Between Green Spaces and Mobility: exploring diverging perspectives on the admission of motorised traffic in the Bois de la Cambre.

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A copy of this report can be downloaded at: https://bsi.brussels/en/research/research-report-between-green-spaces-and-mobility-exploring-diverging-perspectives-on-the-admission-of-motorised-traffic-in-the-bois-de-la-cambre/

Between Green Spaces and Mobility:

exploring diverging perspectives on the admission of motorised traffic in the Bois de la Cambre

We inquired individual preferences in relation to different setups of the *Ter Kamerenbos/Bois de la Cambre*. We analysed the profiles of groups with different preferences in relation to their use of the park, their socio-demographic situation, the places where they live and work, their mobility practices and access to green spaces.

We ran an online survey between Nov. 27 and Dec. 7, 2020, for which we received 7252 valid responses, which we divided into three groups based on respondents' preferences for the park's setup: Allow Traffic, Middle Ground and Ban Traffic (min. group size 1800). While our sample is not representative of the population at large, it is adequate to study the profiles of people displaying different preferences for the park.

Looking at different motivations for preferring one or the other setup for the park, and at the use of the park before and during traffic restrictions, suggests an area of tension between traffic fluidity and the recreational use of the park.

The three groups are characterised by a different mean age (Allow Traffic respondents on average being the oldest, Ban Traffic respondents being the youngest) and different professional situation (business owners and retirees being represented more strongly in the Allow Traffic group).

Respondents' places of residence and activity seem important elements in understanding people's preferences: Allow Traffic respondents are more likely to be living/working in municipalities further away from the historical centre of Brussels (the Pentagon); the opposite holds for the Ban traffic group.

Ban Traffic respondents are much more likely to use the bicycle on a regular basis; Allow Traffic respondents are much more likely to use personal motorised transport on a regular basis; the regular public transport users are generally underrepresented in the sample.

A personal lack of access to green spaces is generally related to a preference for banning motorised traffic from the Bois de la Cambre.

Overall, respondents' personal situation (age, young children, place where they live/work, personal resources) emerges as an important predictor for one's preference for the park's setup and as such offers an adequate frame to understand the dispute.

Entre espaces verts et mobilité:
une exploration de perspectives divergentes sur l'autorisation de trafic motorisé dans le Bois de la Cambre

Nous avons enquêté sur les préférences individuelles par rapport aux différents aménagements du Bois de la Cambre. Nous avons analysé les profils des groupes exprimant des préférences différentes en fonction de leur utilisation du Bois, de leur situation sociodémographique, de leurs lieux de vie et de travail, de leurs pratiques de mobilité et de leur accès aux espaces verts.

Nous avons pour cela mené une enquête en ligne entre le 27 novembre et le 7 décembre 2020, à laquelle nous avons reçu 7252 réponses valides, que nous avons divisées en trois groupes en fonction des préférences des personnes sondées concernant la configuration du Bois : *Allow Traffic*, *Middle Ground* et *Ban Traffic* (Pour Autoriser la Circulation, Groupe Intermédiaire et Pour Interdire la Circulation) (1800 personnes minimum dans chaque groupe). Bien que notre échantillon ne soit pas représentatif de la population dans son ensemble, il permet d'étudier les profils des personnes affichant des préférences différentes pour le Bois.

L'examen des différentes motivations déterminant la préférence pour l'une ou l'autre configuration du Bois, au regard de l'utilisation du Bois avant et pendant les restrictions de trafic, suggère une certaine tension entre la fluidité du trafic et l'utilisation récréative du Bois.

Les trois groupes sont caractérisés par une moyenne d'âge différente (les personnes interrogées du groupe *Allow Traffic* sont en moyenne les plus âgés, les répondants du groupe *Ban Traffic* sont les plus jeunes) et par une situation professionnelle différente (les chefs d'entreprise et les retraités sont davantage représentés dans le groupe *Allow Traffic*).

Les lieux de résidence et d'activité des répondants semblent être des éléments importants pour comprendre leurs préférences : les personnes sondées du groupe *Allow Traffic* sont plus susceptibles de vivre/avoir leurs activités dans des municipalités plus éloignées du Pentagone ; l'inverse est vrai pour le groupe *Ban Traffic*.

Les répondants du groupe *Ban Traffic* sont beaucoup plus susceptibles d'utiliser régulièrement la bicyclette ; les personnes interrogées du groupe *Allow Traffic* sont beaucoup plus susceptibles d'utiliser régulièrement les transports motorisés individuels ; les utilisateurs réguliers des transports en commun sont, de manière générale, sous-représentés dans l'échantillon.

Un manque personnel d'accès aux espaces verts est généralement lié à une préférence pour l'interdiction du trafic motorisé dans le Bois de la Cambre.

Dans l'ensemble, la situation personnelle des répondants (âge, enfants en bas âge, lieu de résidence/travail, ressources personnelles) pèse lourdement dans la préférence individuelle pour l'aménagement du parc et, à ce titre, offre un cadre d'analyse adéquat pour mieux comprendre le débat.

Tussen groene ruimtes en mobiliteit: een verkenning van uitéénlopende perspectieven op het toestaan van gemotoriseerd verkeer in Ter Kamerenbos

In het onderzoek peilden we naar de voorkeuren van respondenten met betrekking tot verschillende mogelijke verkeerssituaties in het Ter Kamerenbos. We analyseerden de profielen van groepen met verschillende voorkeuren wat betreft hun gebruik van het park, hun socio-demografische achtergrond, de plaatsen waar ze wonen en werken, hun mobiliteitspraktijken en hun toegang tot groene ruimten.

We hielden een online enquête tussen 27 november en 7 december 2020, waarvoor we 7.252 geldige antwoorden ontvingen. Deze verdeelden we in drie groepen op basis van de voorkeuren van de respondenten voor de inrichting van het park: verkeer volledig toegelaten (Allow Traffic), verkeer gedeeltelijk toegelaten (Middle Ground) en verkeer volledig verbieden (Ban Traffic) (min. groepsgrootte 1.800). Hoewel onze steekproef niet representatief is voor de bevolking in het algemeen, is ze geschikt om de profielen van mensen met verschillende voorkeuren voor het park te bestuderen.

Resultaten met betrekking tot de redenen die respondenten aanhalen voor de sluiting of opening van het park voor verkeer en resultaten met betrekking tot het individuele gebruik van het park voor en tijdens de verkeersbeperkingen, suggereren een spanningsveld tussen aandacht voor een goede doorstroming van het verkeer en het recreatieve gebruik van het park .

De drie groepen worden gekenmerkt door een verschillende gemiddelde leeftijd (de respondenten van Allow Traffic zijn gemiddeld het oudst, de respondenten van Ban Traffic het jongst) en een verschillende beroepssituatie (ondernemers en gepensioneerden zijn sterker vertegenwoordigd in de Allow Traffic-groep).

De woon- en werkomgeving van de respondenten lijken belangrijke elementen om de verschillende voorkeuren te begrijpen: Allow Traffic-respondenten wonen/werken vaker in gemeenten die verder van de Vijfhoek liggen; het omgekeerde geldt voor de Ban Traffic-groep.

Ban Traffic-respondenten maken ook veel vaker gebruik van de fiets, terwijl Allow Traffic-respondenten veel vaker gebruik maken van eigen gemotoriseerd vervoer; de regelmatige gebruikers van het openbaar vervoer zijn globaal ondervertegenwoordigd in de steekproef.

Een persoonlijk gebrek aan toegang tot groenvoorzieningen hangt over het algemeen samen met een voorkeur voor het weren van gemotoriseerd verkeer uit het Ter Kamerenbos.

In het algemeen blijkt de persoonlijke situatie van de respondenten (leeftijd, jonge kinderen, plaats waar zij wonen/werken, persoonlijke middelen) een belangrijke voorspeller te zijn van iemands voorkeur voor de inrichting van het park en biedt dit als zodanig een geschikt kader om de discussie te begrijpen.

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Between Green Spaces and Mobility: exploring different perspectives on the setup of Bois de la Cambre

1 Introduction

The design, governance and use of public space is of great importance to all who live and work in the city. It is the place *par excellence* where community building takes shape and that offers possibilities and opportunities to all, irrespective of one's personal situation. At the same time, it is crucial for shaping the mobility options people dispose of and, as such, it determines where and how people will work and spend their leisure time. Therefore, people can strongly differ in their preferences as to the balance between the different uses of public space, depending on their personal situation and experiences, their values and norms, etc. This sometimes results in conflicting propositions on how the city should be developed.

Questions related to urban mobility and urban green are prominent in the public debate on public space, as decisions made in these areas can have a major impact on the lives of those concerned (in terms of well-being, inconveniences, nuisances...). Furthermore, the coronavirus and the implementation of sanitary measures to slow down its spread have implied a change of both individual practices and public policies related to mobility and urban greenery. We do not know whether and to what extent these changes will be permanent, but people's attitudes towards mobility and urban green certainly started moving and there were at least some reflections on whether the changes are to be upheld or not once the pandemic is behind us. When envisioning the post-covid city, therefore, it is important to gain a better understanding of people's motivations for expressing certain preferences, and the broader context these preferences are embedded in.

In this context, the debate on the setup of *Bois de la Cambre* for mobility, leisure and other uses has surfaced again. A prominent issue is whether motorised traffic through the park should be allowed. This debate has been heated, with municipalities, civil society actors and citizens taking different and seemingly irreconcilable positions.

Our study intends to contribute to a better informed and more nuanced debate and decision-making. We do so by describing and analysing the motivations, socio-demographic profiles and practices of citizens who express different preferences for the development of the park: those who would like to allow for motorised thoroughfare and maintain the pre-2020 situation, those who would like to ban motorised traffic, and those occupying the middle ground (indicating a preference for a compromise between motorised traffic and other uses, consisting of a reduction of the period during which and/or spaces where motorised traffic is allowed).

This research will not provide an answer to the question of what setup of the park enjoys the highest public approval, and this for at least two reasons. First, we are convinced that publishing this result would further reinforce the polarisation of the debate, as it might be interpreted as the result of a referendum in favour of or against motorised traffic in the park. Notwithstanding the opposing opinions that can be observed in the highly mediatised public debate, the question is not that straightforward and should be answered with more nuance. The second is that our methodological choices do not allow us to make such claims, despite the large sample. A straightforward answer to the question which group is larger (if at all desirable) would require a stratified and randomised sampling technique, a more active recruitment of respondents, and a rather arbitrary choice as to how wide the zone within which respondents are allowed to give their opinion should be defined. In the current research however, we chose to investigate the profiles of groups with different preferences, an inquiry for which the chosen sampling method is adequate.

This research, thus, does not claim to be representative of the entire population of the Brussels area. Rather, it helps to understand the different sides of the public debate and their advocates, who showe a manifest interest in the issue and have the time and motivation to advocate one solution or the other. Shedding light on their profiles can be useful though, in understanding the issues at stake, the reasons

behind the polarisation, and the implications in terms of political representation.

Our report is structured as follows. We start by providing the context in which this survey has taken place: a long history of controversy around the uses and setup of the park, which has surfaced again following the COVID-19 sanitary crisis. We then explain the methodology used, describing in detail the data cleaning process. Subsequently, we describe how respondents differ in terms of their ambitions for and use of the park, their socio-demographics, their places or residence and work, their mobility practices, and their access to green spaces. In the conclusion, we summarize the most interesting findings and suggest directions for future research.

2 Context

The organisation of the Bois de la Cambre has been the subject of much controversy since its creation. In the 19th century, the Avenue Louise and the Bois de la Cambre were the places where new urban forms of traffic separation were tested, setting apart horseback riders from pedestrians and horse-drawn traffic. With the introduction of the bicycle later that century, revisions were made of the different routes through the park, to accommodate for the increased bicycle use. The car - first as a vehicle for leisure, then as a means of ordinary mobility - also imposed rearrangements and transformed the network of promenades - spaces of slowness - into motorways – spaces of speed. After WWII, the discussions about the integration of cyclists and motorists gave way to debates about the modernisation of the road network, opposing those in favour of transforming the roads of the park and the Sonian Forest into urban motorways and those who were already in favour of less space-consuming and more leisure-related theatrical roads.

The most recent debate on the most appropriate use of the park is still ongoing and started off during the first COVID-19-related lockdown. Since April 2012, Bois de la Cambre had been partially closed to car traffic on weekends and public holidays, but some roads were still accessible to vehicles. The need for physical distancing and the increase in visits to parks and green spaces because a lot of other leisure activities were no longer possible, has demonstrated the need for open spaces to cope with the challenges of the pandemic. Additionally, the first lockdown induced a drastic reduction of traffic flows due to widespread teleworking. Within that context, the City of Brussels decided in March 2020 to redirect motorised traffic outside of the park (Lamquin 2020). (Map 1b)

Initially, the plan was due to last for the time of the crisis, until 31st of August 2020. Even if it had an immediate impact on the mobility and urban green related practices of numerous people, the plan did not engender much controversy as it was taken by most as an exceptional measure to cope with exceptional times. The debate became heated early May when the City of Brussels declared its intention to extend the new setup of the park beyond the COVID-19 crisis: the whole park (i.e. not only the southern loop) would be closed to traffic during weekends throughout the year, and during the whole week in July and August. The municipality of Uccle, however, asked for a consultation with the neighbouring municipalities of the park and the regional authorities to discuss this plan (*La Libre Belgique* 2020). Indeed, although the park is officially located on the territory of the City of Brussels, it also borders three other municipalities: Uccle to the west, Ixelles and Watermael-Boitsfort to the east. By the end of that month, the City of Brussels, the municipality of Uccle and the regional authorities agreed to rearrange the traffic in this historic green lung of Brussels, keeping in mind it is also a gateway to the Brussels area from the south of the Region. They agreed to reopen a few access roads for motorised traffic through the northern part of park: between avenues De Fré, Churchill and Louise (Dive 2020a) (Map 1c). The various stakeholders also agreed to work out a plan, before the start of the school year in September 2020, that would enable the public to take full advantage of the Bois de la Cambre and guarantee at the same time a North-South and West-East connection for car traffic that takes into account the objectives of the Good Move mobility plan, though not necessarily via the park (*La Libre.be* 2020a).

Map 1 - Different setups of the park across 2020 (www.cambre.brussels - © Espaces-Mobilités)

Legend

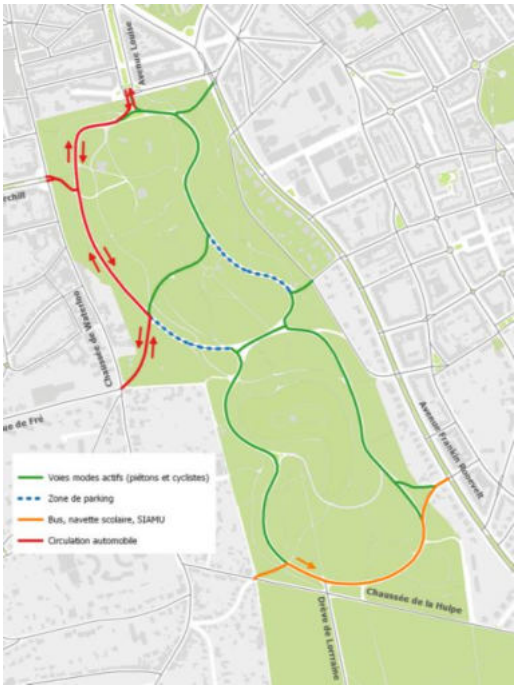
— Motorised traffic — Active mobility

--- Parking areas — Public transport, school bus, emergency vehicles

a. Before March 2020

b. from March 19th until May 27th

c. from May 28th until September 13th



d. From September 15th until December 15th (during the test and until the setup was agreed in early December).

Early August, five proposals were on the table. The City of Brussels proposed three options: 1) a total closure of the park for motorised traffic (its preferred option, more radical than that proposed in early May); 2) a partial redirection of motorised traffic as in place since May 2020 (see above); 3) the opening for motorised traffic of Avenue de Diane in both directions from Louise to De Fré with access to Churchill. The municipality of Uccle, in turn, without proposing a return to the situation of 2019, formulated two additional proposals: 4) the opening for motorised traffic of Avenue de Diane and Avenue de Groenendael in both directions, i.e., from Louise to the Drève de Lorraine with access to Churchill and De Fré; 5) as a second option, the opening for motorised traffic of an access via the Chaussée de la Hulpe by exiting onto the Avenue du Brésil (Dive 2020a).

To the great displeasure of the municipality of Uccle, whose proposals addressed the concerns of traffic fluidity and cut-through traffic of some of its own inhabitants, only the City's third proposal was tested, from September 15th to November 15th (Map 1d). In the southern part, school and public transport buses as well as transport for persons with reduced mobility (PRM) and emergency vehicles were authorised to use the Avenue du Brésil to reach the Drève de Lorraine and the Chaussée de la Hulpe via the Avenue de Boitsfort (Leprince 2020). Data from several GPS providers and mobile applications (TomTom, Google Maps, Be Mobile) were analysed during the test period to objectify the impact of the traffic test on travel times by car around the Bois de la Cambre (https://www.cambre.brussels). After one month of monitoring, the data revealed that, on the 5 tested routes, travel times were never more than 2.5 minutes longer than those reported in 2019, even though the parts of the park accessible to cars during the test were underused (Sente 2020).

Mid-September, even before these findings were reported, the municipality of Uccle filed a legal action to contest the decisions of the City of Brussels, pointing out the failure of the consultation of the various municipalities concerned (Dive 2020b). On November 12th, the judge ruled in favour of the municipality of Uccle, requiring the City of Brussels to reverse the closure of the southern loop of the Bois de la Cambre within 30 days. This is the moment our survey was conducted (November 27th, 2020, until December 7th, 2020). After the judgement, on December 3rd, the City of Brussels and the municipalities bordering the park agreed to authorise access to the southern loop from the Drève de Lorraine to the Avenue Franklin Roosevelt, by making the section of the Avenue de Boitsfort-Avenue du Brésil two-way, from Monday to Friday (Farr 2020) (Map 2). They also agreed that a new test will be conducted when teleworking is no longer compulsory (*La Libre.be* 2020b). Nevertheless, the City of Brussels, with the support of the Brussels Region, launched an appeal procedure (Farr 2021).

Map 2 - Setup of the park since December 14th, 2020 (www.cambre.brussels - © Espaces-Mobilités)

Legend

— Motorised traffic — Active mobility

--- Parking areas — Public transport, school bus, emergency vehicles

a. During weekdays

b. On Saturdays

c. On Sundays and public holidays

3 Methodology

This study is based on a survey conducted by researchers from the VUB and ULB, in collaboration with the Brussels Studies Institute. The questionnaire included questions related to respondents' ambitions for the setup of the Bois de la Cambre, their current use of the park, some specifics on their socio-demographic background and on their general practices regarding mobility and green spaces. After being designed and reviewed, the survey was made available online between November 27th, 2020 and December 7th, 2020, via the Qualtrics software (www.qualtrics.com/). The link to the survey was disseminated widely via traditional media (e.g. lesoir.be, bx1.be, bruzz.be) and social media. Considering the polarisation of the debate and our interest in having a diversified sample, we ensured that the survey was distributed via social media webpages of groups in favour of or against motorised traffic through the park.

Notwithstanding our efforts to explain the purposes of the survey, we are aware that some people were possibly taking the questionnaire as a referendum to decide on the setup for the park, and tried to pollute the survey results with malicious contributions (e.g. multiple participations from the same person, answers only to selected questions...). Consequently, we applied different techniques offered by the survey software, to limit malicious contributions, i.e., ballot-box stuffing prevention and reCAPTCHA based bot detection. We also proceeded with a thorough *post hoc* data cleaning process.

First, we checked the number of duplicate IP addresses and found 1948 cases for which the IP address was recorded several times (in one case, the same IP address was used 67 times). We chose to keep the first record of a given IP address and removed 1111 records for which the IP address re-emerged. In a second step, the ReCaptcha score of the records was checked. One hundred and two records were found to have scores lower than 0.5 (or missing values) and were thus flagged by Qualtrics as possible bot responses: these records were removed. Third, only respondents who completed the essential parts of the survey (questions on one's use of the park and on one's ambitions for it) were considered for further analysis. We found 749 cases with no answer to these questions, which we deleted. A fourth and final step was the verification of the survey completion times. Considering the distribution of completion times, we took 214 seconds as the cut-off for minimum time (2.5th percentile) and removed 571 answers that were completed in a shorter time. Out of a total of 9785 submitted responses, these steps resulted in a final dataset of 7252 respondents.

After cleaning the data, we split the database in three groups, based on a respondent's declared preferred setup for the Bois de la Cambre. In the survey, the respondents were presented with a question on different options regarding the banning or allowing motorised traffic through the park. More specifically, respondents were asked to order four options (which were presented in a random order) in descending preference. For this report, we only considered the option that respondents indicated as the most preferred one and created groups as indicated in Table 1, below.

Every group consists of at least 1800 respondents, a size which is adequate to provide insight into the profiles of the different groups.

In the sections below, we display a series of descriptive statistics for each of the three groups.

Table 1 - On the preferred setup of the Bois de la Cambre

What type of motorised traffic do you want in the park? (most preferred option)	Our label for the group
○ *"Motorised traffic should be prohibited throughout the park"*	Ban Traffic
○ *"Motorised traffic should be restricted during certain times of the week (more than before)"* ○ *"Motorised traffic should be restricted in certain parts of the park (more than before)"*	Middle Ground
○ *"Motorised traffic should be allowed throughout the park (as was the case before February 2020)"*	Allow Traffic

4 Results

4.1 On the motivations of respondents

Following the question on the preferred setup for the park, respondents were asked to rate different reasons to ban or allow traffic in Bois de la Cambre. These questions were not asked to all respondents. More specifically, respondents who indicated before that the banning of traffic is their least favourite option (i.e., gave this as their fourth choice in Q7), were not asked about their motivations to ban traffic from the park. Similarly, respondents who indicated the authorisation of motorised traffic in the park as their least favourite option (i.e. who gave this as their fourth choice in Q7), were not asked about their motivations to allow traffic in the park. Hence, motivations for the authorisation of motorized traffic in the park can only be analysed for the Middle Ground and Allow Traffic groups, and motivations for the banning of traffic can only be analysed for the Middle Ground and Ban Traffic groups.

The following two figures plot the extent to which respondents in these groups were likely to (dis)agree with a proposed reason for allowing or banning motorised traffic. Overall, the data show that the Ban Traffic and Allow Traffic groups are skewed toward high levels of agreement (i.e., in both cases, respondents are very likely to 'totally' agree with the reasons that correspond to their declared preference), whereas the Middle Ground group is more nuanced. We observe, however, some differences between the various proposed reasons.

Figure 1 shows that the Allow Traffic group very strongly agrees with the different reasons provided for allowing traffic, except that driving in the park is enjoyable, an argument on which they are more divided. Concerns over traffic fluidity and avoiding congestion particularly elicit total agreement. Middle Ground respondents appear to be rather divided on the validity of the reasons for allowing traffic in the park. There is one motivation though on which they agree it is not a very valid reason for allowing motorized traffic, i.e., the fact that driving in the park might be enjoyable.

Figure 2 shows that the Ban Traffic group strongly agrees with the different reasons provided to ban traffic from the park. Reasons related to the recreational function of the park are being stressed somewhat more than reasons related to mobility or nature protection. More in particular, being able to enjoy the park as a pass-time and inhibiting air/noise pollution, are reasons for banning traffic that elicit strong agreement (77% in both cases). The Middle Ground group is more divided on the validity of the reasons to ban traffic, although there still is a tendency to rather agree with the reasons provided. In fact, the analyses of the motivations for banning or allowing traffic among Middle Ground respondents suggests that this group comprises of both people that value the mobility function and people that value the recreational function of the park. Whether these concern different subgroups of respondents who find other arguments important, or whether the same respondents see value in both arguments, has not yet been further explored.

Figure 1 - The motivations for allowing motorised traffic through the park

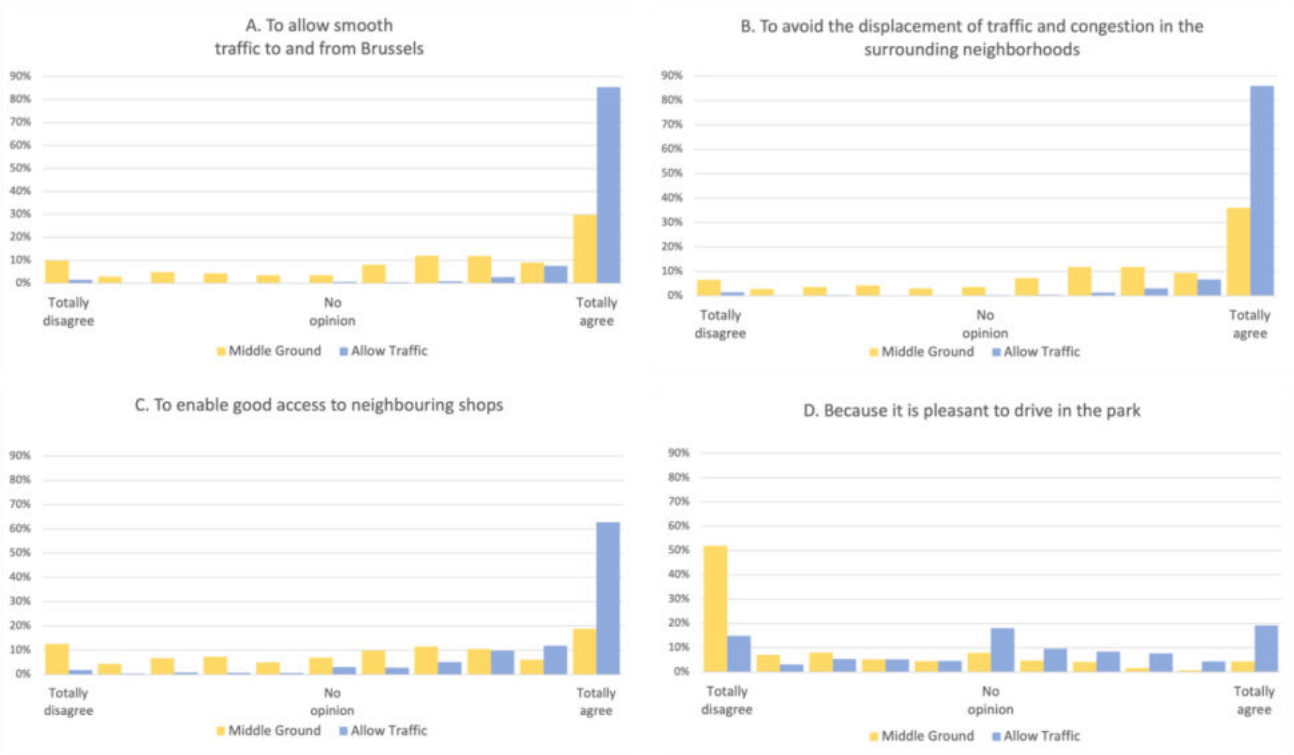
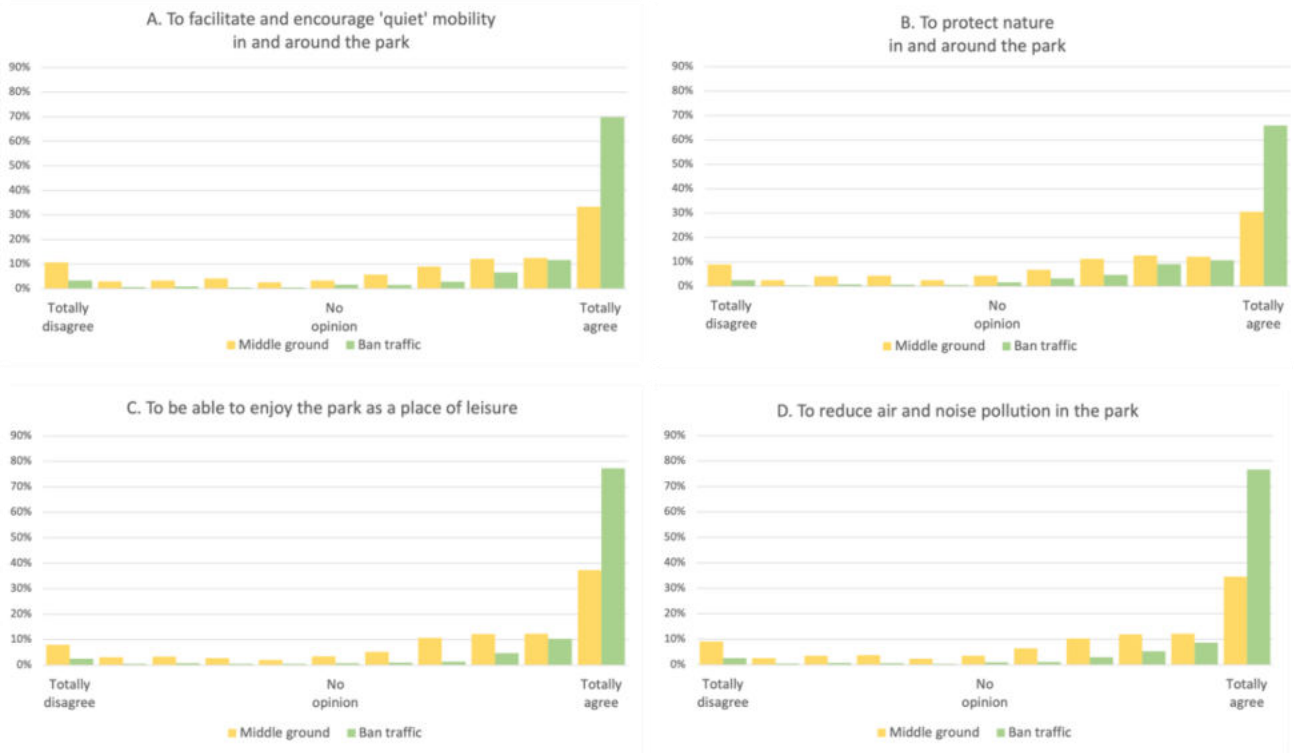


Figure 2 - The motivations for banning motorized traffic through the park



4.2 On the use of Bois de la Cambre

Figure 3 shows, for each group, the proportion of respondents that indicated having used the park in a particular way (e.g. pass through by car, visit during the week), differentiating between a period before the Covid19 pandemic (October 2019) and a period during the pandemic (October 2020). Overall, while the results show a different pattern for the three groups, these do not seem to have radically changed in the period where motorised traffic was diverted (albeit with exceptions).

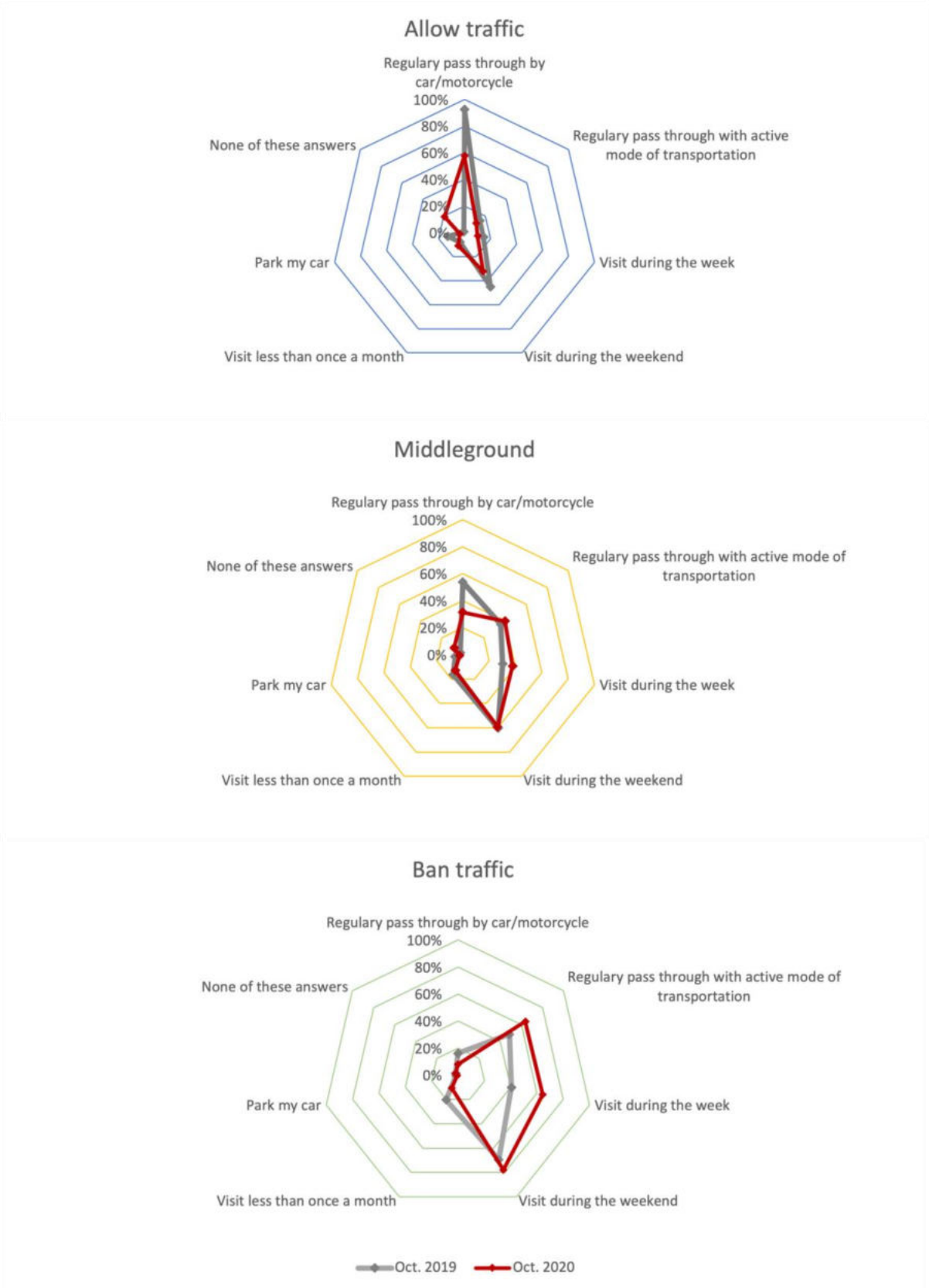
The Allow Traffic graph shows that, in the period prior to the partial closing of the park to motorised traffic, most of the Allow Traffic group used to pass through the park by car or motorcycle (92%). This percentage drops by more than 30 points (to 58%) after the partial closure of the park. Almost half of these respondents had the habit of visiting the park in weekends (45%). The partial closing of the park seems also to have reduced their tendency to visit the park with about one third (32%).

The Middle Ground respondents were also affected by the partial closing of the park in how often they went through by car or motorcycle. Whereas about half (54%) of the respondents indicated doing so prior to the closing, only about one third (32%) indicated doing so after the partial closing. Whether they visit the park in the weekend seems to be unaffected by the partial closing – 60% prior to partial closing, 59% after. Additionally, the likelihood of visiting the park during weekdays seems to have increased – 30% prior to and 38% after partial closing.

The Ban Traffic respondents display a different type of usage of Bois de la Cambre compared to the two other groups. First, these respondents were unlikely to regularly go through the park by car or motorcycle to start with (16%), and even less so after the partial closing of the park (8%). Prior to the partial closing, these respondents were already very likely to visit the park in the weekend (69%) – a tendency that has increased after the partial closing (78%). Noticeable is also the change in likelihood of visiting the park during weekdays – 41% prior to partial closing, 64% after. Lastly, for this group of respondents, the reorganisation seems to have encouraged their use of active modes of transportation to go through the park – 49% prior to partial closing, 64% after.

So, while all groups testify to a lesser passing though by car/motorcycle (a rather direct consequence of the measures), only the Middle Ground and Ban Traffic groups have (slightly) increased their frequency of visiting the park, especially during the week. Passing through with an active mode of transportation has increased for the Ban Traffic Group.

Figure 3 - The use of the Bois de la Cambre before (October 2019) and during (October 2020) the temporary changes of the setup



4.3 Socio-demographics

Figure 4 and Figure 5 provide demographic details about the respondents in the three different groups, more particularly about their age and family situation.

We asked whether respondents had any children younger than 12 assuming that this is the age when the routines of parents and their children become more independent from one another (it is the age at which children enter secondary school). This question is particularly interesting, considering that both car accessibility and good quality green spaces are considered important for families. From the comments that respondents provided in the dedicated box, it seems that the question was interpreted in different ways: a more literal interpretation (e.g., the respondent has children younger than 12), and more flexible one (e.g., the respondent regularly takes care of children younger than 12). We chose to display the results anyway, but they should be interpreted with caution.

The data suggests a relation between the respondents' ambitions for the Bois de la Cambre and both their age and whether they have young children at home. Figure 4 shows that respondents in the Ban Traffic group are (somewhat) more likely to have young children at home than both other groups. This link between preferences and having young children at home may have been tempered by the fact that the more the groups are in favour of motorised traffic in the park, the more they seem to have interpreted the question about having young children in a broad manner (based on the sometimes high ages of the respondents concerned).

Figure 4 - Presence of children under 12 in the respondents' household

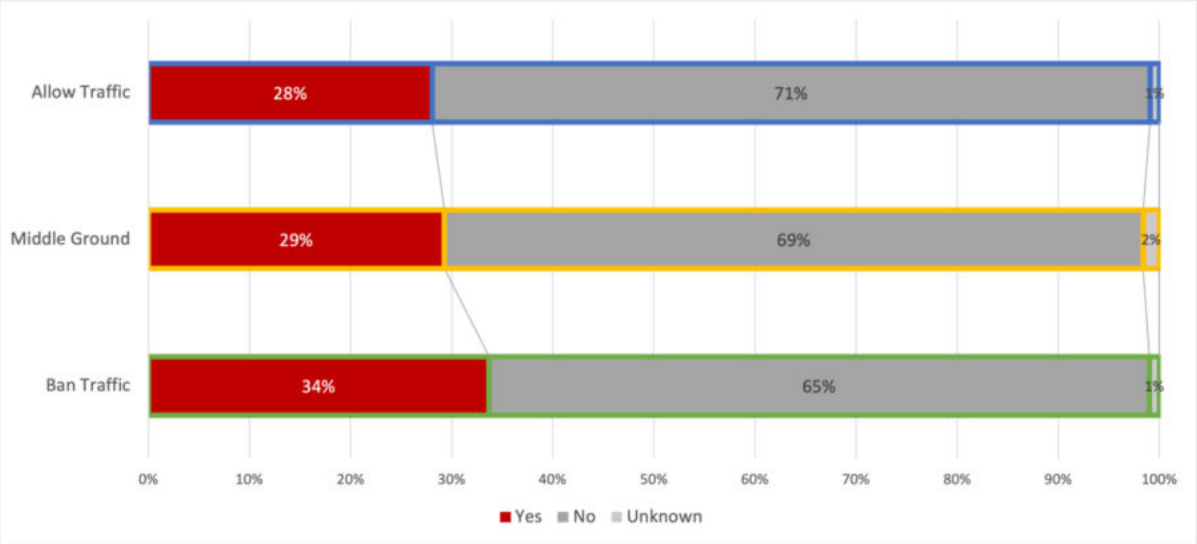


Figure 5 - Age structure of the respondents

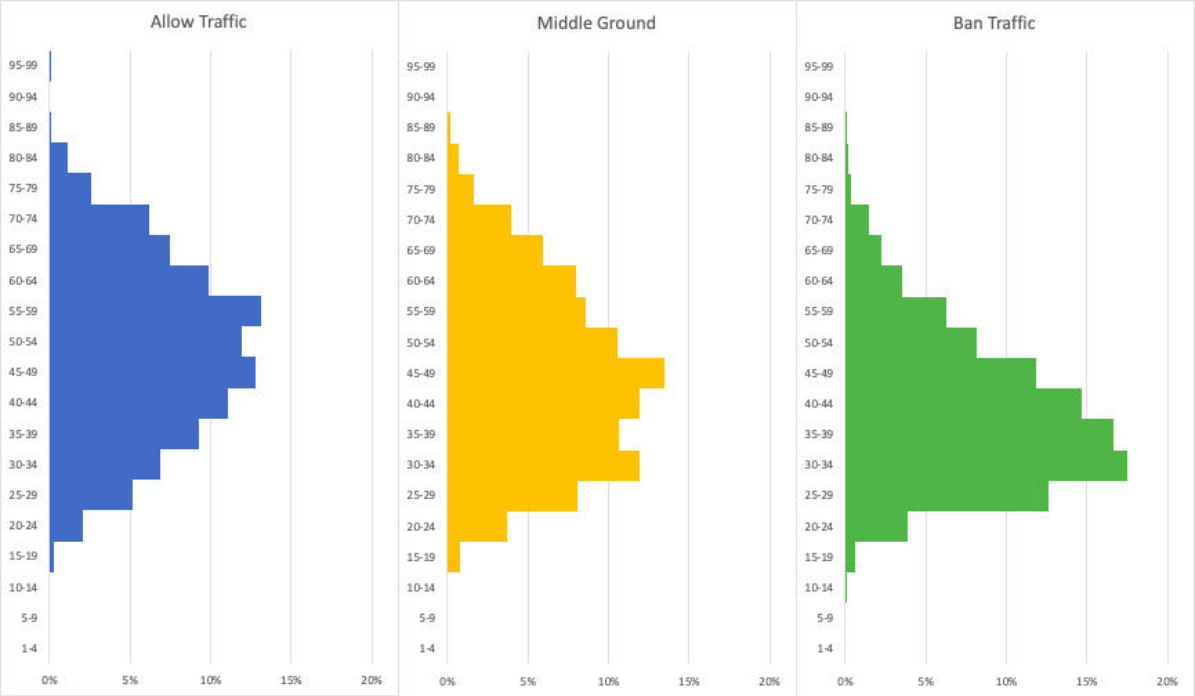


Figure 5 shows the age structure of the respondents in the three groups. From the responses, it emerges that respondents in the Allow Traffic group are more likely to be older (average of 50 years; mode: 55-59 years), followed by the Middle Ground group (average of 46 years; mode: 45-59 years), and finally the Ban Traffic Group (average of 41 years; mode: 30-34 years).

As far as the professional situation is concerned, in all three groups, employees and self-employed/business owners are the most represented categories. The Allow Traffic and Middle Ground groups present a relatively similar professional profile. In both cases, a bit less than half of the respondents are employees, and around a quarter is self-employed or owns a business. All other groups are represented in rather low shares with little differences between the groups. The Ban Traffic group is characterised by a clearly larger share of employees (60%) and a smaller share of self-employed (17%) than the other two groups. Given the different (mobility) needs of retirees, it is also interesting to look at the share they represent within the different groups: They are relatively more represented in the Allow Traffic (15%) and Middle Ground groups (12%), than in the Ban Traffic group (4%), which is in line with the different shares of people aged 60+ in the different groups. All other professional situations are much less observed.

Below the graph, Table 2 displays the percentage of respondents in each of the professional categories for each of the groups.

Figure 6 - Main activity of respondents

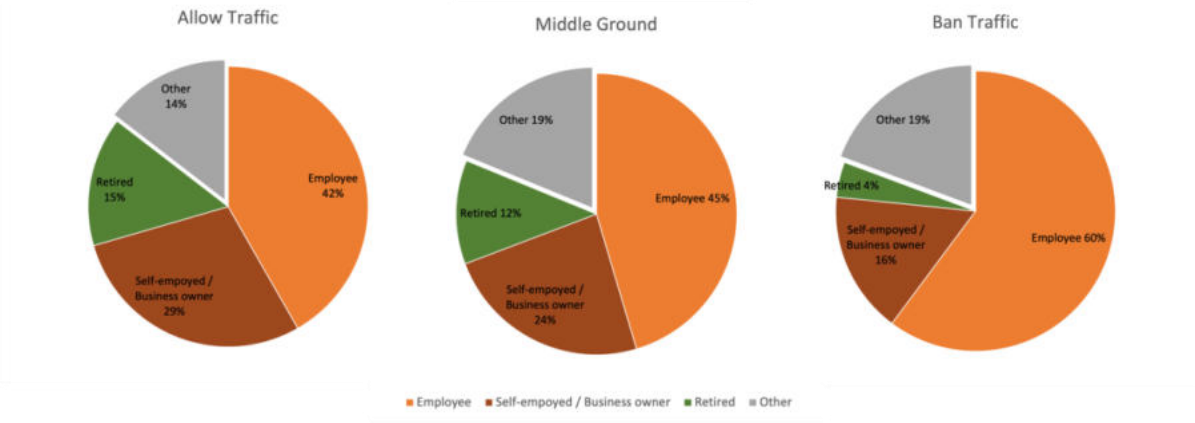


Table 2 - Main activity of respondents (details)

What is your professional situation?	Allow Traffic	Middle Ground	Ban Traffic
Employee	42%	45%	60%
Self-employed/ Business owner	29%	24%	16%
Retired	15%	12%	4%
Student	2%	4%	4%
Researcher	1%	3%	4%
Job-seeker/ unemployed	1%	2%	3%
Labourers	1%	1%	1%
Homemaker	1%	1%	1%
Shop-keeper	1%	1%	0%
Other	5%	4%	4%
Unknown	2%	3%	2%

4.4 On places of residence and main activity

Figure 7 provides details on the places of residence and main activities (work, studies, … - where respondents spend most of the week) of the three groups. We decided to only take account of the first municipality when several were mentioned. Given that most respondents reported to live in the Brussels Capital Region (BCR) and immediate periphery, we divided these places in four categories: (1) pentagon and first belt (*première couronne*), (2) second belt (*deuxième couronne*), (3) the first periphery made up of the 33 municipalities around the BCR as determined by the Plan IRIS 1 for travel and (4) the other municipalities of Belgium. This is shown in the map on the right of the figure, which serves as a legend for the colour coding of the pie charts.

Unsurprisingly, respondents living and having their main activities outside of Brussels and its periphery are rare. All three groups (Allow Traffic, Middle Ground and Ban Traffic) have their main activities predominantly in the BCR. Still, for the Ban Traffic group, these activities are more concentrated in the pentagon and first belt - 69% compared to 43% (Allow Traffic) and 55% (Middle Ground). The relatively high rate of non-response to this question covers two realities: actual non-responses (which we believe to be only about 1%, given the level of non-response to the previous question) and people that have their main activities in the same place where they live or for

Figure 7 - Residential and professional geography of respondents

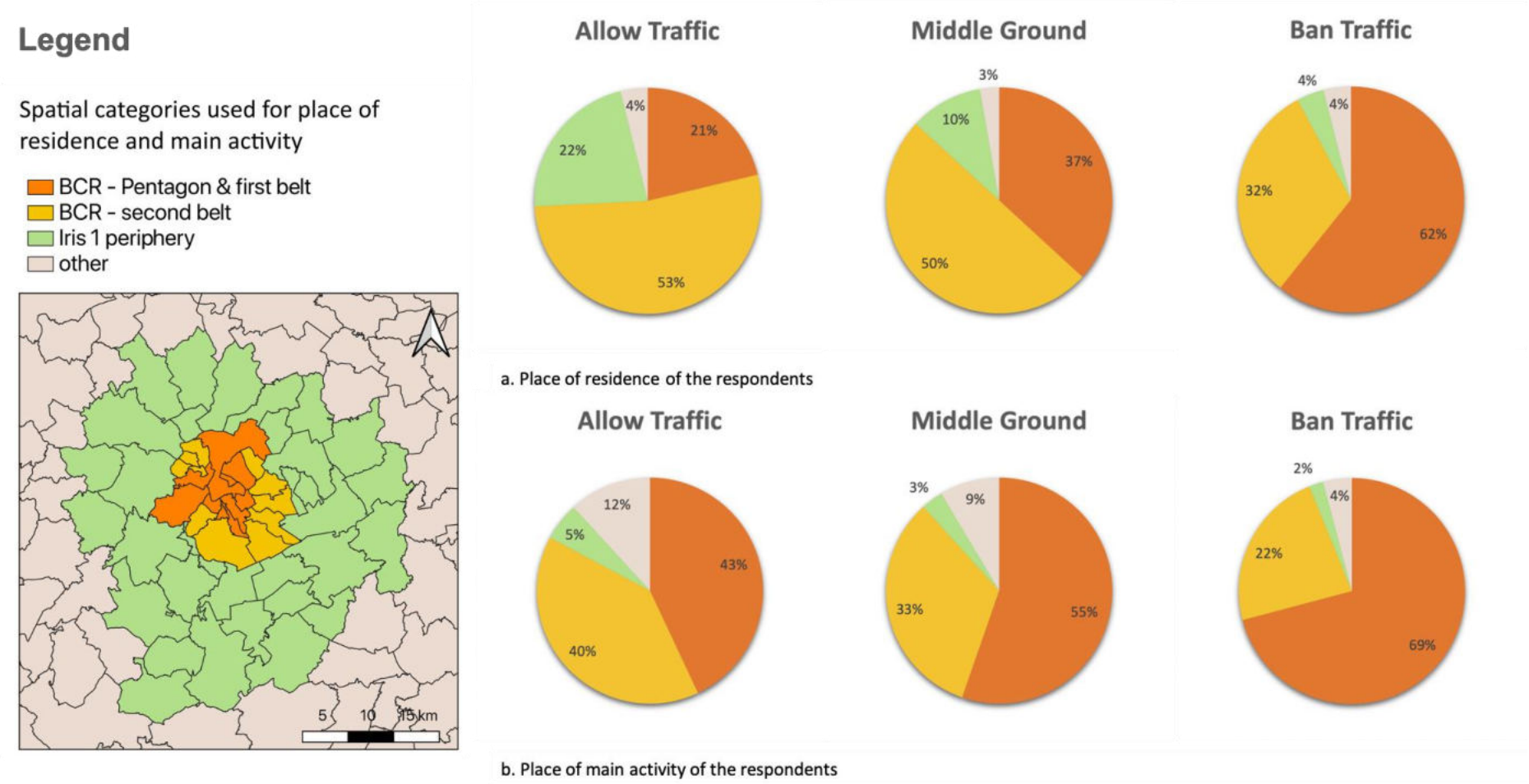


Table 3 - Percentage of respondents living in proximity to the park

Do you live within 800 metres of the park (about 12 minutes of walking) ?	Allow Traffic	Middle Ground	Ban Traffic
Yes	29%	31%	29%
No	71%	69%	71%

whom the question about their main activities was not applicable (between 4% and 9%).

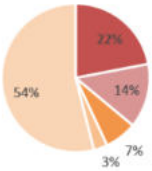
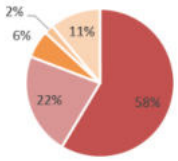
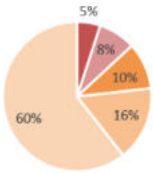
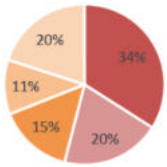
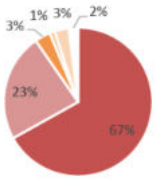
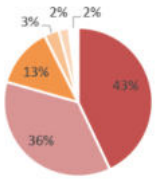
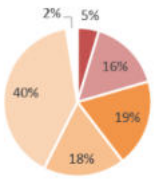
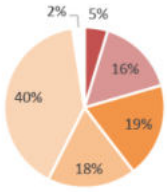
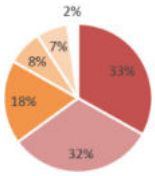
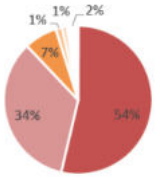
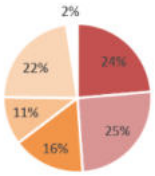
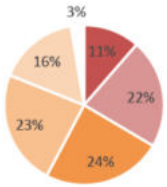
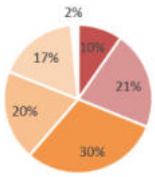
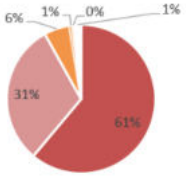
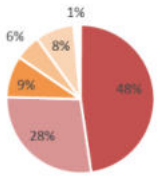
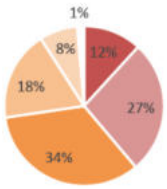
As the place of residence is concerned, group Ban Traffic lives mainly in the pentagon and first belt (62% versus 37% for Middle Ground and 21% for Allow Traffic). The Allow Traffic and Middle Ground groups on the other hand, live mainly in the second ring (53% and 50% respectively, compared to only 32% for Ban Traffic). Finally, the Allow Traffic group is characterised by a remarkable share of people living in the first periphery (22%, compared to 10% for Middle Ground and 4% for Ban Traffic). As Table 3 indicates, the three groups have a relatively similar share of respondents living in proximity (i.e., walking distance) to the park.

4.5 On mobility practices

In the survey, respondents were asked about their frequency of use of different modes of transportation (for whatever reason) over the past 12 months. Below, we compare the results of the three groups with each other and with the data of the BELDAM survey on Belgians' mobility practices (Cornelis et al. 2012). The BELDAM survey studied the journeys carried out by the households concerned, and more specifically by the household members older than 6, during a particular reference day. Here, we only consider data of the Brussels Capital Region (representative sample, n=1.559) as published by the Mobility Observatory (2014).

Figure 8 can be read in two ways. Vertically, one can compare the frequency of use of a specific means of transport between the groups and with the data of the BCR population. Horizontally, one can observe within each group the frequency of use of the different means of transport.

Figure 8 - Frequency of use of different means of transport

	Car, motorcycle, moped*	Walking	Bicycle or equivalent	Public transportation
Brussels Capital Region data (Beldam 2010)	 * BELDAM data only include car drivers			
Allow Traffic Group				
Middle Ground Group				
Ban Traffic Group				
				

A comparison of the frequency of use of the different means of transport with the BELDAM data shows that, in terms of their mobility practices, our sample is not representative of the population at large. This is not surprising considering that our survey was mainly completed by people who have a strong concern for the park setup and whose practices are likely to be more impacted by the decision. In the three groups, for instance, the reported use of public transportation is well below the Beldam values. Ninety percent of respondents from the Allow Traffic group acknowledge using individual motorised modes of transport at least one day a week (and 67% more than five times a week), compared to 36% for the Brussels population as a whole.[1] On the opposite side, 75% of respondents from the Ban Traffic group reported using the bicycle (or equivalent) at least one day a week (and nearly half of them at least five times a week), which is much higher than

[1] We only compare with the share of Brussels Capital Region's inhabitants who use a car as a car driver more than once a week. The data for car passengers are similar (37%) and those for motorcycles and mopeds much lower (2%). An analysis of more recent data (2017) on the use of different modes of transport reveals similar rates in BCR: 37% use a car as a car driver more than once a week (Monitor 2019: 20). For the detailed results, however, we compare with the data from Beldam which uses the same threshold values as our survey (frequency of more than 5x/w *vs.* 4x/w in the Monitor survey).

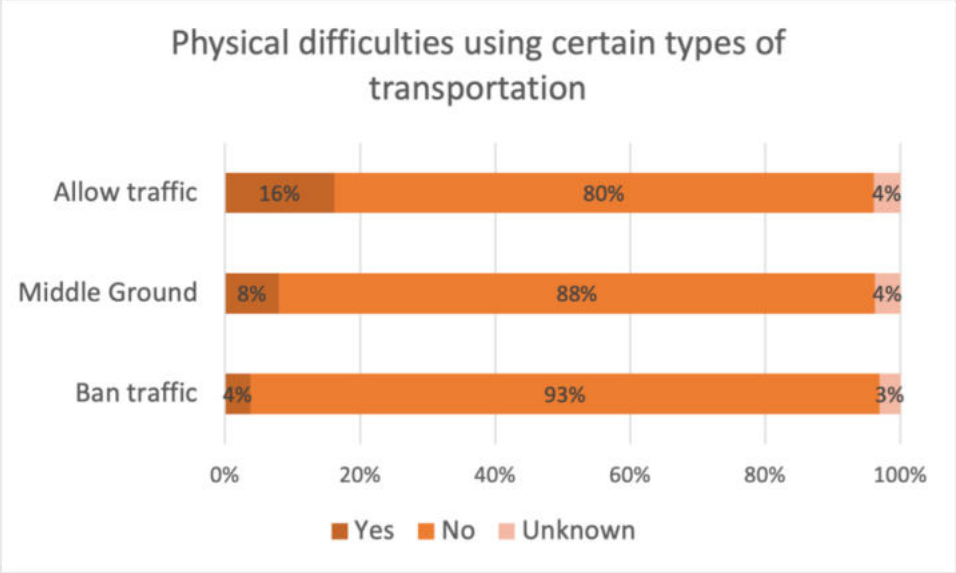
the 13% reported in the BELDAM survey. It is difficult to know which part of these differences is to be accounted for by general trends over time (increase in cycling and walking), the pandemic (with its related measures and effects: teleworking obligation, increase in recreational mobility, fear of infection in public transportation…) and specifics of the groups. We assume the latter two both contributed strongly. Moreover, the public debate being very intense at the time of the survey, we cannot rule out the possibility that respondents exaggerated the trends to back up their position and motivations about the park.

However, a comparison of the use of different forms of mobility between the BELDAM and our survey (Figure 8) suggests that both the Ban Traffic and Allow Traffic groups exhibit mobility habits that are largely dissimilar from the Brussels' population as a whole. While the Ban Traffic group is characterised by an exceptional high use of active mobility (76% are regular cyclists vs. 13% of the BCR residents in 2010), the Allow Traffic group is characterised by a remarkably strong use of individual motorised mobility (90% are regular car drivers vs. 36% of the residents of the BCR in 2010).

Figure 9 shows that resorting to motorised mobility is partially related to one's physical condition. As such, the Allow Traffic group acknowledges more frequently to suffer from physical difficulties - because of permanent handicap or age - in using certain means of transportation (difficulties to walk; ride a bicycle; access tram or bus stops; access stations, platforms and train or metro stops; getting on and off the train, buses, tram or metro; get in and out of a car; drive a car, ...) (16% in comparison to 4% and 8% respectively in the Ban Traffic and Middle Ground groups).

Another explanation for these different mobility profiles might lie in the spatial separation of the places of residence and of main activities from the city centre, and their accessibility, which differ greatly among the groups (see section 1.1). The fact of living, but also of conducting their activities in the second belt and the first periphery (45%), makes the modal choices of the Allow Traffic group more constrained. Indeed, these places are poorly connected by public transport to the (rest of the) BCR (Ermans et al. 2018), the park acting, moreover, as a mobility frontier inside this second belt of Brussels. This could be one of the reasons explaining why they are in favour of the opening of the park to motorised traffic.

Figure 9 - Physical difficulties using certain means of transportation



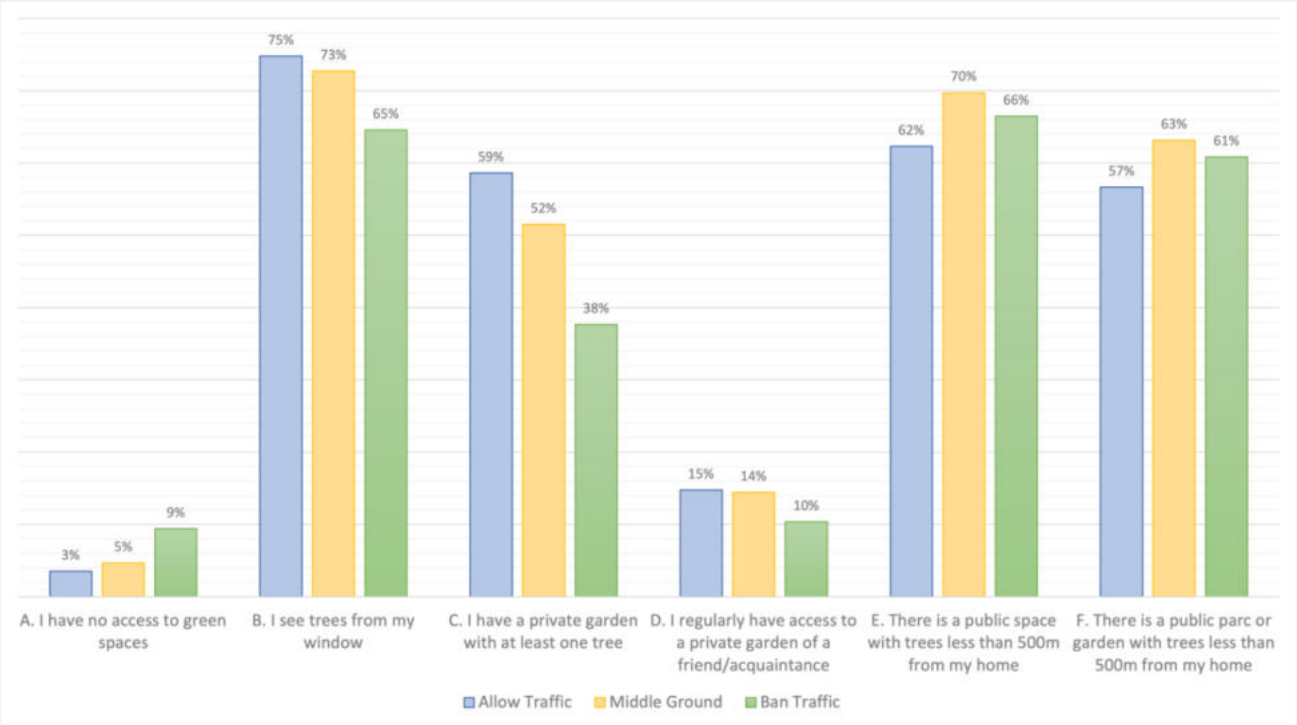
4.6 On access to green

Considering the twofold nature of the debate, i.e., on mobility and green spaces, the survey was designed to collect data on the respondents' profile in relation to green spaces as well. We posed two questions regarding the availability of different sorts of green spaces and the habits in relation to them. Figure 10 illustrates which kinds of green spaces respondents usually have at their disposal (respondents were asked to tick all applicable options).

Option A ('I have *no* access to green spaces') was selected by a relatively small percentage of respondents, albeit with some interesting differences between the three groups. The share of people lacking green spaces is three times larger in the Ban Traffic group, than in the Allow Traffic group, with the Middle Ground group taking an intermediary value. These results are mirrored in the B-Series, indicating whether one sees trees from his/her window: respondents in the Ban Traffic group less often (65%) see trees from their window than respondents in the Allow Traffic group (75%).

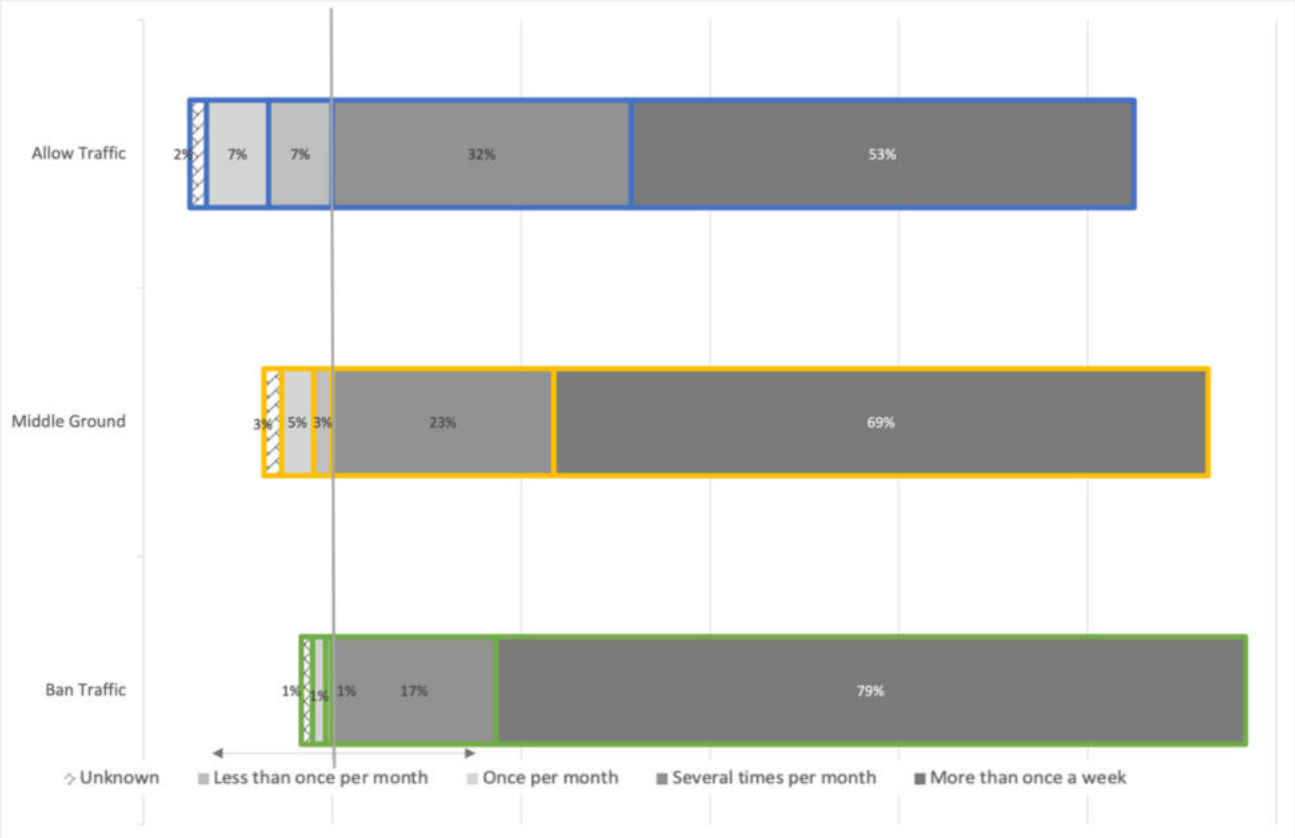
A similar picture appears when looking at Series C and D. These series concern the availability of a private garden (directly at one's residence, or at a friend's). Similar to the previous block, we observe that respondents in the Ban Traffic group less often have access to a garden (38% has a private garden and 10% can access the garden of a friend). For the Allow Traffic group, these percentages are 59% and 15% respectively, the Middle Ground group taking again a position in between these values. The relatively little access people have to a friend's or acquaintance's garden, which can be observed for all three groups, should not (necessarily) be seen as a manifestation of green spaces scarcity, but probably just as a not-so-common practice.

Figure 10 - Access to green spaces



The final two series, concerning the proximity to public green spaces (either streets or squares with trees, or actual parks), seem to present a different picture. As far as the Ban Traffic and Middle Ground groups are concerned, the results are in line with the other series, i.e., the group that is more in favour of allowing (partial) traffic in the park (i.e., Middle Ground), has somewhat more access to public green spaces (70% and 63%, compared to 66% and 61% of the Ban Traffic group). However, respondents in the Allow Traffic group live less often than both other groups near a public green space. It is unclear whether this is to be explained by the actual unavailability of *public* green spaces, the lack of proximity of these spaces (i.e., within 500m) or the unawareness of the presence of such spaces, among possible other reasons. While Figure 10 looked at the proximity to green spaces, Figure 11 focuses on the actual use. This figure suggests that the ambition to enhance the leisure and ecological functions of the Bois de la Cambre, goes hand in hand with the frequency with which one visits green spaces. While in all groups of our analysis, a large majority of respondents (85% or more) indicated to frequently visit green spaces, this share is largest in the Ban Traffic group, followed by the Middle Ground group, and then by the Allow Traffic group. This is the case both for the very frequent users (i.e., more than once a week) and for the combined 'very frequent and frequent users' (i.e., more than once a week or several times per month), although the difference is less pronounced in the latter case.

Figure 11 - Frequency of use of green spaces



5 Conclusion

The public debate on whether to allow motorised traffic in the Bois de la Cambre has proven to be quite heated. In the last year, citizens and political parties alike have raised their voice to defend one or the other vision for the park, presenting arguments of public health, economic prosperity, freedom, traffic, public safety, nature preservation... Our research aims to contribute to an informed and more nuanced debate and decision-making. This research was not intended as a poll on preferences regarding motorised traffic through the park. Rather it provides resources to dig deeper into the characteristics and motivations of 'who wants what' for the Bois de la Cambre.

In the sections above, we have illustrated in depth the differences between respondents that have different preferences as to the 'allowing' or 'banning' of traffic in Bois de la Cambre. We looked at their use of the Bois de la Cambre, their socio-demographic characteristics, their mobility and green space practices. As a means of conclusion, we go back to the main results and summarise the key findings. Overall, the profile of the two groups with a clear preference concerning the 'destination' of the park (i.e., ban traffic or allow traffic) is probably more straightforward, with the Middle Ground group generally presenting intermediary values. Even though people displaying a strong preference as to the setup of the park are prominently present both in this study and in the public debate, however, it should be noted that they may only represent a minority of Brussels residents. By way of comparison, in a survey conducted by VIAS (2020), 65% of Belgians stated they were satisfied with the (temporary) developments that provide more space for cyclists and pedestrians.

In the introduction and the methodological part, we have explained how we split up our sample in three groups. In sections 4.1 and 4.2, we sought to provide more nuance as to the different positions of the three groups, by describing the different respondent's motivations for a given preference and their actual use of the park. From the data, it emerges that framing the dispute as a contrast between car and bike users is at least incomplete. When looking at respondents' motivations and use of the park, it is rather traffic fluidity that is being opposed to the leisure functions of the park. In the Allow Traffic group, for instance, facilitating fluidity and avoiding congestion, prime over access to the local shops and the pleasure of simply driving through. In the Ban Traffic group, enjoying the park as a pass time and reducing the nuisance of motorised traffic prevail over encouraging the quieter forms of mobility and nature protection considerations (although the latter motivations are still endorsed by two thirds or more of this group). Also, while in all groups we observe both a mobility and a recreational use of the park, the former has a higher relative weight in the Allow Traffic group, and the second in the Ban Traffic group.

In the following sections (i.e., 4.3 and 4.4) we analysed the characteristics of the respondents in the three groups in relation to their demographic situation, professional status and place of residence and work. The differences between the three groups are clear. Particularly interesting is the different age distributions, the average age being correlated with the extent to which respondents want traffic banned from the park (i.e., the average age in the Allow Traffic, Middle Ground, and Ban Traffic groups, is respectively 50, 46, and 41). The professional status is also rather different in the three groups, with the Allow Traffic and Middle Ground groups being characterised by a relatively high proportion of self-employed and retired people, versus the Ban Traffic group which is mainly consisting of employees.

The place where respondents live and have their activities also seem to be correlated with their preference for the setup of the Bois de la Cambre. By dividing the municipalities into four zones according to their distance from the city centre, we saw a clear correlation between the position in relation to the centre and the ambitions people have for the park: the further respondents lived from the centre, the more often they considered motorised traffic in the park desirable. While respondents in the Ban Traffic group are generally living and working in the inner city (pentagon) or first belt (62% is living there, 70% working there), in the other two groups this share shrinks to the benefit of a larger share of respondents living and working in the second belt or the urban periphery. This difference in the residential geography of the three groups is important both because these people vote for and demand to be represented by different communal and regional administrations, but also because the place where one lives/works

has a direct implication on two domains that are central to this analysis, i.e., mobility practices and the access to green spaces, to which we now turn.

The analysis of the mobility practices of the different groups (section 4.5) showed that regular cyclists and regular car drivers seem to be overrepresented in our sample, possibly because these people may be easier to mobilise for this kind of survey. In the Ban Traffic group, three out of four respondents are regular cyclists (vs. 13 % of BCR residents in 2010). In the Allow Traffic Group, ninety percent are regular car drivers (vs. 36% of BCR residents in 2010). We also point out that regular public transport users, which are the relative majority in the Brussels Capital Region, seem to be underrepresented in our sample. The different preferences of the groups can't be simply framed as a divide between car and bike users though. In addition, this way of presenting the results risks shifting the discussion to a question of identity, which is not only misleading but also counterproductive. While our analysis shows that these are relatively frequent modes of transport among the respondents, the data also suggest that one's mode of transportation is not always a mere choice but must also be seen in the context of a particular infrastructure and of individual capabilities.

The research also showed that the issue of having certain ambitions for the park goes well beyond one's mobility practices and touches upon questions of availability and use of green spaces (section 4.6). In particular, the data suggest that the call for reducing motorised traffic in the Bois de la Cambre is related to a relative lack of access to green spaces. Going from the Allow Traffic over the Middle Ground to the Ban Traffic group, we observe an increasing chance of respondents having no access to green spaces at all, and a decreasing chance of people seeing trees from their window and having access to a private garden. A different picture emerges though when looking at the data on proximity to public green spaces. This share is lowest for the Allow Traffic group, possibly because of their more peri-urban residential environment.

In a context where the setup of the Bois de la Cambre is still evolving and constituting the object of testing, dispute and negotiation, this report hopes to contribute to the reflections that are being made. A decision over the park's setup clearly goes beyond the question of whether and how to ban or allow for motorised throughfare: what other infrastructural arrangements will be made for addressing mobility through and recreation in the park? How will commuting flows and local mobility of residents be organized? Will there be mobility or green space compensations in the area or elsewhere? These and other questions (should) constitute an integral part of the decision. Whatever it may be, the final decision will be political, that is: the result of the power balance that emerges in the negotiation and arbitration between different actors. While it is likely that some degree of consensus will be sought, the final setup will surely make some people and groups happier than others. In this context, we hope that this study helps to better understand the perspectives of all sides and realise that - far from being merely an ideological issue - one's preferences are often rooted in a broader context of natural and built infrastructures, social practices, and individual capabilities.

Acknowledgments

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