estado de salud físico y en su bienestar emocional. El resultado final apuesta por la problematización en el análisis de la relación entre salud y ejercicio físico en la ciudad desde un enfoque socioantropológico.

PALABRAS CLAVES Ciclismo; Ejercicio; Promoción de la Salud; Planificación de Ciudades; Percepción Social; España.

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HEALTH IMPACTS OF THE USE OF BICYCLES AS A MEANS OF URBAN TRANSPORT

The increased privatization and motorization of urban transport in major cities, a process inscribed within the model of hegemonic urbanism, has had a significant impact on the mobility patterns of the population. This has not only contributed to fostering sedentary behavior and its associated health risks, but has also given rise to a dominant model of mobility that carries with it a wide range of problems related to the use of public space, the deterioration of air quality, and more generally, environmental sustainability and the dehumanization of the city.[1,2,3]

The use of bicycles as a means of transport in cities constitutes an alternative to this model, and is in line with other efforts and actions, such as those aimed at the strengthening of public transport, the use of non-polluting motor vehicles, or the promotion of walking for transportation.[4] The benefits of cycling have been analyzed from a number of perspectives in recent years, including its economic, urbanistic, social, environmental, and landscape-related dimensions, to name but a few of the most relevant aspects.[3,5,6]

In relation to health, the use of bicycles presents a number of beneficial aspects that must be considered, but these have not been sufficiently and systematically researched due to the complex and context-dependent nature of the issues involved.[7,8] Firstly, it has been shown that cycling constitutes an opportunity for moderate exercise among people who do not habitually engage in daily physical activity.[1] This opportunity is potentially accessible to a large proportion of the population given the widespread presence of bicycles in homes and their relatively low cost. Recent studies have pointed to the possibility of resolving a recurring paradox in the habits of a large number of people: while on average many people spend upwards of 30 minutes commuting daily, they are unable to find the same half-hour of free time to exercise.[8]

At present, the increase in sedentary behavior in our societies is seen as a major health problem, and according to some authors it has reached the status of a *global pandemic*.[9] In quantitative terms, estimates for 2016 have suggested that the prevalence of physical inactivity (that is, levels of physical activity lower than the standards set by the World Health Organization) was 23% for adults and 80% for school-going adolescents.[10] In Europe, statistics have evidenced a slight rise in physical inactivity over the past five years, growing from 39% to 42%.[11] These figures are slightly lower than those recorded in Spain (44%), where higher percentages of physical inactivity were observed among women, the elderly, and low-income groups.[12] However, these data do not negate the existence of a society-wide preoccupation with health as well as a general tendency to identify the need to improve health as a primary motive for engaging in physical activity or sport, both in Spain and throughout Europe. In this sense, it has been estimated that for 62% of Europeans, health is the primary motivation for engaging in physical activity or sport, compared with 73% of Spaniards.[11]

Consensus exists within the scientific community that moderate exercise has verifiable health benefits, and epidemiological evidence has aided in defining its ideal characteristics in terms of pace, intensity, and quantity. WHO recommendations further specify that adults between 18 and 65 years old should engage in a minimum of 150 minutes of moderate-intensity physical activity per week in order to promote physical wellness and deter disease, adding the possibility of combining moderate- and vigorous-intensity activity.[13] These guidelines for exercise also seem to have positive effects with regard to chronic disease prevention, as well as a positive impact on clinical history and risk factors such as high blood pressure and obesity.[14]

Longitudinal cohort studies have shown evidence of the health benefits of moderate-intensity cycling for daily commuting,[1,7] pointing to reduced risk of mortality due

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to cardiovascular disease, an inverse relationship with the incidence of diabetes and different types of cancer, and evidence of improved perception of overall emotional well-being. Improvements in cognitive functions and reduced risk for symptoms of depression have also been detected, although impacts on mental health have generally been assessed indirectly due to a lack of concrete studies applied to the use of bicycles. That is to say, the benefits of light or moderate physical activity are extrapolated to the use of bicycles, as in the case of decreased symptoms of depression.[14] Improvements have also been reported in what some authors have called "social health," in that this vehicle – unlike other modes of transport – facilitates human contact and social relationships, connecting social and psychophysical dimensions.[16]

In other regards, the health impacts of cycling have been indirectly analyzed through the lens of issues such as improvements in air quality, decreased use of motorized transport, and diminished visual and noise pollution, all of which contribute to a more *human-scale urban environment*.[1] Other benefits have also been indirectly assessed, such as the positive impacts in the financial balances of public administrations and insurance companies, both because of lower costs in healthcare provision associated with cycling practices,[17] as well as evidence of reduced mortality even in the presence of minor increases in bicycle use.[18]

Lastly, and taking into account the overall positive balance of an activity commonly identified as beneficial to health,[8] risks and dangers have also been noted. Among these is the risk of accidents, which are relatively less frequent in contexts that present less aggressive motor vehicle transit and higher-quality cycling infrastructure.[19] It is necessary to take into account the importance of subjective dimensions of risk; that is, the perception of risk on the part of users.[20] Perception of risk tends to be lower in places where cycling is seen as more *normalized*, taking into account a number of factors associated with the characteristics of the city as well as the social characteristics of users (such as age, sex, experience, and cycling skill, among others).[21] With respect to other types of risk, such as exposure to air pollution caused by traffic, although a few minor, short-term effects have been found in subjects exposed to high levels of pollution, at present there are no conclusive studies on the relationship between cycling and long-term health problems, which points to the need for future research on this matter.[8]

Analytical context: the emergence of bicycles as a means of transport in Andalusian cities

Despite the health benefits discussed above, bicycles generally continue to have a relatively marginal place in transportation planning, urban design, and health promotion policies, with very few exceptions.[22] In actuality, with the exception of the more entrenched experiences of North and Central Europe (as well as other areas where cycling has emerged as a prominent mode of transport), this practice tends to be marginal and uncommon.[23] In society as a whole, decisions to opt for the use of this vehicle are influenced by a complex array of motives and variables that vary locally both at the individual and collective level. These motives may be based on factors such as issues of accessibility (for example if the cost of bicycles is prohibitively high for low-income groups), but may also include factors related to terrain, climate, public policy for the promotion of bicycle use, road infrastructure design, and transportation policy. Of course, these factors may also include the habits, customs, and perceptions regarding the real or potential cyclist population themselves, among others.[3,5,23] All of this must be understood in relation to urban spaces that for decades have been thought of and conceived primarily in terms of the circulation of motor vehicles, which have exercised a continuous hegemony over other forms of mobility, constructing a powerful cultural barrier.[24]

In Spain, a number of cities have experienced a significant rise in bicycle transport

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in recent years. Seville, along with Barcelona and Valencia, has been one of the most notable cases. Exponential growth in bicycle use between 2006 and 2011 made this form of transport account for over 6% of the modal share (one of the highest figures in the country), a case so remarkable that it has drawn attention internationally as an object of study.[25,26] This growth can be primarily explained by directed public efforts, centered on the development of high-quality cycling infrastructure, including the construction of an integrated network of over 180 kilometers of bicycle lanes and the creation of a public bicycle service. This initiative was later picked up at the regional level with the Cycling Plan of Andalusia, created in 2014. However, public initiatives have also been accompanied by other factors: growing concern for health and physical appearance throughout society; loss of purchasing power on the part of the population as a result of the economic crisis; changing perceptions of bicycles as a desirable object of consumption; the progress of certain pro-cycling cooperatives and cycling advocacy groups; and heightened awareness and concern regarding the decline in urban environmental conditions.[27] Among the challenges that have slowed this growth in recent years are the following: inadequate development of intermodal transport (also called mixed-modal commuting), such that the necessary connections between cycling and other means of public transport are not taken into account; the scarcity of adequate bicycle parking near places of origin and destination; poor maintenance of bicycle lanes; and a general disinterest in consciousness-raising and social promotion of cycling beyond the initial impetus for infrastructure.[25,27]

In this and in many other cases, the study of social perceptions of bicycle use – locally subsumed under the umbrella of what is known as *cycling culture* – is necessary in order to explain and assess the present and future status of this means of transport.[28] To put it in more concrete terms, taking into account the importance assigned to health in social agents' discourses, it is clear that sociocultural perceptions of the links between health and the practice of urban cycling have an impact on the ways in which these agents contemplate the possibilities of initiating, continuing, or abandoning bicycle use. These perceptions do not only encompass the universe of self-perception,[29] but also extend to the social imaginary regarding health and the importance it is given. They also reveal the necessity of including interpretations of the phenomenon being studied in the analysis of discourses.

METHODOLOGY

This article forms part of a research project entitled "Sustainable mobility in Andalusia: Practices and discourses regarding the use of bicycles." Research was carried out between November 2013 and September 2015, and preliminary results have recently been published in a number of articles, books, and research reports.[30,31,32] The general objective of this project was to study processes of urban sustainability linked to the use of bicycles as a means of transport, with health being a central theme in the interpretive analysis. The multidisciplinary nature of this research should be noted: a total of 15 researchers participated, the majority anthropologists and the rest belonging to other disciplines such as sociology, architecture, or environmental sciences. This allowed for the combination of various social research methods aimed at analyzing both the discourses and the practices of the population with respect to bicycle transport. Ethnographic methodologies were the most widely used of these techniques, with fieldwork being carried out in five major Andalusian cities: Cadiz, Cordoba, Granada, Malaga, and Seville. In terms of fieldwork, the most commonly-implemented techniques were participant observation and above all in-depth interviews, which had an open-ended and semi-structured character, making use of an interview guide that covered a series of previously-selected variables and topics of interest. Specific interview guides were

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developed for each of the different groups associated with bicycle use. These groups were considered to be representative of the agents that make up this social world, logically with a degree of overlap between them:

- Bicycle users
- Experts and representatives of associations, businesses, and social movements
- Responsible public officials and technocrats
- Users of public and private motorized transport
- Pedestrians
- Users of other less common means of transport and persons with disabilities

Interviews and conversations were preceded by a review and analysis of source documents related to each area of study (primarily traffic ordinances and regulations, mobility plans, and urban planning documents). A total of 320 adults were selected to participate, geographically distributed as follows: 70 from Cadiz, 47 from Cordoba, 66 from Granada, 49 from Malaga, and 88 from Seville. Selections were made so as to reflect the sex distribution of bicycle users (approximately 60% men and 40% women), taking into account that the bicycle is still a male-dominated means of transport.

Other methods used to collect testimonies from small groups of individuals included discussion groups and participatory forums. A total of 12 discussion groups were held in different study areas between January and June of 2014, and a total of 105 individuals participated. Participants in discussion groups were diverse in terms of both sex (52% men and 48% women) and other variables such as socioeconomic background, age, profession, and primary means of transport within the city. As a result, heterogeneous groups were formed, composed of unemployed and underemployed workers, university students, working class women, taxi drivers, and public officials, among others. The proposed discussion group dynamic included brief introductory comments on the issue of mobility within the city, but a principle of minimal moderator participation was upheld during discussions. A total of ten participatory forums were also held at the end of 2014, two in each of the five previously mentioned cities. These were conceived of as spaces to facilitate the participation of the principal social agents linked to bicycle transport. In the case of participatory forums, groups of participants were not selected based on socio-structural characteristics, but rather the agents chosen to participate were selected during preliminary fieldwork. Selection criteria for these agents included three primary aspects: representativeness, position, and reputation.[33] Therefore, a wide range of actors from institutional and associational circles were included (civic, business, and social actors). Over 100 people participated in these sessions, and the testimonies offered were more explicitly focused by moderators than in discussion groups, in this case with the dual objectives of diagnosing the situation as well as devising proposals related to the idea of sustainable mobility in the city, reinforced by communicative tools that favor democratic dialogue and equitable expression in discourse.

All interviews and group sessions were recorded and the audio was transcribed and incorporated into field notes to later be analyzed and grouped into predefined categories. No qualitative data analysis software was utilized in the research. Researchers obtained ongoing informed consent from those interviewed, who were explained the objectives of the research and agreed to voluntarily participate in the research, and whose anonymity and privacy were maintained throughout the research process. In order to uphold the promise made to participating agents regarding the presentation of information collected in the study, once the research was concluded, public encounters were held in study areas in order to disseminate the results. Additionally, preliminary results (such as information collected in participatory forums) were published online in open access.

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RESULTS: BICYCLES AND PERCEPTIONS REGARDING HEALTH

When analyzing social perceptions of health from a sociocultural perspective, the influence of multiple factors makes clear the need for a broad understanding of health that incorporates dimensions of physical, mental, and social well-being.[34] Corbin, for example, examines different experiences of health in the face of illness, particularly aspects of the experience such as time, space, morality, aesthetics, information, technology, and interpersonal relationships.[35] In sociocultural terms, perceptions of health are understood as an experience of monitoring the body, in that illness, injury, or pain emerge as experiences of *bodily disarray*, that is, situations in which the body is not "absent;" a type of symbolic reappearance that is brought on by an emerging self-perception of the body.[29,36]

In this sense, a person's relationship to health – not only with illness, but also with other processes such as care and prevention – must be contemplated in terms of its inclusion in a broader structure; or as Menéndez puts it, it constitutes part of the health-disease-care-prevention process,[37] which in turn has major socio-cultural determinants. It follows that perceptions of health are largely dependent on the context in which they are inserted.[38] In our study area – as can be deduced from analyses of bicycle users' discourses – perceptions of health are linked to a number of factors connected with the social, economic, and political context, as will become clear in the discussion that follows. This discussion is by no means an exhaustive, but rather meant to be a representative account of the context in question.

First of all, we found that in large and medium-sized cities, in general, discursive links between bicycle use and health were strongly affected by the *age variable*. The majority of references to health came from interviewees over the age of 40 – both among men and women – and the frequency of these references tended to become ever more present among progressively older age groups, for whom signs of aging appear more clearly. In general, we can deduce from the discourses under analysis that low levels of social acceptance of these aging signs were combined with intensified distress derived from a sense of relative proximity to death and distance from the ideal of the youthful body, even though these sentiments were not always explicitly stated.

On the other hand, regarding motivation for initiating cycling practices, bicycle users cited the centrality of recommendations provided by healthcare professionals, whether they were for preventive, symptomatic, or therapeutic purposes. The fact that these recommendations came from representatives of the medical establishment tended to reinforce their power of persuasion regarding habit modification or reinforcement. The following testimony gathered from a 32-year-old man expresses this sentiment: *"I had a knee injury and when I went to the doctor they told me that I should get a bicycle. At first I didn't like it very much and I didn't use it* [...] *but after a while I started getting more into it."* In their day-to-day assessments of the physical effects of bicycle use, users' testimonies refer to varied experiences; some of the most common include recovery from prior joint or muscle damage, recuperation or strengthening of physical endurance, and a return to more healthy levels of basic health indicators such as cholesterol, blood sugar, and triglycerides. At one extreme, benefits were described as authentic "miracles," such as improvements in state of mind, strengthening of the immune system, and overcoming certain addictions (such as smoking) which were taken to be incompatible with cycling: *"I've been doing it for 10 years and I haven't even gotten a cold, but in one month of riding my motorcycle* [instead of cycling] *I've gotten sick"* (30-year-old male interviewee).

In general, when practiced with moderate to light intensity and in the absence of steep slopes, bicycle users often extol the benefits of this mode of transport in *"not demanding too much of the heart* [...] *because you're exercising, and if you have leg, knee, or circulatory problems it's good to go at a*

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slower pace" (50-year-old male interviewee), as well as to make progress in the self-perceived notion of being "in shape." Measures of positive results were alluded to in a variety of ways by interviewees, and were most often associated with meeting individual expectations, achieving concrete goals, feeling a sense of newfound ability or experience, among other factors.

Another relevant aspect that must be taken into consideration is the way in which agents conceive of the continuity or interruption of *habits consolidated over time* (whether sedentary or active) in relation to perceptions of health, which gives way to a wide range of diverse implications. On one hand, it was common for persons over 40 to break with sedentary routines that had been consolidated over many years through cycling practices aimed at, in their words, "improving their health." On the other hand, another significant group of bicycle users reported acquiring cycling habits at an early age, and did not cite health as a significant justification in their discourses. These individuals are found principally in small towns, in general older people who have an overall positive self-perception of their health and who do not directly associate cycling practices with a need to improve or maintain their health, but justify them simply *"because it has always been like that."* These are often older men who have used bicycles for daily commutes since their youth, for their daily routes to the farm, leisure activities or shopping, and whose professional activities have been generally related to manual labor or linked in some way to physical exercise. These habits are therefore considered to be largely independent from passing fads, and are not usually brought on by medical recommendations; they often have origins in the bicycle culture that emerged in the 1950s and 1960s, when the use of bicycles as a means of transport was not as much of an exception as it is today.

Generally speaking, a city's size and *urban layout* also influence cycling practices and the discourses regarding health that form around them. Larger cities, where motorized transport is more omnipresent, are not usually attractive for bicycle transport, less so if few measures are taken to diminish traffic or if there is no well-planned and high-quality system of bike paths. In some cases, the layout of the city itself encourages the abandonment of bicycles in favor of other means of transport commonly considered to be healthy, such as walking. This occurs in cities such as Almeria, Huelva, or Cadiz, where daily commutes do not usually involve long distances, or in areas of other cities such as Seville, Malaga, and Cordoba where large expanses of the historic center have been closed off to motorized transit. In these historic centers that have been pedestrianized or restricted to traffic, where large areas of interest (commercial, business, or educational) exist, walking appears in testimonies as *"the best possibility for staying healthy,"* far more than cycling. Members of a pedestrian's association in Malaga share in the perception that there has been a shift in the way that we relate to the environment and to health:

> *One of the mottos of our association is precisely that: "walking is life." I think there is more and more awareness of that and concern for health has become more present. I think that people are really getting out there again, there is a need for open space, to get fresh air, to do a little exercise. I think the mentality is changing.*

Nonetheless, in many cases motor vehicle transport is supplemented by walking, and due to problems with accessibility or parking in these areas people often complete the first part of their trajectory by motor vehicle, but choose to walk in the historic center. Each case has particular characteristics, which are determined by a number of converging factors: in Granada, for example, the steep terrain on which the streets of its historic center are built discourage the use of bicycles as a means of transport. Generally speaking, road infrastructure plays a central role in this, such that cities with roads that are better adapted to bicycle transit are those which

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encourage the participation of groups generally less likely to develop cycling habits, such as women, children, and the elderly. There are many reasons that women have traditionally been less prone to bicycle use, among which are perceptions of associated risk, which are diminished by the presence of bike paths or low levels of traffic.[30] Therefore, women's discourses regarding health and bicycle use are more affected by perceptions of risk, which are also diminished by the multiplier effect created by the greater presence of female cyclists in the streets: as more women take to cycling in the city, the total percentage of women who participate in this activity increases.[39]

The social class variable is consistently present in accounts of health and cycling. As Bourdieu[40] notes, if the cultural practices of different classes are inscribed in the body and its manifestations, it can be held that the body itself carries *class dispositions*. Therefore, references to health as the primary motivation for bicycle use appear less frequently among people with a more precarious economic situation: manual laborers or "unskilled" workers, low-income immigrants, unemployed or precariously employed workers, and in general any person that experiences some form of social exclusion. In some cases, the ideology that links bicycle use with low socio-economic status persists, such that individuals who experience some form of exclusion or social vulnerability often avoid bicycle use, particularly when the bicycle utilized for daily commutes is visibly a low-cost model, given that this can convert their bicycle use into a marker of class. Regarding workers who use bicycles as part of their daily work routines, various subgroups can be defined. On one hand, for those who work in trades or in more traditional professions, considerations related to health are eclipsed by discourses that center on the need to save money or the difficulties faced in obtaining a motor vehicle. On the other hand, among workers in newly resignified fields (cleaning, advertising, security, etc.) who have come to bicycle use more recently, references to health appear with more frequency. These are often related to ideas such as facing the harshness of the outdoors, risks associated with road circulation, and the severity of motor vehicle pollution.

Special consideration should be given to the accounts of health impacts related to perceptions of *emotional well-being*. Although this impact is commonly associated with recreational cycling, it was one of the most present discursive elements in people's accounts of bicycle use as a means of transport.[1] Such comments were made by adult men and women of a wide range of ages, for whom bicycle use was at times taken as a *remedy*, and at others as an *antidote* to emotional tensions and risks, whether they were ordinary or extraordinary. Among the latter, people explained bicycle use in terms of a response to a traumatic event or negative experience, such as a break up, dealing with the loss of a loved one, loss of a job, or other traumatic events. Day-to-day tensions (among which family and work-related stresses stand out) are also faced in this way; comments included references to instability or overload at work, or to facing unemployment in the context of economic crisis. There are those who argue that bicycle use allows them to *"clear their head," "blow off steam,"* or *"fill up their free time,"* and in general improve their self-esteem, as in the case of the following bicycle user:

> *When I lost my job I went through different phases, at first I tried to find a new job really quickly. Then I went through a serious depression and all I could do was stay at home* [...] *Then finally my wife suggested that I take my bike out since it was just sitting in storage, so I started to go out on bike rides to clear my head. From that point on I rekindled the passion for biking that I had pretty much abandoned about ten years ago because I didn't have the time and because I would always go to work by car.* (45-year-old male interviewee)

It should be clarified that in bicycle users' accounts, feelings of pleasure and emotional well-being linked to physical exercise were

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not only discussed in terms of endorphins being released and enjoying a state of better physical fitness, but also in terms of other aspects closely related to bicycle use itself, such as a sense of greater freedom in movement, the feeling of greater independence, and a greater sensory contact with the environment. Being able to experience a change of scenery (taking "the scenic route" in order to reach one's destination, avoiding loud, polluted, or high-traffic areas, etc.) is crucial in fostering these sensations that are understood to be *healing*. Regarding this issue, ideal changes of scenery for bicycle users are those which allow them to disconnect from routine urban landscapes of cement and asphalt, that gray monotony of noise and pollution. It is not unexpected, then, that to achieve this relative sense of disconnect, users opt for nearby routes that allow them exposure to natural features in the city: forested areas, parks, and riverfronts. The emotions associated with these surroundings connect the person to nature (or with what has been preserved of it in the city), while at the same time connecting them "with themselves," in a healing practice of introjection facilitated by the "natural environment," in the context of surroundings that are reduced to the condition of landscape.[40] In other cases, popular pedestrian zones are chosen – plazas, or even sidewalks – where social contact provides a gratifying experience.

In discourses on bicycle use, it becomes clear that even though certain problems and tensions may have complex and intricate roots (economic, social/family, cultural, ideological, etc.), the common denominator tends to be finding in one's own body the solution or release from these problems and tensions. That is, people's impulses to control the ups and downs of their lives first manifest as attempts to *control their body*, in all of its possible reinventions and resignifications.[41] But, as has been discussed above, these actions related to the body are often limited to the realm of physical appearance, in that society often equates "being healthy" with "being beautiful." Recovering and caring for oneself, as social acts, are therefore posed as actions aimed at gaining respectability.[42] Proactive attitudes regarding self-care are encouraged to these ends, and the limits of the body are often called into question, inscribed in a decidedly narcissistic framework.[43] In short, it is about "regaining control of one's life," slowing the aging process or eliminating its signs, and transforming the body's appearance to fit with current esthetic standards. To use the categories proposed by Featherstone, improvements to the "inner body"(referring to concerns over the optimum functioning of the body, more directly connected to disease prevention) are combined with the "outer body," referring to esthetic concerns. In this way, the conception of a healthy body integrates these two dimensions, making it difficult to delineate where each one begins and ends.[44] In our societies, these body modification processes are often passed through the filter of consumerism, with its short-term logic tied to fashions and trends. In the case discussed here, this is supported by the importance of an object such as the bicycle, which is not infrequently stored away in the attic once the fad has passed or the consumerist scheme has run its course. In turn, it is replaced by another consumer object chosen as the key to "healing" and at the same time identified as a new status symbol within the framework of the next fad. From this reasoning, it follows that we must recall the interpretations according to which the body – once disciplined by institutions of power in their diverse manifestations throughout history[45] – is now disciplined by self-imposed diet and physical exercise and by the practices of consumption associated with them.

Lastly, regarding the experience of perceived harm to health – in terms of *risks and physical injuries* – along with references to falls and accidents involving motor vehicles (more common among those who use their bicycle for work and groups that are less accustomed to cycling), this is most frequently related to athletic practices. This is due to the fact that practices that more closely align with an athletic logic often occur alongside excesses in the intensity of physical exertion.

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This includes a range of middle to high-performance athletes who have cycled for years, and who have been abruptly encouraged by physicians to refrain from cycling, usually due to the threat of cardiovascular events or joint injuries, among the most common risks. In other cases, injuries were reported that resulted from habits of poor posture when cycling or the use of deficient or inadequate materials. There was also a significant group of users who did not have an athletic background or a general state of physical fitness, and who had to abandon their cycling practices shortly after initiating them due to injuries or unexpected physical strain. Another frequent occurrence were cases of cyclists who considered it appropriate to "reward" themselves upon completion of their daily cycling "obligation" by indulging excessively in food or drink. In addition to all of these considerations, it is crucial to note that the exact measure used to define *moderate exercise* – which is clearly discussed and outlined by the institutions that promote physical activity – is not only largely unintelligible to bicycle users, but it may also be affected by personal, social, contextual, or environmental factors and circumstances that are difficult to control and highly variable. This is not only affected by an individual's awareness of their own physical limitations (which tend to be greater in those who do not have an athletic background). A frequent observation was that cyclists' performance is also affected by countless other situations that involve changes in circumstances or context: being in a rush to arrive at their destination, sudden changes in weather, route modifications, unexpected cargo, breakdowns and accidents, among others. Therefore, it becomes clear how something that is initially conceived of as a healthy and recommendable activity, from a medical point of view may end up becoming a high-risk practice, or even potentially dangerous to certain groups and age ranges.

With respect to health risks and harm associated with urban pollution, although it is not something that frequently appears in the majority of bicycle users' discourses, it is experienced by users in particularly polluted areas or where contact with motor vehicles is greater, generally the case in larger and more populous cities. Those that are most susceptible to these problems are individuals who are in greater daily contact with urban pollution, such as workers who use bicycles for extended periods as part of their daily work routines. Additionally, this can also include bicycle users who have a greater concern for the environment or those who belong to pro-cycling groups, although these individuals usually frame their concern for health in a more collective manner, adopting a more socially-oriented conception of health. That is, beyond just personal experience, ideas that appear frequently in their discourses include *"a healthy city," "the health of the planet,"* or the notion that *"collective health"* is a key framework for analyzing the complexities of urban pollution. Therefore, their accounts often indicate that bicycle promotion strategies are not directed exclusively at citizens as individuals, nor are they limited to the promotion of cycling habits, normally linked to leisure and sport. They advocate that these promotion strategies include actions aimed at fostering the use of bicycles as a means of transport, directed at the city as a whole. That is, actions aimed at improving the environmental quality through concrete actions such as enhancing cycling infrastructure, strengthening public transport, and more generally, limiting motorized transit. Several interviewees expressed feeling to a certain extent that they were *martyrs of the environmentalist movement*: cycling in cities where motorized transit is on the rise without apparent limits raises the question of whether committing to collective health may put individual health in jeopardy.[31]

FINAL CONSIDERATIONS

The use of bicycles as a means of urban transport brings multiple health benefits, which is even clearer when it is posed as an alternative to sedentary behavior and the harm brought on by motorized urban transport.

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Some of these benefits are indirect, such as improvements in the environmental quality of the city, making it a more inhabitable place. Yet, other benefits are more direct and are linked to the significance of this vehicle in terms of freedom of movement, autonomy, and increased sensory contact with the environment, as well as a means of physical exercise. Regarding this last point, it is necessary to separate physical exercise from the notion of frivolous indulgence it tends to be associated with, according to which "sports are a good thing at any place and at any time,"[46] and even more so when we consider its relation to health.[32] On one hand, it is necessary to contextualize this in the framework of a society that pursues health through physical exercise, but arrives at both through the dominant logic of aesthetics and consumption. On the other hand, it becomes clear that users have a difficult time deciphering the rigid limitations placed on what institutions consider "moderate exercise" in terms of intensity, extent, and continuity appropriate for each situation, age group, and physical condition. Users' perceptions of health encompass these aspects as well as others, such as those related to emotional health, which confirm people's tendency to physically embody problems and to seek balance with respect to day-to-day tensions in more humanized environments and through the use of more body-oriented means of transport. They also reveal that the promotion of cycling as a healthy practice, which is a primarily urban phenomenon, currently faces difficult challenges, given that cycling in the city cannot always be considered a recommendable activity from a health standpoint. In this regard, the principal challenge lies in attaining harmony between collective an individual health, rather than posing them in opposition to each other. This means combining strategies for promoting healthy habits among individuals with more ambitious reforms that aim to bring about a true transformation of the city with regard to issues of mobility, taking into account that today the city is conceived, constructed, and experienced based on what is best for private motorized transit. All of this should be understood in light of the need to overcome the status quo in which the hegemonic imaginary casts bicycles as a secondary or substitute means of transport. In addition, the bicycle must be stripped of its frivolous character, whereby it is exclusively associated with leisure or play, in order to become a serious alternative mode of transport, which also implies a necessary shift in dominant social perceptions of the bicycle that endure to this day.

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