Data in Brief 63 (2025) 112133

Contents lists available at ScienceDirect

Data in Brief

journal homepage: www.elsevier.com/locate/dib

Data Article

Sensation seeking in cycling and self-reported riding behavior: Data to assess demographic and individual correlates

Sergio A. Useche[a,*], Francisco Alonso[a], Steve O'Hern[b]

[a] University of Valencia. Carrer del Serpis 29. Valencia 46022, Spain
[b] University of Leeds. 34-40 University Road, building 43. Leeds LS2 9JT, UK

ARTICLE INFO

Article history:
Received 4 April 2025
Revised 14 August 2025
Accepted 29 September 2025
Available online 8 October 2025

Dataset link: Sensation Seeking in Cycling (Original data)

Keywords:
Bicycle riding
Cyclists
Personality
Sensation seeking
SSC
Cross-cultural research

ABSTRACT

The Sensation Seeking in Cycling (SSC) scale represents the first scale developed specifically to measure this risk-related personality trait in the context of urban cycling. It operationalizes the tendency to pursue novel or intense experiences while riding, addressing variance that generic sensation-seeking measures overlook in specific traffic settings. This Data in Brief (DiB) article appends and describes an extensive dataset covering the cross-cultural application of the SSC scale, presented alongside cyclists' demographic and individual features, as well as self-reported riding behavioral indicators. This dataset was collected using a structured self-report questionnaire, with responses from 5108 participants across 17 countries on four continents, covering diverse riding contexts, city sizes, cycling frequencies, and trip purposes. This paper presents descriptive and comparative analyses, with the goal of enabling further researchers to conduct their own analyses, rather than offering precise interpretations or inferences about the data.

* Corresponding author.
E-mail address: sergio.useche@uv.es (S.A. Useche).
Social media: @sergiouzch (S.A. Useche), @DATS_INTRAS (F. Alonso), @DrSteveOHern (S. O'Hern)

https://doi.org/10.1016/j.dib.2025.112133

Specifications Table

Subject	Social Sciences
Specific subject area	Bicycle Riding; Psychology; Personality; Safety.
Type of data	Raw, Filtered, Analyzed
Data collection	Data were collected through an online questionnaire translated into the primary language of each country. A convenience (pseudo-probabilistic) sampling approach was employed to target active bicycle users. To recruit participants across the regions covered by the study, multiple strategies were implemented, including social media promotions, questionnaire distribution in classrooms, email lists, and collaboration with national cycling federations, aiming to gather data across all countries.
Data source location	This dataset appends the information provided by cyclists from 17 countries in four continents: Africa (Cameroon), Americas (Brazil, Chile, Colombia, Mexico, Dominican Republic), Asia (China, Malaysia, Russia), Europe (Austria, Belgium, Finland, Germany, Poland, Slovakia, Spain, and United Kingdom).
Data accessibility	The appended data originate directly from the original database reported in the article. The dataset is provided in .CSV format, along with the root questionnaire and the study codebook. Full access to the data is available at the permanent link: Repository name: Harvard Dataverse Data identification number: DOI: 10.7910/DVN/PGSCRZ Direct URL to data: https://doi.org/10.7910/DVN/PGSCRZ These data may be freely used for research, dissemination, and scientific purposes, provided that the original source is properly cited
Related research article	Useche, S. A. (2025). Measuring sensation seeking in urban cyclists: Development and validation of the SSC scale. Transportation Research Part F: Traffic Psychology and Behaviour, 111, 45–59. https://doi.org/10.1016/j.trf.2025.02.022

1. Value of the Data

- The appended dataset allows to assess and compare the Sensation Seeking in Cycling (SSC) scale scores in an extensive sample, making it possible to analyze its outcomes according to different factors, including age, gender, country, and self-reported crash outcomes.
- These data may serve various stakeholders, including researchers and policymakers in the countries covered by the macro study, to develop intervention strategies, formulate action plans, and enhance behavioral-based safety measures for urban cyclists.
- Regarding its practical application, the dataset can support the development of awareness campaigns highlighting differences in terms of sensation seeking (personality) among cyclists and promoting safer practices within this group of road users.
- This database may also serve as a valuable resource for educators in statistics and psychology courses, particularly those examining personality factors, self-reported behavior, and their relationship to road safety.

2. Background

The aim of this study was to examine differences in sensation seeking among cyclists from different regions (Europe, the Americas, Asia, and Africa) using the Sensation Seeking in Cycling (SSC) scale as an assessment tool, applied to a large multi-country sample of bicycle riders. This work forms part of the open-science Bike-Barometer project, designed to systematically monitor behavioral, attitudinal, and safety-related indicators in cycling populations worldwide. The inclusion of sensation seeking reflects its documented role as a potential predictor of risky behavior and crash involvement among road users, making it a relevant construct for both research and applied safety interventions.

The creation of this dataset was motivated by the need to provide a robust empirical basis for examining sensation seeking in urban cycling from both theoretical and applied perspectives. Theoretically, it enables the replication and refinement of personality-based models of road user behavior in a cross-cultural context. At an applied level, it supports evidence-informed interven-

Table 1
Study variables and measures used, as available in the dataset.

Variable Name	Instrument	Items	Response Scale	Reference(s)
Sensation Seeking in Cycling [Full Scale]	SSC	13	0 = Never; 1 = Almost never; 2 = Sometimes; 3 = Frequently; 4 = Very frequently	[1,2]
F1: Risk Assumptions / Behavioral Expressions		7		
F2: Non-operational / Attitudinal Factors		6		
F1: Traffic Violations	CBQ	8	0 = Never; 1 = Almost never; 2 = Sometimes; 3 = Frequently; 4 = Very frequently	[3,4]
F2: Riding Errors		15		
F3: Positive Behaviors		4		
Cycling Distractions	CDS	8	Dichotomous: 1 = Yes; 0 = No	[5]
Traffic Rule Knowledge	RPRS	5	0 = Strongly disagree; 1 = Disagree;	[6,12]
Risk Perception	RPRS	7	2 = Neither; 3 = Agree; 4 = Strongly agree	[6,12]
Cycling Crashes (past 5 years)	Ítem	1	Dichotomous (0/1) plus continuous count if 'Yes'	–

tions in cycling safety, such as targeted awareness campaigns, education programs, and infrastructure planning. The large geographic coverage and inclusion of diverse cycling environments make it a valuable tool for comparative studies and policy development.

3. Data Description

3.1. Dataset overview

The dataset presented in this article provides information on differences in cycling-related sensation seeking, as measured by the SSC, based on region of residence. It also includes complementary data on individual and demographic variables, riding behaviors, and self-reported traffic crashes experienced as a cyclist, while preserving the anonymity of all study participants. All variables appended in the dataset are listed in tabular format, with columns representing variables and rows representing individual cases, each corresponding to a single participant. The dataset's structure, which is easily exportable across different software versions and platforms, facilitates straightforward integration into statistical software for subsequent descriptive or inferential analyses, and the variable values have been labeled to facilitate interpretation.

3.2. Variables and measurement instruments

The data presents an overview of the outcomes of a large application of the Sensation Seeking in Cycling (SSC) scale in its 13-item version [1,2], along with supplementary scales measuring theoretically-related variables, including: the Cycling Behavior Questionnaire (CBQ) in its 29-item version [3,4]; the Cycling Distraction Scale [5], and the Risk Perception and Regulation Scale [6,7]. The dataset also contains auxiliary items addressing self-reported cycling crashes over a five-year period. These incidents have been categorized both as a continuous variable (i.e., total number of self-reported crashes) and in a dichotomous format (i.e., yes/no) for logit and categorical analyses. Furthermore, individual item scores and subscale scores have been computed, standardized, and appropriately labeled within the database. A structured overview of the variables and measures included in the dataset is presented in Table 1.

Along with the .CSV file, this data article includes two online appendices accessible here: the original questionnaire (Appendix I) and the corresponding codebook (Appendix II). These resources are provided to enable other researchers to accurately label and interpret the study variables included in the dataset.

Table 2
Multiple analysis of covariance: Comparisons of the SSC dimensional scores in different regions, controlling fore cyclists' age.

SSC Dimensional Approach	Degrees of Freedom	Mean Square	F	Sig.
Sensation Seeking (Unifactorial)	4	22.064	61.001	<0.001
Risk Assumptions / Behavioral Expressions (F1)	4	27.598	67.657	<0.001
Non-operational / Attitudinal Factors (F2)	4	17.474	36.343	<0.001

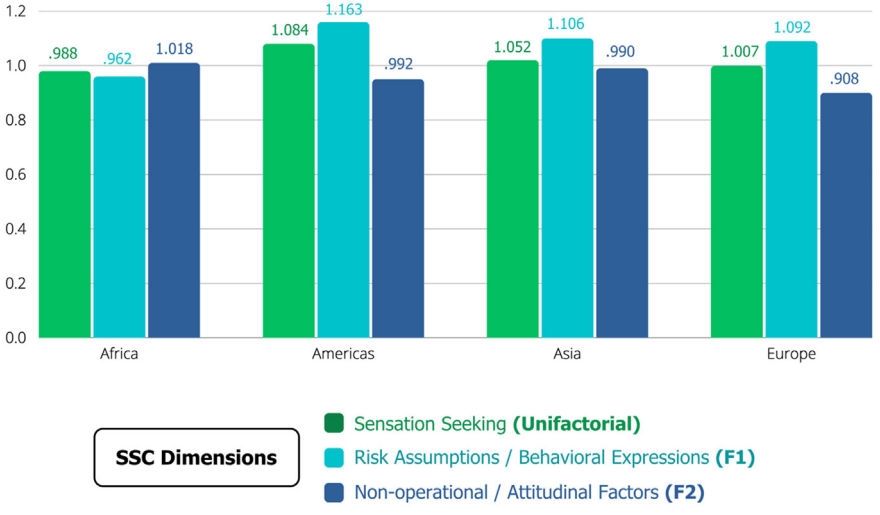

Fig. 1. Comparative scores in the SSC dimensions by cyclists' region of origin.

3.3. Derived variables and statistical outputs

For this data paper, the Sensation Seeking in Cycling (SSC) scale has been tested in both its unifactorial form (using a composite score to assess the variable as a whole) and its bifactorial structure (considering the two underlying subscales separately). Basic descriptive and comparative analyses have been conducted, as presented throughout this set of non-inferential results. Table 2 reports the results of the Multiple Analysis of Covariance (MANCOVA), while Fig. 1 displays the standardized scores for the SSC factors across the four regions included in the study, controlling for cyclists' age. Additionally, Table 3 provides a Tukey HSD (honestly significant difference) post hoc analysis, which examines specific regional differences by comparing each region with all others.

Table 4 presents a detailed summary of the descriptive data for each study variable, including their respective measurement scales for interpretability, along with the bivariate (non-parametric) Spearman's rank correlation coefficients among them. Furthermore, Fig. 2 graphically represents the correlation patterns, structured in a two-part matrix that illustrates the relationships between each SSC factor and various demographic (age and educational attainment), individual (weekly cycling intensity, risk perception, traffic rule knowledge), riding-behavioral (cycling distractions, riding errors, and traffic violations), and safety-related (self-reported crashes) factors.

On a practical level, the descriptive statistics offer a preliminary overview of how demographic variables may related to sensation-seeking outcomes and suggest basic region-based SSC patterns that could be further explored at a country level.

Moreover, the data contained in the .CSV file may facilitate further analyses and inferential insights by considering the demographic and individual characteristics of cyclists in this dataset

Table 3
Tukey HSD (honestly significant difference) post-hoc analysis – mean comparisons for SSC scores in both its unifactorial and two-factor compositions. Categorical variable: Cyclists' region of origin.

SSC Dimension	(I) Region	(J) Region	Mean Diff. (I-J)	Std. Error	Sig.	95 % Confidence Interval	
						Lower Bound	Upper Bound
Sensation Seeking (Unifactorial)	Europe	Americas	−0.076***	.019	<0.001	−0.126	−0.028
		Asia	−0.045	.026	.310	−0.112	.022
		Africa	.019	.058	.987	−0.129	.168
	Americas	Europe	.076***	.019	<0.001	.028	.126
		Asia	.032	.027	.633	−0.037	.102
		Africa	.096	.058	.348	−0.053	.246
	Asia	Europe	.045	.026	.310	−0.022	.112
		Americas	−0.032	.027	.633	−0.102	.037
		Africa	.064	.061	.717	−0.092	.220
	Africa	Europe	−0.019	.058	.987	−0.168	.129
		Americas	−0.096	.058	.348	−0.246	.053
		Asia	−0.064	.061	.717	−0.220	.092
Risk Assumptions / Behavioral Expressions (F1)	Europe	Americas	−0.070**	.020	<0.010	−0.123	−0.019
		Asia	−0.013	.028	.965	−0.084	.058
		Africa	.130	.061	.148	−0.028	.288
	Americas	Europe	.070**	.020	<0.010	.019	.123
		Asia	.058	.029	.184	−0.016	.132
		Africa	.201**	.062	<0.010	.042	.360
	Asia	Europe	.013	.028	.965	−0.058	.084
		Americas	−0.058	.029	.184	−0.132	.016
		Africa	.143	.065	.121	−0.023	.309
	Africa	Europe	−0.130	.061	.148	−0.288	.028
		Americas	−0.201**	.062	<0.010	−0.360	−0.042
		Asia	−0.143	.065	.121	−0.309	.023
Non-operational / Attitudinal Factors (F2)	Europe	Americas	−0.084***	.022	<0.001	−0.140	−0.028
		Asia	−0.081*	.030	<0.050	−0.158	−0.006
		Africa	−0.110	.066	.341	−0.279	.060
	Americas	Europe	.084***	.022	<0.001	.028	.140
		Asia	.002	.031	.998	−0.077	.081
		Africa	−0.026	.066	.980	−0.196	.145
	Asia	Europe	.081*	.030	<0.050	.006	.158
		Americas	−0.002	.031	.998	−0.081	.077
		Africa	−0.028	.069	.978	−0.206	.151
	Africa	Europe	.110	.066	.341	−0.060	.279
		Americas	.026	.066	.980	−0.145	.196
		Asia	.028	.069	.978	−0.151	.206

Notes:
* The mean difference is significant at the $p < .050$ level;
** The mean difference is significant at the $p < .010$ level;
*** The mean difference is significant at the $p < .001$ level.

(see Appendix II). Potential statistical procedures include comparisons based on age, gender, and cycling intensity, as well as –given the large sample size– predictive models assessing the impact of these variables (or a subset of them) on cyclists' self-reported safety outcomes.

4. Experimental Design, Materials and Methods

4.1. Participants

This dataset includes data from a cross-sectional sample of 5108 participants across 17 countries spanning four regions: Africa (Cameroon); the Americas (Brazil, Chile, Colombia, Mexico, Dominican Republic); Asia (China, Malaysia, Russia); and Europe (Austria, Belgium, Finland, Ger-

Table 4
Full-sample descriptive outcomes and Spearman's non-parametric correlations between the study variables.

Study Variable		Coefficient	M[f]	SD[g]	1	2	3	4	5	6	7	8	9	10	11	12
1	SSC (Full Score)[a]	*rho*	1.04	.61	–											
		p-value														
2	SSC Factor 1 (F1)[a]	*rho*	1.12	.65	.901	–										
		p-value			< 0.001											
3	SSC Factor 2 (F2)[a]	*rho*	.95	.70	.884**	.611**	–									
		p-value			< 0.001	< 0.001										
4	Cyclist's Age[b]	*rho*	32.30	12.62	−0.197**	−0.194**	−0.160**	–								
		p-value			< 0.001	< 0.001	< 0.001									
5	Educational Attainment[c]	*rho*	–	–	−0.060**	−0.055**	−0.053**	.291**	–							
		p-value			< 0.001	< 0.001	< 0.001	< 0.001								
6	Cycling Weekly Hours[d]	*rho*	5.32	5.46	.105**	.129**	.064**	.233**	.110**	–						
		p-value			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001							
7	Risk Perception[a]	*rho*	3.31	.69	−0.189**	−0.174**	−0.164**	.217**	.185**	.125**	–					
		p-value			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001						
8	Traffic Rule Knowledge[a]	*rho*	3.23	.72	−0.136**	−0.117**	−0.126**	.224**	.156**	.157**	.533**	–				
		p-value			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001					
9	Cycling Distractions[e]	*rho*	4.51	2.04	.139**	.112**	.136**	−0.066**	−0.162**	−0.127**	−0.053**	−0.136**	–			
		p-value			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001				
10	Traffic Violations[a]	*rho*	.72	.63	.480**	.498**	.363**	−0.110**	−0.053**	.208**	−0.254**	−0.196**	.111**	–		
		p-value			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001			
11	Riding Errors[a]	*rho*	.54	.58	.374**	.330**	.349**	−0.126**	−0.124**	.075**	−0.310**	−0.330**	.248**	.561**	–	
		p-value			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001		
12	Positive Behaviors[a]	*rho*	2.97	.84	−0.248**	−0.253**	−0.182**	.120**	.085**	−0.031*	.454**	.360**	−0.020	−0.350**	−0.326**	–
		p-value			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	.028	< 0.001	< 0.001	.158	< 0.001	< 0.001	
13	Cycling Crashes[a]	*rho*	.80	1.36	.187**	.189**	.148**	.022	.054**	.291**	−0.036*	−0.017	−0.021	.257**	.239**	−0.174**
		p-value			< 0.001	< 0.001	< 0.001	.123	< 0.001	< 0.001	.011	.224	.130	< 0.001	< 0.001	< 0.001

Notes:
[a] Measured in a [0 – 4] scale;
[b] Measured in years, ranging [16 – 80];
[c] Ordinal variable (non-computable central tendency values);
[d] Measured in hours;
[e] Measured in a [0 – 8] scale;
[f] Arithmetic mean;
[g] Standard deviation.

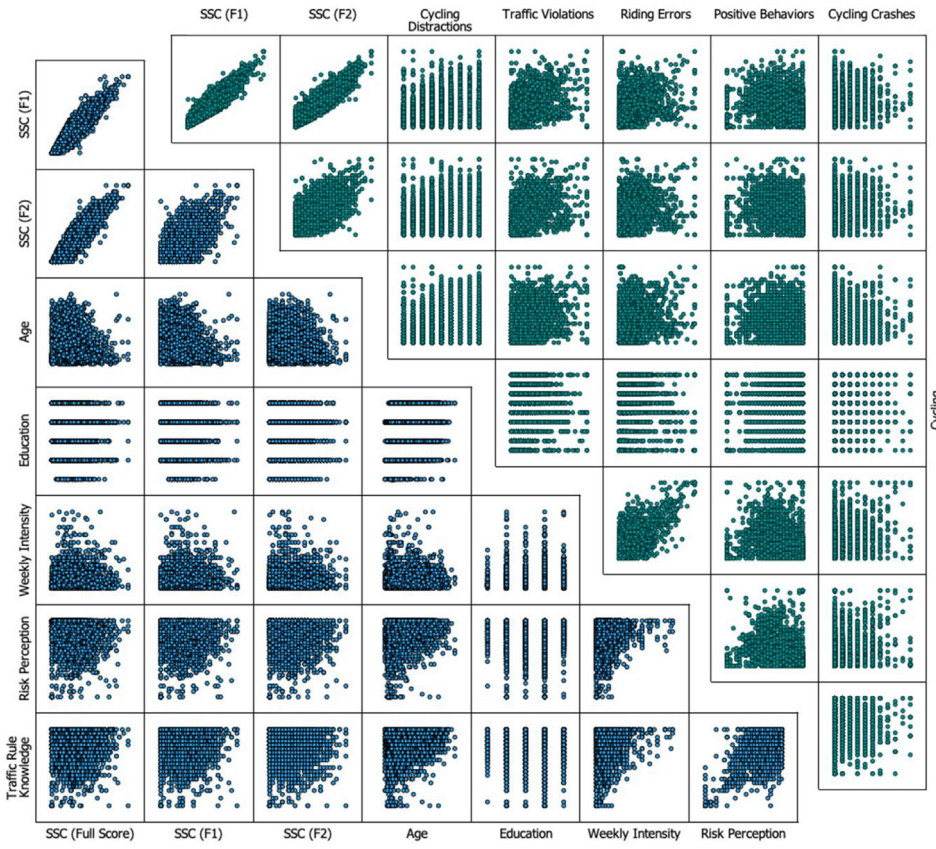

Fig. 2. Graphical bivariate correlations between SSC dimensions, individual features, self-reported cycling behavioral factors, and safety-related outcomes.

many, Poland, Slovakia, Spain, and the United Kingdom). Participants had an average age of 32.30 years (SD = 12.62), ranging from 16 to 80 years. Regarding gender distribution, 37.8 % identified as female, 61.5 % as male, and 0.7 % as non-binary.

The final sample sizes by country were: Austria (131), Belgium (151), Brazil (226), Cameroon (119), Chile (303), China (541), Colombia (581), Dominican Republic (386), Finland (213), Germany (458), Malaysia (183), Mexico (330), Poland (116), Russia (374), Slovakia (233), Spain (335), United Kingdom (428).

Data collection was conducted via an electronic survey translated into each country's most widely spoken language, ensuring responses from at least 100 active cyclists per country. While the survey maintained a standardized pre-structured format based on Google Forms, the data collection platform varied slightly in some countries. These differences were mainly due to institutional preferences for specific paid survey tools (e.g., SurveyXact and Qualtrics) or restrictions preventing access to Google Forms in certain regions, such as China.

Multiple strategies were employed to recruit participants, including social media advertisements, questionnaire distribution in classrooms, mailing lists, and invitations extended to participants from previous research using a follow-up reminder system. Additionally, collaborations with national cycling federations facilitated broader outreach. On average, the questionnaire required approximately 12–15 min to complete. Importantly, no financial incentives were offered to respondents, and commercial survey panels were not utilized. It is worth mentioning that,

given its pseudo-probabilistic nature, the recruitment approach may have unintentionally favored specific segments of the cycling population, potentially influencing the representativeness of the findings.

The estimated response rate, calculated as the proportion of completed questionnaires among those who accessed the study link, was approximately 45 %. This figure accounts for system-reported incomplete submissions (with a completion rate below 80 %) and duplicate MAC addresses, which were excluded from the final dataset. Data screening involved removing incomplete questionnaires (completion rate <80 %), duplicate MAC addresses, and responses from individuals who did not meet the inclusion criteria (e.g., cycling frequency below once per month). These steps aimed to retain only valid and unique cases in the appended dataset.

4.2. Questionnaire contents

The study data were collected through an electronic (online) questionnaire, translated by qualified researchers to the most spoken local language in a two-fold process [8,9], and applied to urban cyclists whose bicycle riding frequency was "at least once a month" (inclusion criteria) appending the scales described below:

The core questionnaire presented in this dataset is the Sensation Seeking in Cycling scale (SSC) [1]. This is a self-report instrument developed to assess sensation-seeking tendencies in bicycle riders. It consists of 13 items, each reflecting common theoretical scenarios, thoughts, and attitudes linked to sensation seeking among urban cyclists. Participants responded using a frequency-based Likert scale, ranging from 0 (never/hardly ever) to 4 (almost always/always). Structurally, the SSC can be employed as a unidimensional measure of overall sensation seeking (Unifactorial Structure) in cyclists or, in case of needing to differentiate between behavioral and psychological factors, analyzed through its two distinct subscales: (F1) risk assumptions / behavioral expressions, comprising 7 items, and (F2) non-operational / attitudinal issues, consisting of 6 items.

In addition to the SSC scale, the questionnaire incorporated the Cycling Behavior Questionnaire (CBQ), designed and cross-culturally validated to assess cycling behaviors through a three-factor structure comprising 29 items [3,4]. These factors are examined through the error-violation-positive behavior distinction, which is characteristic of the behavioral questionnaire (BQ) paradigm in traffic psychology [10,11]: Traffic Violations (F1; 8 items), Riding Errors (F2; 15 items), and Positive Behaviors (F3; 4 items). From an operational perspective, Factors F1 and F2 represent risk-increasing cycling behaviors, though with distinct characteristics: traffic violations consist of deliberate risky action (e.g., running a red light), whereas cycling errors refer to common unintentional practices that heighten safety risks (e.g., failing to notice pedestrians while turning). In contrast, Factor F3 (positive behaviors) encompasses safety-enhancing practices that help minimize risk exposure, such as avoiding cycling in adverse weather conditions. Cycling distractions were evaluated using the Cycling Distraction (CD) scale [5], an eight-item measure that presents various potential distractors (e.g., environmental, psychological, and technological factors) that may impact the riding experience. The scale follows a dichotomous response format, with possible total scores ranging 0 – 8.

Additionally, to support variable comparisons and validity analyses, the questionnaire included the Risk Perception and Regulation Scale (RPRS), a 12-item self-report instrument structured into two factors related to road safety literacy [6,12]. The first factor (F1), traffic rule knowledge (5 items), assesses participants' self-reported familiarity with fundamental traffic regulations, including traffic signal recognition. The second factor (F2), risk perception (7 items), evaluates cyclists' perceived risks associated with common road safety issues, such as infrastructure deficiencies.

Lastly, several self-reported key cycling-related indicators were included. Cyclists were asked to self-rate their mental and physical health status, as well as their cycling performance, on a scale ranging 0 – 10 (0 = very bad; 10 = very good). Additionally, a self-reported cycling safety indicator was incorporated, prompting respondents to report the number of accidents or crash-

related incidents they had experienced as cyclists over the past five years. These incidents were considered regardless of their severity, provided they were non-fatal.

Limitations

While this study employed psychometrically endorsed research instruments most of them previously validated in cross-cultural settings (e.g., CBQ, RPRS, SSC) and gathered a large and varied sample of cyclists. However, there are several limitations that should be considered for both the data and its outcomes' interpretation, as they may introduce biases affecting the study's findings and their practical translatability.

First, differences in participant recruitment across countries, coupled with the underrepresentation of certain regions, particularly Africa, stand out as key constraints. This regional imbalance likely results from a combination of factors, including a limited urban cycling share, scarce research networks, lower access to digital recruitment channels, and a relatively less developed cycling culture and infrastructure enhancing urban bicycle riding dynamics.

Furthermore, this dataset does not include a measurement invariance analysis across countries, as the primary aim of this data paper is descriptive dissemination rather than inferential cross-country comparisons. While this may limit direct comparability between countries, the dataset is provided in a form that enables future researchers to conduct such analyses if required, including multi-group confirmatory factor analysis to assess measurement equivalence.

Additionally, the sampling strategy was not fully standardized across all participating countries, as data collection followed a pseudo-probabilistic convenience sampling approach, targeting active urban cycling populations within each country. While this represents the largest sample ever gathered in a questionnaire-based study on urban cycling, it does not inherently resolve technical shortcomings, making it important to acknowledge these limitations when interpreting the data.

Moreover, although this was an anonymous study and individual data was non-identifiable, participants' psychological and behavioral reports may be affected by memory lapses, reporting inaccuracies, or social desirability bias, which are common limitations in retrospective and questionnaire-based research, especially when potentially sensitive topics are addressed [13,14].

Another limitation concerns the gender distribution within the sample. This dataset includes responses from 5108 cyclists, with a female-to-male ratio of 1:1.62. This raises two key considerations: first, while female participation in urban cycling is increasing, it remains lower than that of male cyclists; and second, gender comparisons may require weighted analyses. This does not compromise the validity of the data, as the dataset contains a substantial number of male ($n = 3142$) and female participants ($n = 1932$), both exceeding the minimum subsample sizes needed for statistically robust gender-based comparisons. Nevertheless, non-binary participants ($n = 34$ individuals) remain markedly underrepresented, reflecting a broader gap in active transport research. Future studies may benefit from adopting more inclusive gender-sensitive sampling strategies, such as intentional or stratified recruitment methods, to enhance representation among groups that are typically less visible in cycling studies [15]. Besides comparability, we believe that addressing this gap could enhance the understanding of their cycling participation, experiences, and behavioral outcomes, ultimately informing policies and interventions that foster a more diverse cycling population while promoting safer riding conditions.

Ethics Statement

Before conducting this research, framed in the first edition of the 'Bike-Barometer' project, the study protocol and its subsequent actions were assessed and approved by the Ethics Committee of the Traffic and Road Safety Research Institute of the University of Valencia (The microstudy was registered with the IRB approval number: HE-0001–241,120).

At the participants' level, their involvement in this study was voluntary and anonymous in all cases. Before taking part, all participants were informed about the research objectives and relevant considerations, provided their informed consent, and were able to contact the research team to address any doubts related to their participation.

Credit Author Statement

Sergio A. Useche: Visualization, Conceptualization, Supervision, Data collection, Data curation, Investigation, Data analysis; Writing – Original draft; Writing- Reviewing and Editing. **Francisco Alonso:** Data collection, Investigation, Resources; Writing – Original draft. **Steve O'Hern:** Data collection, Investigation; Writing – Original draft; Writing- Reviewing and Editing.

Acknowledgements

The authors wish to thank all participants in the study and collaborators (research assistants, advisors, country leaders, etc.) who took part in the different phases of the open-science-targeted Bike-Barometer project. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Data Availability

Sensation Seeking in Cycling (Original data) (Dataverse).

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Supplementary Materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.dib.2025.112133.

References

[1] S.A. Useche, Measuring sensation seeking in urban cyclists: development and validation of the SSC scale, Transport. Res. Part F 111 (2025) 45–59, doi:10.1016/j.trf.2025.02.022.
[2] S.A. Useche, R. Mora, F. Alonso, O. Oviedo-Trespalacios, Sensation seeking and crashes among young cyclists, Accident Anal. Prevent. 214 (2025) 107970, doi:10.1016/j.aap.2025.107970.
[3] S.A. Useche, F. Alonso, A. Boyko, P. Buyvol, I. Castañeda, B. Cendales, A. Cervantes, T. Echiburu, M. Faus, Z. Feitosa, J. Gene, A. Gonzalez-Marin, V. Gonzalez, J. Gnap, M.K. Ibrahim, K.H. Janstrup, A. Javadinejad, I. Makarova, R. McIlroy, M. Mikusova, M. Møller, S. Ngueuteu-Fouaka, S. O'Hern, M. Orozco-Fontalvo, K. Shubenkova, F. Siebert, J. Soto, A.N. Stephens, R. Valle-Escolano, Y. Wang, E. Willberg, P. Wintersberger, L. Zeuwts, Z.H. Zulkipli, L. Montoro, Cross-culturally approaching the cycling behaviour questionnaire (CBQ): evidence from 19 countries, Transport. Res. Part F 91 (2022) 386–400, doi:10.1016/j.trf.2022.10.025.
[4] S.A. Useche, L. Montoro, J.M. Tomas, B. Cendales, Validation of the cycling behavior Questionnaire: a tool for measuring cyclists' road behaviors, Transport. Res. Part F 58 (2018) 1021–1030, doi:10.1016/j.trf.2018.08.003.
[5] S.A. Useche, F. Alonso, L. Montoro, C. Esteban, Distraction of cyclists: how does it influence their risky behaviors and traffic crashes? PeerJ. 6 (2018) e5616, doi:10.7717/peerj.5616.

[6] S. O'Hern, E. Willberg, C. Fink, S. Useche, Relationships among bicycle rider behaviours, anger, aggression, and crashes in Finland, Safety 8 (2022) 18, doi:10.3390/safety8010018.
[7] R.C. McIlroy, S.A. Useche, A. Gonzalez-Marin, To what extent do our walking and cycling behaviours relate to each other, and do we cycle as well as we think we do? Piloting the walking and cycling behaviour questionnaires in the UK, Accident Anal. Prevent. 168 (2022) 106597, doi:10.1016/j.aap.2022.106597.
[8] T.R. Hinkin, A brief tutorial on the development of measures for use in survey questionnaires, Organ. Res. Methods 1 (1998) 104–121, doi:10.1177/109442819800100106.
[9] M. Peters, J. Passchier, Translating instruments for cross-cultural studies in headache research, Headache 46 (2006) 82–91, doi:10.1111/j.1526-4610.2006.00298.x.
[10] J. Reason, A. Manstead, S. Stradling, J. Baxter, K. Campbell, Errors and violations on the roads: a real distinction? Ergonomics 33 (1990) 1315–1332, doi:10.1080/00140139008925335.
[11] T. Özkan, T. Lajunen, A new addition to DBQ: positive driver behaviours Scale, Transport. Res. Part F 8 (2005) 355–368, doi:10.1016/j.trf.2005.04.018.
[12] K. Volgemute, Z. Vazne, S.A. Useche, Exploring cyclists' Behavior, traffic safety literacy, and crash occurrence in Latvia, Safety 10 (2024) 97, doi:10.3390/safety10040097.
[13] A. Selaya, M. Vilariño, R. Arce, Search of an empirical definition of a social model for the assessment of the quality of memory, Rev. Iberoam. Psicol. Salud 15 (2024) 12, doi:10.23923/j.rips.2024.01.071.
[14] H. Deeb, A. Vrij, S. Leal, D. Giorgianni, P. Hypšová, S. Mann, Exposing suspects to their sketches in repeated interviews to elicit information and veracity cues, Europ. J. Psychol. Appl. Legal Context 16 (2024) 1–15, doi:10.5093/ejpalc2024a1.
[15] E. Dzieniszewski, A.N. Myers, L.D. Elliott, M. Bopp, Skills and hills: factors that influence women's and non-binary college students' Decisions to commute via bicycle, Int. J. Exerc. Sci. 17 (2024) 1003–1015, doi:10.70252/TJHG7882.