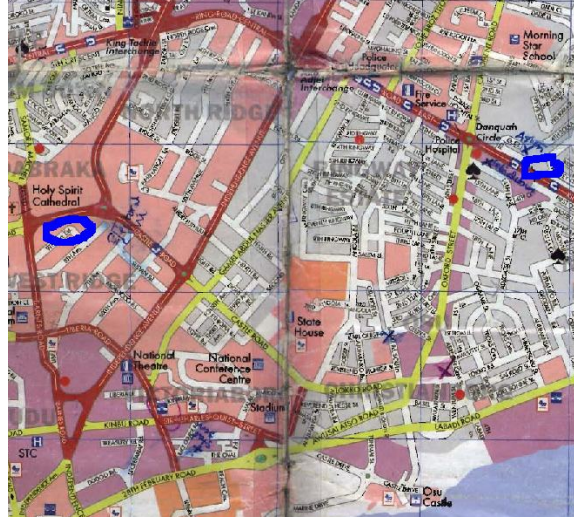


# Online Appendix

November 5, 2014

## A Map of Locations Used in Experiment

Figure 1: Map of Location 1 and Location 2



Locations are circled in blue on the map. Location 1 was near Holy Spirit Cathedral and Location 2 near Danquah Circle. I piloted different locations and chose these two for the following reasons: (1) Both are busy main road areas lined with businesses, so subjects are blending in. If the areas were more isolated, suspicion might be raised by nearby individuals or the drivers. (2) These areas are not known for being neighborhood havens of particular ethnic groups, but rather commercial areas. If the neighborhoods were known for being a particular ethnicity's ethnic neighborhood, they might assume that those individuals might know the prices better and want a lower price. (3) Prices were variable in the piloting going between these two locations. One can imagine that there might be an obvious price between certain locations, but others the drivers and riders might be less certain.

## B Survey Methodology

Three waves of survey data collection took place: Wave 1: 7/29-30/08, Wave 2: 12/3-5/08 (election was 12/7/08), Wave 3: 12/9-11/09. Not only was the survey sampling standardized over the three rounds of data collection, so was the survey instrument prior to the experiment. Survey question ordering and wording, as well as priming are known to affect responses.

Survey sampling aimed to achieve a representative sample of Accra, with the goal to give every adult citizen an equal and known chance of being selected for interview by randomly selecting first neighborhood through a probability proportionate to neighborhood population, building (including houses and businesses), and individual. The sampling method employed a clustered, stratified, multi-stage, area probability sample. This sampling method in most ways mirrors that of the Afrobarometer. Further detail is available at: <http://www.afrobarometer.org/survey-and-methods/sampling-methods>.

In the first stage, neighborhood sampling units were randomly drawn with probability proportionate to population size (data from 2000 census of the Ghana Statistical Service, the most recent information on population available). In the second stage, a start point in the neighborhood was randomly selected by randomly selecting a box from grid drawn over a map of the neighborhood. In the third stage, households and businesses were randomly selected by having enumerators count every 5th household or business.<sup>1</sup> In the last stage of selection, interviewers take a roster of individuals in the household, and randomly select an individual from this roster, alternating between men and women.

1643 individuals were invited to participate, of which 111 were replaced, with the most frequent reasons being: 23 could not speak English, 23 were not physically there (after call back attempt), 13 refusals, and 62 other.

The survey question was: *“In this city, if I met an average [insert ethnic group], what party would he or she be likely to vote?”*. Piloting revealed that low numeracy skills unfortunately prevented asking about a percentage of people from each ethnic group believed to be voting for each party, which would have been a superior measure.

## C Discussion of Ghanaian Language Differences

The Fanti and Ashanti languages are somewhat mutually intelligible, belonging to the language family Akan (also called Twi), while all four groups belong to the Kwa language family (part of the South-Volta family, which is part of the Niger-Congo family). The colonial period induced language divergence amongst Akan languages due to political incentives and the introduction of English as a common language (??).

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<sup>1</sup>Most surveys do not consider sampling businesses. However, sampling businesses increases the probability that a representative sample will be drawn because survey enumeration took place only during daylight hours, and those with jobs are likely to be away from home.

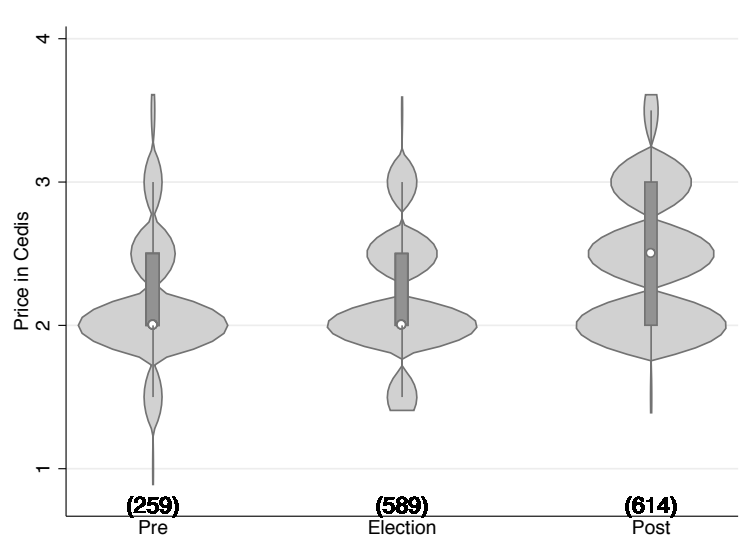
The secondary literature on identity in Ghana has large consensus that Akan is a language family and does not constitute a superordinate tribe encompassing the Ashanti, Fanti, Akyem, Akuapem and other Akan-speakers. ? relate that “Although being Akan meant that people shared certain cultural attributes, the fact that this was not an operative focus of identification meant that the category had little of the practical application that was attached to the concept of ‘tribe’ elsewhere.” Shared cultural attributes refers mainly to language similarity, similar political organization, and matrilineal descent rules.

The word “Akan” has been abused and lacks definition and meaning, having been used loosely by academics and journalists in “diverse and often flawed” ways for hundreds of years as a race, stock, language group, people, peoples, state, nation, or tribe (?). The scholarship agrees that Akan was never a pre-colonial, colonial, or post-colonial political structure and (?????). In fact, given the many wars between these tribes, including the frequent subjugation of the Fanti by the Ashanti empire, there may be even sharper group divisions between Fanti and Ashanti than between Ga and Ewe. ? sums it up: “the Akan category that works as a descriptor at the broad cultural level cannot be considered a meaningful ethnic label given the intense perception of difference - not to mention historic enmity - between the various subsets, especially between the Ashanti on one side and the Fanti and Akyem on the other” (? : p3). Indeed, language similarity does not equivocate to perceived common group membership or closeness globally. Consider the many feuding kingdoms in Europe prior to the nation-state that could speak mutually intelligible languages but had very distinct group identities.

Nonetheless, empirical evidence can be sought to understand whether Akan was primed as a superordinate category, potentially coinciding with the NPP as a partisan identity. Leveraging the news article databank of ?, a set of 147 news media randomly sampled leading up to the 2008 Ghanaian election, the parties (NPP or NDC) are mentioned 404 times, ethnic groups (Ashanti, Fanti, Ewe, Ga) 61 times, and Akan 1 time. Indeed, cuing Akan may be suboptimal for the NPP because it would risk alienating non-Akan groups nested in the NPP or swing voting groups. As a very costly signal to voters, the vice-presidential candidates of the NPP have come from Northern (non-Akan) ethnic groups for the last four elections. Taking the evidence together, and acknowledging that the substance of naturally-occurring identities and historical relations can never be controlled as induced identities, we can be confident in the causal validity of the research design. The interested reader may additionally wish to examine results disaggregated down to the ethnic dyad level later in this Online Appendix. The results are robust.

## D Descriptive Statistics

Figure 2: Raw Price Paid in Pre-election, Election, and Post-Election Rounds



*Note:* These violin plots depict the distribution of the raw (non-inflation adjusted) prices in each round. The dot represents the median, the bar the interquartile range, and the bulges the kernel density plot. Inflation substantially raised prices over the waves, and thus, the analysis is calculated in July 2008 Ghana cedis.

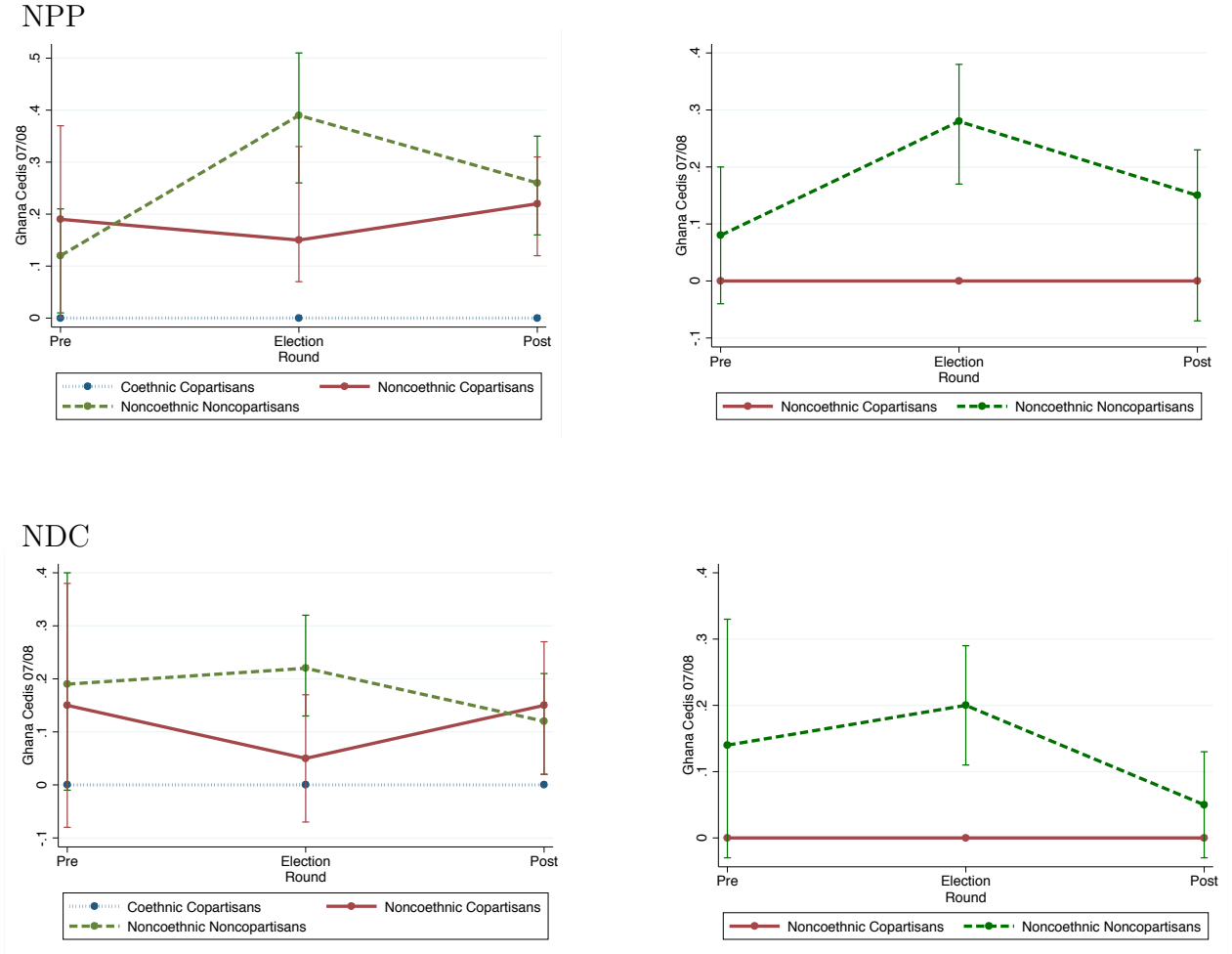
Table 1: Descriptive Statistics

Round	July 2008	Dec 2008	Dec 2009
Total Riders	26	59	59
Ashanti	10	12	11
Fanti	4	14	19
Ewe	6	16	18
Ga	6	17	11
Rides/Rider	8-14	10	10-12
Total Drivers (Rides)	255	589	614
Ashanti	78	159	166
Fanti	45	100	122
Ewe	41	109	101
Ga	61	132	152
Other	30	89	73
Coethnic dyad	85	128	157
Ashanti-Ashanti	38	30	37
Fanti-Fanti	9	22	48
Ewe-Ewe	14	36	37
Ga-Ga	23	40	35
Noncoethnic dyad	141	372	384
Copartisan	44	112	131
Ewe-Ga	17	53	61
Ashanti-Fanti	27	59	70
Noncopartisan	97	260	253
Ashanti-Ewe	23	63	63
Ashanti-Ga	37	80	56
Fanti-Ewe	15	52	65
Fanti-Ga	22	65	69
Other	30	89	73
Mean Age	28 (6.7)	25 (4.8)	25 (5.1)
Rides of Rain/Drizzle	0	60	63
Mean Taxi Fare (July GH cedis)	2.15 (.40)	2.18 (.41)	2.18 (.41)

*Note:* Standard deviations in parentheses.

## E By Party Difference in Means Tests

Figure 3: By Party Price Premiums with Confidence Intervals from Difference of Means Tests



*Notes:* In all panels, the x-axis indicates the round number, where 2 is the election round, and the y-axis the price in July 2008 Ghana cedis (1GH cedi  $\approx$  1 US dollar). The left panels show the average price premiums paid by non-coethnic copartisans (red solid line) and non-coethnic non-copartisans (green dashed line) above and beyond that of coethnic copartisans (blue dotted line). The right panels show the average price premium paid by non-coethnic non-copartisans (green dashed line) above and beyond that of non-coethnic copartisans (red solid line). That the dots are connected is meant to visually aid the reader. The vertical lines illustrate confidence intervals from difference of means tests, though the number of observations is too low to have much power in hypothesis testing at this level of disaggregation. Monthly statistics on inflation provided by Ghana's National Statistical Service.

## F Tables of Price Means and Difference in Means Tests

### F.1 Treatment Means and Ethnic Dyad Means

Figure 4: Price Means by Treatment Dyad

	Non-Copartisan	Copartisan	Difference In Means
Non-Coethnic	Election: 2.16 (.38) N=349 Pre: 2.18 (.42) N= 127 Post: 1.97 (.35) N=326	Election: 1.98 (.37) N=112 Pre: 2.24 (.37) N= 127 Post: 1.96 (.35) N=131	Election: .18 (.04)*  Pre: -.06 (.07)  Post: .01 (.03)
Coethnic		Election: 1.87 (.32) N=128 Pre: 2.07 (.38) N= 84 Post: 1.78 (.30) N=157	
Difference in Means		Election: .12 (.04)*  Pre: .17 (.07)*  Post: .19 (.04)*	Election: .30 (.04)*  Pre: .11 (.06)*  Post: .19 (.03)*

*Notes:* Raw Prices in July 2008 Ghana Cedis. Standard deviations or standard errors in parentheses. \* indicates that the price in that round is statistically significantly different (at least 90% level).



Figure 5: Price Means by Ethnic Dyad

	Ashanti	Fanti	Ewe	Ga
Ashanti	Election: 1.81 (.31) N=30 Pre: 2.07 (.35) N=38 Post: 1.70 (.21) N=37			
Fanti	Election: 2.00 (.35) N=59 Pre: 2.24 (.38) N=27 Post: 1.97 (.32) N=70	Election: 1.78 (.35) N=22 Pre: 2.00 (.43) N=9 Post: 1.79 (.31) N=48		
Ewe	Election: 2.19 (.40) N=63 Pre: 2.13 (.34) N=23 Post: 2.00 (.35) N=63	Election: 2.07 (.38) N=52 Pre: 2.17 (.36) N=15 Post: 2.00 (.38) N=65	Election: 1.90 (.33) N=36 Pre: 2.18 (.42) N=14 Post: 1.82 (.34) N=37	
Ga	Election: 2.15 (.41) N=80 Pre: 2.15 (.41) N=37 Post: 1.98 (.36) N=56	Election: 2.18 (.38) N=65 Pre: 2.20 (.59) N=22 Post: 1.91 (.31) N=69	Election: 1.96 (.39) N=53 Pre: 2.24 (.36) N=17 Post: 1.96 (.37) N=61	Election: 1.91 (.30) N=40 Pre: 2.02 (.41) N=23 Post: 1.81 (.33) N=35

Notes: Prices in July 2008 Ghana Cedis. Standard deviations in parentheses.

## F.2 Difference in Means tests by Ethnic Dyad

Figure 6: Price Means and Difference in Means Tests by Ethnic Dyad - Ashantis

	<b>Ashanti-Ashanti</b>  Election: 1.81 (.31) N=30 Pre: 2.07 (.35) N=38 Post: 1.70 (.21) N=37	<b>Ashanti – Ewe</b>  Election: 2.19 (.40) N=63 Pre: 2.13 (.34) N=23 Post: 2.00 (.35) N=63	<b>Ashanti – Ashanti - Ashanti-Ewe</b>  Election: .38 (.08)*  Pre: .06 (.09)  Post: .30 (.06)*
	<b>Ashanti – Fanti</b>  Election: 2.00 (.35) N=59 Pre: 2.24 (.38) N=27 Post: 1.97 (.32) N=70	<b>Ashanti – Ga</b>  Election: 2.15 (.41) N=80 Pre: 2.15 (.41) N=37 Post: 1.98 (.36) N=56	<b>Ashanti-Fanti – Ashanti-Ga</b>  Election: .15 (.06)*  Pre: -.09 (.10)  Post: 0 (.06)
<b>Ashanti-Ewe – Ashanti-Fanti</b>  Election: .19 (.07)*  Pre: -.11 (.10)  Post:.03 (.06)	<b>Ashanti-Ashanti – Ashanti-Fanti</b>  Election: .19 (.08)*  Pre: .17 (.09)*  Post:.27 (.06)*	<b>Ashanti-Ewe – Ashanti-Ga</b>  Election: .03 (.06)  Pre: .02 (.10)  Post:.02 (.06)	<b>Ashanti-Ashanti – Ashanti-Ga</b>  Election: .34 (.07)*  Pre: .08 (.09)  Post:.27 (.06)*

*Notes:* Prices in July 2008 Ghana Cedis. Mean prices and standard deviations in parentheses in bolded boxes, difference in means in adjacent boxes with standard errors in parentheses. \* indicates that the price in that round is statistically significantly different (at least 90% level).

Figure 7: Price Means and Difference in Means Tests by Ethnic Dyad - Ewe

	<b>Ewe-Ewe</b>  Election: 1.90 (.33) N=36 Pre: 2.18 (.42) N=14 Post: 1.82 (.34) N=37	<b>Ewe-Ashanti</b>  Election: 2.19 (.40) N=63 Pre: 2.13 (.34) N=23 Post: 2.00 (.35) N=63	<b>Ewe – Ewe – Ewe-Ashanti</b>  Election: -.28 (.08)*  Pre: .05 (.13)  Post: -.18 (.07)*
	<b>Ewe – Fanti</b>  Election: 2.07 (.38) N=52 Pre: 2.17 (.36) N=15 Post: 2.00 (.38) N=65	<b>Ewe – Ga</b>  Election: 1.96 (.39) N=53 Pre: 2.24 (.36) N=17 Post: 1.96 (.37) N=61	<b>Ewe-Fanti – Ewe-Ga</b>  Election: -.11 (.07)*  Pre: .07 (.13)  Post: -.04 (.07)
<b>Ewe-Ashanti- Ewe-Fanti</b>  Election: -.11 (.07)*  Pre: .04 (.12)  Post: 0 (.06)	<b>Ewe-Ewe – Ewe-Fanti</b>  Election: .17 (.07)*  Pre: -.01 (.15)  Post: .18 (.08)*	<b>Ewe-Ashanti – Ewe-Ga</b>  Election: -.22 (.07)*  Pre: .10 (.11)  Post: -.04 (.07)	<b>Ewe-Ewe – Ewe-Ga</b>  Election: .06 (.08)  Pre: .06 (.14)  Post: .14 (.07)*

*Notes:* Prices in July 2008 Ghana Cedis. Mean prices and standard deviations in parentheses in bolded boxes, difference in means in adjacent boxes with standard errors in parentheses. \* indicates that the price in that round is statistically significantly different (at least 90% level).

Figure 8: Price Means and Difference in Means Tests by Ethnic Dyad - Fanti

	<b>Fanti-Fanti</b>  Election: 1.78 (.35) N=22 Pre: 2.00 (.43) N=9 Post: 1.79 (.31) N=48	<b>Fanti -Ashanti</b>  Election: 2.00 (.35) N=59 Pre: 2.24 (.38) N=27 Post: 1.97 (.32) N=70	<b>Fanti-Fanti- Fanti-Ashanti</b>  Election: .22 (.09)*  Pre: .24 (.15)*  Post: .19 (.06)*
	<b>Fanti - Ewe</b>  Election: 2.07 (.38) N=52 Pre: 2.17 (.36) N=15 Post: 2.00 (.38) N=65	<b>Fanti - Ga</b>  Election: 2.18 (.38) N=65 Pre: 2.20 (.59) N=22 Post: 1.91 (.31) N=69	<b>Fanti- Ewe - Fanti-Ga</b>  Election: .12 (.07)*  Pre: .04 (.17)  Post: -.09 (.06)*
<b>Fanti-Ashanti- Fanti-Ewe</b>  Election: .07 (.07)  Pre: -.07 (.12)  Post: .02 (.06)	<b>Fanti-Fanti- Fanti-Ewe-</b>  Election: .29 (.09)*  Pre: .17 (.16)  Post: .21 (.07)*	<b>Fanti-Ashanti - Fanti-Ga</b>  Election: .18 (.07)*  Pre: -.04 (.14)  Post: -.06 (.05)	<b>Fanti-Fanti- Fanti-Ga</b>  Election: .40 (.09)*  Pre: .20 (.22)  Post: .12 (.06)*

*Notes:* Prices in July 2008 Ghana Cedis. Mean prices and standard deviations in parentheses in bolded boxes, difference in means in adjacent boxes with standard errors in parentheses. \* indicates that the price in that round is statistically significantly different (at least 90% level).

Figure 9: Price Means and Difference in Means Tests by Ethnic Dyad - Ga

	<b>Ga-Ga</b>  Election: 1.91 (.30) N=40 Pre: 2.02 (.41) N=23 Post: 1.81 (.33) N=35	<b>Ga -Ashanti</b>  Election: 2.15 (.41) N=80 Pre: 2.15 (.41) N=37 Post: 1.98 (.36) N=56	<b>Ga-Ga - Ga -Ashanti</b>  Election: .24 (.07)*  Pre: .13 (.10)  Post: .16 (.07)*
	<b>Ga - Ewe</b>  Election: 1.96 (.39) N=53 Pre: 2.24 (.36) N=17 Post: 1.96 (.37) N=61	<b>Ga - Fanti</b>  Election: 2.18 (.38) N=65 Pre: 2.20 (.59) N=22 Post: 1.91 (.31) N=69	<b>Ga - Ewe - Ga - Fanti</b>  Election: .23 (.07)*  Pre: -.03 (.16)  Post: -.05 (.06)
<b>Ga -Ashanti - Ga-Ewe</b>  Election: -.19 (.07)*  Pre: .09 (.11)  Post: -.02 (.07)	<b>Ga-Ga - Ga - Ewe</b>  Election: .05 (.07)  Pre: .21 (.12)*  Post: .15 (.08)*	<b>Ga -Ashanti - Ga - Fanti</b>  Election: .03 (.06)  Pre: .06 (.13)  Post: -.06 (.06)	<b>Ga-Ga - Ga - Fanti</b>  Election: .27 (.07)*  Pre: .18 (.15)  Post: .10 (.06)*

*Notes:* Prices in July 2008 Ghana Cedis. Mean prices and standard deviations in parentheses in bolded boxes, difference in means in adjacent boxes with standard errors in parentheses. \* indicates that the price in that round is statistically significantly different (at least 90% level).

### F.3 Tests of Symmetry Across Specific Ethnicity of Driver versus Rider

Figure 10: Price Means by Ethnic Pairing Rider/Driver Level

Mean Price by Ethnic Pairing and Round (Rider/Driver level)

Rider → Driver ↓	Ashanti	Fanti	Ewe	Ga
Ashanti	Election: 1.81 (.31) N=30 Pre: 2.07 (.35) N=38 Post: 1.70 (.21) N=37	Election: 2.07 (.36)* N=37 Pre: 2.13 (.23) N=12 Post: 1.99 (.34) N= 54	Election: 2.11 (.37)* N=40 Pre: 2.19 (.44) N=13 Post: 2.01 (.36) N=47	Election: 2.13 (.36) N=52 Pre: 2.37 (.52)* N=15 Post: 1.94 (.35) N=28
Fanti	Election: 1.89 (.33)* N=22 Pre: 2.33 (.45) N=15 Post: 1.92 N=16	Election: 1.78 (.35) N=22 Pre: 2.00 (.43) N=9 Post: 1.79 (.31) N=48	Election: 2.06 (.34) N=28 Pre: 2.14 (.38) N=7 Post: 1.91 (.32) * N=34	Election: 2.22 (.40) N=28 Pre: 2.32 (.69) N=14 Post: 1.82 (.26)* N=24
Ewe	Election: 2.32 (.42)* N=23 Pre: 2.05 (.16) N=10 Post: 1.97 (.32) N=16	Election: 2.08 (.42) N=24 Pre: 2.19 (.37) N=8 Post: 2.19 (.37)* N=31	Election: 1.90 (.33) N=36 Pre: 2.18 (.42) N=14 Post: 1.82 (.34) N=37	Election: 1.96 (.37) N=26 Pre: 2.11 (.22) N=9 Post: 1.99 (.41) N=17
Ga	Election: 2.19 (.41) N=28 Pre: 2.00 (.22)* N=22 Post: 2.01 (.36) N=28	Election: 2.15 (.36) N=37 Pre: 2.00 (.27) N= 8 Post: 1.96 (.33)* N=45	Election: 1.96 (.41) N=27 Pre: 2.38 (.44) N=8 Post: 1.95 (.36) N=44	Election: 1.91 (.30) N=40 Pre: 2.02 (.41) N=23 Post: 1.81 (.33) N=35

Prices in July 2008 Ghana Cedis. Standard Deviations in parentheses. \* indicates that the price in that round is statistically significantly different from the mirror dyad (e.g. Ewe driver Ashanti rider versus Ashanti driver Ewe rider).

*Notes:* Prices in July 2008 Ghana Cedis and standard deviations in parentheses. \* indicates that the price in that round is statistically significantly different (at least 90% level) from the mirror dyad (e.g. Ewe driver Ashanti rider versus Ashanti driver Ewe rider).

## G Alternative Codings of Fanti Robustness Checks

Because citizens became more uncertain about the affiliation of the Fanti in the post-election round, one can perform two types of robustness checks on the main findings. First, one can drop the Fanti and assess whether results still hold. Figure ?? displays these results. Second, one can recode the Fanti as NDC for the post-election round. Figure ?? displays these results. These results mirror the results presented in the main analysis, with small changes in magnitude in difference in means tests, so we can be confident that the results do not depend on the uncertainty of citizens in the post-election round as two the Fanti affiliation. While the partisan cleavage was salient during the election, it does not seem to be salient in the pre-election or post-election round. Thus, we see that the coethnic/non-coethnic divide is the important cleavage of discrimination far away from the election.

Figure 11: Price Means by Treatment Dyad - No Fanti

	Non-Copartisan	Copartisan	Difference In Means
Non-Coethnic	Election: 2.15 (.37) N=212 Pre: 2.18 (.38) N= 85 Post: 1.97 (.34) N=164	Election: 1.96 (.39) N=53 Pre: 2.24 (.36) N= 17 Post: 1.96 (.37) N=61	Election: .19 (.06)*  Pre: -.05 (.10)  Post: .01 (.05)
Coethnic		Election: 1.88 (.31) N=106 Pre: 2.07 (.38e) N= 75 Post: 1.78 (.30) N=109	
Difference in Means		Election: .08 (.06)*  Pre: .16 (.10)*  Post: .18 (.05)*	Election: .27 (.04)*  Pre: .11 (.06)*  Post: .19 (.04)*

*Notes:* Raw Prices in July 2008 Ghana Cedis. Standard deviations or standard errors in parentheses. \* indicates that the price in that round is statistically significantly different (at least 90% level).

Figure 12: Price Means by Treatment Dyad - Fanti Switch to NDC in Post-Election Round

	Non-Copartisan	Copartisan	Difference In Means
Non-Coethnic	Election: 2.16 (.38) N=349 Pre: 2.18 (.42) N= 127 Post: 1.98 (.34) N=189	Election: 1.98 (.37) N=112 Pre: 2.24 (.37) N= 127 Post: 1.96 (.36) N=195	Election: .18 (.04)*  Pre: -.06 (.07)  Post: .03 (.04)
Coethnic		Election: 1.87 (.32) N=128 Pre: 2.07 (.38) N= 84 Post: 1.78 (.30) N=157	
Difference in Means		Election: .12 (.04)*  Pre: .17 (.07)*  Post: .18 (.04)*	Election: .30 (.04)*  Pre: .11 (.06)*  Post: .20 (.04)*

*Notes:* Raw Prices in July 2008 Ghana Cedis. Standard deviations or standard errors in parentheses. \* indicates that the price in that round is statistically significantly different (at least 90% level).



## H Exploration of Learning or Endowment Effects

Recalling that riders completed between 8-14 rides in each round, one question is whether riders experience learning, and thus decrease in price paid over the rides. One may also wonder whether cumulative profit increases price paid, since riders may experience endowment effects that reduce the incentives to bargain the price down. Endowment effects sometimes exist in experiments where choices are repeated multiple times or in any case where subjects feel that they have earned enough and quit cognitively engaging, because subjects may not be as strategic as they feel themselves getting wealthier over the course of the experiment (?).

Figure ?? reveals the average price per ride number. Figure ?? shows the average profit over the ride numbers (3.5 Ghana cedis - final price). Note that there are only 23 observations each in ride numbers 11 and 12 and 2 each in ride numbers 13 and 14. Prices do not monotonically decrease with increasing ride number. As the Figures reveal, price (and profit) did not monotonically increase or decrease over the ride number. Table ?? and ?? reveal the insignificance of ride number and cumulative profit (profit made prior to the negotiation in question) in a regression with the treatments. Ride number is not significant and Cumulative Profit is statistically significant but the magnitude is insignificant - .02.<sup>2</sup>

What accounts for this lack of learning or endowment effects? It is important to note that the experiments were taking place during the afternoon. Traffic steadily increases towards rush hour, and increases in traffic (increasing the time it takes for the ride and all costs associated with the time and inputs) affect price in Ghana as they do anywhere. Importantly, the start time and days of the week on which the experiments took place are held constant to avoid confounding based on day of the week or time of day. The fact that taxi fare was NOT increasing in Ride Number due to the increasing traffic indicates that learning probably did take place, to neutralize the effect. That cumulative profit did not affect prices is probably due to this context as a low-income society. Even after someone makes a profit, they are still eager to make a higher profit, at such a low-level of income. Mean cumulative profit was 6.87 Ghana cedis (standard deviation 4.02). While this is a nice boost in income, it is not a life changing sum.

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<sup>2</sup>Due to the random generation process of treatment status, these regressions should not in expectation be confounded by treatment status. Indeed, in regressions of treatment status on ride number or cumulative profit, there was no significant relationship (results omitted for brevity).

Figure 13: Average Price per Ride Number

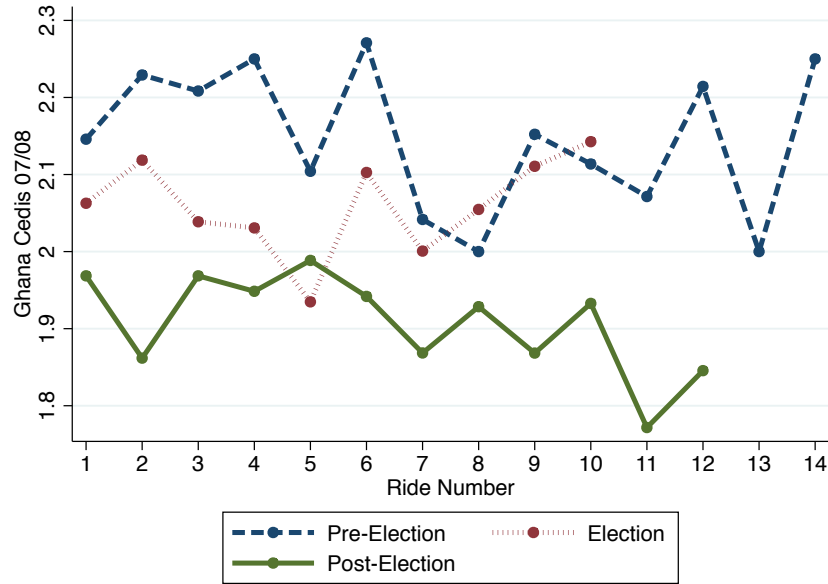


Table 2: Effect of Ride Number on Taxifare (Raw)

Variable	Coefficient	(Std. Err.)
Noncoethnic Copartisan	0.216**	(0.041)
Noncoethnic Noncopartisan	0.201**	(0.033)
Election*Coethnic	-0.043	(0.049)
Election*Noncoethnic Copartisan	-0.134*	(0.054)
Election*Noncoethnic Noncopartisan	0.072*	(0.036)
Round3	0.273**	(0.030)
Ride Number	-0.005	(0.004)
Intercept	2.041**	(0.039)
N	1458	
R <sup>2</sup>	0.153	
F (7,1450)	37.365	

Significance levels : † : 10% \* : 5% \*\* : 1%

Notes: Left out category is coethnic. Raw taxi prices.

Figure 14: Average Profit per Ride Number

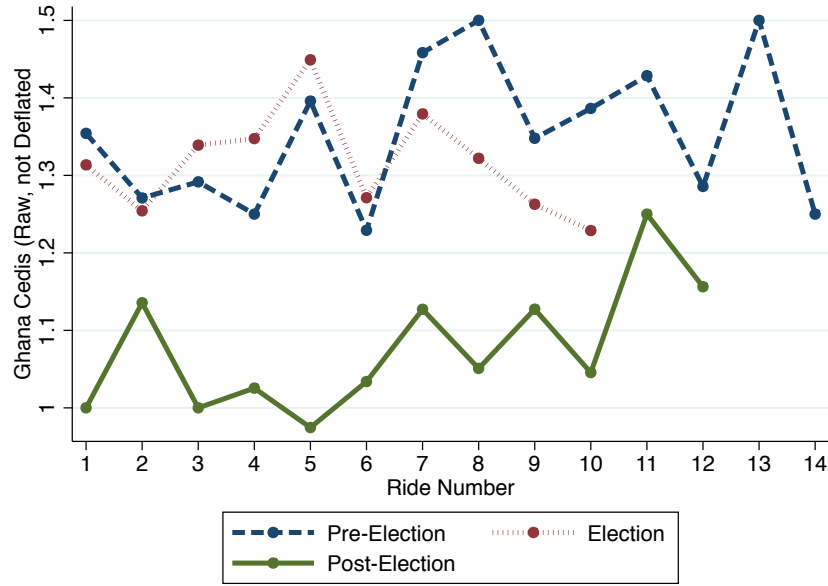


Table 3: Effect of Cumulative Profit on Taxifare (Raw)

Variable	Coefficient	(Std. Err.)
Noncoethnic Copartisan	0.213**	(0.040)
Noncoethnic Noncopartisan	0.195**	(0.032)
Election*Coethnic	-0.047	(0.048)
Election*Noncoethnic Copartisan	-0.146**	(0.053)
Election*Noncoethnic Noncopartisan	0.061 <sup>†</sup>	(0.036)
Round3	0.239**	(0.030)
Cumulative Profit	-0.019**	(0.003)
Intercept	2.168**	(0.039)
N	1458	
R <sup>2</sup>	0.181	
F (7,1450)	45.786	

Significance levels : <sup>†</sup> : 10% \* : 5% \*\* : 1%

*Notes:* Left out category is coethnic. Raw taxi prices. Cumulative Profit is profit earned up to that negotiation in previous negotiations.

## I Driver’s First Offer and Rider’s Counteroffer

### I.1 Patterns of Discrimination across Treatment Groups on Driver’s First Offer and Rider’s First Counteroffer

Table ?? and ?? reveal the results of difference in means testing across treatment groups. Each row indicates the snapshot in time - the gray shaded rows are the Election and the pooled pre-Election and post-Election ‘non-election’ rounds. The columns indicate the hypothesis tested. In the first column is a difference in means test between non-coethnic copartisans and coethnic copartisans. The second column is difference in means between non-coethnic non-copartisans and non-coethnic copartisans. The third column is the difference in means between non-coethnic non-copartisans and coethnic copartisans. The final column indicates whether any pattern of discrimination emerged.

We see first of all in Table ?? that the drivers did not systematically offer different initial prices based on the treatment status. There are no significant differences in any pairwise treatment comparison. As for the rider’s first counteroffer, there is evidence at election time that riders gave systematically lower initial counteroffers if they in the same party, and higher prices to those in the opposing party. We see this because the first row first column difference in means is not significant - there is no difference between coethnic copartisans and non-coethnic copartisans. However, in the first row second and third columns, we see that the non-coethnic non-copartisan offers were .07 cedis higher than non-coethnic copartisans on average, and .13 cedis higher than coethnic copartisans. In the non-election time periods, there is weak evidence for interethnic discrimination. In both pre-election and post-election (as well as pooled No election) rounds, non-coethnic copartisans offer higher initial counter offers than coethnic copartisans (first column, bottom three rows). There was also no significant difference between non-coethnics based on partisanship (column two, bottom three rows). In the post-election round, there was a significant difference between coethnic copartisans and non-coethnic non-copartisans of .21. Thus, the post-election round confirms the interethnic discrimination pattern. However, in the pre-election or pooled no election the difference does not reach significance between non-coethnic non-copartisans and coethnic copartisans. Thus, the data show that in the no election rounds, the pattern is interethnic discrimination, if anything.

In sum, driver’s first offer is not affected by treatment, and there is some supportive evidence that the rider’s first counteroffer appears to be affected by the partisan cleavage at the election, and the interethnic cleavage otherwise.

Table 4: Driver's First Offer: Difference in Means Testing for Discrimination

	$x^{NC} - x^{CC} \stackrel{?}{=} 0$	$x^{NN} - x^{NC} \stackrel{?}{=} 0$	$x^{NN} - x^{CC} \stackrel{?}{=} 0$	Pattern of Discrimination
Election	-2 (9.26) N = 240	-2 (7.07) N = 408	-4 (8.22) N = 424	None
Pre-Election	-108 (99.17) N=128	107 (110.07) N = 149	-2 (151.42) N=189	None
Post-Election	-4 (6.31) N=288	7 (6.18) N = 394	3 (5.29) N=420	None
No Election (Pooled)	-30 (26.81) N = 416	-34 (30.84) N = 543	3 (41.16) N=609	None

Table 5: Rider's Counteroffer: Difference in Means Testing for Discrimination

	$x^{NC} - x^{CC} \stackrel{?}{=} 0$	$x^{NN} - x^{NC} \stackrel{?}{=} 0$	$x^{NN} - x^{CC} \stackrel{?}{=} 0$	Pattern of Discrimination
Election	7 (4.11) N = 240	7 (3.49)* N = 408	13 (3.15)*** N = 424	Interpartisan
Pre-Election	13 (6.16)** N=128	109 (112.25) N = 149	123 (112.57) N=189	Interethnic
Post-Election	22 (4.53)*** N=288	-1 (3.95) N = 394	21 (3.61)*** N=420	Interethnic
No Election (Pooled)	20 (3.67)*** N = 416	30 (31.56) N = 543	50 (31.71) N=609	Interethnic

Notes:  $x_t^{EP}$  indicates mean price, where  $E \in \{\text{coethnic}, \text{non-coethnic}\}$  and  $P \in \{\text{copartisan}, \text{non-copartisan}\}$ . Results of OLS with standard errors clustered at the rider level and weighted to estimate the sample average treatment effect with equal subject contribution. Estimated treatment effect coefficient displayed with standard errors in parentheses. † indicates that the result is significant in some but not other specifications. In the last column, gray colored text indicates mixed failure to reject the null hypothesis with hypotheses written.

Table ?? and ?? reveal the results of difference in differences testing, conducted the same way as in the main paper, but with driver’s first offer and rider’s first counteroffer respectively. The gray row on the bottom is the main difference in differences result, and the first and second rows disaggregate to compare the election round with the pre-election and post-election respectively. The first column is the difference in the differences of non-coethnic copartisan and coethnic copartisan from based on the election. The second column is the difference in the differences of the non-coethnic nonpartisan and non-coethnic copartisan based on the election. The third column is the difference in the differences between non-coethnic non-copartisan and coethnic copartisan based on the election. The last column indicates whether any fluctuation in the patterns of discrimination are apparent from these tests.

Given that there were no differences in the means of the driver’s first offer over the treatment groups, it is not surprising that there are no fluctuations from election to no election. The rider’s first counteroffer shows that there is a difference in the differences for the non-coethnic copartisans and the coethnic copartisans - at election time, the difference shrinks by .13 cedis (significant in pooled and post-election, but not in the pre-election). There is no difference in the differences for non-coethnic nonpartisan and non-coethnic copartisans, or non-coethnic non-copartisan and coethnic copartisans, based on the election. Thus, this weakly supports that the rider’s first counteroffer fluctuated on the partisan cleavage, if at all.

Table 6: Drivers First Offer: Difference in Differences Testing for Election-Induced Fluctuations in Discrimination

	$(x_e^{NC} - x_e^{CC}) - (x_o^{NC} - x_o^{CC}) \stackrel{?}{=} 0$	$(x_e^{NN} - x_e^{NC}) - (x_o^{NN} - x_o^{NC}) \stackrel{?}{=} 0$	$(x_e^{NN} - x_e^{CC}) - (x_o^{NN} - x_o^{CC}) \stackrel{?}{=} 0$	Fluctuations in Patterns
Election - Pre-Election	117 (110.20) N=308	-108 (108.48) N=513	-3 (149.34) N=569	None
Election - Post-Election	3.5 (11.76) N=456	-9 (9.36) N=756	-7 (9.73) N=798	None
Election - No Election (Pooled)	33 (31.87) N=560	-35 (31.58) N=897	-8 (41.88) N=979	None

Table 7: Rider's Counteroffer: Difference in Differences Testing for Election-Induced Fluctuations in Discrimination

	$(x_e^{NC} - x_e^{CC}) - (x_o^{NC} - x_o^{CC}) \stackrel{?}{=} 0$	$(x_e^{NN} - x_e^{NC}) - (x_o^{NN} - x_o^{NC}) \stackrel{?}{=} 0$	$(x_e^{NN} - x_e^{CC}) - (x_o^{NN} - x_o^{CC}) \stackrel{?}{=} 0$	Fluctuations in Patterns
Election - Pre-Election	-7 (7.64) N=308	-103 (110.44) N=513	-110 (110.90) N=569	None
Election - Post-Election	-14 (6.30)** N=456	7 (5.25) N=756	-8 (4.78) N=798	Interpartisan
Election - No Election (Pooled)	-13 (5.67)** N=560	-23.26 (31.69) N=897	-36 (31.80) N=979	Interpartisan

Notes:  $x_t^{EP}$  indicates mean price, where  $E \in \{\text{coethnic}, \text{non-coethnic}\}$ ,  $P \in \{\text{copartisan}, \text{non-copartisan}\}$ , and  $t \in \{\text{election}, \text{notelection}\}$ . Results of OLS with standard errors clustered at the rider level and weighted to estimate the sample average treatment effect with equal subject contribution. Estimated difference in differences coefficients displayed with standard errors in parentheses. †denotes significance in some specifications but not others. In the last column, gray colored text indicates mixed failure to reject the null hypothesis with hypotheses written.

## I.2 Relationship between Rider's Counteroffer and Final Price

In a regression of final price on the rider's first counteroffer, the finding is that there is no substantive effect of the counteroffer on the final price. Thus, bargaining the final price down must have been a function of negotiating after the driver and rider had stated their initial offers.

Table 8: Effect of Rider's First Counteroffer on Price

Variable	Coefficient	(Std. Err.)
Rider's Counteroffer	0.010*	(0.004)
Intercept	199.965**	(1.223)
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N	1451	
R <sup>2</sup>	0.004	
F <sub>(1,1449)</sub>	6.532	
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Significance levels :	† : 10%	* : 5%    ** : 1%



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