

1

Introduction

This book is about the overview of the article-based thesis. It is written for graduate students mainly in the “hard” sciences, such as biology, medicine, and technology. The best time to read this book would be when you are finishing your individual papers.

However, you must find out at an early stage whether your university allows you to use the article-based format. If not, you have to write a traditional monograph thesis. Then, the contents of this book would be helpful to you as well. Listed below are those parts that are also valid for the traditional monograph.

Front cover picture

Title

Abstract

Quotations

Abbreviations

Acknowledgment

General introduction

Aims

General discussion

Copyright

To a certain extent, the content of the methods and results sections could also prove beneficial.

2

Compilation – the article-based thesis

This chapter is a review of the article-based thesis, also called *compilation* thesis. The compilation is increasingly encouraged, especially in the hard sciences such as biology, medicine, and technology.

Compilations

Compilations are of two types. In one, the reprinted articles are appended to an overall summary of their content, here called the *Scandinavian model*. In the other, the reprinted articles are sandwiched between introductory and concluding chapters, here called the *sandwich format*.¹

Scandinavian model

Common to theses of the Scandinavian model is that an overall summary (overview) is followed by research papers – bound together in a single volume. Published articles are reproduced as

¹ A *sandwich* refers to two slices of bread with a layer of food between them, named after the inventor, the fourth Earl of Sandwich (1718–1792).

exact copies of the articles as they appear in the publishing journal (including title pages with original letterheads, logotypes, typefaces, and so on) – in short, as reprints; papers *in press* are reproduced as preprints.

In contrast with the research papers, which are highly structured, the overview of the Scandinavian type of compilation has no formula for arranging its various parts, not even regarding which parts to include.

A basis for discussion

In this book I suggest a scheme (see *Contents*) based on real examples gathered from a large number of compilations of the Scandinavian model. This layout can serve as a basis for the discussion. I emphasize, however, that the sections could be rearranged, for example, *Acknowledgments*, the part most read, could be placed first, and some parts could be excluded, such as *Thesis at a glance* and *Contributors*, as appropriate locally.

Sandwich – the format used in the rest of the world

Outside Scandinavia, the most commonly used format for an article-based thesis worldwide is the sandwich. The articles appear as chapters between the general introduction and the general discussion. If the articles are published or accepted for publication, these chapters are usually the final version of the manuscript as sent to the journal (Figure 2.1).

Each article (published or unpublished) is placed as a chapter between the general introduction and the general discussion.

Inflammatory Monocytes in Bipolar Disorder and Related Endocrine Autoimmune Diseases
Inflammatoire Monocyten en de Bipolaire Stoornis en Gerelateerde Endocriene Autoimmuun Ziekten

Published articles are not presented as reprints, but as the final version of the manuscripts as sent to the journal. Their style is standardized to fit the thesis. Therefore, it is feasible to number pages consecutively throughout the text.

CONTENTS		
Chapter 1	General Introduction	9
Chapter 2	A High Prevalence of Organ-Specific Autoimmunity in Patients with Bipolar Disorder (Biological Psychiatry 2004;56:476–482)	49
Chapter 3	A Discriminating mRNA Signature for Bipolar Disorder formed by an Aberrant Expression of Inflammatory Genes in Monocytes (Archives of General Psychiatry 2008;65:395–407)	65
Chapter 4	A Twin Study: Pro-inflammatory Monocytes in Bipolar Disorder Mainly the Result of a Common Environmental Factor (Re-submitted to Archives of General Psychiatry)	95
Chapter 5	Inflammatory Monocytes, the Shared Vulnerability Factor for Bipolar Disorder and Autoimmune Thyroid Disease? (Manuscript in preparation)	113

In this case, the status of each article is noted.

Figure 2.1 Part of the *contents* section of a thesis in the format of a sandwich. (Reproduced with permission from Roos Padmos, 2009, Erasmus University, the Netherlands.)

Illustrations

In the sandwich format, you can use part of the title page of each chapter as an illustration (Figure 2.2). The example is taken from a thesis at National University in Australia, where this format is called *thesis by publication* (Debra L. Saunders, 2008).

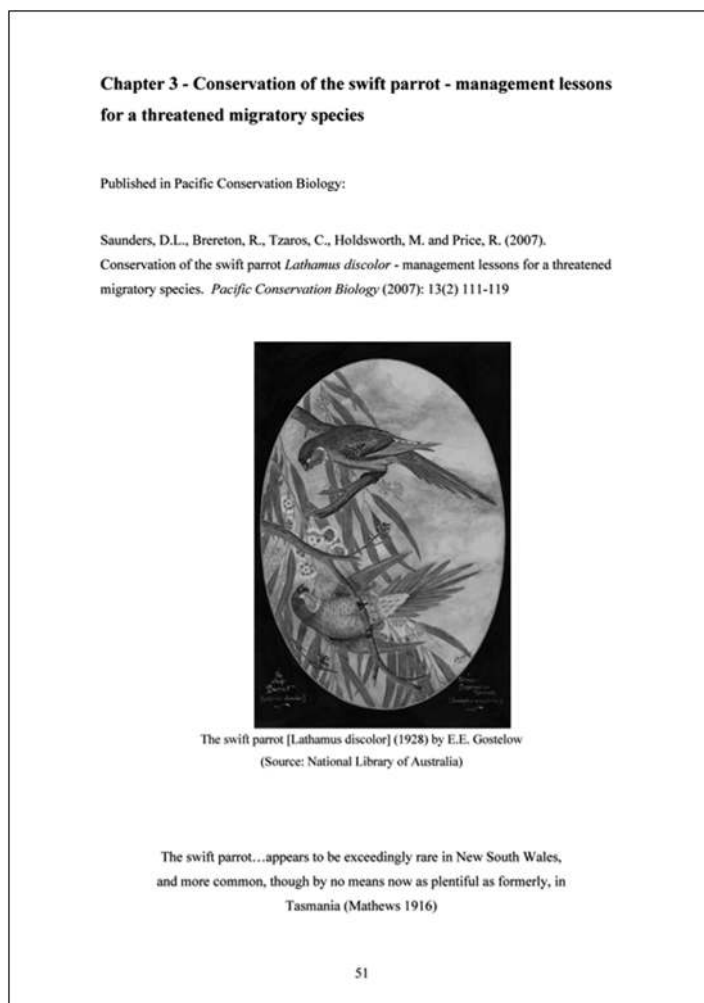


Figure 2.2 Each of six chapters of the thesis begins with a picture of the swift parrot and a pertinent citation, as in this title page. (Reproduced from Debra L. Saunders, 2008, with permission from the author and the painter, E. E. Gostelow.)

Sandwich format vs. Scandinavian model

The sandwich format and the Scandinavian model both have advantages. The sandwich format usually has the following benefits: (a) The articles (chapters) are standardized to fit the thesis, which makes it look like a book. (b) Parts of the title pages can serve as illustrations. In the Scandinavian model, your published

articles appear as reprints, looking exactly as do the articles in the published journal, and giving the author a feeling of being in the midst of the scientific production. That is a great feeling.

Besides these differences, the content of the book itself is mainly applicable to both formats – if not otherwise stated. Well, now, let's begin.

3

Front cover illustration

A journalist from a daily newspaper was one of the teachers at a course on scientific writing. During a break she looked into a thesis overview. (At that time the overview was published separately from the research papers.) She paged through the publication and then said:

Not a single illustration, not even a cover picture.

Still – about forty years later – in technology, a picture on a thesis cover is seldom seen, nor does one occur often in medicine. However, in biology, it has become the norm.

In biology, an animal studied does not need be camouflaged to be portrayed on the cover. In medicine, the need of disguising a patient studied is a problem. On the next page we have one example of how the problem could be solved – by showing the individual in silhouette (Figure 3.1).



Reproductive Factors and Breast Cancer

*Parity, Breastfeeding and Genetic
Predisposition in Relation to Risk
and Prognosis*

Salma Butt
 Department of Clinical Sciences,
 Surgery, Malmö
 Skåne University Hospital,
 Lund University, Sweden
 2011



Figure 3.1 The author of this thesis has solved the problem of camouflaging the pregnant woman by showing her in silhouette. Even her mother probably could not identify her. Of course, you must have her written permission.¹ This is a fine illustration of the subject of the thesis. (Reproduced with the permission of the author Salma Butt (2011), the designer Maria Näslund, Formfaktorn, and the photographer Thomas Prah.)

¹ See Chapter 18, “Photo of a human being,” Figure 18.3 and 18.4.

Instead of showing a patient on the cover, you can depict what symptoms a person has from the disease studied, as here (Figure 3.2):



Figure 3.2 Alzheimer's disease was the subject of this thesis. The cartoon speaks for itself in balloons. Note the error “take at [sic] short walk.” (Reproduced from Sofia Holback (2009), with permission from the author and the artist, motorcycle policeman Stefan Andén, Popcop © 2008).

... or symbolically depict the topic of the thesis (Figure 3.3):

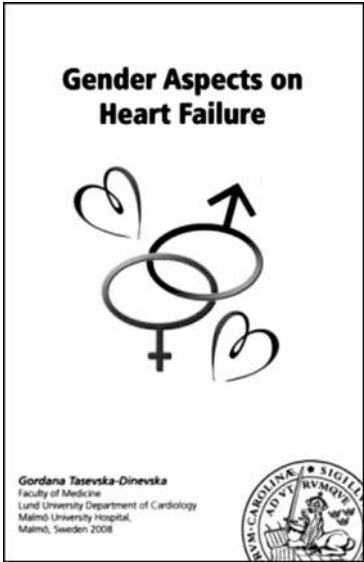


Figure 3.3 A symbolic drawing with reference to the subject studied. (Reproduced with permission from Gordana Tasevska-Dinevska, 2008)