Nobel Prize winner *Daniel Kahneman*, supported by two prominent researchers - *Olivier Sibony* and *Cass R. Sunstein* - in his book *"Noise. That is, where mistakes in our decisions come from,"* begins by citing the story of judge *Marvin Frankel*. *Frankel*, known for his fight to rationalize court rulings in the US, pointed out numerous cases in which sentencing depended more on the judge's personal beliefs, preferences, or prejudices than on the case's merits or the defendant's person.
His work contributed to the passage of the Sentencing Reform Act by the US Congress in 1984. Its goal was to reduce the disparity in sentences handed down by different judges in cases of a similar nature. A key role was played by the analysis of reference cases, which made it possible to develop standardized procedures for evaluating crimes and recommending sentences. This made it possible to reduce the subjectivity of evaluations and standardize sentences.

In the book by *Kahneman* and co-authors, we find ample evidence that evaluations based on comparison with benchmarks lead to more accurate conclusions and, thus, to better decisions. However, the problem of discrepancies in expert opinions, referred to by the author as *decision noise*, is a common phenomenon. We can observe it in many areas: offices, health facilities, schools, universities, workplaces, and even everyday situations. Any case in which two similar cases end up with different decisions may be due to discrepancies in experts' assessments.

Our intended research will focus on the importance of reference alternatives in the decision-making process. We plan to use one of the most widely used decision-making techniques - *the pairwise comparisons method* - enhanced by the possibility of using reference alternatives. We want to study how their use will affect the discrepancies in the assessments of different experts and their internal consistency. In addition, we plan to develop an optimal way to select such alternatives.

Another goal of our research is to extend the pairwise comparison method to represent uncertain knowledge using *fuzzy numbers*. Such a representation allows experts to express their judgments in a less burdened manner. Instead of forming unambiguous opinions, they can indicate the most likely solutions and exclude those they believe are wrong. We will examine whether this, in some views, a more natural form of expert knowledge, will reduce discrepancies and improve the consistency of assessments in the pairwise comparison method using reference variants.

Given the widespread use of techniques based on pairwise comparisons and the popularity of methods such as *AHP (Analytic Hierarchy Process)*, our research may find numerous practical applications. We hope they will improve the quality of decisions in various fields, leading to fairer judgments, reliable expert opinions, and fair and transparent procedures, such as public tenders.