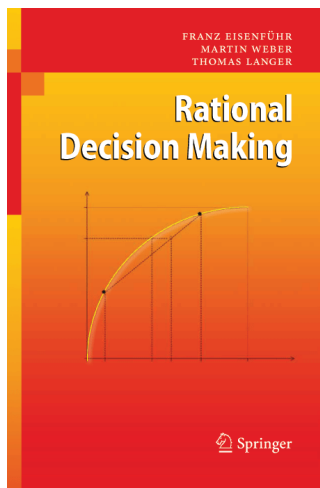# Errata: Rational Decision Making

Last updated on December 17, 2010

This textbook conveys methods that can improve decision making processes in various fields such as economics, politics, and medicine as well as in personal life. Areas of focus are decision making under conflicting objectives, decision making under risk and uncertainty, decision making with incomplete information about individual preferences or probabilities, and the consideration of time preferences. Special emphasis is placed on the procedures' and concepts' applicability. Explicit sample applications show the methods' benefit for a wide area of decision making problems. Exercises from daily life make it easy for the reader to understand the key insights from decision analysis.

Despite thorough revision there are some mistakes in the textbook. This file lists all known mistakes along with the corrections according to the chapters.

If you have further comments or if you find further mistakes, please send an email to Prof. Dr. Thomas Langer: thomas.langer@wiwi.uni-muenster.de.

Preface

- If you want to send an email to Franz Eisenführ, you have to replace the umlaut in the address given in the book. Please use the following email address: Franz.Eisenfuehr@web.de

(Found on September 28, 2010)

Chapter 1

- P. 14: "Based on these considerations, Edwards (1984) referred to the 'invisibility of decision analytic practice' more than three decades ago."
  This should be "… more than two decades ago." Furthermore, the quotes at the end of the sentence in the textbook are dispensable.

(Found on September 28, 2010)

Chapter 2

- P. 29, fig. 2-2: The figure depicts event trees whereas the captions suggest decision trees. "Original event tree" and "Reduced event tree" would be the correct captions.

(Found on September 28, 2010)

- P. 41, fig. 2-7: The caption in the fourth rhomb has to be "Number of injuries" or "Number of injured persons".

(Found on September 28, 2010)

- P. 48, fig. 2-11: For (a) and (b) the uncertainties on the left-hand side should be illustrated by circles rather than squares. Moreover, the probabilities for (b) are missing. The following figure has been corrected accordingly:
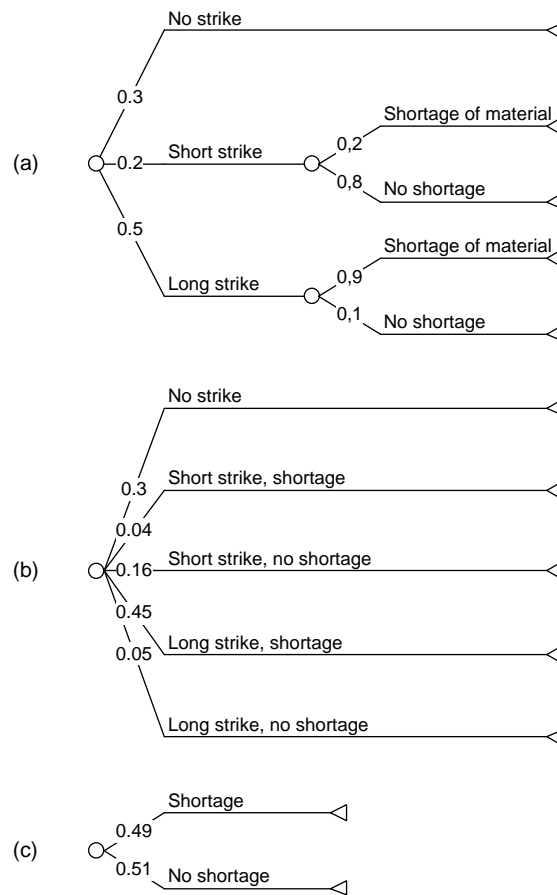
(a)

No strike — 0.3

Short strike — 0.2
- Shortage of material — 0,2
- No shortage — 0,8

Long strike — 0.5
- Shortage of material — 0,9
- No shortage — 0,1

(b)

No strike
Short strike, shortage — 0.3
Short strike, no shortage — 0.04, 0.16
Long strike, shortage — 0.45
Long strike, no shortage — 0.05

(c)

Shortage — 0.49
No shortage — 0.51

Figure 2-11: Equivalent representation of events (corrected)

(Found on September 28, 2010)

3

Chapter 7

- P. 201, exercise 7.7: The third sentence should rather be: "He knows that behind one of the doors is the big prize, a car, and behind each of the two other doors is a goat."

  (Found on October 26, 2010)

- P. 202, exercise 7.8, line 2: "to get a receive" should be "to get a goat": "The triplets, Agatha, Beatrix and Caroline, found out that one of them was to receive a car for her birthday and the other two were each to get a goat."

  (Found on October 26, 2010)

Chapter 9

- Unfortunately, in *Chapter 9.4.6 Trade-off method for utility functions* there are some typos (mainly permutations of x_a and x_b, and *p* and *1-p*) which lead to a wrong exposition. A corrected version can be found [here](#).

  (Found on November 15, 2010)

Chapter 10

- In table 10-4, the row for X = 3.200 has to be eliminated.

  (Found on January 22, 2012)

Chapter 13

- P. 374, fig. 13-1: The sigma sign is not completely visible in the book:

$$\sum_i p_i \cdot u(x_i)$$

  (Found on October 6, 2010)

- There are three occurrences in which the terms "convex" and "concave" have been mixed up in the translation from German to English (the German version of the book is correct in this respect). Here are the corrected sentences:
    - P. 398, last paragraph: "Based on empirical findings, Kahneman and Tversky assume the value function of a decision maker to be concave over gains and convex over losses."
    - P. 406, enumeration b): "[…] meaning that it is concave in the domain of gains and convex in the domain of losses."
    - P. 407: "The concavity in the gain domain leads to risk aversion […]."

(Found on December 13, 2010)

- The certainty equivalent specified in Table 13-3 for „Normal lotteries over losses" is wrong. While the CPT value -58,78 is correct, the according certainty equivalent should be -40,76 € (instead of the specified -24,21 €). As a consequence the RP has to change, too, from -25,79 € to -9,24 €.

(Found on January, 28, 2012)