Should I double park or should I go? The effect of political ideology on collective action problems

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16 September 2015

Should I double park or should I go? The effect of political ideology on collective action problems[*]

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First Draft: September 16, 2015

Abstract: Collective action problems, such as double parking behavior, are pervasive in everyday life. This paper presents the results from a field survey that was carried out at one of the main and busiest streets of the city of Ioannina in Greece, in order to investigate the effect of political ideology on double parking behavior. We find that individuals placing themselves either on the extreme Left or the extreme Right on a [0-10] political spectrum, are characterized by increased propensity of double parking behavior. Taking into account that both the extreme Left and the extreme Right Greek parties are strongly in favor of state intervention, our empirical findings could be read as follows. Subjects that believe in the superiority of state intervention rely heavier on incentives and constraints provided by the law and therefore in the absence of an effective monitoring mechanism they fail to internalize the social cost of their actions. In contrast, subjects that are in favor of decentralized market solutions, take into account the social impact of their actions even in the absence of a strong monitoring state mechanism.

Keywords: Collective Action; Political Ideology; Political Behavior.
JEL Classification Numbers: H23; H41; C93.

"We've done a lot of things we're not proud of. Robbing graves, plundering tombs, double parking. But, nobody got hurt. Well, maybe somebody got hurt, but nobody we knew."
– Vinny Santorini, *Atlantis: The Lost Empire*

1   Introduction

Collective action problems are pervasive in everyday life. They arise whenever the efforts of two or more individuals are needed to achieve an outcome (Sandler, 2004). Their very nature depends on the fact that the social cost (*resp.* benefit) of an action is not equal to the corresponding private cost (*resp.* benefit). Individuals fail to internalize the social effect of their actions and the final result is a suboptimal allocation of resources. In a complex world, collective action failures becomes more of an issue and various solutions have emerged through time. The emergence of state has been associated with the inability of individuals to coordinate their actions towards Pareto improving allocations (see for example Atkinson and Stiglitz, 1980; Skaperdas, 2003). On the other hand a number of scholars emphasize the role of the market (e.g., Coase, 1960) or the role of social conventions, ideology and tradition (e.g., North, 1981) in solving problems created by externalities. For example, (Katz and Rosen, 1991, pp. 611) explain that "[...] certain social conventions can be viewed as attempts to force people to take into account the externalities that they generate." Similarly, North (1981, pp. 53) suggests that: "Its fundamental aim [of ideology] is to energize groups to behave contrary to a simple, hedonistic, individual calculus of costs and benefits. This is the central thrust of major ideologies."

In the present paper we seek to examine the effect of political ideology on collective action problems. More specifically, we investigate the effect of personal political beliefs on double parking behavior based on a field survey that was carried out in September and October 2012 at one of the main streets of the city of Ioannina in Greece. To our understanding, double parking (i.e., parking parallel to a car that is already parked at the curb) constitutes

a fairly standard type of negative externality. This is because drivers that choose to double park ensure for themselves a direct benefit in terms of time (looking for a free parking place usually implies waste of time) by transferring the cost to the rest of the members of the society. This is because increased traffic that comes as a result of double parking, implies waste of time for all the other drivers. Therefore, in the absence of punishment, the social cost from double parking is higher than the private cost faced by the violator. We note that the city of Ioannina consists an ideal place for our field survey mainly because tickets for double parking are seldom issued and therefore double parking is pervasive to such an extent that is considered as an 'almost legal' behavior by the local drivers. However, at the same time every local driver is aware that this behavior implies a social cost due to increased traffic.

There are only a few studies highlighting the importance of ideology and personal political beliefs in order to address collective action problems (Anderson et al., 2005; Mestelman and Feeny, 1988). Mestelman and Feeny (1988) suggest that incentives to free ride are easier to overcome when individuals share common beliefs about the need for cooperation and they are aware that individually rational behavior could lead to suboptimal outcomes compared to the cooperative one. Moreover, one could expect individuals characterized by ideologies that favor state intervention to rely heavier on state actions in order to address collective action problems.[1] These agents are expected to shape their behavior mostly according to incentives and constraints provided by the law and the corresponding monitoring/punishment mechanisms of the state. In contrast, individuals that believe in the superiority of decentralized, market solutions are expected to shape their behavior mostly according to internal incentives, social conventions and moral responsibility. Focusing on the example of double parking behavior, the latter group of agents is expected to abstain from double parking even in the absence of an effective policing mechanism.

We now turn to a short preview of our basic findings. Our field survey was carried

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[1]Similarly, Alesina and Giuliano (2011) employing General Social Survey (GSS) data, provide evidence that ideology affects the preferences for redistribution even after controlling for individual income and education levels.

out in September and October 2012 at one of the main and busiest streets of the city of Ioannina in Greece where 341 valid questionnaires were filled in. The interviewer (i.e., one of the authors) approached each participant and invited him/her to participate voluntarily in a short questionnaire about his/her driving and parking attitudes. At the same time, as the interviews took place in the city center during rush hour, the interviewer observed actual double parking behavior by some of the respondents. First, we asked subjects to report frequency of double parking of their car on a 5-point Likert scale ranging from 'never' to 'always'. Moreover, in order to measure political ideology we adopted a [0-10] political spectrum (with higher values denoting more extreme right-wing preferences) and we asked subjects to indicate where they place themselves on this scale.[2]

Our results provide evidence that personal political beliefs affect individuals' parking behavior. More specifically, our analysis suggests that subjects placing themselves either on the extreme Left or the extreme Right on the [0-10] political spectrum, are characterized by increased propensity of double parking behavior. Moreover, we find strong gender effects on double parking (since females are less likely to double park as compared to males). Finally, we verify that personal beliefs about the worthiness of traffic education exert a statistically significant effect on individuals' parking behavior.

In order to relate individuals' positions on the [0-10] political spectrum with specific preferences concerning state intervention policies, we follow Gemenis and Nezi (2012) that compose a dataset on the ideological and policy positions of twelve Greek political parties based on an expert survey conducted close to the time period of our survey. Gemenis and Nezi (2012) suggest that both the extreme Left and the extreme Right Greek parties are strongly in favor of state intervention in the economy.[3] In contrast, Greek parties located on the center of the political spectrum are in favor of more liberal economic policies. Taking this stylized fact into account, our empirical findings could be read as follows: Subjects that believe in the superiority of state intervention (either when they are placing themselves

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[2]This question was adopted from the European Social Survey.
[3]More details are provided in Section 2.

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on the extreme Right or on the extreme Left), rely heavier on incentives and constraints provided by the law. Therefore in the absence of an effective monitoring mechanism they fail to internalize the social cost of their actions. In contrast, agents that believe in the superiority of the decentralized, market solutions mostly shape their behavior according to social conventions and moral responsibility. They therefore take into account the social impact of their actions even in the absence of a strong monitoring state mechanism.[4]

The rest of the paper proceeds along the following lines: in Section 2, we present the structure of the political market in Greece at the time period close to our field survey. In Section 3, we describe our survey in detail. In Section 4 we discuss the data and the empirical results. Finally, Section 5 summarizes the main points of our analysis.

2   The political parties in Greece

At a time close to the execution of our field study, political market in Greece was characterized by the presence of twelve basic political parties. In this section we present data on the ideological and policy positions of the Greek political parties developed by Gemenis and Nezi (2012). More specifically, Gemenis and Nezi (2012) composed a dataset of Greek parties position based on expert surveys that elicited knowledge by 52 political scientists with extensive knowledge of Greek Politics.[5,6]

Table 1 shows Greek parties' positions on the Left-Right scale (Column 2) and their agendas concerning the importance of state intervention on the economy (Column 3). Higher

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[4]Our empirical results are also in line with a small but growing number of studies from the Political Science and Political Psychology literature investigating potential common characteristics on the social behavior of the extreme political poles. For example political extremism is found to be associated with black and white thinking (Greenberg and Jonas, 2003), low trust outside the extremist ingroup (Hardin, 2002), higher belief in conspiracy theories (van Prooijen et al., 2015) and distrust in the way the state works Inglehart (1987).

[5]Since the publication of the expert survey on parties' Left-Right (L-R) positions by Castles and Mair (1984), expert surveys have seen extensive use in political science, especially in a cross-national context (see e.g., Huber and Inglehart, 1995; Kitschelt et al., 2009; O'Malley, 2007)

[6]The selection of experts was based on the directory of the Greek Political Science Association and a Google Scholar search for authors publishing on Greek contemporary politics. Twenty five of the experts that participated in the experts survey, were affiliated with higher education institutions in Greece, 24 with institutions abroad, whereas three experts were affiliated with institutions both in Greece and abroad. For more details concerning the methodology employed, see Gemenis and Nezi (2012).

values on the Left-Right scale denote a more right-wing position of the corresponding party, whereas higher values in the state-market policy position denote stronger preference for a free market economy.

Table 1: Greek Parties' mean scores in Left-Right ideological position and State-Market policy position
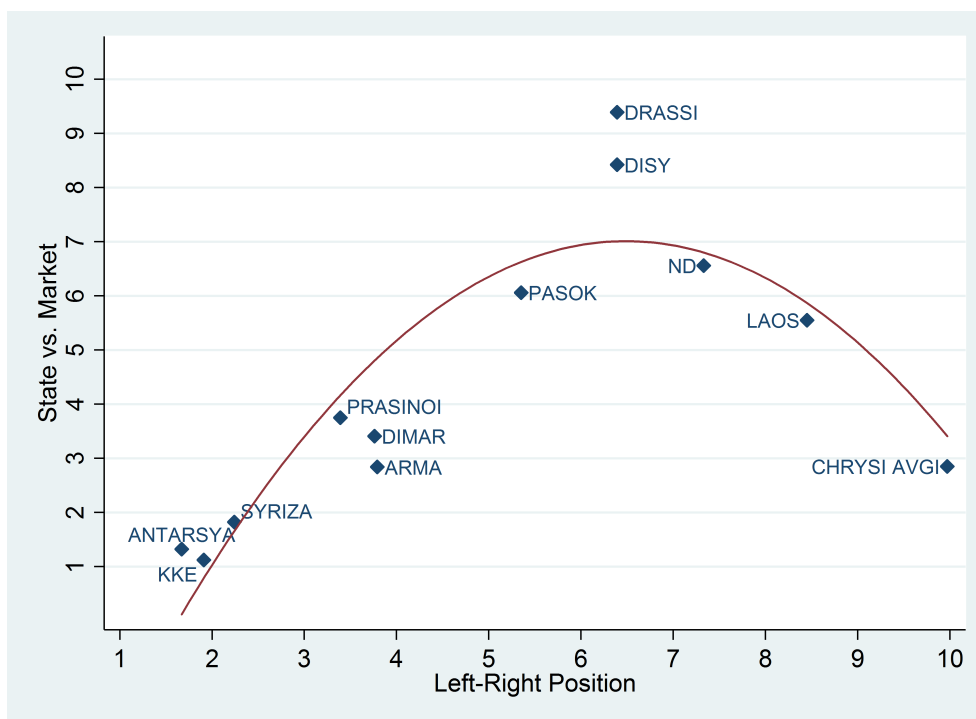
	Left-Right position	State vs. Market position
ANTARSYA	1.67	1.32
KKE	1.91	1.12
SYRIZA	2.24	1.82
PRASINOI	3.39	3.75
DIMAR	3.76	3.41
ARMA	3.79	2.84
PASOK	5.35	6.06
DISY	6.39	8.42
DRASSI	6.39	9.39
ND	7.33	6.56
LAOS	8.45	5.55
CHRYSI AVGI	9.97	2.85

Notes: Data are drawn from the online dataset of Gemenis and Nezi (2012) available at https://easy.dans.knaw.nl/ui/datasets/id/easy-dataset:48574/tab/2.

A scatterplot of the data reported in Table 1 is shown in Figure 1, along with a quadratic fit of the data. Figure 1 depicts a cluster of parties placed on the extreme Left, namely ANTARSYA, KKE and SYRIZA. It should be noted that ANTARSYA is an electoral coalition of anti-capitalist extra-parliamentary groups, KKE is an orthodox communist party whereas SYRIZA is an electoral coalition of Maoist, Trotskyist and other leftist parties (see Gemenis, 2010). Not surprisingly, these parties are extremely in favor of state intervention and consequently are placed on the lower part of the state-market policy spectrum.

To the right of these three parties there is a cluster of parties composed by PRASINOI, DIMAR and ARMA which are placed closer to the center of the Left-Right spectrum and upper on the state-market policy spectrum. PASOK and ND are placed in the middle of the graph, which reflects a placement close to the center for both the Left-Right spectrum as well as the state-market policy spectrum. DISY and DRASSI are two small liberal parties which are placed upper in the state-market policy spectrum than any other party. Finally,

Figure 1: Scatterplot of state/market position with respect to Left-Right position of Greek parties

to the right of ND we find the radical right parties of LAOS and CHRYSI AVGI. Both of them are characterized by agendas that are in favor of anti-immigration policies and give particular emphasis on issues related to 'law and order' and nationalist foreign policy (see Gemenis and Dinas, 2010; Gemenis and Nezi, 2012).

As can be easily verified by eyeballing Figure 1, both the extreme Left and the extreme Right parties in Greece share common views concerning the importance of state intervention on the economy. More specifically, ANTARSYA, KKE and SYRIZA are characterized by agendas that strongly favor state intervention whereas at the same time the parties of the extreme Right (i.e., LAOS and CHRYSI AVGI) also prefer state intervention compared to liberal policies. In contrast, parties that are placed in the middle of the political spectrum (i.e., PASOK, ND, DISY and DRASSI) are characterized by agendas that are more in favor of free market policies.

3   The survey

Our field survey was carried out in September and October 2012 at the main and busiest street of the city of Ioannina in Northern Greece. The interviews were conducted by a single interviewer (i.e., one of the authors). The interviewer approached each participant and invited him/her to participate voluntarily in the survey. The survey was conducted from Monday to Sunday during morning and afternoon hours. We approached 569 persons and got 352 agreements to participate in the survey and 224 refusals. In total, we got 341 valid questionnaires (11 persons either terminated the interview early or were ineligible to participate) resulting in a response rate of 61.9% and a co-operation rate of 59.9%.

Participants in the survey were one of three types: i) subjects that had just parked his/her car parallel to a car already parked at the curb (i.e., double parked) b) subject that had just normal parked his/her car c) subjects passing by on foot.[7] Subjects that had just parked their car were left walking for a minute before they get intercepted by the interviewer, so that they don't instantly relate their parking behavior with the aim of the survey.

The first question in the questionnaire was a filter question asking whether the subject has a driving license and whether s/he drives a car (either regularly or occasionally). If the answer was negative, the interview was terminated. In the case where the interviewer intercepted a person that had just parked his/her car, this filter question also served as an implicit statement of ignorance for the driving (and the parking) status of the respondent. This way we minimized subjects being *a priori* suspicious about them being intercepted to participate in the survey. Since our aim was to elicit how often subjects double-park, we asked subjects to self-report their frequency of double-parking behavior. Therefore, we asked subjects to indicate how often they double-park their car on a 5-point Likert scale with

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[7]Although we strived to get equal representation of the three types of subjects, it wasn't as easy given that subjects that had normal parked their car had a slower turnaround to their car. In addition, those that had just double parked their car were usually in a hurry to get back to their car as soon as possible, thus they had less available time to participate in a survey. Consequently, we got larger representation of subjects passing by on foot, then of subjects that double parked their car, followed by subjects that normally parked their car.

possible answers being "never", "rarely", "neither often, nor rarely", "often" and "always".[8]

To measure attitudes about traffic behavior, we also asked respondents to indicate how important they think traffic education is on a 5-point Likert scale anchored by "not important at all" and "very important". In addition, given that the self-reported double parking behavior is subject to social-desirability bias (i.e., subjects may be inclined to state they do not engage in such behavior because it is socially desirable not to) we used the social desirability scale (SDS) of Stöber (2001). The final instrument is composed of 16 questions (e.g., "I always admit my mistakes openly and face the potential negative consequences", "I occasionally speak badly of others behind their back" etc.). Subjects are asked to state their level of agreement with each of the statements. The statements are then individually scored and summed to form a single index of social desirability. The more a person tends to agree with the statements on the SDS, the more likely it is s/he falls prey to social desirability bias (and potentially understate frequency of double parking).

To measure political ideology we adopted a question used in the European Social Survey (ESS) that asks subjects to indicate where they place themselves politically in a scale where 0 means the left and 10 means the right. Naturally, not all people felt comfortable stating their political views so 17 subjects refused to indicate any. Some additional questions adopted from ESS were attitudes regarding whether the person thinks that most people would try to take advantage of him/her if they got the chance, or if they would try to be fair (5-point Likert scale), how interested the subject is in politics (5-point Likert scale anchored by "not at all" and "very much") and whether the subject thinks s/he would participate in a political or action group (possible answers being "definitely no", "probably no", "probably yes", "definitely yes").

Standard demographic data were also collected at the end of the questionnaire including gender, household size, education level and income. Table 2 shows descriptive statistics for key variables of our survey.

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[8]In the analysis the "often" and "always" categories were merged, given the low number of responses in the "always" category

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Table 2: Descriptive statistics

Variable	Variable description	Mean	S.D.
	Dummy, Never double parks	0.225	
dpark	Dummy, Rarely double parks	0.469	
	Dummy, Medium double parks	0.182	
	Dummy, Often/always double parks	0.123	
Political ideology	Political ideology (0 to 10 scale)	4.849	2.595
Political ideology (deviations from the center)	Political ideology (deviations from the center)	1.985	1.676
$Status_1$	Dummy, subject double parked	0.509	
$Status_2$	Dummy, subject was passing by	0.324	
$Status_3$	Dummy, subject normal parked	0.167	
Gender	Dummy, Female	0.441	
hsize	Household size	3.500	1.275
$Educ_1$	Dummy, Up to junior high-school	0.077	
$Educ_2$	Dummy, Up to senior high-school	0.191	
$Educ_3$	Dummy, Some college or university student	0.151	
$Educ_4$	Dummy, University graduate	0.454	
$Educ_5$	Dummy, Post-graduate studies	0.127	
$Income_1$	Dummy, household income is 0-5.000	0.059	
$Income_2$	Dummy, household income is 5.000-10.000	0.130	
$Income_3$	Dummy, household income is 10.000-20.000	0.287	
$Income_4$	Dummy, household income is 20.000-50.000	0.448	
$Income_5$	Dummy, household income is 50.000-100.000	0.059	
$Income_6$	Dummy, household income is >100.000	0.019	
Traffic education$_1$	Dummy, Traffic education is medium or less important	0.059	
Traffic education$_2$	Dummy, Traffic education is important	0.222	
Traffic education$_3$	Dummy, Traffic education is very important	0.719	
Political Participation$_1$	Dummy, would definitely not participate in political group	0.272	
Political Participation$_2$	Dummy, would not participate in political group	0.265	
Political Participation$_3$	Dummy, would participate in political group	0.309	
Political Participation$_4$	Dummy, would definitely participate in political group	0.154	
Political Interest$_1$	Dummy, not at all interested in politics	0.136	
Political Interest$_2$	Dummy, little interest in politics	0.111	
Political Interest$_3$	Dummy, medium interested in politics	0.185	
Political Interest$_4$	Dummy, interested in politics	0.306	
Political Interest$_5$	Dummy, very much interested in politics	0.262	
SDS	Social Desirability Scale	59.265	7.403

4 Results

4.1 A first look at the data

Before presenting our results, it's worth scrutinizing our data for some first insights. As mentioned above, data for this survey were collected from 341 subjects randomly intercepted in the main street of Ioannina. Unfortunately, 17 persons refused to identify their political ideology and rendered their responses useless. A question that might arise is whether these 17 respondents have a different socio-demographic profile than subjects that answered the political ideology question and thus our survey suffers from selection effects with respect to answering one of our main questions of interest i.e., political ideology.

Some tests indicate this is not the case for gender (Pearson's $\chi^2 = 2.76$, p-value=0.097), household size (p-value for Wilcoxon-Mann-Whitney test=0.520), education (Fisher's exact test p-value=0.059) and income (Fisher's exact test p-value=0.625). In addition, respondents were observed in one of three statuses: passing-by on foot, had just double parked or had just normal parked. A Fisher's exact test indicates that non-responding to the political ideology question was not related to observed status (p-value=0.710). Finally, the social desirability scale was not different between responders and non-responders to the political ideology question (p-value for Wilcoxon-Mann-Whitney test=0.910).

However, when we test for differences in political attitudes (i.e., whether subject would participate in a political or action group, or how interested the subject is in politics) we find significant differences (Fisher's exact test p-value=0.001 for both political attitudes) between responders and non-responders to the political ideology question. If one observes the pattern of responses, it is obvious that those not responded to the political ideology question were people that would not participate in a political/action group or people that were not interested in politics.

Another question that might arise is whether political ideology is related to observed status of subjects (i.e., passing-by on foot, had just double parked or had just normal parked). A Kruskal-Wallis test indicates this is not the case ($\chi^2 = 0.697$, p-value=0.706). Note, that

observed status is not the same as self-reported frequency of double-parking behavior since the former is a single-shot observed behavior while the latter refers to how the responded generally (or repeatedly in his day-life) behaves with respect to parking. These are, however, positively correlated (polychoric correlation coefficient ρ=0.54, s.e.=0.087).

To get a first insight about the relation of political ideology and self-reported double parking behavior, the left part of Figure 2 graphs the percentages of self-reported frequency of double parking behavior (as percentages of the total in each category) across the domain of the political ideology scale. If one observes closely, subjects that self-report to double park often or always exhibit the highest percentages at the two extremes of the political ideology scale (left wing and right wing). To get a better look at this relationship we formed another measure of political ideology by taking deviations from the center. This measure of political ideology groups together subjects at political polars. The right part of Figure 2 shows more clearly that subjects at the extremes of the political ideology scale, form a higher percentage of those that self-report to double-park often or always.
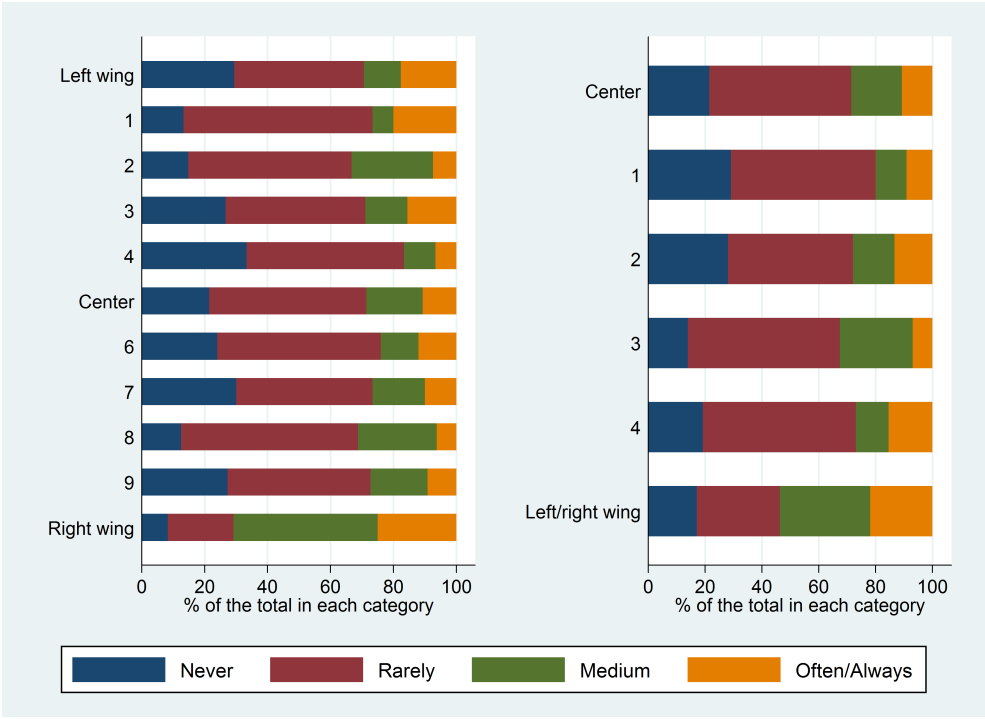
Figure 2: Political ideology and self-reported double parking behavior

4.2 Regression results

To check whether insights from the descriptive analysis hold under the scrutiny of conditional analysis, we estimated ordered logit regressions to account for the ordinal nature of the dependent variable (frequency of double parking). Table 3 shows coefficient estimates for several specifications. Model (1) uses as covariates the political ideology scale and several demographics. Model (2) adds the social desirability scale to the list of covariates in order to account for the potential of socially desirable answers. The political ideology variable is not significant in any of these models. Models (3) and (4) are more complex versions of models (1) and (2) with additional controls for political attitudes as well as attitudes toward traffic education. Similar to models (1) and (2) the political ideology variable is not statistically significant in models (3) and (4).

Table 3: Ordered logit results (DV=double parking)

	(1)		(2)		(3)		(4)	
Political ideology	0.054	(0.042)	0.037	(0.042)	0.048	(0.044)	0.038	(0.044)
$Status_2$	-1.118***	(0.254)	-1.077***	(0.256)	-1.239***	(0.262)	-1.196***	(0.263)
$Status_3$	-1.568***	(0.342)	-1.481***	(0.346)	-1.563***	(0.349)	-1.488***	(0.352)
Female	-0.739***	(0.225)	-0.760***	(0.226)	-0.760***	(0.234)	-0.792***	(0.236)
Household size	0.099	(0.090)	0.103	(0.091)	0.016	(0.094)	0.026	(0.095)
$Educ_2$	0.570	(0.454)	0.589	(0.458)	0.640	(0.477)	0.651	(0.477)
$Educ_3$	0.350	(0.473)	0.221	(0.476)	0.268	(0.506)	0.168	(0.506)
$Educ_4$	0.066	(0.421)	0.054	(0.423)	0.155	(0.444)	0.143	(0.444)
$Educ_5$	-0.257	(0.503)	-0.158	(0.507)	0.200	(0.537)	0.277	(0.538)
$Income_2$	-0.269	(0.529)	-0.288	(0.527)	-0.126	(0.559)	-0.163	(0.555)
$Income_3$	-1.098**	(0.493)	-1.147**	(0.491)	-1.018*	(0.524)	-1.077**	(0.520)
$Income_4$	-0.688	(0.478)	-0.617	(0.476)	-0.355	(0.515)	-0.339	(0.510)
$Income_5$	-0.921	(0.638)	-0.889	(0.635)	-0.745	(0.682)	-0.752	(0.678)
$Income_6$	1.135	(0.898)	1.235	(0.904)	1.068	(0.943)	1.149	(0.955)
SDS	-	-	-0.054***	(0.016)	-	-	-0.043***	(0.016)
Traffic Education$_2$	-	-	-	-	-0.342	(0.570)	-0.149	(0.569)
Traffic Education$_3$	-	-	-	-	-1.831***	(0.546)	-1.574***	(0.548)
Political Participation$_2$	-	-	-	-	-0.200	(0.331)	-0.211	(0.331)
Political Participation$_3$	-	-	-	-	-0.394	(0.333)	-0.389	(0.334)
Political Participation$_4$	-	-	-	-	-0.319	(0.411)	-0.403	(0.412)
Political Interest$_2$	-	-	-	-	-0.023	(0.466)	0.046	(0.466)
Political Interest$_3$	-	-	-	-	-0.014	(0.433)	0.021	(0.433)
Political Interest$_4$	-	-	-	-	-0.427	(0.426)	-0.407	(0.425)
Political Interest$_5$	-	-	-	-	0.198	(0.433)	0.268	(0.434)

τ_1	-2.536*** (0.717)	-5.838*** (1.207)	-4.476*** (0.940)	-6.808*** (1.296)
τ_2	-0.092 (0.698)	-3.337*** (1.174)	-1.814** (0.908)	-4.112*** (1.259)
τ_3	1.235* (0.705)	-1.975* (1.167)	-0.351 (0.903)	-2.624** (1.246)
N	324.000	324.000	324.000	324.000
Log-likelihood	-370.833	-364.933	-350.582	-347.094
AIC	775.667	765.866	753.164	748.187
BIC	839.939	833.920	851.463	850.267

Standard errors in parentheses. * $p<0.1$, ** $p<0.05$, *** $p<0.01$

Figure 2 supports the insight that people at the extremes of the political ideology scale can be treated as a single group that behaves differently from people at the center. Thus, in Table 4 we show coefficients estimates from ordered logit regressions where we replaced the political ideology scale with an alternative scale that measures deviations from the center of the political ideology scale. We've estimated several specifications with and without the social desirability scale variable, as well as with and without additional attitudinal variables. Results are fairly robust across specifications and show a positive and statistically significant effect of political ideology (as we move from the center to political extremes) on the likelihood of double parking.

Table 4: Ordered logit results (DV=double parking)/deviations from the center

	(1)		(2)		(3)		(4)	
Political ideology	0.142**	(0.066)	0.112*	(0.067)	0.208***	(0.072)	0.190***	(0.073)
Status$_2$	-1.101***	(0.255)	-1.063***	(0.256)	-1.238***	(0.263)	-1.200***	(0.264)
Status$_3$	-1.589***	(0.342)	-1.497***	(0.346)	-1.600***	(0.349)	-1.531***	(0.353)
Female	-0.690***	(0.226)	-0.717***	(0.227)	-0.747***	(0.235)	-0.779***	(0.236)
Household size	0.105	(0.090)	0.108	(0.091)	0.014	(0.095)	0.022	(0.095)
Educ$_2$	0.723	(0.459)	0.710	(0.462)	0.811*	(0.481)	0.802*	(0.480)
Educ$_3$	0.558	(0.485)	0.386	(0.487)	0.493	(0.516)	0.374	(0.517)
Educ$_4$	0.217	(0.428)	0.177	(0.430)	0.343	(0.452)	0.317	(0.451)
Educ$_5$	-0.136	(0.503)	-0.070	(0.506)	0.361	(0.539)	0.409	(0.539)
Income$_2$	-0.219	(0.531)	-0.250	(0.529)	-0.042	(0.559)	-0.089	(0.555)
Income$_3$	-1.060**	(0.496)	-1.114**	(0.494)	-0.960*	(0.525)	-1.014*	(0.520)
Income$_4$	-0.601	(0.480)	-0.556	(0.478)	-0.255	(0.513)	-0.248	(0.508)
Income$_5$	-0.880	(0.638)	-0.865	(0.637)	-0.655	(0.684)	-0.669	(0.681)
Income$_6$	1.330	(0.909)	1.394	(0.914)	1.331	(0.964)	1.377	(0.971)
SDS	-	-	-0.052***	(0.016)	-	-	-0.040**	(0.017)
Traffic Education$_2$	-	-	-	-	-0.092	(0.565)	0.059	(0.566)
Traffic Education$_3$	-	-	-	-	-1.680***	(0.538)	-1.463***	(0.542)
Political Participation$_2$	-	-	-	-	-0.117	(0.333)	-0.137	(0.332)
Political Participation$_3$		-	-	-	-0.445	(0.336)	-0.442	(0.337)
Political Participation$_4$		-	-	-	-0.607	(0.427)	-0.662	(0.427)
Political Interest$_2$	-	-	-	-	0.007	(0.464)	0.065	(0.466)
Political Interest$_3$	-	-	-	-	-0.031	(0.435)	-0.003	(0.435)
Political Interest$_4$	-	-	-	-	-0.506	(0.428)	-0.487	(0.428)
Political Interest$_5$	-	-	-	-	0.167	(0.432)	0.231	(0.433)
τ_1	-2.276***	(0.732)	-5.480***	(1.226)	-3.979***	(0.938)	-6.199***	(1.314)
τ_2	0.183	(0.717)	-2.970**	(1.197)	-1.269	(0.912)	-3.461***	(1.282)
τ_3	1.514**	(0.725)	-1.602	(1.190)	0.212	(0.909)	-1.958	(1.272)
N	324.000		324.000		324.000		324.000	
Log-likelihood	-369.334		-363.890		-346.974		-344.018	
AIC	772.668		763.781		745.948		742.036	
BIC	836.940		831.834		844.247		844.116	

Standard errors in parentheses. * p<0.1, ** p<0.05, *** p<0.01

Given that coefficients estimates from an ordered logit model are meaningless for quantitative interpretation, Table 5 exhibits marginal effects (for continuous variables) and discrete changes (for dummy variables) for model (4) of Table 4.[9]. Results show that a one point increase on the political ideology scale results to a 1.6% increase in the likelihood of someone stating s/he double parks often or always. In other words, those at the political extremes have a 7.5% higher chance of stating they are more likely to double park often or always as compared to people on the center of the political ideology scale. Conversely, they have a 12.5% lower chance of stating they never double park. This is equivalent to saying that those at the center of the scale are 12.5% more likely to state they would never double park as compared to those at political extremes.

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[9]Model (4) is favored against all other models of Table 4 based on Akaike's Information Criterion (shown in Table 4) as well as likelihood ratio tests (Model (4) vs (3): LR $\chi^2 = 5.68, p-value = 0.017$, Model (4) vs (2): LR $\chi^2 = 42.36, p-value < 0.001$, Model (4) vs (1): LR $\chi^2 = 53.25, p-value < 0.001$)

Table 5: Marginal effects of frequency of double parking for model (4) of Table 4

	Never	Rarely	Medium	Often/Always
cpolid	-0.027***	-0.002	0.014**	0.016**
	(0.010)	(0.002)	(0.005)	(0.006)
$Status_2$	0.150***	0.061**	-0.098***	-0.113***
	(0.031)	(0.025)	(0.024)	(0.028)
$Status_3$	0.207***	0.049*	-0.124***	-0.132***
	(0.053)	(0.028)	(0.031)	(0.030)
Female	0.114***	0.007	-0.058***	-0.063***
	(0.035)	(0.010)	(0.019)	(0.019)
Household size	-0.003	-0.000	0.002	0.002
	(0.014)	(0.001)	(0.007)	(0.008)
$Educ_2$	-0.115	-0.010	0.058*	0.066*
	(0.073)	(0.017)	(0.035)	(0.037)
$Educ_3$	-0.058	0.003	0.027	0.027
	(0.081)	(0.011)	(0.038)	(0.037)
$Educ_4$	-0.049	0.003	0.023	0.023
	(0.072)	(0.011)	(0.032)	(0.030)
$Educ_5$	-0.063	0.003	0.030	0.030
	(0.084)	(0.012)	(0.039)	(0.039)
$Income_2$	0.011	0.005	-0.006	-0.009
	(0.067)	(0.030)	(0.039)	(0.057)
$Income_3$	0.149**	0.006	-0.074*	-0.081
	(0.067)	(0.029)	(0.038)	(0.051)
$Income_4$	0.031	0.011	-0.018	-0.024
	(0.061)	(0.027)	(0.036)	(0.052)
$Income_5$	0.092	0.015	-0.049	-0.059
	(0.094)	(0.027)	(0.050)	(0.061)
$Income_6$	-0.111	-0.144	0.065*	0.190
	(0.070)	(0.119)	(0.037)	(0.152)
Traffic Education$_2$	-0.004	-0.007	0.003	0.008
	(0.044)	(0.069)	(0.033)	(0.080)
Traffic Education$_3$	0.179***	0.082	-0.116***	-0.145**
	(0.046)	(0.066)	(0.039)	(0.073)

Political Participation$_2$	0.018	0.004	-0.010	-0.013
	(0.044)	(0.010)	(0.023)	(0.031)
Political Participation$_3$	0.062	0.007	-0.031	-0.038
	(0.047)	(0.009)	(0.024)	(0.030)
Political Participation$_4$	0.097	0.003	-0.046	-0.054
	(0.064)	(0.012)	(0.030)	(0.034)
Political Interest$_2$	-0.009	-0.001	0.005	0.006
	(0.064)	(0.011)	(0.034)	(0.041)
Political Interest$_3$	0.000	0.000	-0.000	-0.000
	(0.061)	(0.008)	(0.032)	(0.038)
Political Interest$_4$	0.074	-0.002	-0.035	-0.037
	(0.063)	(0.009)	(0.031)	(0.035)
Political Interest$_5$	-0.031	-0.007	0.017	0.021
	(0.059)	(0.012)	(0.031)	(0.039)
SDS	0.006**	0.000	-0.003**	-0.003**
	(0.002)	(0.001)	(0.001)	(0.001)

Standard errors in parentheses. * $p<0.1$, ** $p<0.05$, *** $p<0.01$

With respect to the other variables of the model, subjects that were observed passing by on foot before they were intercepted, were 11.3% less likely to state they often or always double park. Similarly, subjects that had just normal parked their car were 12.9% less likely to state they often or always double park. This is an indication that the observed status of the respondent corresponded well with the self-reported measure of double parking behavior. The SDS variable is in accordance with prior expectations. Subjects that scored higher on this scale (i.e., are more likely to give socially desirable answers) had a lower chance of stating they double park. More specifically, a 10-point increase in the SDS variable decreases the chances of stating someone often or always double parks by 3% while increases the chances of someone stating s/he never double parks by 6%.

With respect to the demographics variables, we find that females are more likely to state they never double park by 11.6% as compared to males. Education level and income level do not consistently affect self-reported double parking behavior. On the other hand, subjects that stated that traffic education is very important are 14.6% less likely to double park often or always. This result highlights the importance of traffic education as a means to reducing delinquent behavior.

5   Conclusions

This paper presents a field survey, with the aim to investigate the effect of political attitudes on collective action problems such as double parking behavior.

Employing data from 341 valid questionnaires, our analysis suggests that individuals placing themselves either on the extreme Left or the extreme Right on a [0-10] political spectrum are characterized by increased propensity of double parking behavior.

According to our results, different ideological groups deal with collective action problems in different ways. We have highlighted one particular channel, and in particular we have shown that (left or right) extremist groups behave similarly in this respect. However it would be interesting to examine whether this effect appears in other collective action problems besides double parking behavior. Our explanation and the result that people that have extreme ideologies tend to believe more to centralized solutions to collective action problems has an additional implication. Extreme groups may be able to solve those problems more effectively by centralizing authority and control to a single individual. This may explain why extreme ideologies are typically associated with a single political leader who is able to mobilize his followers.

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