HW 5

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This homework is meant to give you practice in creating and defending a position with both statistical and philosophical evidence. We have now extensively talked about the COMPAS [1] data set, the flaws in applying it but also its potential upside if its shortcomings can be overlooked. We have also spent time in class verbally assessing positions both for an against applying this data set in real life. In no more than two pages [2] take the persona of a statistical consultant advising a judge as to whether they should include the results of the COMPAS algorithm in their decision making process for granting parole. First clearly articulate your position (whether the algorithm should be used or not) and then defend said position using both statistical and philosophical evidence. Your paper will be grade both on the merits of its persuasive appeal but also the applicability of the statistical and philosohpical evidence cited.

STUDENT RESPONSE

Today's justice system is riddled with inequality and bias. People are fallible and make mistakes based on their own biases. The COMPAS algorithm seeks to mitigate these biases by accurately predicting whether a person will commit a crime again after they are released. If the algorithm were correct, it could eliminate all the biases we see today. However, in most cases, it fails to predict violent crime. In only 20 percent of cases was it able to predict whether someone would commit a violent crime (Angwin). This essay will state why COMPAS should not be used in the courtroom for any reason using philosophical and statistical reasoning.

To understand why COMPAS shouldn't be used, one must first understand the method by which COMPAS judges someone as high or low risk. COMPAS asks over 137 questions to make a statistical profile and predict on a scale from 1-10 the defendant's risk to society, judging the likelihood that someone will commit a crime within the next two years. This data set, also known as training data, should not be admissible in court as it does not have any bearing on the sentencing of this case.

Imagine being a defendant who is up for parole and is denied because they have a similar statistical profile to other cases that have nothing to do with their merits and experiences. From a philosophical point of view, our legal system is meant to ensure that everyone gets an equal and fair trial and that no discrimination should be done based on immutable rights. But comparing the merits of your case to a statistical profile of your peers is immutable. We have no power over what our peers do when they get out of prison, so why do we let the question affect our sentencing?

At the same time, COMPAS explicitly asks questions that elicit a response about an immutable characteristic. Take, for instance, the question, "Do your parents have a history of doing drugs?" If this question were asked in a courtroom, a judge would immediately dismiss it as irrelevant to the case. In this instance, depending on the response, we are rewarding or punishing someone for something they had no control over.

Opposition to this will say that judges discriminate in government based on immutable characteristics, people have to meet certain specifications to serve in the military and hold government positions. However, these are not rights. You don't have the right to serve in the military, but you do have a right to a free and fair trial, and the use of the COMPAS algorithm creates judgment based on immutable rights, something explicitly not allowed.

A popular reason people think the COMPAS algorithm should be used in sentencing is because it can be used

to mitigate the already present biases that are present in judges' minds. In response to this, there is a question about how an openly racist judge would somehow "see the light". It is far more likely they would use it as confirmation bias to only allow parole to the people they view as worthy based on race.

Another response to the idea that judges are racist and that this algorithm would mitigate the racism we see from these judges is that if we understand there is a bias in the justice system, then the training data we are using to create the COMPAS model is also biased, and thus not a good predictor of whether someone will commit recidivism.

From a statistical point of view, COMPAS discriminates based on an immutable characteristic, race. COMPAS misclassified Black defendants at over twice as much as White defendants, 45% vs 23% (Angwin), this fails an equalized odds test (assuming we have unbiased data, which we said before may not be the case because of the history of racism in the justice system) a test for whether an algorithm provides different false positives for protected classes. Codifying this into law and allowing it to be used would add to the already present discrimination in the US, and as the saying goes, two wrongs don't make a right, for those reasons and the reasons listed above, COMPAS should not be used in the criminal justice system at any level.

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1. https://www.propublica.org/datastore/dataset/compas-recidivism-risk-score-data-and-analysis (https://www.propublica.org/datastore/dataset/compas-recidivism-risk-score-data-and-analysis)↩

2. knit to a pdf to ensure page count↩