Perceptions of Force Update March 2024

1 Introduction & Motivation

This study is motivated by the Supreme Court case Scott v.s. Harris (year goes here), in which a suspect involved in a high-speed car chase is rendered quadriplegic by police force upon vehicular impact. Upon watching the video footage of this encounter, the Supreme court confidently rules that the officer's force used is reasonable, sparking further debate among individuals regarding perceptions of the police force used. We are particularly interested in studying if breaking down such video footage impacts perceptions of these encounters differently. We now provide a brief overview of our methods and discuss in more detail below; We build models that predict viewer perceptions of these video encounters. We first obtain models for each perception question with high predictive accuracy that contain all variables in our study, and then reduce the number of variables in these models based on the amount of influence they have on resulting perceptions. We determine that the order in which participants break down video footage of police-community interactions and answer subjective questions about them does impact their perceptions.

2 Determine full optimal models

2.1 Five-fold gridsearch CV

We perform five-fold cross validation (CV) in order to construct optimal predictive models containing all of the predictors after pre-processing. We start by selecting a binary cutoff value of k so that for all ordinal responses to a given perception question PQ less than or equal to k, we assign a binary response of 0, indicating that the participant does not believe the given perception to be true. Oppositely, for all ordinal responses greater than k, we assign a binary response of 1, indicating the participant does believe the perception to be true. In order to ensure we pick a suitable choice of cutoff value, we vary the cutoffs over a range of values and compare model fit and performance after running CV on each one. We select a cutoff value in the middle of a range for which all models are either linear or non-linear, and all predict similarly. We use Matthews Correlation Coefficient (MCC) to compute model performance, as it is more sensitive to imbalanced training data so may give a more accurate predictive score. Scores close to 1 indicate good model predictions, while scores closer to 0 indicate worse model predictions. Observe our stability results below. Six of our optimal PQ models are non-linear, while five are linear. Nearly all of them predict with over 50% accuracy.

2.2 Varying Cutoffs for Stability

We ensure that our choice of binary cutoff value for each perception model is stable. That is, we vary our choice of cutoff value for each perception question, and compute the optimal model type (i.e. linear v.s. non-linear), as well as the model performance (i.e. MCC score). We ultimately identify a range of cutoff values that produces the most-similar, highest-performing models. We select our cutoff value to be the median with in this range. See Figure 1 below for our chioce of cutoff values and associated models and model-performance for each perceptin question.

PQ	Response Range	Cutoff, Stability Range	Optimal Model (kernel, C, gamma, degree)	MCC Score
1	1-10	3, [2,4]	(linear, 0.3)	0.562
2	1-10	3, [2,4]	(poly, 0.001, 0.01, 3)	0.455
3	1-10	3, [2,4]	(poly, 0.3, 0.001, 3)	0.816
4	1-10	4, [3,5]	(poly, 0.5, 0.001, 3)	0.825
5	1-10	3, [2,4]	(poly, 0.01, 0.01, 3)	0.53
6	1-10	3, [2,4]	(poly, 0.7, 0.001, 3)	0.599
7	1-10	4, [3,5]	(linear, 0.1)	0.775
8	0-4	2, [1,3]	(linear, 0.1)	0.716
9	1-5	3, [2,4]	(poly, 0.5, 0.001, 2)	0.744
10	1-5	3, [2,4]	(linear, 0.01)	0.74
11	1-5	3, [2,4]	(linear, 0.01)	0.726

Figure 1: Optimal model parameters for each perception question, as well as the selected cutoffs and their stability ranges.

3 Reduce optimal model size

3.1 Variable-Dropping

Because it is generally favorable to obtain models with less variables, and we currently obtain models with 178 predictors, it is necessary to reduce model complexity. We do so by performing an iterative method called variable-dropping. We begin with all 178 predictors, and iteratively drop one at a time, compute model performance (MCC), and put it back in the model. We store the MCC score after being dropped and repeat until we've dropped all 178 predictors and put them back. We then obtain a list of predictors dropped along with associated MCC scores. We ultimately select the predictor for removal that produced the highest MCC score after being dropped. We repeat this process, storing predictors removed until there are no more predictors left to remove. We assign a rank to each predictor that indicates when it was removed during this process. These ranks determine the order of impact these variables have on the response. For instance, a predictor with rank 10 was the 10th predictor removed, while a predictor with rank 160 was the 160th removed. Hence, the rank 10 predictor had much less influence on the given perception than the rank 160 predictor. We ultimately select only predictors for each PQ that had the highest rankings. As an example, observe the list of top-ranked predictors in our model for PQ 1. The original question was ordinal, asking respondents to rate from 1 (no time at all) to 10 (a lot of time) how much they felt that the officer in a given interaction had time to try alternative methods before moving to force. After choosing a cutoff of 3 (as in Figure 1), this question becomes binary: Do you believe the officer had time to try alternative methods before moving to force? As shown in Figure 2, after variable-dropping, we obtain only n predictors in our optimal, reduced model.

We include a table below that summarizes the reduced model-complexity and performance for each PQ in Figure 3 below. We also include the model's MCC score. We compute p-values to determine significance of MCC score using a non-parametric permutation test. p-values less than 0.05 indicate significant model performance. Note that because our data set is so large, p-values of 0 can be expected. For a list of all relevant predictors and their rankings in each reduced PQ model, see the Appendix.

Predictor Removed	MCC Score After Removal	Rank
GivenCitation	0.6860491069835908	155
symracismq1	0.6666788095167876	156
PoliceQ8	0.6666788095167876	157
symracismq3	0.6578258496630005	158
PQ5	0.6596624145002984	159
Group2	0.6578258496630005	160
PQ10	0.6491327516403075	161
tactful	0.6666788095167876	162
AfricanBlackCoder	0.6491327516403075	163
PQ7	0.6548631592131035	164
LocNoiseLevel	0.6351631435144613	165
GoingTooSlow	0.6172674296330127	166
tender	0.6192921178835779	167
conventional	0.6279382145831812	168
PQ3	0.6085679171163779	169
symracismq7	0.597790544717408	170
childlike	0.5807583861041552	171
PoliceQ2	0.5740192100962423	172
MaleSuspect	0.5740192100962423	173
symracismq5	0.5504570247159684	174
PQ4	0.5183555648691337	175
OffPhysicalDeEscalation	0.5117164297823619	176
PQ8	0.44162397580772883	177
PQ6	0.0	178

Figure 2: Relevant predictors and associated MCC scores/rankings during variable dropping for PQ1 model.

PQ	Reduced model complexity	Reduced model (kernel, C, gamma, degree)	MCC	p-value	Group Relevance
1	24	(linear,0.3)	0.686	0	Group 2
2	69	(poly,0.001,0.01,3)	0.405	0	Group 2
3	28	(poly, 0.3, 0.001, 3)	0.865	0	neither
4	73	(poly, 0.5, 0.001, 3)	0.912	0	both
5	34	(poly, 0.01, 0.01, 3)	0.614	0	neither
6	22	(poly, 0.7, 0.001, 3)	0.611	0	neither
7	33	(linear, 0.1)	0.807	0	Group 2
8	4	(linear, 0.1)	0.804	0	Group 2
9	24	(poly, 0.5, 0.001, 2)	0.816	0	neither
10	24	(linear, 0.01)	0.818	0	both
11	14	(linear, 0.01)	0.844	0	Group 2

Figure 3: Summary of reduced PQ models after variable-dropping.

3.2 Determine models with Group 1 or 2 as relevant predictors

We are particularly interested in determining whether or not the order in which participants logically break down video footage of police-community encounters and answer subjective questions about them influences their perceptions of these interactions. In order to answer this question, we select a predictor of interest to be the "Group" predictor that obtains values of 1 or 2 in our data. Group 1 contains responses from participants who first logically broke down (annotated) eahc video, and then answered perception questions about it, while Group 2 contains responses from those who answered perception questions first, and then annotated the footage. For our analysis, we broke down "Group" from a categorical predictor to two binary predictors, "Group1" and "Group2". For responses with "Group" equal to 1, we assigned "Group1" a corresponding value of 1 and 0 otherwise. For responses with "Group" equal to 2, we assigned "Group2" a

corresponding value of 1 and 0 otherwise.

After performing variable-dropping as discussed in section 2.1, we selected for further analysis those PQ's that contained "Group1", "Group2", or both as relevant predictors (i.e. those with highest-rankings). For such PQ models, we performed variable dropping on subsets of responses from each group separately and compared model predictions, rankings after variable-dropping, and relevant predictors in each group. See the "Group Relevance" column in Figure 3 to see which models contained either groupings as relevant predictors. It lists "Group 1", "Group 2", "both", or "neither" to indicate the relevance of grouping on that perception. See section 3 below for final results.

4 Compare model performance on each group

As shown in Figure 3, of our 11 perception models, 7 of them contained one or both of each grouping as relevant predictors. We begin by first performing variable dropping on subsets of responses from each group separately for these reduced models and compare the rankings of predictors in each grouping. We specifically compute Spearman's rank correlation with an associated p-value to determine if ranks between predictors in each group are significantly different. See our results in Figure 4 below. In five of our seven models, the ranks of predictors in each grouping are significantly different, as indicated by asterics (i.e. when $p < 0.05$). See Figure 5 below for an example of the rank comparisons after performing variable dropping on one of our seven optimal reduced models on subsets of responses from each group. See Appendix B for tables of rank comparisons for all seven of our models.

** p-values < 0.05 indicate significantly different group-rankings **

PQ	Spearman's Rank Correlation Coefficient	p-value
1	0.455	**0.026
2	0.568	**3.487 e -07
4	0.707	**2.608 e - 12
7	0.262	0.148
8	1	0
10	0.513	**0.009
11	0.657	**0.01

Figure 4: Spearman's rank correlation coefficient to compare rankings of predictors in each grouping.

We next compare the relevant predictors shared in common between each grouping by producing heat maps that compare their rankings after variable dropping. Lighter cells indicate predictors with lower rankings (less influence) on a given group of responses, while darker cells indicate predictors with higher rankings (more influence) on a given group of responses. We again choose only the highest-ranked predictors from variable-dropping for this portion of analysis View an example in Figure 6 below of one such heat map for PQ1. We provide a summary of results for all five models with significantly different rankings in the Results section later. See Appendix C for heat maps for all seven of our perception models.

Predictor Removed	Rank Group 1	Rank Group 2
tender	1	17
childlike	2	13
symracismq7	3	7
conventional	4	10
GoingTooSlow	5	9
symracismq1	6	1
Group2	7	2
GivenCitation	8	8
AfricanBlackCoder	9	3
PoliceQ2	10	19
tactful	11	14
MaleSuspect	12	11
PQ5	13	12
PQ8	14	22
PQ10	15	15
PQ7	16	18
PQ3	17	4
PoliceQ8	18	5
symracismq3	19	6
OffPhysicalDeEscalation	20	23
LocNoiseLevel	21	16
PQ4	22	24
symracismq5	23	20
PQ6	24	21

Figure 5: Rank comparisons between relevant predictors in PQ1 after performing variable dropping on each group of responses.

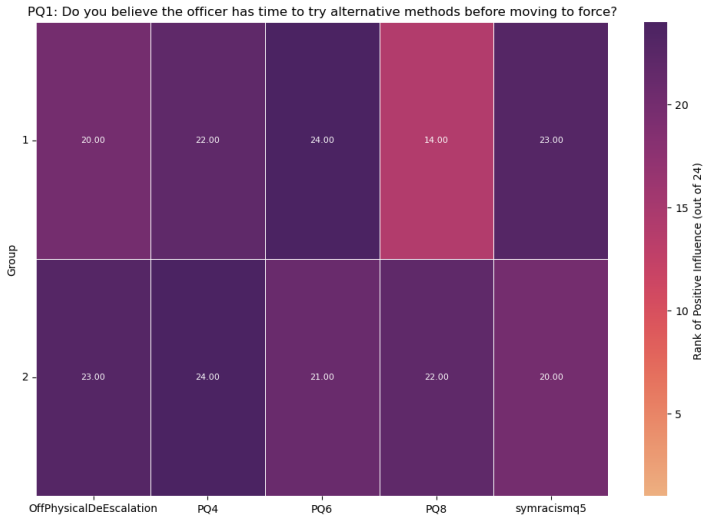

Figure 6: Heat map of rank comparison between relevant predictors in common in both groups of responses to PQ1.

5 Results

We report results obtained from heat maps for those perception models that had significantly different rankings, as indicated by p-values < 0.05 in the last column of Figure 4. We organize predictors in the following categories and report findings as (predictor, Group 1 ranking, Group 2 ranking):

Subject Behaviors (i.e. resistance)
Subject Demographics (i.e. race or gender)
Coder Demographics (i.e. race or gender)

Coder beliefs (i.e. other perceptions, systematic racism beliefs)
Officer Behaviors (i.e. types of force or techniques used)
Environmental Factors (i.e. location, number of officers present)

5.1 PQ1: Do you believe the officer has time to try alternative methods before moving to force?

Refer to Figure 6, or Figure 26 in Appendix C. As shown in Figure 7 below, when running variable dropping on subsets of responses from each group, after dropping each variable, our PQ1 model predicts a majority of positive responses each time. This indicates that all relevant predictors influence beliefs that officers do in fact have time to try non forceful methods on subjects during interactions. Figure 7 depicts relevant predictors for each groupin gin yellow, as well. See Appendix D for remaining variable-dropping results for Group-responses to all remaining perception models. PQ1 had a total of 5 relevant predictors in common between both group 1 and 2 responses, out of a total of 24.

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	tender	0.568204	1	76.363636	23.636364
1	childlike	0.637972	2	75.757576	24.242424
2	symracismq7	0.641838	3	74.545455	25.454545
3	conventional	0.652266	4	76.363636	23.636364
4	GoingTooSlow	0.655582	5	75.151515	24.848485
5	symracismq1	0.669726	6	75.757576	24.242424
6	Group2	0.669726	7	75.757576	24.242424
7	GivenCitation	0.655582	8	75.151515	24.848485
8	AfricanBlackCoder	0.655582	9	75.151515	24.848485
9	PoliceQ2	0.655582	10	75.151515	24.848485
10	tactful	0.669726	11	75.757576	24.242424
11	MaleSuspect	0.669726	12	75.757576	24.242424
12	PQ5	0.655582	13	75.151515	24.848485
13	PQ8	0.655582	14	75.151515	24.848485
14	PQ10	0.637972	15	75.757576	24.242424
15	PQ7	0.628471	16	73.939394	26.060606
16	PQ3	0.584685	17	73.333333	26.666667
17	PoliceQ8	0.592600	18	75.151515	24.848485
18	symracismq3	0.574464	19	75.757576	24.242424
19	OffPhysicalDeEscalation	0.537715	20	76.969697	23.030303
20	LocNoiseLevel	0.561110	21	75.151515	24.848485
21	PQ4	0.523139	22	73.333333	26.666667
22	symracismq5	0.514155	23	69.696970	30.303030
23	PQ6	0.000000	24	69.696970	30.303030

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	symracismq1	0.643858	1	77.380952	22.619048
1	Group2	0.643858	2	77.380952	22.619048
2	AfricanBlackCoder	0.643858	3	77.380952	22.619048
3	PQ3	0.659667	4	76.785714	23.214286
4	PoliceQ8	0.659667	5	76.785714	23.214286
5	symracismq3	0.659667	6	76.785714	23.214286
6	symracismq7	0.675378	7	76.190476	23.809524
7	GivenCitation	0.675378	8	76.190476	23.809524
8	GoingTooSlow	0.675378	9	76.190476	23.809524
9	conventional	0.675378	10	76.190476	23.809524
10	MaleSuspect	0.675378	11	76.190476	23.809524
11	PQ5	0.690771	12	77.976190	22.023810
12	childlike	0.690503	13	76.785714	23.214286
13	tactful	0.690503	14	76.785714	23.214286
14	PQ10	0.690771	15	77.976190	22.023810
15	LocNoiseLevel	0.706095	16	77.380952	22.619048
16	tender	0.706095	17	77.380952	22.619048
17	PQ7	0.659667	18	76.785714	23.214286
18	PoliceQ2	0.675378	19	76.190476	23.809524
19	symracismq5	0.721312	20	75.595238	24.404762
20	PQ6	0.612564	21	80.952381	19.047619
21	PQ8	0.611900	22	78.571429	21.428571
22	OffPhysicalDeEscalation	0.509140	23	75.595238	24.404762
23	PQ4	0.000000	24	75.595238	24.404762

Figure 7: Variable dropping results on Group1 and Group2 responses to PQ1.

Coder Beliefs: We find that the degree to which participants believe that the subject poses an immediate threat of physical harm (PQ4,22,24) or will flee the scene (PQ6,24,21) have similarly high influence on positive beliefs in the officer's time to try alternative non forceful methods. Participant perceptions of the degree of resistence exerted by the subject had greater positive influence on responses from those who answered perception questions before logically breaking down these interactions (PQ8, 14, 22). Participant views on systematic racism questions also had similarly high influence on positive beliefs of PQ1. Specifically, the degree to which participants believe African Americans have gotten more economically than they deserve had significant positive influence on beliefs that officers had time to try non forceful methods before using force on subjects (symracismq5,23,20)

Officer Behaviors: Whether or not an officer uses physical de-escalation techniques to calm the subject had similarly high influence on positive responses to PQ1 (OffPhysicalDeEscalation,20,23).

5.2 PQ2: Do you believe the subject's suspected offense is serious?

Refer to Figure 27 in Appendix C. Out of 69 relevant predictors, group 1 and 2 responses shared 40 in common. As shown in Figure 37 (Appendix D), after performing variable dropping on all 69 predictors for

each group of responses, a majority of our model predictions were always negative. This indicates that all relevant predictors in common influence beliefs that the subject's suspected offense is not serious.

Subject Behaviors: The level of resistance the subject exerted during the videod encounter had significantly greater impact on negative perceptions of the seriousness of their offense from participants who annotated the footage prior to answering perception questions (Resistance, 47, 29).

Coder beliefs: We find that the amount of time coders perceive officers have to try non-forceful methods (PQ1, 56, 53) as well as how big of a risk of physical harm coders feel subjects posed to the community (PQ7, 68, 61) both heavily influence negative beliefs in the seriousness of the subject's suspected offense . Coder perceptions of the police in their communities also had similarly high influence on responses in both groupings. That is, coder beliefs that the police in their community are always polite when dealing with citizens (PoliceQ10, 48, 56) and would really listen to them if they made contact for any reason (PoliceQ8, 63, 69) both heavily influence negative perceptions in the seriousness of the subject's offense.

We also find that certain coder perceptions have significantly different influence over responses from group 1 and group 2 participants. That is, participant's beliefs in the level of opportunity the subject in a given video had to inflict harm had significantly more impact on negative perceptions of seriousness of the subject's offense from participants who waited to annotate the footage until after responding to PQ2 (PQ10, 35, 62). As well as this, Perceptions in the likelihood that the subject will flee had significantly greater influence on responses from participants who annotated the corresponding video after answering perception questions than those that didn't (PQ6, 24, 52). Lastly, participant beliefs that generations of slavery and discrimination have created conditions making it difficult for African Americans to work their way out of the lower class had significantly greater influence on perceptions of the seriousness of the subject's offense from participants who annotated the videos before answering perception questions compared to those who didn't (symracismq3, 43, 32).

Officer Behaviors: Whether or not the officer in the interaction used physical de-escalation techniques had greater impact on perceptions of the seriousness of the subject's offense from participants who annotated the footage after answering perception questions (OffPhysicalDeEscalation, 31, 25).

Environmental Factors: The total number of officers present during the videod interaction had greater influence over negative beliefs in the seriousness of the subject's offense from participants who annotated video footage after answering perception questions (OfficersPresent, 36, 43).

5.3 PQ4: Do you believe the subject poses an immediate threat of physical harm to the officer or others?

Refer to Figure 28 in Appendix C. Out of 73 relevant predictors, both groups of responses shared 37 in common. As shown in Figure 38 (Appendix D), after performing variable dropping on each subgroup of responses, our PQ4 model predicted a majority of negative responses. Hence, all relevant predictors shared in common between both groupings influence negative beliefs in the immediate threat the subject poses to others during their police encounter.

Subject Behaviors: Whether or not the subject displayed a weapon during their police interaction had significantly greater impact on negative perceptions of the subject's threat of physical harm for those who annotated the footage prior to answering perception questions (SuspectDisplayWeapon,47,30).

Coder Beliefs: The amount of time participants feel the officer has to try non forceful methods on the subject (PQ1, 63, 56), perceptions of how serious (PQ2, 61, 52) the subject's suspected offense is, as well as perceptions of the threat of harm to others posed by the subject (PQ3, 72, 73) all have similarly high influence on negative perceptions of the immediate threat of harm posed by the subject on responses from both groupings. As well, participant beliefs about the police in local communities has high influence on negative PQ4 responses. That is, participant beliefs that the police in their communities are always polite when dealing with citizens (PoliceQ10,57,57), are generally honest with citizens (PoliceQ5,56,61), and

would really listen if contact was made with citizens (PoliceQ8, 52, 64) all had similarly high impact on negative perceptions from both participants in groupings.

On the other hand, participant beliefs that the officers in their community are upstanding (PoliceQ6,39,58) and would treat them with respect if contact did occur (PoliceQ7,30,63) both had significantly higher impact on negative perceptions from participants who annotated video footage after answering PQ4.

5.4 PQ10: Do you believe the subject is willing to inflict harm?

Refer to Figure 31 in Appendix C. Out of 25 relevant predictors, both groups of responses shared 2 in common. As shown in Figure 34 (Appendix D), after performing variable-dropping on both groups of responses, our PQ10 model predicted negative perceptions each time a variable was dropped. Hence, both relevant predictors have significantly high influence on negative perceptions that the subject in a given encounter has the opportunity to inflict harm.

Coder Beliefs: Participant beliefs in whether or not African Americans are pushing for equitable change have similarly high influence on negative beliefs in the subject's willingness to inflict harm from participants in both groupings (GoingTooSlow,20,24). Intuitively, beliefs in the degree of subject's willingness to inflict harm also have significantly high influence on negative perceptions of the subject's opportunity to inflict harm (PQ9,24,25) from participants in both groupings

5.5 PQ11: Do you believe the subject is willing to inflict harm?

Refer to Figure 32 in Appendix C. Of the 14 relevant predictors, both subgroups of responses shared 6 in common. As shown in Figure 35 (Appendix D), after conducting variable dropping on both groups, our PQ11 model predicted negative perceptions after each predictor was removed, indicating that all relevant predictors influence negative beliefs in the subject's willingness to inflict harm in a given interaction.

Coder Beliefs: Participant perceptions of the subject's opportunity to inflict harm (PQ10, 11, 10), how immediate the subject's threat of physical harm is (PQ4, 14, 14), and the level of resistence displayed by a subject (PQ8, 10, 11) all influenced negative beliefs in the subject's willingness to inflict harm from responses in both groups 1 and 2.

6 Influence of Grouping & Implications for Change

We are interested in deducing whether or not annotating video footage of police-community interactions prior to answering subjective questions influences viewer perceptions of police. Regardless of whether or not footage is annotated prior to answering questions, viewers are predicted to believe that police officers have more time to try non-forceful methods before using force on subjects (PQ1), subjects' offenses are not extremely serious (PQ2), subjects don't pose an immediate threat of physical harm to others during their police encounters (PQ4), and subjects don't have the opportunity or willingness to inflict harm to others during their police encounters (PQ10 & PQ11). This is shown by the predicted concentrations of yes/no responses after variable dropping displayed in Appendix D, as well as in the color themes of the corresponding heat maps in Appendix C. This observation alone suggests that perceptions are not influenced by the order in which annotation occurs, however specific predictors do influence the degree to which viewers believe such perceptions differently in both annotation approaches. These predictors are important, as perceptions are influenced by several complex social, emotional, and physical variables involved in both the video encounters themselves, as well as by participant backgrounds, personal beliefs, and demographics.

Naturally, we focus on relevant predictors that have greater influence over perceptions from those who annotate video footage prior to answering subjective questions. We find that participants who annotate whether or not the subjects resist during these interactions before answering subjective questions are more heavily influenced to believe that the subjects' offenses are not extremely serious. As well as this, participants

who annotate whether or not subjects display a weapon during these videod encounters prior to answering subjective questions are more heavily influenced to believe that subjects don't pose an immediate risk of physical harm to others in these interactions. These findings suggest that perhaps the Supreme Court judge was incorrect in his assumption that "any reasonable person" who observes the Scott v.s. Harris footage of the crash would deduce that the officer's force was justified. That is, perhaps having not only the jury, but a more diversified sample from the public annotate such footage with regards to the resistance displayed by the subject and whether or not a weapon was displayed by the subject, would yield different perceptions of reasonableness of the officer's force used and the subject's risk of physical harm posed in this case. Court juries can be relatively small, and involving the public in rulings in such a way may provide diverse new insights when making such court decisions. This can be generalized to inform future court proceedings. Our findings highlight the importance of annotating and logically breaking down footage of such interactions, and how doing so may provide new insights and perceptions that can influence jury votes and rulings at the Supreme Court level.

Another alternative observation to note is that regardless of the order in which participants annotate video footage and answer subjective questions, viewer opinions of the local police officers in their communities heavily influence perceptions that subjects do not pose an immediate threat of physical harm to others during police interactions. That is, we find that viewer perceptions of how polite (PoliceQ10) and generally honest (PoliceQ5) their local officers are, as well as how likely it is their officers would actually listen (PoliceQ8) to them if they made contact have significantly high influence on perceptions that the subjects don't pose an immediate threat of physical harm, regardless of the order in which the video footage is annotated. These findings suggest that the general rapport and trust that local police officers build and have with their personal communities does have an affect on public perceptions of interactions between suspects and community police. These findings suggest that in order for officers to become more trusted and liked within their community, as reflected by public perception, they should aim to build and maintain strong, responsible, and positive relations within their communities.

A Relevant predictors in each model after variable-dropping

Predictor Removed	MCC Score After Removal	Rank
GivenCitation	0.6860491069835908	155
symracismq1	0.6666788095167876	156
PoliceQ8	0.6666788095167876	157
symracismq3	0.6578258496630005	158
PQ5	0.6596624145002984	159
Group2	0.6578258496630005	160
PQ10	0.6491327516403075	161
tactful	0.6666788095167876	162
AfricanBlackCoder	0.6491327516403075	163
PQ7	0.6548631592131035	164
LocNoiseLevel	0.6351631435144613	165
GoingTooSlow	0.6172674296330127	166
tender	0.6192921178835779	167
conventional	0.6279382145831812	168
PQ3	0.6085679171163779	169
symracismq7	0.597790544717408	170
childlike	0.5807583861041552	171
PoliceQ2	0.5740192100962423	172
MaleSuspect	0.5740192100962423	173
symracismq5	0.5504570247159684	174
PQ4	0.5183555648691337	175
OffPhysicalDeEscalation	0.5117164297823619	176
PQ8	0.44162397580772883	177
PQ6	0.0	178

Figure 8: PQ1

Predictor Removed	MCC Score After Removal	Rank
actsasaleader	0.8645022637959748	151
individualistic	0.8564734754099164	152
PoliceQ7	0.8564734754099164	153
doesntuseharshlang	0.8484668569461107	154
symracismq4	0.8484668569461107	155
analytical	0.8484668569461107	156
VerbalStatementArrest	0.8484668569461107	157
independent	0.8323409794399823	158
PoliceQ2	0.8323409794399823	159
gullible	0.8242979343899258	160
PoliceQ6	0.8242979343899258	161
PoliceQ8	0.8242979343899258	162
PoliceQ4	0.8000589378351368	163
conventional	0.7927042584753429	164
PoliceQ9	0.7847747175149488	165
sympathetic	0.7689312640777134	166
willingtotakerisks	0.7610150653690388	167
PoliceQ10	0.7531009988373675	168
PQ6	0.7283860677620596	169
adaptable	0.7204087297876499	170
loyal	0.7124280352693302	171
ambitious	0.6964513036882763	172
eagertosoothhurt	0.6724272719197583	173
cheeful	0.6470291878816821	174
tactful	0.564810166323063	175
PQ7	0.5329301080504553	176
PQ4	0.0	177
obs	0.0	178

Figure 9: PQ3

Predictor Removed	MCC Score After Removal	Rank
Group2	0.4050181922722205	110
AfricanBlackCoder	0.39078401297221754	111
SuspectDisplayWeapon	0.39078401297221754	112
PQ11	0.3762212490734203	113
PhysicalArrestCuffs	0.39078401297221754	114
PushTooFast	0.39078401297221754	115
WhiteCoder	0.39078401297221754	116
athletic	0.3762212490734203	117
VerbalStatementArrest	0.376572098500593	118
PQ9	0.376572098500593	119
independent	0.376572098500593	120
forceful	0.376572098500593	121
symracismq8	0.376572098500593	122
PoliceQ6	0.376572098500593	123
GivenCitation	0.376572098500593	124
ambitious	0.3762212490734203	125
solemn	0.36129957354799314	126
ForceLocation	0.36129957354799314	127
cheeful	0.3762212490734203	128
PoliceQ1	0.3762212490734203	129
PoliceQ5	0.3762212490734203	130
WSUNoCorps	0.3762212490734203	131
sincere	0.36129957354799314	132
OffSilentAfterForce	0.36129957354799314	133
dominant	0.36129957354799314	134
strongpersonality	0.36129957354799314	135
less5mintocode	0.36129957354799314	136
analytical	0.36129957354799314	137
theatrical	0.34605677940788904	138
OffPhysicalDeEscalation	0.3459844886080837	139
DetainedNoCuffs	0.3302365093294239	140
tactful	0.3300669309633953	141
DetainedCuffs	0.3302365093294239	142
loveschildren	0.3300669309633953	143
symracismq3	0.3300669309633953	144
competitive	0.3140101373528166	145
PoliceQ4	0.31530772167401194	146
Bystanders	0.29725255654496596	147
PoliceQ9	0.3140101373528166	148
selfsufficient	0.3140101373528166	149
unsystematic	0.29725255654496596	150
senstivetoothersneeds	0.27990195533721307	151
obs	0.2846309547399402	152
aggressive	0.29890019822517194	153
eagertosoothhurt	0.27498044657719406	154
PQ6	0.27498044657719406	155
PQ3	0.2646673728703784	156
unpredictable	0.2736243305651791	157
Resistance	0.2528520650470233	158
PQ1	0.23039026034584034	159
PoliceQ10	0.2056839320146312	160
OfficersPresent	0.1449028284285946	161
conscientious	0.10227325031458062	162
PQ5	0.0	163
PQ7	0.0	164
PQ10	0.0	165
flatterable	0.0	166
feminine	0.0	167
reliable	0.0	168
sympathetic	0.0	169
leadershipskills	0.0	170
compassionate	0.0	171
liable	0.0	172
warm	0.0	173
tender	0.0	174
gullible	0.0	175
adaptable	0.0	176
individualistic	0.0	177
PoliceQ8	0.0	178

Figure 10: PQ2

Predictor Removed	MCC Score After Removal	Rank
WSUCorpsPrevious	0.911741501270974	106
PoliceQ9	0.9024309497675144	107
Group2	0.9024309497675144	108
willingtotakerisks	0.893122797859846	109
happy	0.893122797859846	110
feminine	0.893122797859846	111
analytical	0.893122797859846	112
willingtotakestand	0.893122797859846	113
eagertosoothhurt	0.893122797859846	114
inefficient	0.893122797859846	115
doesntuseharshlang	0.893122797859846	116
loveschildren	0.893122797859846	117
loyal	0.893122797859846	118
symracismq7	0.893122797859846	119
dominant	0.893122797859846	120
DetainedCuffs	0.893122797859846	121
unsystematic	0.893122797859846	122
PoliceQ1	0.893122797859846	123
UnknownSuspectGender	0.893122797859846	124
SuspectUnarmed	0.893122797859846	125
less5mintocode	0.893122797859846	126
MaleSuspect	0.893122797859846	127
OffSilentAfterForce	0.893122797859846	128
CoderLiberal	0.893122797859846	129
PoliceQ2	0.893122797859846	130
WhiteCoder	0.893122797859846	131
AfricanBlackCoder	0.893122797859846	132
HispanicLatinoCoder	0.893122797859846	133
WSUCorpsCurrent	0.893122797859846	134
WSUNoCorps	0.893122797859846	135
Group1	0.893122797859846	136
actsasaleader	0.8838156514243949	137
symracismq4	0.8838156514243949	138
conventional	0.8838156514243949	139
PoliceQ3	0.8838156514243949	140
liable	0.8763755692097385	141
selfsufficient	0.8763755692097385	142
warm	0.8763755692097385	143
solemn	0.8669369792608825	144
bsri	0.8669369792608825	145
PQ1	0.8574970638131281	146
PQ8	0.8574970638131281	147
athletic	0.8669369792608825	148
individualistic	0.8763755692097385	149
symracismq3	0.8763755692097385	150
VerbalStatementArrest	0.8763755692097385	151
competitive	0.8763755692097385	152
SuspectDisplayWeapon	0.8763755692097385	153
softspoken	0.8669369792608825	154
senstivetoothersneeds	0.8669369792608825	155
gullible	0.8574970638131281	156
tender	0.8574970638131281	157
PoliceQ4	0.8386072327997217	158
compassionate	0.8291542279020864	159
PoliceQ5	0.8291542279020864	160
PQ6	0.8184394549208767	161
makesdecisioneasy	0.8186164284695664	162
flatterable	0.8186164284695664	163
tactful	0.8093931276811951	164
sympathetic	0.8001553581368815	165
PoliceQ7	0.8001553581368815	166
PoliceQ6	0.7723373159545035	167
PoliceQ10	0.7536857144113376	168
PoliceQ8	0.7443220032095548	169
gentle	0.7255079384460846	170
PQ2	0.698426425523962	171
truthful	0.6697818300017743	172
understanding	0.6504414442169303	173
friendly	0.6308749648069873	174
adaptable	0.5909403513333906	175
ambitious	0.5243328752932355	176
PQ3	0.0	177
obs	0.0	178

Figure 11: PQ4

Predictor Removed	MCC Score After Removal	Rank
solemn	0.6144358434162842	145
Resistance	0.61281028212935	146
selfsufficient	0.61281028212935	147
OffNoDeEscalation	0.61281028212935	148
adaptable	0.61281028212935	149
childlike	0.600542379534726	150
PoliceQ5	0.6026862205332482	151
PoliceQ1	0.5913054555660092	152
PoliceQ10	0.6026862205332482	153
Bystanders	0.6026862205332482	154
conceited	0.5913054555660092	155
GivenCitation	0.5913054555660092	156
AfricanBlackCoder	0.5913054555660092	157
UnknownSuspectGender	0.5802715780209848	158
individualistic	0.5802715780209848	159
friendly	0.5552930001591544	160
liable	0.5629262517526437	161
PQ8	0.5338219879738672	162
DetainedCuffs	0.5224346760506954	163
MaleSuspect	0.5283162178283365	164
willingtotakestand	0.48520990065243974	165
secretive	0.4923313821044484	166
PQ3	0.46129088993109074	167
competitive	0.44537755913533145	168
loyal	0.41266712902079367	169
analytical	0.39008512000666135	170
PoliceQ6	0.4011602160851072	171
obs	0.3731436545626631	172
tactful	0.3670089228600906	173
eagertosoothhurt	0.3670089228600906	174
PQ6	0.3993381680456137	175
conventional	0.36332661523960724	176
PQ4	0.0	177
PQ7	0.0	178

Figure 12: PQ5

Predictor Removed	MCC Score After Removal	Rank
WSUNoCorps	0.6112785382883675	154
solemn	0.6051433839643412	155
VerbalStatementArrest	0.6051433839643412	156
GivenCitation	0.6112785382883675	157
compassionate	0.5915737184030428	158
shy	0.5873104288292423	159
PoliceQ5	0.6001297585986943	160
eagertosoothhurt	0.6020783893220473	161
SuspectDisplayWeapon	0.5937082268709208	162
OffSilentAfterForce	0.5873104288292423	163
MaleSuspect	0.5957146119572266	164
PoliceQ4	0.5873104288292423	165
masculine	0.6001297585986943	166
willingtotakestand	0.5966365693194031	167
unsystematic	0.5966365693194031	168
truthful	0.6048220639692631	169
PQ2	0.5950881180700325	170
friendly	0.5853098963487011	171
PhysicalArrestCuffs	0.5725424683364374	172
PQ8	0.5856596656726909	173
Bystanders	0.5509656150192126	174
PQ1	0.43733378895475616	175
cheeful	0.3181317809820387	176
PQ3	0.0	177
obs	0.0	178

Figure 13: PQ6

Predictor Removed	MCC Score After Removal	Rank
Group2	0.8067529306526376	147
SuspectDisplayWeapon	0.7976144190028971	148
PushTooFast	0.7976144190028971	149
SusNegEmotionalState	0.7976144190028971	150
softspoken	0.7884683183010401	151
OffPhysicalDeEscalation	0.7806310960071124	152
ambitious	0.7806310960071124	153
PQ10	0.7816521542570356	154
WSUNoCorps	0.7898927169732511	155
PoliceQ3	0.7898927169732511	156
PoliceQ1	0.7898927169732511	157
VerbalStatementArrest	0.7898927169732511	158
DetainedCuffs	0.7898927169732511	159
WhiteSuspect	0.7898927169732511	160
PhysicalArrestCuffs	0.7898927169732511	161
WhiteCoder	0.7898927169732511	162
warm	0.7890570002277485	163
gullible	0.7890570002277485	164
individualistic	0.7890570002277485	165
PQ5	0.7713610698028593	166
PQ11	0.7713610698028593	167
obs	0.7713610698028593	168
dominant	0.7630039422263067	169
CoderLiberal	0.7723323984281617	170
symracismq2	0.7723323984281617	171
PoliceQ10	0.7723323984281617	172
unsystematic	0.7630039422263067	173
AfricanBlackCoder	0.7630039422263067	174
PQ9	0.7453767884455009	175
doesntuseharshlang	0.7277496346646952	176
PQ6	0.6513827762026994	177
PQ3	0.0	178

Figure 14: PQ7

Predictor Removed	MCC Score After Removal	Rank
WhiteCoder	0.8157138398715104	155
tactful	0.8045122006176729	156
symracismq3	0.8045122006176729	157
WSUCorpsCurrent	0.8045122006176729	158
symracismq8	0.7932526420642741	159
PoliceQ3	0.7932526420642741	160
tender	0.770544337861568	161
willingtotakestand	0.7590873266952944	162
obs	0.7359450488727437	163
gullible	0.7359450488727437	164
unsystematic	0.7124650004977573	165
PoliceQ10	0.7005845112553171	166
PoliceQ8	0.6886022436653075	167
PQ5	0.6643052313519298	168
loveschildren	0.6672309403500906	169
PoliceQ9	0.6302298751648887	170
softspoken	0.6048409826745307	171
PoliceQ4	0.5918984148266933	172
PoliceQ1	0.5787739293606141	173
PoliceQ6	0.5381612085042898	174
PQ3	0.0	175
PQ10	0.0	176
PQ11	0.0	177
solemn	0.0	178

Figure 15: PQ9

Predictor Removed	MCC Score After Removal	Rank
Group2	0.8043266422291562	175
OffPhysicalDeEscalation	0.7863936833384957	176
WSUNoCorps	0.7067018633292487	177
PQ11	0.0	178

Figure 16: PQ8

Predictor Removed	MCC Score After Removal	Rank
WSUCorpsPrevious	0.8176233631351121	154
PQ6	0.8085444081133846	155
PQ8	0.8085444081133846	156
loveschildren	0.8085444081133846	157
symracismq5	0.8085444081133846	158
DetainedNoCuffs	0.8085444081133846	159
ambitious	0.8085444081133846	160
MovingRightSpeed	0.8085444081133846	161
WSUCorpsCurrent	0.8085444081133846	162
analytical	0.7987097552116208	163
DetainedCuffs	0.7987097552116208	164
AfricanBlackCoder	0.7987097552116208	165
VerbalStatementArrest	0.789087906270409	166
PushTooFast	0.779670069135388	167
PQ2	0.7871700861016722	168
Group1	0.7871700861016722	169
CoderLiberal	0.7755791213019191	170
Group2	0.7755791213019191	171
doesntuseharshlang	0.7657957640899598	172
WSUNoCorps	0.7657957640899598	173
childlike	0.7540680880686138	174
PoliceQ2	0.7540680880686138	175
GoingTooSlow	0.7540680880686138	176
PQ11	0.7271361621603909	177
PQ9	0.0	178

Figure 17: PQ10

Predictor Removed	MCC Score After Removal	Rank
Group2	0.8437175760875026	165
DetainedCuffs	0.8322407942699909	166
softspoken	0.8309892341285436	167
Resistance	0.8181829607425052	168
liable	0.8064585181989272	169
conventional	0.7934417170248819	170
PQ8	0.7597791966085812	171
OfficersPresent	0.7693772280381806	172
LocNoiseLevel	0.7693772280381806	173
obs	0.7693772280381806	174
PQ6	0.7693772280381806	175
affectionate	0.7288547110289698	176
PQ10	0.691398423588417	177
PQ4	0.0	178

Figure 18: PQ11

B Rank comparison between relevant predictors in each grouping for models with either group as relevant

Predictor Removed	Rank Group 1	Rank Group 2
tender	1	17
childlike	2	13
symracismq7	3	7
conventional	4	10
GoingTooSlow	5	9
symracismq1	6	1
Group2	7	2
GivenCitation	8	8
AfricanBlackCoder	9	3
PoliceQ2	10	19
tactful	11	14
MaleSuspect	12	11
PQ5	13	12
PQ8	14	22
PQ10	15	15
PQ7	16	18
PQ3	17	4
PoliceQ8	18	5
symracismq3	19	6
OffPhysicalDeEscalation	20	23
LocNoiseLevel	21	16
PQ4	22	24
symracismq5	23	20
PQ6	24	21

Figure 19: PQ1

Predictor Removed	Rank Group 1	Rank Group 2
dominant	1	20
DetainedCuffs	2	10
SuspectDisplayWeapon	3	4
Group2	4	3
PushTooFast	5	7
softspoken	6	8
OffPhysicalDeEscalation	7	27
ambitious	8	29
SusNegEmotionalState	9	17
gullible	10	15
PhysicalArrestCuffs	11	12
obs	12	24
AfricanBlackCoder	13	26
WhiteCoder	14	16
doesntuseharshlang	15	6
unsystematic	16	25
warm	17	19
PoliceQ1	18	9
PQ11	19	28
WSUNoCorps	20	1
symracismq2	21	21
individualistic	22	18
PoliceQ3	23	13
WhiteSuspect	24	11
CoderLiberal	25	23
PQ9	26	14
PQ10	27	2
VerbalStatementArrest	28	5
PQ5	29	31
PoliceQ10	30	22
PQ6	31	30
PQ3	32	32

Figure 20: PQ7

Predictor Removed	Rank Group 1	Rank Group 2
Bystanders	1	19
PQ5	2	60
PQ11	3	5
Group2	4	2
AfricanBlackCoder	5	3
SuspectDisplayWeapon	6	4
PhysicalArrestCuffs	7	8
PushTooFast	8	9
WhiteCoder	9	11
athletic	10	10
PQ9	11	20
VerbalStatementArrest	12	23
independent	13	38
forceful	14	24
symracismq8	15	12
WSUNoCorps	16	15
less5mintocode	17	17
aggressive	18	50
PoliceQ9	19	49
OffSilentAfterForce	20	16
unpredictable	21	35
loveschildren	22	41
unsystematic	23	54
PQ6	24	52
ForceLocation	25	14
solemn	26	28
PoliceQ6	27	31
DetainedNoCuffs	28	18
PoliceQ1	29	26
GivenCitation	30	13
OffPhysicalDeEscalation	31	25
DetainedCuffs	32	22
theatrical	33	45
PoliceQ5	34	40
PQ10	35	62
OfficersPresent	36	43
tactful	37	42
PoliceQ4	38	27
dominant	39	33
competitive	40	48
cheeful	41	46
analytical	42	6
symracismq3	43	32
sincere	44	30
selfsufficient	45	37
senstivetoothersneeds	46	55
Resistance	47	29
PoliceQ10	48	56
warm	49	66
strongpersonality	50	58
flatterable	51	7
individualistic	52	51
conscientious	53	59
PQ3	54	57
eagertosoothhurt	55	47
PQ1	56	53
feminine	57	39
reliable	58	34
sympathetic	59	63
compassionate	60	44
ambitious	61	36
liable	62	65
PoliceQ8	63	69
leadershipskills	64	64
tender	65	67
gullible	66	21
obs	67	1
PQ7	68	61
adaptable	69	68

Figure 21: PQ2

Predictor Removed	Rank Group 1	Rank Group 2
MaleSuspect	1	17
makesdecisioneasy	2	44
WSUCorpsPrevious	3	2
PoliceQ9	4	3
feminine	5	31
eagertosoothhurt	6	34
Group2	7	4
symracismq7	8	10
happy	9	7
inefficient	10	5
doesntuseharshlang	11	6
loyal	12	35
dominant	13	8
DetainedCuffs	14	11
unsystematic	15	12
UnknownSuspectGender	16	14
less5mintocode	17	16
CoderLiberal	18	18
AfricanBlackCoder	19	22
HispanicLatinoCoder	20	23
WSUCorpsCurrent	21	24
WhiteCoder	22	21
loveschildren	23	36
Group1	24	26
symracismq3	25	50
VerbalStatementArrest	26	41
PoliceQ1	27	13
PoliceQ2	28	20
WSUNoCorps	29	25
PoliceQ7	30	63
willingtotakestand	31	33
symracismq4	32	27
analytical	33	32
bsri	34	40
athletic	35	28
actsasaleader	36	37
conventional	37	38
OffSilentAfterForce	38	19
PoliceQ6	39	58
individualistic	40	53
gullible	41	46
PoliceQ4	42	51
PoliceQ3	43	29
SuspectUnarmed	44	15
PQ8	45	47
solemn	46	43
SuspectDisplayWeapon	47	30
flatterable	48	45
tender	49	59
softspoken	50	55
senstivetoothersneeds	51	48
PoliceQ8	52	64
PQ6	53	69
friendly	54	67
liable	55	42
PoliceQ5	56	61
PoliceQ10	57	57
selfsufficient	58	49
warm	59	39
competitive	60	54
PQ2	61	52
tactful	62	66
PQ1	63	56
willingtotakerisks	64	9
compassionate	65	68
gentle	66	65
understanding	67	71
sympathetic	68	62
truthful	69	70
adaptable	70	72
ambitious	71	60
PQ3	72	73
obs	73	1

Figure 22: PQ4

Predictor Removed	Rank Group 1	Rank Group 2
Group2	1	1
OffPhysicalDeEscalation	2	2
WSUNoCorps	3	3
PQ11	4	4

Figure 23: PQ8

Predictor Removed	Rank Group 1	Rank Group 2
WSUCorpsPrevious	1	3
PQ8	2	4
PQ6	3	2
DetainedCuffs	4	9
loveschildren	5	18
DetainedNoCuffs	6	14
MovingRightSpeed	7	7
WSUCorpsCurrent	8	8
symracismq5	9	15
Group1	10	11
CoderLiberal	11	5
analytical	12	16
Group2	13	12
doesntuseharshlang	14	21
WSUNoCorps	15	13
PoliceQ2	16	23
AfricanBlackCoder	17	19
VerbalStatementArrest	18	10
PushTooFast	19	20
GoingTooSlow	20	24
PQ2	21	1
ambitious	22	6
childlike	23	22
PQ9	24	25
PQ11	25	17

Figure 24: PQ10

Predictor Removed	Rank Group 1	Rank Group 2
Group2	1	2
DetainedCuffs	2	3
softspoken	3	1
conventional	4	6
OfficersPresent	5	8
Resistance	6	4
affectionate	7	12
LocNoiseLevel	8	9
obs	9	13
PQ8	10	11
PQ10	11	10
PQ6	12	7
liable	13	5
PQ4	14	14

Figure 25: PQ11

C Heat maps of relevant predictor rankings for those shared in common between both groups

Positive influence is indicated by the orange-purple color scales, while negative influence is indicated by green-blue.

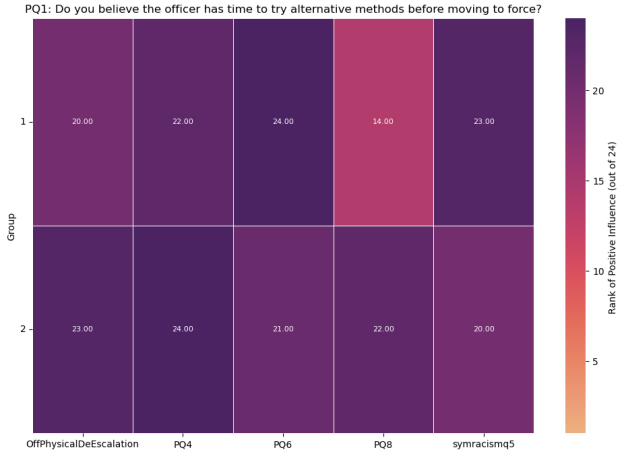

Figure 26: PQ1

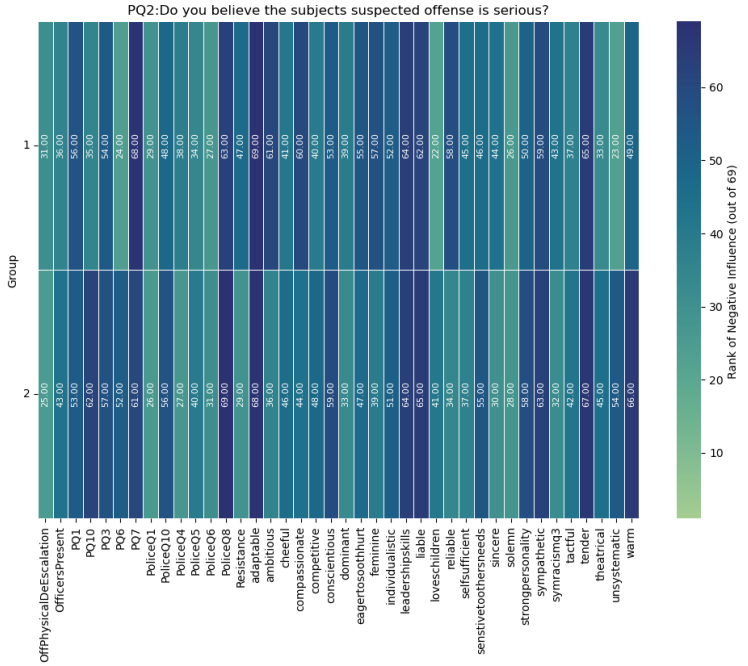

Figure 27: PQ2

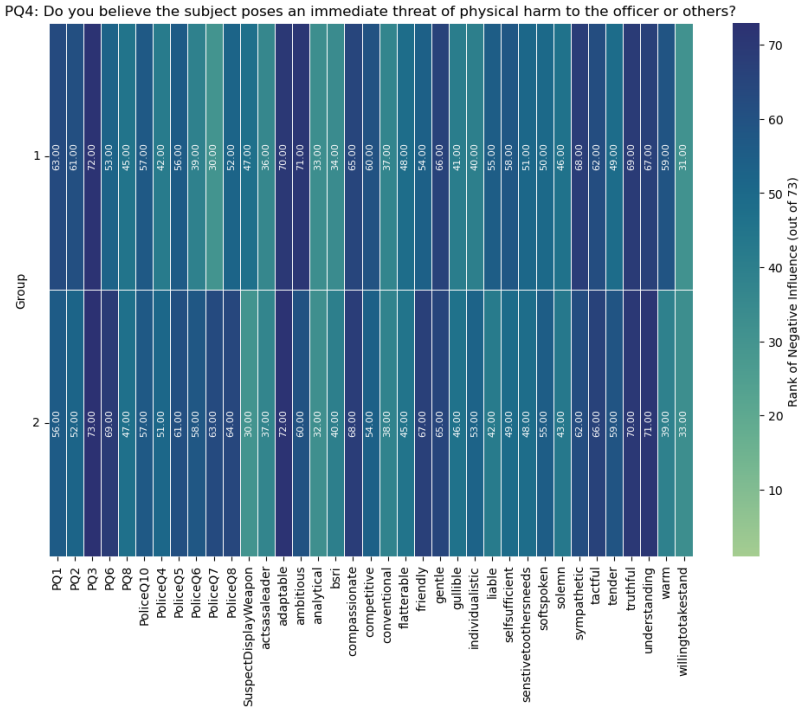

Figure 28: PQ4

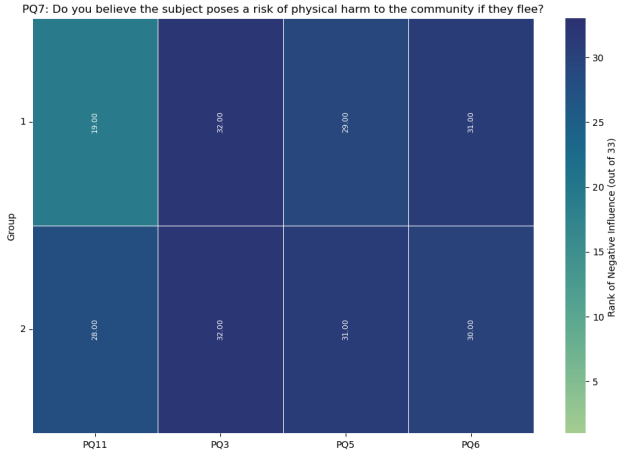

Figure 29: PQ7

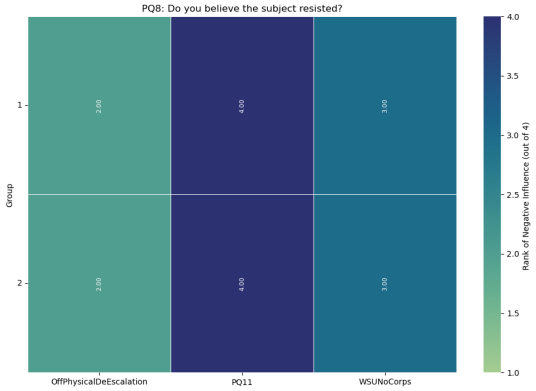

Figure 30: PQ8

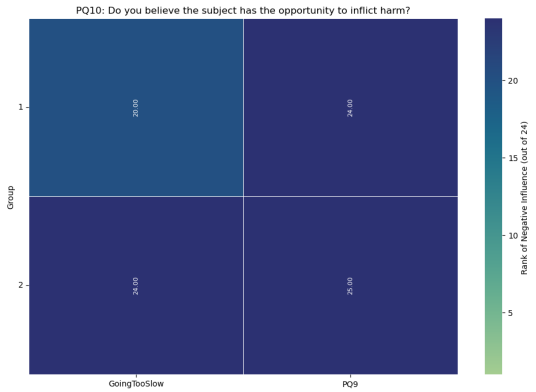

Figure 31: PQ10

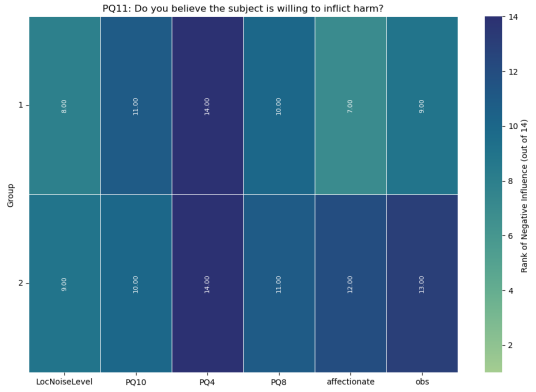

Figure 32: PQ11

D Variable-dropping results for subsets of responses from each grouping (relevant predictors are highlighted in yellow)

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	tender	0.588204	1	76.363636	23.636364
1	childlike	0.637972	2	75.757576	24.242424
2	symracismq7	0.641838	3	74.545455	25.454545
3	conventional	0.652266	4	76.363636	23.636364
4	GoingTooSlow	0.655582	5	75.151515	24.848485
5	symracismq1	0.669726	6	75.757576	24.242424
6	Group2	0.669726	7	75.757576	24.242424
7	GivenCitation	0.655582	8	75.151515	24.848485
8	AfricanBlackCoder	0.655582	9	75.151515	24.848485
9	PoliceQ2	0.655582	10	75.151515	24.848485
10	tactful	0.669726	11	75.757576	24.242424
11	MaleSuspect	0.669726	12	75.757576	24.242424
12	PQ5	0.655582	13	75.151515	24.848485
13	PQ8	0.655582	14	75.151515	24.848485
14	PQ10	0.637972	15	75.757576	24.242424
15	PQ7	0.628471	16	73.939394	26.060606
16	PQ3	0.584685	17	73.333333	26.666667
17	PoliceQ8	0.592600	18	75.151515	24.848485
18	symracismq3	0.574464	19	75.757576	24.242424
19	OffPhysicalDeEscalation	0.537715	20	76.969697	23.030303
20	LocNoiseLevel	0.561110	21	75.151515	24.848485
21	PQ4	0.523139	22	73.333333	26.666667
22	symracismq5	0.514155	23	69.696970	30.303030
23	PQ6	0.000000	24	69.696970	30.303030

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	symracismq1	0.643858	1	77.380952	22.619048
1	Group2	0.643858	2	77.380952	22.619048
2	AfricanBlackCoder	0.643858	3	77.380952	22.619048
3	PQ3	0.659667	4	76.785714	23.214286
4	PoliceQ8	0.659667	5	76.785714	23.214286
5	symracismq3	0.659667	6	76.785714	23.214286
6	symracismq7	0.675378	7	76.190476	23.809524
7	GivenCitation	0.675378	8	76.190476	23.809524
8	GoingTooSlow	0.675378	9	76.190476	23.809524
9	conventional	0.675378	10	76.190476	23.809524
10	MaleSuspect	0.675378	11	76.190476	23.809524
11	PQ5	0.690771	12	77.976190	22.023810
12	childlike	0.690503	13	76.785714	23.214286
13	tactful	0.690503	14	76.785714	23.214286
14	PQ10	0.690771	15	77.976190	22.023810
15	LocNoiseLevel	0.706095	16	77.380952	22.619048
16	tender	0.706095	17	77.380952	22.619048
17	PQ7	0.659667	18	76.785714	23.214286
18	PoliceQ2	0.675378	19	76.190476	23.809524
19	symracismq5	0.721312	20	75.595238	24.404762
20	PQ6	0.612564	21	80.952381	19.047619
21	PQ8	0.611900	22	78.571429	21.428571
22	OffPhysicalDeEscalation	0.509140	23	75.595238	24.404762
23	PQ4	0.000000	24	75.595238	24.404762

Figure 33: PQ1

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	WSUCorpsPrevious	0.783154	1	12.727273	87.272727
1	PQ8	0.783154	2	12.727273	87.272727
2	PQ6	0.783154	3	12.727273	87.272727
3	DetainedCuffs	0.809042	4	13.333333	86.666667
4	loveschildren	0.809042	5	13.333333	86.666667
5	DetainedNoCuffs	0.809042	6	13.333333	86.666667
6	MovingRightSpeed	0.809042	7	13.333333	86.666667
7	WSUCorpsCurrent	0.809042	8	13.333333	86.666667
8	symracismq5	0.809042	9	13.333333	86.666667
9	Group1	0.809042	10	13.333333	86.666667
10	CoderLiberal	0.809042	11	13.333333	86.666667
11	analytical	0.809042	12	13.333333	86.666667
12	Group2	0.809042	13	13.333333	86.666667
13	doesntuseharshlang	0.809042	14	13.333333	86.666667
14	WSUNoCorps	0.809042	15	13.333333	86.666667
15	PoliceQ2	0.809042	16	13.333333	86.666667
16	AfricanBlackCoder	0.809042	17	13.333333	86.666667
17	VerbalStatementArrest	0.809042	18	13.333333	86.666667
18	PushTooFast	0.809042	19	13.333333	86.666667
19	GoingTooSlow	0.809042	20	13.333333	86.666667
20	PQ2	0.786472	21	13.939394	86.060606
21	ambitious	0.760108	22	13.333333	86.666667
22	childlike	0.711174	23	13.333333	86.666667
23	PQ9	0.670840	24	14.545455	85.454545
24	PQ11	0.000000	25	14.545455	85.454545

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	WSUCorpsPrevious	0.783154	1	12.727273	87.272727
1	PQ8	0.783154	2	12.727273	87.272727
2	PQ6	0.783154	3	12.727273	87.272727
3	DetainedCuffs	0.809042	4	13.333333	86.666667
4	loveschildren	0.809042	5	13.333333	86.666667
5	DetainedNoCuffs	0.809042	6	13.333333	86.666667
6	MovingRightSpeed	0.809042	7	13.333333	86.666667
7	WSUCorpsCurrent	0.809042	8	13.333333	86.666667
8	symracismq5	0.809042	9	13.333333	86.666667
9	Group1	0.809042	10	13.333333	86.666667
10	CoderLiberal	0.809042	11	13.333333	86.666667
11	analytical	0.809042	12	13.333333	86.666667
12	Group2	0.809042	13	13.333333	86.666667
13	doesntuseharshlang	0.809042	14	13.333333	86.666667
14	WSUNoCorps	0.809042	15	13.333333	86.666667
15	PoliceQ2	0.809042	16	13.333333	86.666667
16	AfricanBlackCoder	0.809042	17	13.333333	86.666667
17	VerbalStatementArrest	0.809042	18	13.333333	86.666667
18	PushTooFast	0.809042	19	13.333333	86.666667
19	GoingTooSlow	0.809042	20	13.333333	86.666667
20	PQ2	0.786472	21	13.939394	86.060606
21	ambitious	0.760108	22	13.333333	86.666667
22	childlike	0.711174	23	13.333333	86.666667
23	PQ9	0.670840	24	14.545455	85.454545
24	PQ11	0.000000	25	14.545455	85.454545

Figure 34: PQ10

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	Group2	0.802261	1	12.727273	87.272727
1	DetainedCuffs	0.802261	2	12.727273	87.272727
2	softspoken	0.802261	3	12.727273	87.272727
3	conventional	0.802261	4	12.727273	87.272727
4	OfficersPresent	0.802261	5	12.727273	87.272727
5	Resistance	0.802261	6	12.727273	87.272727
6	affectionate	0.802261	7	12.727273	87.272727
7	LocNoiseLevel	0.775290	8	12.121212	87.878788
8	obs	0.757178	9	13.939394	86.060606
9	PQ8	0.729293	10	13.333333	86.666667
10	PQ10	0.736595	11	14.545455	85.454545
11	PQ6	0.717143	12	15.151515	84.848485
12	liable	0.708375	13	13.939394	86.060606
13	PQ4	0.000000	14	13.939394	86.060606

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	Group2	0.802261	1	12.727273	87.272727
1	DetainedCuffs	0.802261	2	12.727273	87.272727
2	softspoken	0.802261	3	12.727273	87.272727
3	conventional	0.802261	4	12.727273	87.272727
4	OfficersPresent	0.802261	5	12.727273	87.272727
5	Resistance	0.802261	6	12.727273	87.272727
6	affectionate	0.802261	7	12.727273	87.272727
7	LocNoiseLevel	0.775290	8	12.121212	87.878788
8	obs	0.757178	9	13.939394	86.060606
9	PQ8	0.729293	10	13.333333	86.666667
10	PQ10	0.736595	11	14.545455	85.454545
11	PQ6	0.717143	12	15.151515	84.848485
12	liable	0.708375	13	13.939394	86.060606
13	PQ4	0.000000	14	13.939394	86.060606

Figure 35: PQ11

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	dominant	0.740362	1	24.848485	75.151515
1	DetainedCuffs	0.744913	2	26.060606	73.939394
2	SuspectDisplayWeapon	0.758658	3	25.454545	74.545455
3	Group2	0.758658	4	25.454545	74.545455
4	PushTooFast	0.758658	5	25.454545	74.545455
5	softspoken	0.758658	6	25.454545	74.545455
6	OffPhysicalDeEscalation	0.758658	7	25.454545	74.545455
7	ambitious	0.758658	8	25.454545	74.545455
8	SusNegEmotionalState	0.805271	9	24.848485	75.151515
9	gullible	0.820140	10	24.242424	75.757576
10	PhysicalArrestCuffs	0.820140	11	24.242424	75.757576
11	obs	0.820140	12	24.242424	75.757576
12	AfricanBlackCoder	0.820140	13	24.242424	75.757576
13	WhiteCoder	0.820140	14	24.242424	75.757576
14	doesntuseharshlang	0.820140	15	24.242424	75.757576
15	unsystematic	0.820140	16	24.242424	75.757576
16	warm	0.805271	17	24.848485	75.151515
17	PoliceQ1	0.805271	18	24.848485	75.151515
18	PQ11	0.805271	19	24.848485	75.151515
19	WSUNoCorps	0.805271	20	24.848485	75.151515
20	symracismq2	0.805271	21	24.848485	75.151515
21	individualistic	0.805271	22	24.848485	75.151515
22	PoliceQ3	0.805271	23	24.848485	75.151515
23	WhiteSuspect	0.805271	24	24.848485	75.151515
24	CoderLiberal	0.787413	25	24.242424	75.757576
25	PQ9	0.805271	26	24.848485	75.151515
26	PQ10	0.805271	27	24.848485	75.151515
27	VerbalStatementArrest	0.805271	28	24.848485	75.151515
28	PQ5	0.802476	29	23.636364	76.363636
29	PoliceQ10	0.802476	30	23.636364	76.363636
30	PQ6	0.751415	31	23.030303	76.969697
31	PQ3	0.000000	32	23.030303	76.969697

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	dominant	0.740362	1	24.848485	75.151515
1	DetainedCuffs	0.744913	2	26.060606	73.939394
2	SuspectDisplayWeapon	0.758658	3	25.454545	74.545455
3	Group2	0.758658	4	25.454545	74.545455
4	PushTooFast	0.758658	5	25.454545	74.545455
5	softspoken	0.758658	6	25.454545	74.545455
6	OffPhysicalDeEscalation	0.758658	7	25.454545	74.545455
7	ambitious	0.758658	8	25.454545	74.545455
8	SusNegEmotionalState	0.805271	9	24.848485	75.151515
9	gullible	0.820140	10	24.242424	75.757576
10	PhysicalArrestCuffs	0.820140	11	24.242424	75.757576
11	obs	0.820140	12	24.242424	75.757576
12	AfricanBlackCoder	0.820140	13	24.242424	75.757576
13	WhiteCoder	0.820140	14	24.242424	75.757576
14	doesntuseharshlang	0.820140	15	24.242424	75.757576
15	unsystematic	0.820140	16	24.242424	75.757576
16	warm	0.805271	17	24.848485	75.151515
17	PoliceQ1	0.805271	18	24.848485	75.151515
18	PQ11	0.805271	19	24.848485	75.151515
19	WSUNoCorps	0.805271	20	24.848485	75.151515
20	symracismq2	0.805271	21	24.848485	75.151515
21	individualistic	0.805271	22	24.848485	75.151515
22	PoliceQ3	0.805271	23	24.848485	75.151515
23	WhiteSuspect	0.805271	24	24.848485	75.151515
24	CoderLiberal	0.787413	25	24.242424	75.757576
25	PQ9	0.805271	26	24.848485	75.151515
26	PQ10	0.805271	27	24.848485	75.151515
27	VerbalStatementArrest	0.805271	28	24.848485	75.151515
28	PQ5	0.802476	29	23.636364	76.363636
29	PoliceQ10	0.802476	30	23.636364	76.363636
30	PQ6	0.751415	31	23.030303	76.969697
31	PQ3	0.000000	32	23.030303	76.969697

Figure 36: PQ7

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	Bystanders	0.377403	1	14.545455	85.454545
1	PQ5	0.417866	2	14.545455	85.454545
2	PQ11	0.435083	3	13.939394	86.060606
3	Group2	0.435083	4	13.939394	86.060606
4	AfricanBlackCoder	0.435083	5	13.939394	86.060606
5	SuspectDisplayWeapon	0.435083	6	13.939394	86.060606
6	PhysicalArrestCuffs	0.435083	7	13.939394	86.060606
7	PushTooFast	0.435083	8	13.939394	86.060606
8	WhiteCoder	0.435083	9	13.939394	86.060606
9	athletic	0.435083	10	13.939394	86.060606
10	PQ9	0.435083	11	13.939394	86.060606
11	VerbalStatementArrest	0.435083	12	13.939394	86.060606
12	independent	0.435083	13	13.939394	86.060606
13	forceful	0.435083	14	13.939394	86.060606
14	symracismq8	0.435083	15	13.939394	86.060606
15	WSUNoCorps	0.435083	16	13.939394	86.060606
16	less5mintocode	0.435083	17	13.939394	86.060606
17	aggressive	0.435083	18	13.939394	86.060606
18	PoliceQ9	0.435083	19	13.939394	86.060606
19	OffSilentAfterForce	0.417866	20	14.545455	85.454545
20	unpredictable	0.435083	21	13.939394	86.060606
21	loveschildren	0.435083	22	13.939394	86.060606
22	unsystematic	0.411257	23	13.333333	86.666667
23	PQ6	0.405298	24	12.121212	87.878788
24	ForceLocation	0.405298	25	12.121212	87.878788
25	solemn	0.405298	26	12.121212	87.878788
26	PoliceQ6	0.405298	27	12.121212	87.878788
27	DetainedNoCuffs	0.405298	28	12.121212	87.878788
28	PoliceQ1	0.386785	29	12.727273	87.272727
29	GivenCitation	0.354420	30	10.909091	89.090909
30	OffPhysicalDeEscalation	0.335583	31	11.515152	88.484848
31	DetainedCuffs	0.354420	32	10.909091	89.090909
32	theatrical	0.374553	33	10.303030	89.696970
33	PoliceQ5	0.347969	34	9.696970	90.303030
34	PQ10	0.342530	35	8.484848	91.515152
35	OfficersPresent	0.366007	36	6.666667	93.333333
36	tactful	0.368912	37	5.454545	94.545455
37	PoliceQ4	0.396763	38	6.060606	93.939394
38	dominant	0.396763	39	6.060606	93.939394
39	competitive	0.396763	40	6.060606	93.939394
40	cheeful	0.339324	41	4.848485	95.151515
41	analytical	0.339324	42	4.848485	95.151515
42	symracismq3	0.339324	43	4.848485	95.151515
43	sincere	0.339324	44	4.848485	95.151515
44	selfsufficient	0.339324	45	4.848485	95.151515
45	senstivetoothersneeds	0.339324	46	4.848485	95.151515
46	Resistance	0.339324	47	4.848485	95.151515
47	PoliceQ10	0.339324	48	4.848485	95.151515
48	warm	0.339324	49	4.848485	95.151515
49	strongpersonality	0.306094	50	5.454545	94.545455
50	flatterable	0.306094	51	5.454545	94.545455
51	individualistic	0.339324	52	4.848485	95.151515
52	conscientious	0.307556	53	4.242424	95.757576
53	PQ3	0.307556	54	4.242424	95.757576
54	eagertosoothhurt	0.317744	55	3.030303	96.969697
55	PQ1	0.317744	56	3.030303	96.969697
56	feminine	0.317744	57	3.030303	96.969697
57	reliable	0.317744	58	3.030303	96.969697
58	sympathetic	0.317744	59	3.030303	96.969697
59	compassionate	0.317744	60	3.030303	96.969697
60	ambitious	0.317744	61	3.030303	96.969697
61	liable	0.317744	62	3.030303	96.969697
62	PoliceQ8	0.283315	63	2.424242	97.575758
63	leadershipskills	0.244600	64	1.818182	98.181818
64	tender	0.244600	65	1.818182	98.181818
65	gullible	0.244600	66	1.818182	98.181818
66	obs	0.000000	67	0.000000	100.000000
67	PQ7	0.000000	68	0.000000	100.000000
68	adaptable	0.000000	69	0.000000	100.000000

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	obs	0.396965	1	12.500000	87.500000
1	Group2	0.396965	2	12.500000	87.500000
2	AfricanBlackCoder	0.396965	3	12.500000	87.500000
3	SuspectDisplayWeapon	0.396965	4	12.500000	87.500000
4	PQ11	0.396965	5	12.500000	87.500000
5	analytical	0.401288	6	13.690476	86.309524
6	flatterable	0.419248	7	13.095238	86.904762
7	PhysicalArrestCuffs	0.419248	8	13.095238	86.904762
8	PushTooFast	0.419248	9	13.095238	86.904762
9	athletic	0.419248	10	13.095238	86.904762
10	WhiteCoder	0.419248	11	13.095238	86.904762
11	symracismq8	0.419248	12	13.095238	86.904762
12	GivenCitation	0.419248	13	13.095238	86.904762
13	ForceLocation	0.419248	14	13.095238	86.904762
14	WSUNoCorps	0.419248	15	13.095238	86.904762
15	OffSilentAfterForce	0.419248	16	13.095238	86.904762
16	less5mintocode	0.419248	17	13.095238	86.904762
17	DetainedNoCuffs	0.419248	18	13.095238	86.904762
18	Bystanders	0.423203	19	14.285714	85.714286
19	PQ9	0.423203	20	14.285714	85.714286
20	gullible	0.440968	21	13.690476	86.309524
21	DetainedCuffs	0.440968	22	13.690476	86.309524
22	VerbalStatementArrest	0.440968	23	13.690476	86.309524
23	forceful	0.440968	24	13.690476	86.309524
24	OffPhysicalDeEscalation	0.440968	25	13.690476	86.309524
25	PoliceQ1	0.423203	26	14.285714	85.714286
26	PoliceQ4	0.423203	27	14.285714	85.714286
27	solemn	0.427861	28	15.476190	84.523810
28	Resistance	0.427861	29	15.476190	84.523810
29	sincere	0.427861	30	15.476190	84.523810
30	PoliceQ6	0.427861	31	15.476190	84.523810
31	symracismq3	0.427861	32	15.476190	84.523810
32	dominant	0.406290	33	14.880952	85.119048
33	reliable	0.423203	34	14.285714	85.714286
34	unpredictable	0.423203	35	14.285714	85.714286
35	ambitious	0.423203	36	14.285714	85.714286
36	selfsufficient	0.423203	37	14.285714	85.714286
37	independent	0.390148	38	15.476190	84.523810
38	feminine	0.378815	39	13.095238	86.904762
39	PoliceQ5	0.378815	40	13.095238	86.904762
40	loveschildren	0.378815	41	13.095238	86.904762
41	tactful	0.378815	42	13.095238	86.904762
42	OfficersPresent	0.367966	43	14.880952	85.119048
43	compassionate	0.384224	44	14.285714	85.714286
44	theatrical	0.355722	45	12.500000	87.500000
45	cheeful	0.331935	46	11.904762	88.095238
46	eagertosoothhurt	0.338383	47	13.095238	86.904762
47	competitive	0.338383	48	13.095238	86.904762
48	PoliceQ9	0.338383	49	13.095238	86.904762
49	aggressive	0.338383	50	13.095238	86.904762
50	individualistic	0.281925	51	10.714286	89.285714
51	PQ6	0.284491	52	5.357143	94.642857
52	PQ1	0.317197	53	4.761905	95.238095
53	unsystematic	0.287255	54	4.166667	95.833333
54	senstivetoothersneeds	0.176806	55	2.380952	97.619048
55	PoliceQ10	0.126905	56	1.785714	98.214286
56	PQ3	0.000000	57	0.000000	100.000000
57	strongpersonality	0.000000	58	0.000000	100.000000
58	conscientious	0.000000	59	0.000000	100.000000
59	PQ5	0.000000	60	0.000000	100.000000
60	PQ7	0.000000	61	0.000000	100.000000
61	PQ10	0.000000	62	0.000000	100.000000
62	sympathetic	0.000000	63	0.000000	100.000000
63	leadershipskills	0.000000	64	0.000000	100.000000
64	liable	0.000000	65	0.000000	100.000000
65	warm	0.000000	66	0.000000	100.000000
66	tender	0.000000	67	0.000000	100.000000
67	adaptable	0.000000	68	0.000000	100.000000
68	PoliceQ8	0.000000	69	0.000000	100.000000

Figure 37: PQ2

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	MaleSuspect	0.808711	1	27.878788	72.121212
1	makesdecisioneasy	0.824105	2	28.484848	71.515152
2	WSUCorpsPrevious	0.824105	3	28.484848	71.515152
3	PoliceQ9	0.824105	4	28.484848	71.515152
4	feminine	0.838292	5	27.878788	72.121212
5	eagertosoothhurt	0.852860	6	27.272727	72.727273
6	Group2	0.852860	7	27.272727	72.727273
7	symracismq7	0.852860	8	27.272727	72.727273
8	happy	0.852860	9	27.272727	72.727273
9	inefficient	0.852860	10	27.272727	72.727273
10	doesntuseharshlang	0.852860	11	27.272727	72.727273
11	loyal	0.852860	12	27.272727	72.727273
12	dominant	0.852860	13	27.272727	72.727273
13	DetainedCuffs	0.852860	14	27.272727	72.727273
14	unsystematic	0.852860	15	27.272727	72.727273
15	UnknownSuspectGender	0.852860	16	27.272727	72.727273
16	less5mintocode	0.852860	17	27.272727	72.727273
17	CoderLiberal	0.852860	18	27.272727	72.727273
18	AfricanBlackCoder	0.852860	19	27.272727	72.727273
19	HispanicLatinoCoder	0.852860	20	27.272727	72.727273
20	WSUCorpsCurrent	0.852860	21	27.272727	72.727273
21	WhiteCoder	0.852860	22	27.272727	72.727273
22	loveschildren	0.852860	23	27.272727	72.727273
23	Group1	0.852860	24	27.272727	72.727273
24	symracismq3	0.852860	25	27.272727	72.727273
25	VerbalStatementArrest	0.852860	26	27.272727	72.727273
26	PoliceQ1	0.852860	27	27.272727	72.727273
27	PoliceQ2	0.838292	28	27.878788	72.121212
28	WSUNoCorps	0.838292	29	27.878788	72.121212
29	PoliceQ7	0.838292	30	27.878788	72.121212
30	willingtotakestand	0.837839	31	26.666667	73.333333
31	symracismq4	0.837839	32	26.666667	73.333333
32	analytical	0.837839	33	26.666667	73.333333
33	bsri	0.837839	34	26.666667	73.333333
34	athletic	0.837839	35	26.666667	73.333333
35	actsasaleader	0.837839	36	26.666667	73.333333
36	conventional	0.837839	37	26.666667	73.333333
37	OffSilentAfterForce	0.837839	38	26.666667	73.333333
38	PoliceQ6	0.837839	39	26.666667	73.333333
39	individualistic	0.837839	40	26.666667	73.333333
40	gullible	0.837839	41	26.666667	73.333333
41	PoliceQ4	0.837839	42	26.666667	73.333333
42	PoliceQ3	0.837839	43	26.666667	73.333333
43	SuspectUnarmed	0.822802	44	26.060606	73.939394
44	PQ8	0.822802	45	26.060606	73.939394
45	solemn	0.822802	46	26.060606	73.939394
46	SuspectDisplayWeapon	0.822802	47	26.060606	73.939394
47	flatterable	0.807741	48	25.454545	74.545455
48	tender	0.807741	49	25.454545	74.545455
49	softspoken	0.777522	50	24.242424	75.757576
50	senstivetoothersneeds	0.777522	51	24.242424	75.757576
51	PoliceQ8	0.777522	52	24.242424	75.757576
52	PQ6	0.777292	53	25.454545	74.545455
53	friendly	0.792650	54	24.848485	75.151515
54	liable	0.777522	55	24.242424	75.757576
55	PoliceQ5	0.777522	56	24.242424	75.757576
56	PoliceQ10	0.762347	57	23.636364	76.363636
57	selfsufficient	0.747118	58	23.030303	76.969697
58	warm	0.747118	59	23.030303	76.969697
59	competitive	0.718267	60	20.606061	79.393939
60	PQ2	0.718267	61	20.606061	79.393939
61	tactful	0.672134	62	18.787879	81.212121
62	PQ1	0.638177	63	18.787879	81.212121
63	willingtotakerisks	0.638177	64	18.787879	81.212121
64	compassionate	0.638177	65	18.787879	81.212121
65	gentle	0.638177	66	18.787879	81.212121
66	understanding	0.539205	67	15.151515	84.848485
67	sympathetic	0.521920	68	14.545455	85.454545
68	truthful	0.521920	69	14.545455	85.454545
69	adaptable	0.521920	70	14.545455	85.454545
70	ambitious	0.521920	71	14.545455	85.454545
71	PQ3	0.000000	72	0.000000	100.000000
72	obs	0.000000	73	0.000000	100.000000

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	obs	0.915106	1	26.190476	73.809524
1	WSUCorpsPrevious	0.915106	2	26.190476	73.809524
2	PoliceQ9	0.915106	3	26.190476	73.809524
3	Group2	0.915106	4	26.190476	73.809524
4	inefficient	0.915106	5	26.190476	73.809524
5	doesntuseharshlang	0.915106	6	26.190476	73.809524
6	happy	0.915106	7	26.190476	73.809524
7	dominant	0.915106	8	26.190476	73.809524
8	willingtotakerisks	0.915106	9	26.190476	73.809524
9	symracismq7	0.915106	10	26.190476	73.809524
10	DetainedCuffs	0.915106	11	26.190476	73.809524
11	unsystematic	0.915106	12	26.190476	73.809524
12	PoliceQ1	0.915106	13	26.190476	73.809524
13	UnknownSuspectGender	0.915106	14	26.190476	73.809524
14	SuspectUnarmed	0.915106	15	26.190476	73.809524
15	less5mintocode	0.915106	16	26.190476	73.809524
16	MaleSuspect	0.915106	17	26.190476	73.809524
17	CoderLiberal	0.915106	18	26.190476	73.809524
18	OffSilentAfterForce	0.915106	19	26.190476	73.809524
19	PoliceQ2	0.915106	20	26.190476	73.809524
20	WhiteCoder	0.915106	21	26.190476	73.809524
21	AfricanBlackCoder	0.915106	22	26.190476	73.809524
22	HispanicLatinoCoder	0.915106	23	26.190476	73.809524
23	WSUCorpsCurrent	0.915106	24	26.190476	73.809524
24	WSUNoCorps	0.915106	25	26.190476	73.809524
25	Group1	0.915106	26	26.190476	73.809524
26	symracismq4	0.915106	27	26.190476	73.809524
27	athletic	0.915106	28	26.190476	73.809524
28	PoliceQ3	0.915106	29	26.190476	73.809524
29	SuspectDisplayWeapon	0.915106	30	26.190476	73.809524
30	feminine	0.901022	31	25.595238	74.404762
31	analytical	0.901022	32	25.595238	74.404762
32	willingtotakestand	0.901022	33	25.595238	74.404762
33	eagertosoothhurt	0.901022	34	25.595238	74.404762
34	loyal	0.901022	35	25.595238	74.404762
35	loveschildren	0.901022	36	25.595238	74.404762
36	actsasaleader	0.901022	37	25.595238	74.404762
37	conventional	0.901022	38	25.595238	74.404762
38	warm	0.901022	39	25.595238	74.404762
39	bsri	0.901022	40	25.595238	74.404762
40	VerbalStatementArrest	0.901022	41	25.595238	74.404762
41	liable	0.886942	42	25.000000	75.000000
42	solemn	0.886942	43	25.000000	75.000000
43	makesdecisioneasy	0.886942	44	25.000000	75.000000
44	flatterable	0.886942	45	25.000000	75.000000
45	gullible	0.886942	46	25.000000	75.000000
46	PQ8	0.885496	47	26.190476	73.809524
47	senstivetoothersneeds	0.885496	48	26.190476	73.809524
48	selfsufficient	0.871189	49	25.595238	74.404762
49	symracismq3	0.871189	50	25.595238	74.404762
50	PoliceQ4	0.871189	51	25.595238	74.404762
51	PQ2	0.871189	52	25.595238	74.404762
52	individualistic	0.871189	53	25.595238	74.404762
53	competitive	0.871189	54	25.595238	74.404762
54	softspoken	0.871189	55	25.595238	74.404762
55	PQ1	0.856876	56	25.000000	75.000000
56	PoliceQ10	0.856876	57	25.000000	75.000000
57	PoliceQ6	0.842553	58	24.404762	75.595238
58	tender	0.799451	59	22.619048	77.380952
59	ambitious	0.799451	60	22.619048	77.380952
60	PoliceQ5	0.726763	61	19.642857	80.357143
61	sympathetic	0.712026	62	19.047619	80.952381
62	PoliceQ7	0.712026	63	19.047619	80.952381
63	PoliceQ8	0.682278	64	17.857143	82.142857
64	gentle	0.636798	65	16.071429	83.928571
65	tactful	0.498419	66	9.523810	90.476190
66	friendly	0.320326	67	4.166667	95.833333
67	compassionate	0.000000	68	0.000000	100.000000
68	PQ6	0.000000	69	0.000000	100.000000
69	truthful	0.000000	70	0.000000	100.000000
70	understanding	0.000000	71	0.000000	100.000000
71	adaptable	0.000000	72	0.000000	100.000000
72	PQ3	0.000000	73	0.000000	100.000000

Figure 38: PQ4

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	Group2	0.823722	1	15.757576	84.242424
1	OffPhysicalDeEscalation	0.670288	2	9.696970	90.303030
2	WSUNoCorps	0.670288	3	9.696970	90.303030
3	PQ11	0.000000	4	9.696970	90.303030

	Predictor Removed	MCC Score After Removal	Rank	% Yes Predictions After Removal	% No Predictions After Removal
0	Group2	0.691095	1	16.071429	83.928571
1	OffPhysicalDeEscalation	0.769268	2	17.857143	82.142857
2	WSUNoCorps	0.655040	3	14.285714	85.714286
3	PQ11	0.000000	4	14.285714	85.714286

Figure 39: PQ8