

The central goal of this project is to construct mathematical models of phenomena of epistemic injustice grounded in realistic scenarios of human interaction to better understand those phenomena and our ethical assessment of such interactions.

An epistemic injustice, according to standard philosophical terminology, is done to someone when they are by either structural social forces or an individual diminished as a knower. This rather abstract sounding idea can be found in many everyday interactions where information is passed on from one person to another, is interpreted and included in the hearer's stock of knowledge. To give an example, when we decrease the credibility we are willing to assign to a speaker due to irrelevant characteristics, we commit a kind of epistemic injustice called testimonial injustice. When an eyewitness's testimony in court is discounted due to their accent or when a patient's statement of their symptoms is downplayed by their doctor due to their gender, testimonial injustice has occurred. This type of phenomenon has been discussed in philosophy for more than a decade now, not to speak of preceding philosophical thought without the particular conceptual framework, however, there are still significant questions and underexplored areas.

For one, usually philosophers have concerned themselves primarily with diminishing someone's assumed credibility rather than granting them an excess of trustworthiness. But a number of practical problems are associated with excess credibility. Consider the following two situations:

- 1) Imagine an interaction between a parent and their two children. The parent is trying to figure out who stole the chocolate and asks both to confess if they did. If the parent assesses the credibility of their one child correctly, but overestimates that of the other, it seems that they are doing injustice to the former. Indeed from the perspective of the child and the actions implied, it seems indistinguishable from deflating the credibility of the first child.
- 2) Imagine a patient who massively overestimates the capabilities of their doctor, never questions them and picks up on any piece of advice overconfidently, no matter how much caution it was given with; however, at one point, they realize that some piece of advice did not work, and now, due to their previously exalted opinion of the doctor, overcorrect downwards and dismiss legitimately good advice -- a sort of epistemic backlash that many experts arguably experienced during the pandemic.

It is surprisingly difficult to fully make sense of the combined ethical and epistemic problems going on in such examples. It seems intuitive that by giving someone the credibility they otherwise deserve, no injustice is done to them; but it seems just as intuitive that the first kid is treated unjustly. To resolve this and similar puzzles, the project will develop mathematical descriptions of this type of situation that allow us to clarify and disambiguate the involved concept of injustice.

This formal treatment will also be applied to two other classes of problems that will be described only in brief. First, the phenomenon of hermeneutic injustice, which describes situations in which a society is collectively incapable to understand the experience of a certain group. Second, the models will help explore scenarios where it seems rational to behave in a way that seems to contradict the prescriptions of the ethics of knowledge; in particular this concerns situations where a group is being discounted as knowers and as a consequence, has indeed become less reliable. Imagine, for instance, a group of patients whose statement of their experience of pain is systematically discounted. In response, they start exaggerating their pain, thus retroactively justifying the judgment and entering a vicious cycle. This type of scenario raises the question of whether any irrationality has to occur, who bears what blame and what could be ways out of such a scenario.

The main results that are to be expected from the project are:

1. Formal models of phenomena of epistemic injustice that disambiguate and clarify the relevant concepts of injustice.
2. An ethical assessment of several classes of interactions that engender epistemic injustice.
3. Suggestions to engage with various phenomena of epistemic injustice in practice (in particular, in high stakes situations such as testimony in court or medical expert judgment).