

# Essays in learning, optimization and game theory

Citation for published version (APA):

Duvocelle, B. (2021). *Essays in learning, optimization and game theory*. [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20210222bd>

## Document status and date:

Published: 01/01/2021

## DOI:

[10.26481/dis.20210222bd](https://doi.org/10.26481/dis.20210222bd)

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

## General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

[www.umlib.nl/taverne-license](http://www.umlib.nl/taverne-license)

## Take down policy

If you believe that this document breaches copyright please contact us at:

[repository@maastrichtuniversity.nl](mailto:repository@maastrichtuniversity.nl)

providing details and we will investigate your claim.

PROPOSITIONS  
TO ACCOMPANY THE DISSERTATION  
OF  
BENOIT DUVOCELLE

1. To minimize your regret, you may need to take into account everything you learn. (Chapter 2)
2. To minimize traffic flow, you might have to take a detour. (Chapter 3)
3. Search problems with sequential moves are surprisingly difficult to solve. (Chapter 4)
4. To find a moving object is easy. To find it faster than others is harder. (Chapter 4)
5. A good solution concept takes into account previous mistakes.
6. A solution concept should be robust to variations of the model, such as introduction of noise, change in the discount factor or variations in the time horizon.
7. Algorithms are ubiquitous in real life. For example, route planners, using the GPS system, for finding optimal routes.
8. Optimization is used in Game Theory. Game Theory is used in Operations Research. Operations Research is used in Optimization.
9. Something is intuitive when one can draw it.
10. A mathematician is a machine for turning coffee into theorems. (Alfréd Rényi)