

Would You Ride with Me?

Discrimination in Shared Mobility Platforms. Results of a Pilot Study

Bori Simonovits¹
Gábor Simonovits²

¹*Eötvös Loránd University, Budapest, Faculty of Education and Psychology Institute of Intercultural Psychology and Education. e-mail: simonovits.borbala@ppk.elte.hu*

²*Central European University, Political Science Department, email: simonovitsg@ceu.edu*

Abstract

The number of sharing economy platforms are rapidly growing worldwide, especially peer-to-peer (P2P) online marketplaces operating in the travel and tourism industry. We focus our attention on a Hungarian ridesharing platform in order to understand the working mechanisms of discriminative selection by service providers against service users of various minorities, as the literature in this area, especially in Hungary, is limited. In our ongoing experimental research, we are collaborating with the most widely-used ridesharing platform in Hungary, carrying out an intervention-type research in 2020 to test whether multiple experimental stimuli have any effect on drivers' behaviour towards various minorities. In this paper, the basis of a conference presentation, we are going to discuss (i) the research design (ii) the collaboration between the platform and our research team, as well as (iii) the empirical results of our pilot study.

Keywords: shared mobility, discrimination, controlled field experiment, Hungary

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1. Introduction

Creating social links and building trust have crucial roles in the collaborative consumption platforms. Trust has received much attention in different disciplines of social science focusing on the role of trust in a new era of undergoing radical transformation by emerging digital technologies changing every facet of our everyday lives. Rachel Botsman defines trust as “a confident relationship with the unknown” in her influential book entitled *Who Can You Trust* (2017). In that book the author differentiates between various types of trust, and includes a glossary on trust terms in order to specify and distinguish among distributed, institutional, and local trust, as well as to define trust deficit, trust signals, and trust shift (for further detail see Botsman, 2017).

Trust has a massive sociological literature with many possible categorisations. According to Sztompka (1999), trust can be seen as a gradually extending circle. Sztompka considers trust as a necessary response in the face of unknown future circumstances and outcomes. Online sharing economies, which have a certain level of anonymity and leave room for deceit, create such unknown circumstances. Trust is identified on three levels; (1) the *individual* level, or as a personality trait, (2) at the *level of interactions*, as in the quality of a specific relationship, and (3) at a *cultural* level. These types of trust (personal, interpersonal and social) are embedded in a cultural context which can be interpreted as an obligation or rule of trusting. Putnam (2000) uses a different approach as he distinguishes two types of trust: *thin* and *thick* trust. While the latter is associated with local communities, embedded in frequent social relations, thin trust is also based on expectations of reciprocity but are capable of “extending the radius of trust beyond the roster of people whom we can know personally” (Putnam 2000:159).

Some sharing platforms, especially the ones that are labelled with the term “peer-to-peer”, such as ridesharing platforms, are providers of risky, “high-stakes” offline experiences, thus making trust between users a crucial resource. Digital (or online) trust is a required and essential resource for sharing platforms. In online interactions, trust has to be approached differently, as the level of trustworthiness is not known (Chen and Fadlalla, 2009, 87.). Because of this anonymity, there is hardly any trust when there is no available information about someone you will share an offline experience with (Cui et al., 2017). Privacy concerns are a highly relevant subject in the discussion about trust and the personal information of consumers (Chen and Fadlalla, 2009, 85). Thus, collaborative consumption platforms create a unique form of social capital that relies on positive and negative exchanges (Codagnone et al., 2016). The “visual-based trust” in online transactions (Ert et al., 2016), demographic information in order to gain trust (Cui et al., 2017), and prior experiences of others (rating system for ridesharing platforms) need to be taken into account in order to analyse the characteristics of the collaborative consumption platforms.

As various collaborative consumption platforms grow very fast worldwide, the model they provide develops in a hectic manner. The blurring of distinctions between public and private, as well as the information asymmetry, both raise concerns. The blurring of distinctions entails mainly regulation concerns, whereas the information asymmetry might also lead to moral hazards, according to Cohen and Sundararajan (2015). Moral hazards include risks such as receiving less careful service (e.g. less careful driver), lower levels of effort made by the service provider (e.g. dirty car seats) compared to services provided by the regular economy (e.g. ridesharing vs. regular train services).

Ridesharing platforms can be understood as social markets involving one-off, face-to-face interactions in informal settings. In many cases service providers have to share their narrow personal spaces (practically their cars) with foreigners. Analysing these kinds of social markets enables us to explore more diverse everyday interactions, where various minorities may face unequal treatment (Tjaden et al., 2017). As opposed to classic business models (i.e. public transport companies in the field of transportation), in the case of shared mobility platforms the individual service providers (the drivers) themselves are in charge of deciding whether to accept a request from a potential passenger. There is more and more research evidence that passengers of various racial and ethnic minorities are significantly more frequently rejected by the service providers (Edelman and Luca, 2014; Edelman et al., 2016; Ge et al., 2016; Simonovits et al., 2018). On the other hand, drivers belonging to various ethnic and national minorities are also discriminated against, paying a discriminatory price premium of about 32% of the average market price in Germany (Tjaden et al., 2017).

In Hungary, discrimination based on ethnicity is likely to occur everyday. Since 2006 several field experiments have been carried out in Hungary, mostly to explore the mechanisms of discrimination in the labour market against various vulnerable social groups, i.e. the Roma, overweight people, and people with disabilities (Pálosi et al., 2007; Sik and Simonovits, 2008). Most recently, we conducted a small scale experimental study in 2017 testing racial and ethnic discrimination on one of the most popular ridesharing platforms (BlaBlaCar) also operating in Hungary. The findings of the field experiment were in line with the previous research results: racial and ethnic background both serve as a basis for discrimination on online platforms, especially in the case of male passengers (Simonovits et al., 2018).

Experimental context: The Hungarian platform our research team co-operates with was established in 2007 by two university students whose primary goal was to create a sustainable and environment friendly transportation solution for medium and long distance travellers in Hungary. As of January, 2020 they have five full time employees and 700 thousand—mostly Hungarian—users. In the past 10 years they administered all together 3.2 million rides, out of which 200 thousand (6.25% of

the total rides)¹ potential passengers were rejected by the drivers, who gave various reasons for their decisions such as “the passenger doesn’t seem to be likable”, or “the passenger is not available”, or “the driver is no longer travelling.”

With our research we are aiming to find out how the above mentioned 6.2% refusal rate changes by groups of passengers belonging to different minority groups after a subset of drivers were exposed to stimuli designed to reduce discriminatory behaviour. Our stimuli will take the form of animated spots that were designed in a collaborative effort of the researchers, leaders of the ridesharing platform and specialists contracted from an advertising agency². Specifically, we designed a pair of spots with the goal of reducing prejudice against the Roma minority and disabled people. The spots were intended to trigger a feeling of compassion with these groups as well as maintaining tolerance as a key value of the partner organization.

Research goals: As in Hungary, the Roma is the largest ethnic minority (making up approx. 6-8 % of the total population), and discrimination against them is widespread (FRA 2018). Our primary goal is to test drivers’ reactions to requests **coming** from passengers of Roma origin. Beyond Roma ethnicity, we also intend to test the effect of potential riders’ physical (dis)ability on drivers’ behaviour.

Based on previous research evidence (Gneezy et al., 2012), we assume that different types of stereotypes and selection mechanisms work with regard to *ethnicity* on the one hand, and *physical disability* on the other. Gneezy and his colleagues suggest that physical disabilities which are perceived to be outside of the control of the individual, —such as blindness or having to use a wheelchair—are more likely to elicit pity and help from others. Our question is how these types of experimental stimuli work and interact with each other.

Furthermore, we also aim to explore which type of discriminatory models (statistical vs. taste-based) can be better applied to the working mechanisms of shared mobility platforms), partly based on the research design worked out by Cui and her colleagues in 2017 in the US context. The 2*2 experimental design offered by Cui et al. (2017) will serve as a basis for establishing causality between the type of information available for the potential rider (highly positive review vs. average review) and the potentially discriminatory behaviour of the potential driver (who is a private service provider). In other words, with the randomized experimental setup we will be able to answer our core research question: Is there a direct link between gathered information and discrimination by the users (supporting the idea of statistical discrimination)? Or the other way around: Does discrimination still persist, even if there are positive reviews provided on the riders (supporting the idea of taste-based discrimination)?

The structure of the paper is as follows: The section on our methods is the most extended part of the paper, consisting of various subsections of the pilot studies, hypotheses, and the implementation plan, while the section on Results and Conclusions are relatively short, as our research has been suspended due to the 2020 COVID-19 crisis affecting Europe.

2. Methods

¹ Source: online correspondence with Attila Prácsér, co-founder and managing director of oszkar.com (Spring 2019).

² Amongst others we are grateful for the commitment and continuous help of Prácsér Attila, founder of Oszkár.com, Péter Lerner, graphic design BA student at MOME university, and for the staff of the market Research Agency for administering the tests and helping us in the development of the research design as well. Last but not least for the volunteers let us use their photos to create the basic pool for Roma and Non-Roma faces of the experiment.

Two types of pilot studies were implemented in autumn 2019. On the one hand, we carried out online survey experiments (in two rounds) to enable us to select distinctively Roma and non-Roma photos for the online experiment. On the other hand, we conducted two waves of pilot field experiments, based on small sample sizes, to test our initial hypotheses (with altered stimuli), and to try out the experimental situations in the online field.

The development of the research design has been a joint project by our research group, graphic and visual designers, and the platform itself. First we will discuss the method of the online survey experiment (2.1), followed by a discussion of the pilot field experiment method (2.2), and then formulate our research hypotheses (2.3). Finally, we will show our plan of how to implement the field research (2.4).

2.1. Online survey experiments

As ethnic origin, one of the key stimuli of our experiment, was cued by the testers' profile photos and specific Roma and non-Roma names, we needed to pre-test the photos. The basic pool of photos was collected from volunteers of diverse groups of university students, representatives and staff members of Roma NGOs, and from the network of our research group. Additionally, an ad was also posted in various Facebook groups to search for volunteers in summer 2019. As a result of our multiple recruitment efforts we managed to collect dozens of photos, but mostly non-Roma ones. After many iterations we decided to follow the following strategy: our points of departure were photos of non-Roma individuals which were edited, altered, and adjusted to our research purpose in close cooperation with a graphic designer and our research team. As we treated the subjects of the basic photos anonymously—in line with the standards and requirements of the Ethical Permission gained from Eötvös Loránd University, Budapest, Faculty of Education and Psychology in 2019 (No: 2019/35 ELTE PPK)—we do not show these photos in the current paper.

The online surveys were carried out in two rounds to enable us to select distinctively Roma and non-Roma photos for the online experiment. The first round was launched in September 2019 (N=160) and the second round was launched in November 2019 (N=250). The sampling process was based on a convenience sampling, using various channels, e.g. Facebook groups, university students, and our research team's personal and professional networks.

The structure of these surveys was as follows: subjects were shown a series of 8 or 9 photos, and after seeing each of them they were asked to rate the person appearing on the photos in terms of age, ethnicity, social class, education, country of origin, and living in urban vs. rural environment. Then, a series of demographic questions were asked of each of the respondents. Importantly, each respondent was assigned either the Roma or the non-Roma version of the same photo, so that we could compare how our manipulations shaped perceptions on each of the characteristics mentioned above.

Beyond the online survey, our research team evaluated the selected photos with qualitative research techniques as well, i.e. we asked feedback on the photos from Psychology and Political Science MA students in our classes, and discussed the photos in our extended research group meetings with our colleagues and graphic experts. As the result of lessons learned from previous field experiments (Simonovits et al., 2018.) and group discussion with our students, we further standardised the photos in terms of paying strong attention to re-making the background of the photos to be as similar as possible. In other words, we tried to realise similar and natural settings (e.g. wall, garden etc.) as backgrounds for all photos to be used in the experiment.

To sum up, our aim was to develop distinctively Roma and non-Roma face pairs. This was achieved in an iterative process in which both the skin tone and facial features were altered to make the respective versions of the photos ostensibly Roma-

looking. Of course there is no exact way to achieve this, so our strategy relied on the intuition of the graphic designer and the research team – and thus, pilot surveys assessing our strategy seemed necessary.

2.2. Pilot field-experiments

The pilot field-experiments were implemented in two rounds on the ridesharing platform (N=90 and N=101, respectively), between which we discussed the preliminary findings, and re-adjusted the stimuli in terms of social status and review scores. (The number of cases and the main features of the profiles are summarised in Table 1.)

The experimental variables we tested in the pilot phases were the following:

- ethnic origin (Roma vs. non-Roma)
- physical disability (disabled vs. non-disabled)
- review scores (high vs. low)
- socio-economic status (medium vs. low status)

As far as control variables are concerned, gender was kept constant, since previous empirical findings from Hungary have shown that the primary target of discrimination on ridesharing platforms are males of minority ethnic origin (Simonovits et al., 2018.), and also because we did not want to include too many experimental variables in our design. Age was also kept as a control variable, as the primary target group and primary users of the analysed platform are younger generations according to the platform's founder.

We completed two pilot test series, with 90-100 cases of each.³ The main features of the experimental designs of the two pilot studies are summarized in Table 1.

Table 1: The main features of the profiles in the pilot experiments (August-December, 2019)

	Roma		non-Roma	
Main features	non-disabled (P1)	disabled (P2)	non-disabled (P3)	disabled (P4)
Pilot 1: August-September 2019 (N=90)				
N (number of tests)	21	24	21	24
Name (profile name)	Kevin GÁSPÁR Gazsi_94	Richárd KOLOMPÁR K.Richi92	Péter MOLNÁR Molnarpeti95	Máté VARGA vargamat_91
Age (in bio)	25	27	24	28
Profession (in bio)	receptionist	administrator at the post	porter	telephone dispatcher
Review score	4.8	4.8	4.8	4.8
Pilot 2: December 2019 (N=101)				

³ Due to a misunderstanding between our research group and the market research company more tests were carried out by the Roma disabled profile than originally planned.

N (number of tests)	25	31	24	21
Name (profile name)	Kevin GÁSPÁR gazsikevin_94	Richárd KOLOMPÁR ricsi_kolompar92	Péter MOLNÁR Molnarpeti95	Máté VARGA vargamat_91
Age (in bio)	25	27	24	28
Profession (in bio)	stock clerk	factory operator machine	electrician	Semi-skilled worker
Review score	4.2	4.2	4.2	4.2

Age, hobbies (such as ‘I like to travel and listen to music’), and professions indicating labour market status were all incorporated into the potential riders’ bios. Whereas in Pilot 1 requests were written in proper Hungarian, in Pilot 2 requests included grammatical and stylistic mistakes and typos—aiming at further emphasizing differences in socio-economic status.

While ethnic origin was visualized by photos and confirmed by typical Roma and non-Roma names, testers with disabilities mentioned that they are wheelchair users, and will ask for extra space in the car, but not for extra help from the driver. The non-disabled group asked for extra room for extra luggage in order to keep the requested favour under control. (See examples for requests in the Appendix)

To select appropriate Roma and non-Roma names, we used multiple sources. In line with previous landmark experimental research (Bertrand and Mullainathan, 2004), our primary aim was to identify distinctive Roma and non-Roma names. Based on previous results of Hungarian surveys (e.g. HLCS, see Simonovits and Kézdi, 2016; Váradí, 2012) and experimental research completed in the Hungarian field (Sik and Simonovits, 2008), we carefully⁴ selected distinctively Roma and non-Roma names (both family and first names)⁵ for our testers (presented in Table 1.)

2.3 Hypotheses

Below we formulate our hypotheses, based on previous research results and our pilot experiments.

- H1: Ethnic discrimination: We predicted that requests from individuals with ostensibly Roma sounding names would be less likely to be accepted by the drivers, and the tone of communication will be less friendly.
- H2: Discrimination based on disability: We predicted that requests from individuals who signalled that they are in a wheelchair would be less likely to be accepted by the drivers, and the tone of communication will be less friendly.
- H3: Statistical discrimination: We assumed that the main reason for drivers discriminating against riders is statistical (as opposed to being tasted based), i.e. discrimination would be less likely if there are positive reviews on the riders.
- H4: Impact of general persuasive appeals: We predicted that service providers (drivers) exposed to persuasive appeals in the form of online ads emphasizing the importance of inclusion would reduce their discriminatory behaviour.

⁴ E.g. we excluded names that might remind experimental subjects of a famous Hungarian person or celebrities

⁵ As opposed to the relevant US research tradition (most of which took the work of Bertrand and Mullainathan 2004 as a starting point), we not only used first names to express Roma identity, but also family names, as many Roma people living in Hungary have distinctive Roma names.

- H5: Impact of targeted persuasive appeals: We predicted that service providers (drivers) exposed to persuasive appeals in the form of online ads emphasizing the importance of inclusion of a particular outgroup – i.e. Roma or disabled – would further reduce their discriminatory behaviour towards that outgroup.

2.4. Implementation of the research

As described above, ethnic origin will be visualized by photos (chosen via the above mentioned two waves of online survey in 2019, total N=410), and confirmed by typical Roma and non-Roma names. With high (4.8 out of 5) and medium review score (4.5 out of 5)⁶ we aim to test whether it is statistical (due to information asymmetry) or taste-based discrimination (i.e. drivers' prejudices towards Roma passengers) that is most widespread in this field.

The field-experiment is going to be implemented in one wave, based on a within-subject design, a few weeks after the intervention is introduced to the drivers (cf. Fang et al., 2019). Originally, we planned to launch the intervention in March 2020 followed by the large scale tests from April 2020. Unfortunately, as a side effect of the COVID-19 crisis and quarantine interventions of the Hungarian government there are not enough driver-passenger interactions to start our research (as of 7 April, 2020 the total traffic administered by Oszkár dropped to 5% of their regular traffic, based on online correspondence with the platform's founder); hence we postponed the implementation phase to late summer or autumn 2020.

The intervention: this will be based on two different versions of a 20-second-long animated video spots covering the topic of inclusivity closely connected to the general values of the platform, splitting the sample into three subsamples: one third of drivers will receive the specific Roma content, one third of them the specific wheelchair content in terms of inclusivity and tolerance —which are core values at Oszkar.com. The drivers will be “forced” to watch these ads, as the content will be embedded into the platform in a way so as to not let the driver move forward to his or her account. The rest of the drivers, serving as a control group of our experiment, will not receive any content from us. As of April 2020, the spots are under development by an expert team of visual artists in close cooperation with the platform to ensure that both the content and the visuals are in line with the platform's communication style. We plan to send these spots to the drivers in late summer, as by that time the easing of the COVID-19 related interventions will hopefully enable us to re-launch the field-experiment. The most challenging element of the preparation of the animated spot was to find a proper (but not too stereotypical) Roma character. This problem, obviously, did not emerge in case of the disabled character, as we simply had to use a wheelchair. Beyond the specific characters, non PC jokes made by the drivers might also to be used in the spots, saying such as “cripples need not apply” and “your skin tone is not the result of a recent sunbath” using as excuses for not taking on the disabled and Roma characters, respectively. (For more details, see a preliminary version of the storyline in the Appendix.)

Outcome: The reaction of the drivers will be categorized as positive, negative, or no-response. We expect significant differences of outcome by profiles in terms of ethnicity and review score. Beyond quantitative measures, we are also going to apply qualitative content analysis in order to be able to analyse the tone of the communication.

⁶ Based on statistics gathered by the platform the average scores of reviews are 4.74, and only 10% of the reviews are below 4.25, that is why we set medium scores as 4.5.

3. Results and Discussion

In line with the structure presented above, Section 3 is organised as follows. First we show the results of the online survey experiments (3.1.), followed by the evaluation of the results of the pilot field experiments (3.2).

3.1 Results of the online survey experiments

As described above, we deployed two survey experiments conducted on convenience samples to verify the validity of our manipulations to be used later on. In particular, we sought to test whether the manipulation of photos in order to cue ethnic identity was indeed successful. To that end, we fielded a pair of short surveys on Facebook and asked our respondents to rate a series of photographs on a variety of dimensions. We wanted to assess whether faces appearing on the “Roma versions” of the same photos were indeed perceived as more likely to be of Roma ethnicity.

In the first study, we found important heterogeneity in the effectiveness of our manipulations. Photos apparently have differed both in terms of baseline perceptions of “Romaness” as well as the impact of the editing on these perceptions. Based on these results, we made use of further edits on the photos and narrowed down our selection of the individuals appearing on the photos. In the second study, we repeated the same procedure with the update pair of photos. That second study provided a sufficient corroboration of our manipulation: for the final selection of pairs of photos, baseline perception of Roma ethnicity was low across the board. Moreover, the edited versions of the photos were perceived as likely to be depicting people of Roma origin.

Table 2 reports the main findings from this pilot study. In particular, we report the percentage of subjects who rated each version of each photo as “likely Roma” or “definitely Roma”.

Table 2: The proportion of subjects who rated each version of each photo as “likely Roma” or “definitely Roma (December 2019), in percentage (N=250)

ID of the selected photos from the first round	P1	P2	P3	P4	P5	P6	P7	P8
Non-Roma	4	2	0	1	0	2	0	0
Roma	65	48	33	38	39	41	49	50

Note: Red colours label the photos selected for the large scale field experiment.

The results show that the manipulations were successful: people in the selected photos were indeed perceived as Roma by the majority of subjects in our convenience sample. Moreover, people in the un-edited versions of the photos were not perceived as such. It is important to note here that neither in the pilot study, nor in our final experiment will we be able to perfectly manipulate the way subjects perceive our testers. Thus, any differences we find between experimental groups is likely to understate the two causal effects of ethnic origins.

3.1. Results of the pilot field experiments

Two pilot studies were carried out to test the various experimental stimuli and the texts applied in the requests, as well as to explore the entire process of communication with the riders. In the first pilot—conducted in August 2019—bookings were made upon a positive response from the contacted drivers. In other words, in 60 out of the 90 cases the testers booked places in the cars in reality, to test the coherence between positive feedback and the real behaviour of the drivers. As none of the

bookings was deleted by the divers, we may assume that by only requesting the rides (instead of making real bookings, which would be too costly to cancel later) we could adequately measure drivers' behaviour towards the different testers.

In the first pilot study we found two thirds of the feedback to be positive overall, which might partly be due to the high review scores of the riders (set to the level of 4.8 out of the maximum 5) and operating with lower-middle labour market statuses such as: receptionist, porter, administrator at the postal service, and telephone dispatcher. Below we show the results of the first pilot study. (Table 3)

Table 3: The outcome of the test (the received message) in percent, first pilot study, August 2019 (N= 90)

PROFILE	positive	negative	no reply	undefined	Total
P1: Roma not in wheelchair (N=21)	71	10	5	14	100
P2: Roma in wheel chair (N=24)	67	8	8	17	100
P3: Non-Roma and not in wheelchair (control) (N=21)	76	14	5	5	100
P4: Non-Roma in wheel chair (N=24)	54	21	17	8	100
Total	67	13	9	11	100

The Pilot 1 results did not show what we had expected: the highest rate of positive feedback (76%) was found in case of control condition (P3), while the lowest rate of positive feedback (54%) was measured in case of the Non-Roma in wheelchair condition (P4). Quite surprisingly, both Roma profiles got relatively high proportions of positive responses; however, for both profiles the proportion of undefined cases was considerably high (14 and 17% for P1 and P2 respectively.)

Lessons learned from Pilot 1:

- After Pilot 1 we realised that the full name of the prospective riders did not appear in the “sender” field of their messages, but rather only their profile names; we therefore slightly changed the profile names in the second round.
- We realised that response rates we achieved were very high (two third of the responses were positive in Pilot 1), and therefore lowered the review score, as well as the social status of the testers.

In order to lower the level of positive feedback—and enable larger differences across testers— we changed two factors in the design of the Pilot 2 study. On the one hand we set the review scores to 4.2, which is considered to be relatively low on this platform, and we also lowered social status by putting grammar mistakes and typos⁷ into the requests. As far as the professions are concerned, we used lower status jobs to further express low social status.

As a result of the abovementioned design changes, the overall positive feedback rate decreased to 59%. At this stage, bookings were not made upon a positive response from the driver. Only online correspondence was conducted with the divers. The results are summarized in Table 4.

Table 4: The outcome of the test (the received message), in percent second pilot study, December 2019 (N=101)

PROFILE	positive	negative	no reply	undefined	Total
P1: Roma not in wheelchair (N=25)	60	24	12	4	100

⁷As the requests were formulated in Hungarian, we did not translate the type of mistakes we made at this point, as it would have been too challenging to reproduce them in idiomatic English.

P2: Roma in wheel chair (N=31)	42	42	10	6	100
P3: Non-Roma and not in wheelchair (control) (N=24)	79	8	4	8	100
P4: Non-Roma in wheel chair (N=21)	62	19	5	14	100
Total	59	25	8	8	100

In line with our expectations, the highest rate of positive feedback (79%) was found in case of the control condition (P3), while the lowest rate of positive feedback (42%) was measured in case of the Roma in wheelchair condition (P2). Moreover, both experimental stimuli (being Roma and using a wheelchair) equally reduced the chance of getting a positive response from the drivers, i.e. both Roma not in a wheelchair (P1). Non-Roma in wheelchair (P4) got 60 and 62% of positive feedback.

Based on the findings of the two pilots, a joint decision of our research group and Oszkar.com was made to distinguish between primary and secondary experimental variables as follows:

We decided that the primary experimental variables will be the following:

- ethnic origin (Roma vs. non-Roma)
- review score (high vs. medium)

The secondary experimental variables, randomly assigned to the experimental profiles, will be the following:

- having extra bag/suitcase
- traveling in wheelchair

In order to test the interactions of the experimental variables on the one hand, and the impact of the intervention on the other, the following experimental design will be introduced (Table 5):

Table 5: Controlled experimental design with intervention (planned number of observations N=1800)

Intervention: with multiple contents (Exp1 and Exp2) and no content (C)			Within-subject-test: Autumn 2020 (N=1800)		
Exp1:	Exp2:	C:		High score (4.8)	Medium score (4.5)
R	W	C	Male		
O	H	O	Roma	450 tests	450 tests
M	E	N	Non-Roma	450 tests	450 tests
A	E	T			
	L	R			
	C	O			
	H	L			
	A				
	I				
	R				

After the experiment is completed, we are also planning to conduct a short online survey (N=1000) in order to ask drivers about their decision making process, as well as about their views on topics related to online trust, reputation, and the role of reviews on the platform.

4. Conclusions

Finally, we summarise what we have learned from the almost one-year-long pilot phase of our experimental research. As stated above, our aim was to test how the design we developed works in the online field, more specifically, (i) how the main features of the profiles work in the field, and (ii) how the experimental variables interact with each other, and (iii) how we should “fine-tune” the characteristics of the profiles in order to prevent too high or low levels of positive feedback.

In our view, based on the results shown above, our pilot research was successful, not only in terms of practicalities and implementation, but also content-wise, as after fine-tuning the design—based on the results of the first pilot field research—the results of the second pilot phase underlined our initial hypotheses on discrimination against potential riders based on ethnicity and disability.

From a methodological point of view, we believe that it makes sense to put this much effort into the preparation phase of a field experiment, especially in case of an online field that has hardly been researched so far.

Furthermore, it is also unique—at least in the Hungarian context—that an experimental research design has been prepared and implemented in such close cooperation with the platform itself, with the head of the platform becoming even more committed to our research goals by the end of the preparation phase of the research. Moreover, our ongoing research can be evaluated as an action research, as we are going to interfere with the working mechanisms of the platform by sending the visual ads to the drivers, and hopefully shaping their views on tolerance towards and acceptance of minority riders.

Beyond its direct impact, our innovative study has policy relevance as well, as unequal access to collaborative platforms seems to be a growing concern among scholars (e.g. Cohen and Sundarajan, 2015), platform owners and policy makers. In the case of Airbnb, the anti-discrimination regulations were introduced by the platform in 2016 as a consequence of the research that raised some issues about discrimination on the platform (Edelman et al. 2016), as well as because of various complaints about discrimination. As a result, the company’s “Open Doors” policy has been in effect since November 2016 (Murphy, 2016). In case of ridesharing platforms, no similar direct policies aiming to redress the service providers’ discriminatory behaviour, have been created, to the best of our knowledge.⁸

⁸In the terms of reference of BlaBlaCar, however, there is a point saying “not to speak or behave in any way or post any content... inciting violence, discrimination or hatred” (BlaBlaCar, 2017). Uber also sanctions discrimination, claiming that “Uber and its affiliates therefore prohibit discrimination against users based on race, religion, national origin, disability, sexual orientation, sex, marital status, gender identity, age or any other characteristic protected under applicable law.” (Uber Non-Discrimination Policy, 2020.)

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Appendix: Supplementary research materials

Examples for Requests:

P1 and P3: „I have a question: I am traveling with a big suitcase. Will it fit into your trunk?” (control profiles)

P2 and P4: „I am disabled, using a wheelchair, it is foldable, and it's like a large suitcase in size when folded (about 15kg, 25x92x50cm). Is that okay for you? (physically disabled, experimental profile)

Preliminary storyline and photos of the interventions (work in progress)

The basic idea of the story is that the attitude of Oszkár.com is positive towards minorities and the platform urges its drivers to be tolerant and accept riders of any kind of minorities. The intervention has two versions: one of the spots will focus on a Roma and the other one on a disabled character. The spot is based on the following contrast: While the regular driver does not take the hitchhiker with minority background (Roma girl or a girl in wheelchair) and drives away in the first scene (red car in Figure 1), the Oszkár driver happily takes the minority rider (Figure 2). When the blue car (with the Oszkár logo) drives away the main message appears: “At Oszkár there is no room for prejudices, everyone else are welcome.” Below we show some of the scenes of the spots, these are preliminary versions, only to show the basic idea, the characters and the texts are “work in progress” phase. (Figure 3)



Figure 1: opening scene with the regular car



Figure 2: scene with the Oszkár car approaching

"At Oszkár there is no room for prejudices, everyone else are welcome"  Oszkár



Figure 3: Final scene with the main message