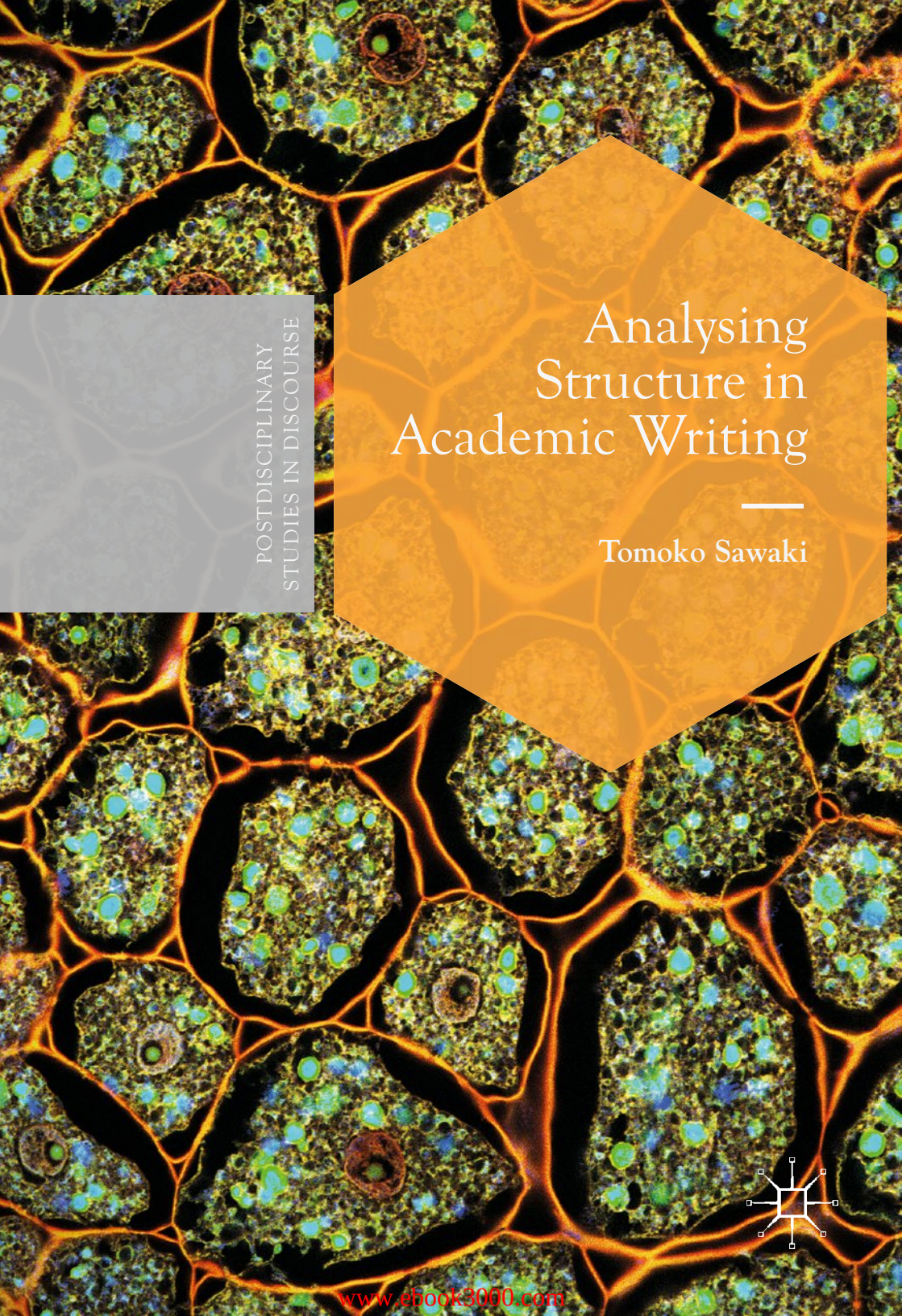

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Tomoko Sawaki

# Analysing Structure in Academic Writing

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Postdisciplinary Studies in Discourse
ISBN 978-1-137-54238-0 ISBN 978-1-137-54239-7 (eBook)
DOI 10.1057/978-1-137-54239-7

Library of Congress Control Number: 2016951235



Cover illustration: © Fernan Federici

Printed on acid-free paper

This Palgrave Macmillan imprint is published by Springer Nature
The registered company is Macmillan Publishers Ltd. London

# Preface

Unlike many researchers and practitioners in English for Academic Purposes (EAP) who have majored in education or applied linguistics, I came to this field from a literary analysis background. I was doing French literary analysis from a range of perspectives related to modernism, structuralism, postmodernism, and poststructuralism. Genre analysis on world folktale has always been one of my favourite subjects. Thus, I was quite confident when I started genre analysis in academic writing. Soon, however, I found that something was wrong. The analytical model for academic writing that was recommended to me didn't work. The structure analytical models in academic writing studies, I found out, were from formalism; they cemented form and content, and that is why they don't work.

The major models used in academic writing studies are reminiscent of Vladimir Propp's folktale structure analysis. Propp's framework published in Russia in 1928 was intended to be a structuralist one; however, as Claude Lévi-Strauss criticised, it was more formalistic than structuralistic. A structuralist analytical model was established by Algirdas Julius Greimas in 1966 with the publication of *Sémantique Structurale: Recherche de Méthode*. Structuralism, in contrast to formalism, rejects cementing between form and content and instead places analytical emphasis on the relationships between a text's elements. Structuralist analytical models are

also characterised by flexibility: they can take into account new instances of genre, since the model does not specify form and content.

Once I identified the cause of the problems, I tried to establish a structuralist model for academic writing so that diverse instances of academic discourse could be analysed. The University of New South Wales, where I started the project for my Ph.D. study, supported the originality of this project. Not everything, however, has gone smoothly. I had to face a small number of difficulties to present this work more globally to academia. Although many researchers found an integrative work such as this one interesting, it is hard for researchers to fully understand the new model based on theories of different disciplines unless a book-length work is made available. Research articles have a limited space and cannot fully convince the research community of the underlying theories.

Also, I soon found out that the terms *formalism* and *structuralism* are used synonymously in applied linguistics. As a consequence, formalistic discourses or practices are criticised as 'structuralism'. This confusion seems to be in line with the confusion in structure analytical models so far established for academic writing structure analysis: intending to produce structuralism but remaining formalism. These issues are due to the confusion.

Although interdisciplinary work is increasingly encouraged, researchers rarely, in practice, have a familiarity with discourse structure studies outside of their own traditions. This book is radically interdisciplinary in that it integrates different approaches developed in different traditions across different disciplines. Given the time when the Greimassian model in structuralism was established in Europe, it is understandable that many researchers who value centrality and disciplinarity might react instantly and believe that 'this study uses a model from half a century ago' (referring to the Greimassian model in structuralism) instead of using newer models that have a wealth of research (referring to the models developed in EAP). Sure, the models so far established in EAP are newer, and a lot of researchers are interested in them and have done a lot of work using them, but these newer models were established without an awareness of the history of formalism and structuralism that was developed outside of North America. In fact, the newer models in EAP are formalism in nature and hence are more outdated than the Greimassian model that fixed the issues of formalistic generic structure models.

In this book, I try to resolve the confusion concerning formalism and structuralism in a familiar way for researchers and practitioners of EAP. A flexible binary generic structure model for academic writing is presented. Further innovation is made in the analysis of generic structure components by integrating George Lakoff and Mark Johnson's metaphor analysis method, so that the model can account for cultural and ideological patterns that structure our abstract thinking. Using these integrations, this book has established a structure analytical model that can take into account linguistic, cognitive, and pragmatic aspects of genre.

My ultimate mission is to provide a more autonomous role for EAP. Academic writing studies so far have been rather obedient to the institutional purposes helping students and researchers to be able to produce work that meets institutional criteria. Although the practices help students and researchers create publishable work in the short run, they do not help more global and more crucial academic purposes in the long run. The practice of encouraging students and researchers from diverse backgrounds to write like a mainstream central researcher runs the risk of cementing the development of science and academic activities. On one hand, academia explicitly values diversity, inclusion, and interdisciplinary collaborations, but, on the other hand, diverse students and researchers are limited to disciplinary practices under the name of personal and institutional achievement and success.

Instead, this book proposes the active involvement of EAP in changing the practices of academia. For this ultimate purpose, it is vital, first of all, that EAP be able to analyse and implement diverse instances of genre. It may then be possible for EAP to become independent from institutional power and play an active role in contributing to the development of diverse academic activities.

I hope this book will solve many discrepancies between theory and practice and help many researchers to conduct research in structure analysis in academic writing. I am also hoping that, by reading this book, more people will find the idea that text can change context interesting, rather than text always being assumed to obey context, and will start acting to make a difference.

# Acknowledgements

This book grew out of the work that I completed for my Ph.D. degree at the University of New South Wales. I would like to express my gratitude to the staff members of the School of the Arts and Media, particularly Louise Ravelli, my supervisor during my Ph.D. candidature.

I acknowledge my gratitude to Jordan Zlatev, professor of cognitive semiotics at Lund University, Sweden, and the editor-in-chief of the *Public Journal of Semiotics*, for providing me with insightful comments during the review process of my paper, *The CARS model and binary opposition structure* (Sawaki 2014a), which inspired me to develop a book-length generic structure model for academic writing that is based on the foundations of cognitive linguistics as well as semiotics and structuralism.

My gratitude goes to editorial members at Palgrave Macmillan, Rebecca Brennan, Esme Chapman, Chloe Fitzsimmons, and Elizabeth Forrest, for their patience and thorough support in creating this book. My gratitude also goes to Ulaganathan Abirami for his thorough editing and proofreading work.

I am grateful for the insight of Johannes Angermuller and Judith Baxter, the series editors of the book series, *Postdisciplinary Studies in Discourse*, of which this book is a part. The series encourages authors to integrate theories by addressing approaches across disciplines, which turned out to be a perfect fit for this project that addresses the discrepancies between theories, ideologies, and practices in EAP.

Lastly, I would like to thank my husband, Brian, and my children, Samantha, Phillip, and Bradley, for their continuous support and encouragement at home.

Sydney, February 2016 Tomoko Sawaki

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# 1

# Introduction

In 1989, Tatsuo Motokawa, a prominent biologist, wrote in a scientific journal, *Perspectives in Biology and Medicine*, concerning variations in scientific writing:

> I had always regarded science as a universal and believed there are no differences in science at all between countries. But I was wrong. People with different cultures think in different ways, and therefore their science also may well be different. (Motokawa 1989, p. 489)

Despite the rapid development in English for Academic Purposes (EAP) research today, we have as yet found a practical and unproblematic way to manage 'differences' in academic writing. Students from various backgrounds write differently, and minority students struggle to write the kind of essays that can result in good marks. Researchers around the globe likewise grapple. The struggle they experience may sometimes be the result of their genuinely immature research skills, but in other cases, it is simply that their writing conforms to a norm that is different from the dominant one. Not only cultures that emerge from different nations but also a wide range of ideological differences create different norms



T. Sawaki, *Analysing Structure in Academic Writing*,
DOI 10.1057/978-1-137-54239-7_1

in writing. Religions, genders, beliefs and socio-economic backgrounds trigger individuals to 'think in different ways'.

This is an issue caused by inadequate approaches to differences. Although we have become aware of differences, we do not know how to deal with them. Finding a difference tends to lead to over-generalising based on the attribute of a group. This leads to an attempt to change minor attributes to major ones in order for minorities to succeed. Regrettably, this has been happening in English academic writing research and pedagogy and the research community has yet to provide an effective and appropriate solution to the situation.

This has been the case in structure analysis in academic writing research. Structure analysis has been one of the most fruitful and highly disputed areas of research in academic writing studies. Diverse norms have brought complexities to the structure analysis of academic writing. Discrepancies between theories and analytical frameworks have brought further complexities. These factors will be discussed in the subsequent sections by reviewing academic writing structure analytical approaches that are currently used in academic writing studies.

This chapter presents an overview of the primary aim of this book: to provide a new analytical model for academic writing structure that can solve the complexities. By stating this, I do not mean that I am creating something completely new, since the generic structure model this book presents depends firmly on well-established theories, which have been little considered within academic discourse analysis literature in the past. These include the prototype theory, originating with the psychology research of Eleanor Roche and further developed by semanticist/cognitive linguist George Lakoff and philosopher Mark Johnson, and the structuralist theories, represented by anthropologist Claude Lévi-Strauss and folklorist/semiotician Algirdas Julien Greimas. These foundations from across the disciplines enable this book to approach academic writing structures in globalising, diverse, and complex academic settings in a way different from the past. The approach does not just indicate differences; it also finds overlaps and this enables analysing academic writing structures without over-generalising instances of genre and without assimilating minor instances into major ones.

To achieve this, this book draws on literature, theories, and frameworks that are not limited to one discipline but that range from linguistics,

semiotics, anthropology, cognitive sciences, and so on. Therefore, it is a post-disciplinary attempt to study discourse and enables an integration of theories and approaches beyond disciplinary boundaries. This was difficult to do under the restriction of disciplinary walls that deemed the traditions outside of the wall irrelevant for the reason that they were outside. To provide an overview of this attempt, this introductory chapter will, first of all, present a concise history of academic writing research traditions, followed by a short summary of how this book will resolve the complexities that arise within the structure analysis in the academic writing research tradition, which is known as genre analysis.

## 1.1 Three Traditions of Genre Analysis

As Hyon (1996) identified, genre analysis in academic writing research is divided into roughly three traditions: English for Specific Purposes (ESP) and EAP, Sydney School of Systemic Functional Linguistics (SFL), and New Rhetoric. Despite differences reviewed in the subsequent sections, all three traditions can be recognised as socio-pragmatic discourse analysis, as they consider text in relation to social practices and practical, purposeful mediators. I overview each tradition before presenting the proposed theoretical grounds for the new model. This is because the theoretical grounds of the new model are closely linked to the issues posed by the three traditions of genre analysis. The issues relate to the discrepancies between theory and analytical practices. More specifically, the issues have to do with the ambiguity of identifying generic structure components,[1] in which the theory is incongruent with the identification criterion for generic structure components. This incongruity between genre theory and analytical practices directly relates to the unresolved issue, which was pointed out most notably by Paltridge, that despite the wealth of research, approaches to academic discourse structures are still not successful in integrating social and cognitive aspects of genre (Paltridge 1995).

Structure analysis in academic writing studies has developed rather independently from other traditions of structure analysis in other written genres,

[1] In this book, I refer to structuring units generally as generic structure components.

such as literary studies, in which the mainstream structure analysis has been developed under the influence of semiotics and structuralism. Genre analysis in academic writing, on the other hand, presents a formalistic appearance.

One type of structure analysis in academic writing studies is macro-structure analysis, which investigates sectional structure of research articles (RAs) or chapter structure in theses, namely introduction-method-results-discussion (IMRD) structure (macro-structure) (Swales 1990). Another type of structure analysis describes smaller components that structure sections of RAs or chapters of a thesis/book (micro-structure). The approach this book proposes does not distinguish between macro- and micro-structures; that is, it does not rely on formalistic structures of academic writing. This means that this new approach to academic writing structure is trans-structural; it can be applied throughout a text without relying on formal divisions, such as method, results and discussion sections. In this book, however, the majority of excerpts used for explaining how the new model works are from introductory sections/chapters. This is because, as will be shown, introduction parts tend to contain variations of research justifications, making them good sites for the structure analysis that aims to establish a model that can take into account diverse academic writing structural realisations.

### 1.1.1 ESP and EAP Traditions

The most widely applied genre analysis approach is arguably the one developed within the ESP and EAP traditions. Both ESP and EAP are quite pragmatic in their orientations, but EAP is more open to linguistic and ideological perspectives. Research in EAP is more relevant to this book since it emerged from ESP so that pedagogical orientations for the purpose of students/researchers can be highlighted. It has been famously formulated by Swales (1990, pp. 45–56) that genre orients communicative purpose. That is, the link between shared communicative purposes among the members of the discourse community and the formation of genre has been highlighted.

Swales also highlighted a feature of genre by drawing on Armstrong et al. (1983) integration of the notions of prototypicality (Rosch 1975)

and family resemblance (Wittgenstein 1958). These concepts will be fully explained in Chap. 2. This integration, together with the deployment of the prototype theory, was, in my view, among the most innovative in genre analysis. This integration, however, was not fully explored in the identification of generic structure components. Although it was proposed that with this integration it would be theoretically possible to categorise not only typical but also peripheral instances of genre, in practice it was not. Although instances of genre could be identified with this integration theoretically, the integration was not applied to the analysis of components of genre that form structures, leaving a formalistic view to generic structure. This resulted in the inflexible formalistic models that are unable to analyse new instances of generic structure components.

The generic structure analytical framework represented by the Create-A-Research-Space (CARS) model (Swales 1990) has been widely applied as it well described the RA introductory structures written by Anglophone researchers. It has also been useful for minority students and researchers to learn to write like a mainstream researcher. However, presenting structures of RA as a fixed monolith, without reflecting the flexibility that the integration of the prototype and family resemblance may achieve, was inadequate. The CARS model, for example, is rather formalistic, being made up of three moves with metaphorically described content: Move 1 is 'establishing territory', Move 2 is 'establishing a niche', and Move 3 is 'occupying a niche'. The rhetorical function of Move 1 is to provide a background for research. Move 1 is made up of steps such as 'claiming centrality', 'making topic generalization(s)', and 'reviewing items of previous research'. The rhetorical function of Move 2 is to point out a gap in research, made up of steps such as 'counter-claiming', 'indicating gap', 'question raising', and 'continuing a tradition'. In Move 3, where research is presented, the steps include 'questioning purpose', 'announcing present research', 'announcing principal findings', and 'indicating research article structure'.

The apparently fixed generic structure of the model has caused complexities in actual analysis as well as at pedagogic settings. Studies (Lewin et al. 2001; Lorés 2004; Paltridge 1994) pointed out a divide between theory and practice in this regard. That is, despite the theoretical assurance on genre categorisations, the infinite classifying of generic structure instances 'which just don't seem to fit the generic descriptions'

(Cope and Kalantzis 1993, p. 12) continues in practice. In real academic settings where students write for degrees or publications, these issues can be linked to real risks. This is acutely exemplified with the case of what Hodge (1995) called the postmodern turn in humanities theses, where he cautioned that new types of academic discourse represented by subjective, personal theses that deny the traditional objectivity in academic discourse 'run the risk of being judged by inappropriate criteria' (p. 35). By the inappropriate criteria, Hodge refers to the traditional mainstream discoursal criteria that are pre-set in the mind of theses examiners, namely gatekeepers. Being based on the mainstream rhetorical structures, the CARS model contains a risk of being used as a solid grounding for new kinds of texts which are actually a resulting instance of genre evolution to be deemed as a failure simply because it does not meet the old fixed criteria. The CARS model, therefore, does not serve as a flexible model that can take account of evolving research genres.

The issue here is that, although the CARS model reflects the mainstream typical English academic writing introductory sections, the genre is constantly changing. A pre-fixed model falls short in analysing the evolving genre. One consequence of the inflexibility of the model was that it had to keep adding new steps in order to analyse all the new instances, causing a never-ending expansion of the model, as pointed out in the quote by Cope and Kalantzis (1993). This is particularly true in thesis genre, where wide structural variations tend to occur (Bunton 2005). Not only the external variational expansions but also the internal complex structures of RA introductions have been reported. Samraj (2002) observed the recycling of moves; for example, a Move 3 element that introduces the methodology of new research tends to have a CARS structure inside it, constituted by such elements as asserting background and relevance of the methodology (Move 1) and pointing out problems with the methodology or other methodologies (Move 2). This seems understandable in academic writing introductions which need to justify most of the aspects of research designs. Consequently, however, the structure of introductory sections tends to be much more complex in reality than the simple CARS model suggests.

The lack of a flexible generic structure model can heighten the issue in an increasingly diverse academia. Hyland (2004), among many others,

indicated that academic writing is diverse especially among disciplines. Bhatia (1997, 2002) reported the phenomenon of genre mixing, in which mixing of generic values constitutes a text. Although a wide variation in actual academic writing has been reported, the fixed model cannot take into account the variations, other than adding more steps and moves to the three-move model.

To my knowledge, the emerging element of personal narratives, which is often present in new types of humanities thesis introductions (Hodge 1995; Hood 2006), has not been analysed by using the CARS model. Since the CARS model is fixed with three moves, new types of generic structure elements that are discovered do not fit into any rhetorical purposes described in the three-move model and hence they naturally have no place in it. The result is that new instances are left unanalysed.

The lack of reliable identification criteria for move components also makes the complexities and diversity in academic writing problematic for researchers to analyse using the CARS model. Lewin et al. (2001, p. 18) pointed out that the model combines cognitive and lexicogrammatical/semantic criteria for the identification of move components. For example, as Lewin et al. noted, the identification of Move 2 (establishing the niche) relies on either lexicogrammatical cues such as negation in the determiner or rhetorical function such as logical conclusions. Lorés (2004, p. 282) argued that move identification lacks uniform standards since it relies on both cognitive and lexicogrammatical cues. Swales (2004, p. 229) himself admitted that both move identifications and boundary drawings between moves lack criterial standards in uniformity, being 'established by a mixed bag of criteria'. These issues are summarised as essentially intuitive analysis in that, practically speaking, analysts are left to classify generic structure elements according to what arose in their minds when reading the text (Crookes 1986; Lorés 2004).

Hence, the research practices of the ESP/EAP tradition of generic structures represented by the CARS model need much improvement. The methods must take into account variations in genre so that studies can keep up with the ever increasingly diverse academic world. It may simply be due to the tendency that emerging genre instances are unanalysed with the CARS model that the prevailing understanding in the field of research using introductory portions of academic writing structured with

three moves represented by the CARS model remains. A flexible generic structure model that does not cement form and content combined with thorough applications of the prototype theory and family resemblance is necessary to keep up with the changing genre.

### 1.1.2 Systemic Functional Linguistics Tradition

SFL started with Halliday's pioneering work that views language as a social semiotic system. Underlying the SFL theory of genre is the influence of Malinowski (1923, 1935), who considered that the social contexts of interaction are stratified into two levels: 'context of situation' and 'context of culture'. SFL academic genre analysis has developed mainly within the 'Sydney School', most notably by Martin (1992). The definition of genre is set as a staged, goal-oriented, and social process (Martin 2009, p. 13), and the understanding is that cultures institutionalise ways of achieving goals (Martin 1992; Martin and Rothery 1986).

SFL genre analysis is represented by the description of schematic sequencing structure. This approach was derived from Labov and Waletzky (1967), who identified narrative elements such as orientation, complication, evaluation and resolution and found that descriptions of events are typically followed by an evaluation element. Similarly, Sydney School genre analysis identifies elements such as recount, account, and so on, often referred to as genre types, key genres, or micro-genres. Describing the sequencing and the configurations of genre types in a text constitutes the main aspect of SFL genre analysis. It will be useful, therefore, to set genre types as the starting point of reviewing SFL genre analysis in academic writing. This is not only because genre types are highlighted in SFL genre analysis but also because one cause of SFL genre research, which has not yet sufficiently uncovered the relationship between social and structural aspects of genre, is the inadequate semiotic view in analysing genre types. That is, the meaning-making processes that arise from the relationship between generic structure components have not been considered in SFL genre analysis.

First, the sequencing, or staging, of genre types that constitute text, is one important aspect of SFL genre analysis. Originally, it was Vladimir

Propp's influential generic structure analysis in folktales (Propp 1968) which showed the similarity in sequences of events in a majority of folktales (Propp's work will be discussed in detail in Chap. 2). The tradition of sequential genre component analysis was taken over by Labov and Waletzky (1967), which, as mentioned earlier, influenced the genre analysis method in the Sydney School tradition. Swales's model also assumes moves to linearly progress; hence, sequential analysis of generic structure components is quite common. Similarly to Propp's generic structure analysis that associated a specific linear generic components progression with a specific genre, the Sydney School approach relates the sequence of stages that constitute text to a specific genre of the text. Importantly, such genre types are termed 'micro-genre' in the more recent models (Martin and Rose 2007, 2008). Furthermore, a configuration of several micro-genres, or sometimes one micro-genre, is termed a 'macro-genre', which denotes the genre of the whole text such as news reports and classroom discussions. The understanding of a genre (macro-genre) as a configuration of micro-genres makes it possible to comprehensively consider what ESP/EAP has called a 'mixed genre'. As mentioned earlier, studies within ESP/EAP have found that many academic discourses contain apparently non-academic types of discourse (genre-mix) (Bhatia 1995, 1997, 2004). In contrast, Martin and Rose (2008, p. 242) pointed out that the concept of genre-mix is itself contradictory. In Martin and Rose's approach to genre, genres do not mix; it is the configurations of micro-genres that make a genre.

Although the descriptions of micro-genres have been found to be useful both for students writing research and at school literacy educational settings (Coffin 2006, 2010; Feez 1998, 2002; Macken-Horarik 2002, Veel 1997; among others), the configurations of micro-genres have not been adequately discussed in terms of their meaning-making mechanisms, namely the relationships between micro-genres and how the relationships function to make meaning. This may appear somewhat perplexing to some, given that SFL theoretically is built upon semiotics, the science that explores relationships between elements that make meaning. A text analytical perspective that combines structure and semantics (bi-planar perspective) is what Hjelmslev (1961) aimed for. (The bi-planar perspective will be discussed fully in Chap. 3). One factor that the bi-planar perspective has not extended to the generic structure level

for SFL genre analysis may relate to the fact that Martin's model draws on linearly oriented models. It may also be that the early genre model within SFL was developed through Hasan's notion of Generic Structure Potential (GSP), which considered that certain properties of text structures are signalled/realised by certain elements (Halliday and Hasan 1985; Hasan 1996). Thus, GSP did not consider relationships between generic structure components, because the status of generic structure is set as autonomous. Without semiotic-oriented consideration, however, the description of a text-structuring mechanism and its social purposes may not be sufficiently conducted. It will be shown later in this book that the bi-planar perspective extended to the generic structure level, by semiotically supporting a prototype-based generic structure model, can neatly explain how mutual dependencies between generic structure components can make meanings and realise texts, which further explains how text encodes itself for social purposes.

### 1.1.3 The New Rhetoric

In contrast to ESP/EAP and SFL approaches to genre that highlight text structures, the New Rhetoric tradition views genre as a dynamic process. This is particularly evident in Bazerman's (1997) definition of genre: 'Genres are not just forms. Genres are forms of life, ways of being. They are frames for social actions' (p. 19). This perspective is also exemplified by Miller's (1984) article entitled 'Genre as Social Actions'. More recently, Prior (2007) has emphasised the importance of approaching 'writing as a process', while criticising the notion of prototypicality and analysing text structures. That is, text and form are not of exclusive importance for the New Rhetoric approach and their emphasis is placed on the surroundings of the text, including cultural factors. The New Rhetoric, hence, is characterised as a sociological and ethnographical endeavour of genre. In this tradition, an instance of genre is a product of shared agreement of the discourse community that interacts with cultural and social dynamics of the moment. This forms another consensus and is reproduced, and it resonates Bourdieu's concept of 'habitus': 'systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures' (Bourdieu 1977, p. 72).

As such, describing text structures is not a central focus in the New Rhetoric. The New Rhetoric approach considers that analysing the dynamism surrounding text, including the text situated in the surrounding, is important. The act of describing text structure, on the contrary, necessarily cements writing. The main emphasis in the New Rhetoric approach is a context that involves everything that forms the dynamism of genre, which is termed the 'rhetorical situation'. Bitzer defined rhetorical situation as 'a natural context of persons, events, objects, relations, and an exigence which strongly invites utterance' (Bitzer 1968, p. 5). The term 'exigence' is quite intriguing for the present purposes. Exigence, according to Bitzer, is 'an imperfection marked by urgency; it is a defect, an obstacle something waiting to be done, a thing which is other than it should be' (Bitzer 1968, p. 6).

'An imperfection' is somewhat reminiscent of Move 2 in the CARS model and 'marked by urgency' of Move 1, although the New Rhetoric approach is theoretically different from ESP/EAP traditions and would hardly allow genre descriptions through text structures. Several exigencies occur successively in an interaction. For example, interaction with a supermarket cashier includes a range of exigencies: the customer lifts goods to be bought from the shopping trolley to the counter (exigence: goods needed are not yet bought [an imperfection]), which has to be completed now [urgency]). This is followed by a number of exigencies such as a greeting, putting goods into the shopping bags, payment, and so on. These exigencies are considered to be constrained by the shared understanding of the culture/society. Exigencies are, therefore, different across cultures. At supermarkets in Japan, for example, the customer simply places a shopping basket filled with goods on the cashier counter, and these are directly taken from the basket and scanned by the cashier instead of lifting goods to the counter. This is a shared understanding of the cultural community, which perhaps is a more efficient style given that goods sold at supermarkets in Japan are relatively small, requiring only a shopping basket rather than a trolley. Clearly, the concept of exigence has much in common with Hasan's GSP that was mentioned earlier; again, however, it is different in that the New Rhetoric approach to genre does not emphasise the concept of structure or generic components since its central analytical importance is the rhetorical situation.

Most importantly, New Rhetoricians do not presuppose a set of specific forms for a genre but rather consider that genres are constantly evolving and diverging. In contrast to the other two traditions that have posed difficulties in experientially rationalising the link between form and genre, the New Rhetoric faces no such issue, simply because it does not rely on specific forms for analysis. Finally, it should be added that there are newer approaches in the New Rhetoric that give form more prominence in the past (e.g., Devitt 2004).

## 1.2 Recent Trends in Consolidating Approaches

Today, as Swales (2009) pointed out, the three traditions in genre research are not as clearly divided as the time when Hyon (1996) identified them. As discussed earlier, the three traditions have commonalities in addition to the fact that they are all concerned with academic discourse. Many researchers agree that the three traditions will benefit from complementing each other for both analytical and pedagogic purposes (e.g., Coffin and Donohue 2012; Sawaki 2014b). However, discrepancies remain between these traditions, which may be inevitable given the essential theoretical differences that exist between them. These traditions are built upon mismatched grounds. The wealth of research in the field of academic writing studies from the three traditions unfortunately poses a risk of further complicating the theories, approaches and analytical and pedagogical frameworks. It appears that this field of research is now seriously in need of fresh thought, a theoretical innovation that can neatly link the split between theory and practice.

## 1.3 Ethical Issues: Diversity at Risk

The conception of genre as a pre-fixed form poses two types of problems concerning diversity; one is cultural, the other evolutional. The cultural issues have been outlined first, moving later to the issues concerning genre evolution.

Issues concerning academic writing in the globalised world and diverse cultural settings have been frequently addressed. Many studies indicate difficulties that non-mainstream researchers face in academia (Altbach 2013; Belcher 2007; Curry and Lillis 2004; Englander and López-Bonilla 2011; Helal 2014; Lillis and Curry 2006; Salager-Meyer 2008, among others). One significant study is a series of reports by Flowerdew (1999a, b, 2000, 2001). Flowerdew reported that a great majority of non-native English-speaking scholars in Hong Kong found themselves disadvantaged in an increasingly globalised, dominantly Anglophone academia. Their concerns ranged from their papers not looking competitive or innovative because of their different cultural writing norms and expectations, to being perceived as a peripheral scholar because of their marginal geographical locations. Concerning the issues of conducting research in marginal settings, Canagarajah (1996) reported various disadvantages of off-network researchers working with insufficient resources.

The excerpt (Motokawa 1989) quoted at the beginning of this book is frequently discussed in Japan when it comes to Japanese students learning to write academic discourse in English, because it delineates the differences between the two cultures and how they tend to manifest different scientific writings. This adds a valuable perspective to academic writing studies from a scientist who is not an academic writing researcher. This was written by an expert biologist who was visiting the United States from Japan and who had actually been finding peculiarities in 'normal' Anglo-standardised academic writing practices. Strikingly, the article articulates the issues current academic writing studies are struggling to resolve: the diverse nature of academic writing structures. It is unfortunate that, despite its relevance, Motokawa's article is referred to by many scholarly publications of disciplines not directly within academic writing studies (Coleman 2012 in ethnography; Flannery 2001 in feminism/education; Hudson 2005 in international relations, among others).[2]

Motokawa's article starts with observations between Western and Eastern science with a parable about food. He proceeds to note that, for him, the cuisine of the West is over-processed in comparison with

[2] My citation search in 2015 indicated that Motokawa's (1989) article was cited 31 times in scholarly publications from various disciplines but not from linguistics/ESP/EAP research.

Japanese cuisine, in which sashimi and sushi (raw fish) are standard fare. He further notes that, although eating raw fish may be perceived as savage by those who do not know what sushi is, preparing such dishes, in fact, requires the most sophisticated skills, such as slicing the fish in a specific way, ensuring the freshness by transporting it in a strict timeline, and so on. Then he makes his point: 'A lot of skills are hidden behind the no-cook', which 'is really an art, and definitely a different kind of art than that found in Western cooking' (p. 490). This parable is followed by his main point concerning differences in scientific writings, which Motokawa attributes to the differences between Christianity and Zen Buddhism. From then on, he critically discusses the cultural construction of what is commonly believed to be standard scientific writing. He argues that the standard Westerner's linear structure of scientific writing is over-processed just as the Western cuisines tend to be: the structure of including conclusions is an over-processing of results where finely presenting results can speak themselves. He goes on to argue that western science expects to recreate the world as if he or she is God; to recreate his or her own story whereby his or her hypothesis is gradually tested and proven to be true. The structure of western scientific discourse, Motokawa argues, is a reflection of this culture-specific expectation. Additional details of this article will be addressed throughout this book.

An important question that needs to be posed is: Can the standardisation and globalisation of English academic writing structures really be rationalised? The answer to this question is not straightforward. The question is in no way monolithic. The complexity of the question may be simplified by dividing it into two separate questions: Are the mainstream academic discourse structures the result of fair and reasonable causes? And have the advancement and spread in English academic writing pedagogy suppressed the diversity in academic writing practices? The first question concerns the relationship between the change in the text's context and its impact on text, which is central to SFL genre research that explores the staged, step-by-step structures that cultures institutionalise as ways of achieving goals (Martin 1992; Martin and Rothery 1986). There is no doubt that a text needs to be structured in certain institutionalised ways for it to serve its purpose in an institutionalised setting, but it is also true that this perspective tends to obscure the question of rationality to

institutionalise genre. To put it straightforwardly: Is it ethical to promote a certain type of writing if the institution is suppressing the diversity in academic writing?

Presenting students with pre-fixed genre structures in pedagogic settings inevitably cements the dynamism of genre. However, it is difficult to teach students academic discourse without having a set of instructions that presuppose good academic writing structures. Many researchers have discussed this matter from various perspectives. Swales (2004) related this to one of the unresolved issues in genre analysis, namely the concerns about prescriptive applications of genre analysis in pedagogic settings. Swales referred to an exchange between Jay Lemke and a reading expert, Kenneth Goodman, at the 1994 National Council of Teachers of English conference in Florida, where Lemke cautioned that the concept of genre should be delivered ethically, viewing 'genre as a resource rather than a rule' (Swales 2004, p. 242). Goodman added, 'In the end, genre is a one-legged curriculum' (Swales 2004, p. 242). The perspective of genre as a resource is gaining popularity, as Swales (2004) himself concurred. The contradiction is that generic structure models such as the CARS have remained a set of pre-given forms, a set of rules. Genre pedagogy in this way is effective in the sense that it clearly provides a set of rules that students can follow, and discarding it as prescriptive may achieve a high ethical standard by providing another leg, but that would sacrifice the other leg containing a set of rules.

It is worth emphasising that helping students and early researchers from diverse cultural backgrounds to become academically successful was Swales's (1981) original mission, which runs deep in his model design. Students and researchers learned to write like an Anglophone researcher thanks to the model. At the same time, genre's natural diversity is lost and the dynamism of genre evolutions has become frozen. Minority students and researchers are given a chance to succeed in academia on the condition that they are assimilated into the standard, mainstream Anglophone academic writing styles. As Swales noted, 'Some members of other academic cultures will likely resist what they consider the American habit of "blowing one's own horn". Scollon and Scollon (1995), among others, have observed that academics from Asian cultures may be leery of this custom' (Swales 2004, p. 238). This is in line with Motokawa's

observation presented earlier in that the major scientific discourse today is ethnocentristic in that it requires the researcher to be a hero in the story he or she created. In fact, the CARS model can be aptly compared to a heroic story line: Move 1 presents a magnificent scene where the hero appears; Move 2 presents issues that occur in the scene; and Move 3 presents how the issues are solved by the hero. This resonates with Lewin et al. (2001), who pointed out that research articles look similar to folktales. A story line in which the researcher is presented as a hero, however, may not be comfortably adopted by researchers from many non-Anglophone cultures.

The ethical issue here relates to the power relations between cultures that impact on linguistic realisations, which many researchers argue (Frow 2006; Mauranen 1993; Pennycook 1994; Phillipson 1992). Within the genre analysis convention, a critical movement within the New Rhetoric tradition is particularly cautious about standardising discourse. Paré (2014), for example, stressed that genre research needs to investigate 'who benefits from the standardisation of discourse, who can and cannot participate in genres, and who has the power to create or alter them' (p. A-84).

Pre-fixing forms also create ethical issues from the perspective of the evolutional nature of genre. It is well established that genre changes over time (Bazerman 1988). In fact, it is the very essence of scientific activity that old knowledge is replaced by new information, and as it continues, the discourse of genre will necessarily change across time. If the fixed structure of academic writing is further enforced, the natural dynamism of genre evolution might cease, which not only is unnatural but would make it difficult for science to advance. If genre restrictions are pre-set, students and researchers might find it difficult to advance in new writing forms even when it seems necessary to do so in accordance with scientific and ideological changes.

This is particularly true for those with a weak position in the discourse community, because the power that can be exercised in the community depends on their positions (Sewell 1992). This means that doctoral students who are expected to advance new knowledge and present a unique claim within the discipline may experience greater difficulties and frustrations. It has been reported that even experienced supervisors for doctoral

students know little about how to articulate such concerns from students (Paré 2010, 2011). Bazerman (2009) noted that experienced researchers' abilities to manipulate genres are limited because of the lack of pedagogic resources. The risk of new kinds of doctoral theses to be judged by the wrong old criteria (Hodge 1995), then, is quite real. As reported by Swales (2004), a doctoral thesis that was full of personal anecdotes received mixed feedback.

## 1.4 Drawing Boundaries of Genre and Generic Structure

It is also important to note that conventionalising genre is about establishing boundaries for a genre. In literary and cultural studies, boundaries of genre have received much attention. Particularly relevant to the present issue is Frow's (2006) view of genre as an open system in line with Derrida (1980) as well as with Croce (1929). Since every instance of genre is unique, it cannot have a pre-set boundary. Hence, Frow stressed 'the importance of edges and margins—that is, stressing the open-endedness of generic frames' (Frow 2006, p. 3). Such an open-ended perspective to genre provides understanding that genre doesn't just restrict new instances but is also shaped by new instances. This is, in fact, in line with Swales's view of genre boundaries presented earlier. However, genre analysis still becomes cemented without establishing a flexible open-ended generic structure analytical model, as observed in the ESP/EAP traditions.

These issues present discrepancies between theory and practice. Theoretically, relying on the concept of family resemblance can facilitate analysing genre without drawing a genre boundary. In practice, it was analytical and pedagogical frameworks that required clear boundaries for both genre and its structures. However, the potential for maintaining fuzzy boundaries for genre and its generic structure analysis has been ignored in the literature.

Cementing genre may become an obstacle to scientific advancement. On the other hand, opening genre may have the potential to facilitate researchers to take advantage of genre's fluidity. That is, if the mechanism

of new instances of genre gaining membership at fuzzy genre boundaries and open generic structures becomes clear, minority and emerging researchers or researchers exploring in an innovative manner may be able to exploit the mechanism in order for their new research to be written in a unique way necessary for acceptance.

## 1.5 Aims

The aim of this book is threefold. First, theoretical integration in academic writing structure research is pursued. A structuralist framework of generic structure is integrated into cognitive linguistic understanding, the result of which enables the new model not to become formalistic and to identify generic structure components from a cognitive-oriented perspective of conceptualisation. Second, highlighting the role of image conceptualisations, such as metaphors, establishes cognitive-oriented identification methods for generic structure components. This is an attempt to extend the method that has been developed in cognitive semantics to generic structure analysis. Third, by establishing a generic structure model for academic writing that is not formalistic, this book attempts to maintain academic discourse in the diverse world in a healthy, unassimilated way.

### 1.5.1 Theoretical Integration

The generic structure model this book presents is an integration of structuralism and a cognitive perspective to linguistics. The model draws on structuralism, which has been mostly ignored in academic writing studies. Regrettably structuralism is often confused with formalism. To reach the goal of establishing a flexible generic structure model necessitates disentangling the widespread misunderstanding that considers structuralism a synonym for formalism.

The generic structure model in this book consists of only two categories. This may sound like a drastic minimisation of the model; however, a binary generic structure model is well established in structuralism and semiotics, represented by scholars such as Claude Lévi-Strauss and

Algirdas Julien Greimas. The structuralist's tradition (e.g., the Prague School, the Copenhagen School, and the Paris School) provided a generic structure analytical model that can analyse diverse elements in a text (Greimas 1983 [1966]; Lévi-Strauss 1963, 1976). The reason the analysis of diverse elements is possible with the binary structural model is that it is restrained by the relationship between the two components of the text. That is, the model's components are semiotically oriented. This is fundamentally different from the former models whose components are defined solely by the features within components, in which relationships between components were not considered.

The role of the structuralist framework in this book is to explicate the relationships between generic structure components that are provided on the ground of the prototype view of the generic structure. Structuralist frameworks are useful in clearly identifying relationships between text components. However, the potential of these frameworks has been minimally explored in many fields of studies in applied linguistics, with the early versions of structuralist generic structure analytical framework (e.g., Propp, 1968) known in academic writing studies. Such early versions of the generic structure model, however, are formalistic, as will be presented in Chap. 3.

Not only is structuralism little known in applied linguistics fields, it even appears misunderstood as a mere essentialism that ignores cultural diversity. It is natural that misunderstanding arises where something is not properly understood; however, the tendency in applied linguistics to consider structuralism to be synonymous with colonialism needs to end so that the diversity-friendly structuralist analytical approaches can be used. This book draws on Lévi-Strauss (1963, 1976), one of the founders of the structuralist method to generic structure analysis that relies on semiotics for the identification of generic structure components. Lévi-Strauss placed various elements of myth or social customs from early non-Western cultures into the minimal units of signification and concluded that those elements that have generally been deemed 'primitive' or 'savage' by European contemporaries are in fact functionally identical to those in 'civilised' societies (Lévi-Strauss 1963, 1966, 1976). Reviewing such theoretical contributions may help the reader to understand that it is merely a widespread misconception in today's research world that structuralism is formalistic and relates to imperialism and colonialism.

The next step towards the goal is to apply cognitive linguistics frameworks to the identification method of generic structure components. Cognitive linguists[3] argue that meaning and form are basically conceptual structures. This includes not just semantics but also grammatical representations, which according to cognitive linguists are basically conceptual. This book extends this view to generic structure analysis. If meaning and form are basically conceptual, then generic structure should also be conceptual. Importantly, through the integration between structuralism and cognitive linguistics, the book achieves a flexible generic structure model for academic writing.

### 1.5.2 Conceptualisations and Overlaps

One of the crucial keywords used throughout this book is 'overlap'. Descriptions of overlaps among instances of genre and generic structure conceptualisations enable the proposed model of this book to achieve flexibility. The overlaps this book depends on relate to the 'prototype approach' to category: category boundaries are fuzzy. The approach to category as a prototype entity without clear boundaries enables the present generic structure model to consider generic structure components as a conceptualised image without clear boundaries.

This creates a sharp contrast with other approaches to genre in academic writing studies. IMRD structure analysis relies solely on clear formal surface structure to divide its components. The CARS model components are defined in terms of the mixture of semantics and lexicogrammatical identification criteria with a prototype-oriented definition of genre. SFL labels generic structure components in terms of stages of discourse such as narrative and procedural. In other words, other approaches to genre in academic writing studies define generic structure components in terms of necessary and sufficient conditions, not considering fuzzy boundaries. As discussed, the prototype theory and the concept of family resemblance were used to support Swales's definition of genre. However, these

[3] See Croft and Cruse (2004) for a comprehensive and accessible overview of cognitive linguistics understanding of linguistic knowledge.

have not been extended to theorise an analytical framework for generic structures.

This book proposes that all the elements of genre, including generic structure components, are prototype entities. It will show that generic structure components are better understood as a conceptualised image. Fuzzy boundaries of genre and generic structure components enable new generic structure components to be included in genre. Although there are no clear boundaries, there are overlaps. Peripheral generic structure components are loosely connected to each other by a shared feature which forms overlaps. Such overlaps are explored throughout this book in order to make sense of genre variations and evolution.

### 1.5.3 Ethics and the Political Role of English Writing Studies

Exploration of overlaps across elements of genre further enables the politically sound implementation of genre analysis and pedagogy. Providing pre-fixed structure or pre-fixed components to students poses a serious risk of cementing the evolution and diversity of genre. Students from various cultural backgrounds are given no choice but to leave their marginalised discourse for a dominant, privileged one in order to survive in academia. As this book will show, conceptualisation patterns that instantiate generic structure components are rooted in culturally and ideologically shared knowledge. Diversity in shared knowledge in academia in today's globalised academic world generates variations in academic writing structures and its components. Despite the apparent surface differences between instances of genre, there should be a shared feature or two between the two if they belong to the same genre. This becomes more apparent only when conceptualisations of genre's instances are explored.

The understanding that shared knowledge construes conceptualisations in genre and that different conceptualisations in genre in the diverse world still have some common features is crucial for researchers and practitioners of genre to liberate ourselves from preconceptions about how academic writing should look and to gain political awareness. Highlighting overlaps not only facilitates the researcher/practitioner to

analyse instances of genre in diverse settings but also facilitates the reader to comprehend the discourse of distant conceptualisation by means of finding a shared feature. In other words, the reader can understand different types of writing without judging an instance of genre that is far from the reader's own conceptualisation of poor writing. The observation of various conceptualisations of generic structure components, therefore, will lead to the discussion of how this new model relates to the political issues in today's diverse academia.

## 1.6 Beyond Academic Genre Analysis

While this book analyses academic discourse, the framework and methodology are not meant to be limited to the analysis of academic discourse but to be applied to the various genres. Firstly, the flexibility and applicability of the present method take into account complex issues concerning culture, gender, identity, class, and so on, areas in which discourse analysis has long been concerned. In particular, the cognitive aspect of the new approach to discourse analysis this book proposes highlights discourses of mainstream and marginalised groups, which should be of great interest for researchers who conduct discourse analysis from the perspectives of World Englishes and language policies. Researchers who work on discourse from these perspectives may also find this aspect useful because of the cognitive orientation to discourse that identifies knowledge structures in text formed by individual's experience. The present approach to text, which does not cement or stereotype a discourse with a specific pre-identified feature of the writer/speaker's background, may also help researchers to develop analytical methods that take into account complexities that emerge from the intersectional nature of living discourse.

Secondly, this book should be useful for discourse analysts who find it difficult to justify setting segmentation boundaries in discourse. This book proposes structure analytical methods established on semiotically oriented theoretical foundations that do not depend on segmentation of discourse but depend on cognitive-oriented images and the relationships between the images. This enables the present methodology to identify

structural units in discourse without sequencing elements or events and drawing boundaries between them. While segmenting methods developed in the history of discourse analysis have certainly provided reliable tools to analyse an otherwise chaotic flow of discourse, helped research flourish, and offered various important findings and implications, the present method may shed new light on the potential of structure analysis in discourse analysis from an aspect that has not yet been highlighted. This book, hence, should be of interest to researchers who seek new methods that can potentially resolve many complex issues involved in discourse structure analysis by taking into account social, cultural, pragmatic, cognitive, and linguistic aspects of discourse.

## 1.7 Outline of This Book

As this book employs theories less known to academic discourse studies, two chapters are allocated to review the theoretical backgrounds: Chap. 2 for prototype theory and Chap. 3 for structuralism. Chapter 2 reviews the history of the prototype theory, from Wittgenstein's concept of family resemblance, which influenced Rosch's prototype view of categorisations, to the applications of the prototype theory to linguistics. The prototype approach to categories that denies the use of classic necessary and sufficient conditions and instead relies on fuzzy category boundaries and overlapping features is highlighted. Chapter 3 will outline the history of structuralism. The difference between structuralism and formalism will be presented. The emphasis is given to the history of generic structure analysis, starting from Russian formalism, Lévi-Strauss's anthropological structuralist analysis, Propp's linear generic structure analysis, to Greimas's binary generic structure model.

Chapter 4 will introduce the new model. The chapter defines genre as well as its components as a prototype concept, which allows the model to be consistent with the prototype theory and enables flexibility throughout the process of generic structure analysis. The binary structure of academic discourse is presented, followed by the presentation of the Semiotic Square, which is a generic structure analytical framework

developed by Greimas (1983 [1966]). Various instances of genre are placed on the Semiotic Square to show that this model can account for diverse instances of genre.

This will lead to the exploration on conceptual variations in Chap. 5. The chapter proposes a cognitive-oriented account for the construal of generic structure components. The chapter shows how the application of a cognitive-oriented approach to discourse analysis takes account of linguistic, cognitive, and pragmatic roles in constructing genre discourse. It further proposes that a prototypical text does not equate to a well-composed text, because central conceptualisation mappings are idealised and hence may only equate with a dominant feature of a mainstream culture or ideology.

Chapter 6 further shows that identifying instantiations of genre as a prototype entity enables genre analysis to describe diverse conceptualisations of genre across cultures as well as genre evolution. The chapter shows that mapping conceptualisations in genre analysis is useful to identify culture-specific knowledge structures that are evident in apparently different instances of genre. The chapter shows that the metaphorical conceptualisation of journey is deeply rooted in Anglophone academic discourse, which forms a mainstream generic structure. It further proposes that such a deeply rooted shared conceptualisation of genre plays a crucial role in the evolution of genre.

Chapter 7 proposes analytical methods that can be applied in accordance with research purposes using the new generic structure model for academic writing. It is emphasised that none of the conceptualisation features forms an absolute identification criteria for a genre, since they are prototypical entities, not formal linguistic ones.

Chapter 8 discusses political implications of the new model proposed in this book. It emphasises the need to centre on overlaps in generic structure analysis and its implementation. It further argues that genre analysis needs more political involvement in science. This leads to the issue of context and discourse. That is, the predominant understanding that academic discourse should reflect the context of the text in which it is situated is questioned. This leads to a discussion on the role of academic writing studies to remain passive to the context or to actively appeal and change the situation of the text in which it is

situated. Implications and limitations of the model proposed in this book are discussed in Chap. 9.

## 1.8 Notes on Terms

This book concerns discourse in relation to culture and hence culture is referred to throughout this book. Culture in this book does not equate with a monolithic entity nor does it solely denote national boundaries. Rather, culture in this book is treated as a dynamic entity that can hardly be captured, just like the definition of genre this book proposes. In other words, culture in this book is treated as a prototype entity, as is more fully explained in the subsequent chapters. This book supposes that differences exist both across and within cultures.

Another term frequently used in this book is conceptualisation. In this book, conceptualisation refers to broad idealised knowledge structures, including images and metaphors, which are automatically generated in structuring abstract knowledge based on previous knowledge.

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# 2

# Prototype Theory and Genre Analysis

I was at a seafood restaurant at Sydney Harbour. The paella on the menu caught my eye, so I ordered it.

Paella, a Spanish rice dish cooked in a shallow pan, is quite popular in today's world. It is not widely known that the dish is derived from the name of the traditional large round shallow pan with two handles in which the ingredients are cooked. The golden-yellow rice coloured with saffron is pleasing to the eye, not to mention the dried hay-like earthy floral aroma.

After twenty minutes or so of enjoying the harbour view, I was brought my dish. Two dishes were placed in front of me: one was a bowl of seafood casserole cooked in an orange-coloured creamy sauce; the other was steamed white rice.

> 'Is this *paella*?', I asked the wait staff who was serving our table.
> 'Yes', she replied.

So I thanked her, thinking, well, this is not a mistake. This is paella, according to this Sydney restaurant.

Obviously, the paella was not even cooked in a paella pan. Surprisingly, it turned out to be a nice casserole meal. It lacked the saffron aroma,



T. Sawaki, *Analysing Structure in Academic Writing*,
DOI 10.1057/978-1-137-54239-7_2

apparently coloured with another ingredient. Nonetheless, it had a lovely orange colour. The rice was not calasparra, the type of rice typically used for paella. It was perfectly steamed medium-grain rice. Even though the meal differed from what I think of as typical traditional paella, I spent a pleasant evening at a harbour restaurant enjoying a nice, atypical paella.

## 2.1 Introduction

This chapter reviews the prototype theory, which forms the basis for the generic structure analysis of this book. To my knowledge, the potential of the generic structure analysis of the prototype theory has never been explored. Perhaps, the prototype approaches in linguistics have been limited to the lexical levels and rarely extended to discourse analysis. As the prototype understanding to cognition may not be widely shared by academic discourse research communities, I will occasionally come back to my experience with paella presented at the start of this chapter in order to facilitate the presentation of prototype effects.

This chapter reviews crucial concepts for this book, namely 'family resemblance' and 'prototype'. These concepts are often confused with each other; hence, they require full attention. Another concept that is important in theorising genre and culture is 'idealized cognitive models' (ICMs) (Fillmore 1975, 1982, 1985; Lakoff 1987), which is reviewed subsequently. I limit my review, however, to selected aspects of the prototype theory and metaphor studies that are relevant to this present project, as this area of research is quite vast. Cognitive sciences, psychology, and cognitive linguistics are neighbouring disciplines, and comprehensive deployment of the insights and wealth of research across these disciplines has the potential to offer a consistent cognitive-based understanding to the research of academic genre studies. The understanding of the idealised nature of categories as well as of metaphors becomes crucial for this book to demonstrate that mainstream academic writing is no more than one type of idealised writing (Chaps. 5, 6, and 8). The reviews this chapter provides form some of the theoretical foundations for the new genre model to be presented in this book (Chap. 4).

## 2.2 Classical and Prototype Approaches to Categorisation

Two approaches to categorisation are presented in this section: classical and prototype. The classical approach, which researchers such as Lakoff (1987) and Taylor (2003) referred to in order to distinguish it from the prototype approach, has been widely used. The classical model views categories as concretely defined by necessary and sufficient criteria. This approach is rooted in Aristotle's account that things can be determined by their essence (Aristotle 1996 [4th century BCE]). For Aristotle, providing a definition is not tantamount to providing its meaning; rather it is tantamount to grasping the essence of it or what it is to be. The essential properties of items in the Aristotelian sense are the everlasting properties of the entity. Other than having essences, things have accident features. Accident features are superficial and do not constitute essences. The classical category members are considered to share essential properties despite differences in their accident features. Hence, grasping the shared essence of items, according to the classical approach, enables categorisations. In Aristotelian philosophy, the essence of an entity serves to be both the cause of existence of the entity and a set of features that defines the identity of the entity.

This essence-based understanding of entity leads Aristotelian categories to be based on necessary and sufficient conditions. In this categorisation approach, anything that possesses all the defining (essential) features of a category is its member whereas anything that lacks the defining features is a non-member: one or the other. This means that all the members of a category have equal status and that categories have clear boundaries.

The prototype approach to categorisation, developed by Rosch and her associates, denies the definitional view towards categories. In this approach, category members can be loosely related to each other with 'family resemblances' (Wittgenstein 1958). Members of a category in the prototype approach have central and peripheral members; hence, in contrast to the classical categorisation, the statuses of membership are unequal. Being loosely connected also means that there is no clear category boundary: boundaries are fuzzy and there is always a chance that new members that do not have central membership properties can be

included in a category. This is also contrastive to the classical view of categorisation that depends on necessary and sufficient conditions.

Now, consider the category paella. In the classical approach to categorisation, a necessary and sufficient condition of paella may be formulated as 'a rice dish cooked in a paella pan'. Then, clearly, the Sydney paella I had does not qualify as paella since it was not cooked in a paella pan. According to the prototype approach to categorisation, in contrast, the Sydney paella can still qualify as a peripheral member of the category, paella, since, although it misses some of the central properties of paella, it still shares the peripheral properties of paella such as having an orange-like colour and being a rice dish. Therefore, the Sydney paella is loosely connected to other instances of paella.

## 2.3 Family Resemblance

Wittgenstein's concept of 'family resemblance' needs to be further detailed, since it not only is important for the prototype theory but also forms a basis for this book to take into account generic structure variations and genre evolution. The cognitive-oriented approach to categorisation, namely the prototype approach, is rooted in our unconscious automatic categorisation (or judgement) based on our learned knowledge. This has an immense implication for this book to provide a new framework that can properly deal with diverse academic writing practices without making an unjust judgement.

In his prominent book, *Philosophical Investigations* (1958), Wittgenstein denied the traditional essence-centred perspective to categories that assumes the existence of a concrete definition of words. Instead, Wittgenstein proposed that we need to look for family resemblance when categorising entities because it is impossible to identify what is common to all the exemplars of a concept:

> Instead of producing something common to all that we call language, I am saying that these phenomena have no one thing in common which makes us use the same word for all,——but that they are related to one another in many different ways. And it is because of this relationship, or these relationships, that we call them all 'language'. (Wittgenstein 1958, para. 65)

Wittgenstein explained this using the definition of the word 'game'. The full passage, which leads to the establishment of the prototype theory, is quoted below:

> Consider for example the proceedings that we call 'games'. I mean board-games, card-games, ball-games, Olympic games, and so on. What is common to them all? ——Don't say: 'There must be something common, or they would not be called "games"' ——but look and see whether there is anything common to all. ——For if you look at them you will not see something that is common to all, but similarities, relationships, and a whole series of them at that. To repeat: don't think, but look! ——For example at board-games, with their multifarious relationships. Now pass to card-games; here you find many correspondences with the first group, but many common features drop out, and others appear. When we pass next to ball-games, much that is common is retained, but much is lost. ——Are they all 'amusing'? Compare chess with noughts and crosses. Or is there always winning and losing, or competition between players? Think of patience. In ball games there is winning and losing; but when a child throws his ball at the wall and catches it again, this feature has disappeared. Look at the parts played by skill and luck; and at the difference between skill in chess and skill in tennis. Think now of games like ring-a-ring-a-roses; here is the element of amusement, but how many other characteristic features have disappeared! And we can go through the many, many other groups of games in the same way; we see how similarities crop up and disappear.
>
> And the result of this examination is: we see a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail.
>
> I can think of no better expression to characterise these similarities than 'family resemblances'; for the various resemblances between members of a family: build, features, colour of eyes, gait, temperament, etc. etc. overlap and criss-cross in the same way. ——And I shall say: 'games' form a family. (Wittgenstein 1958, para. 66–7)

Hence, activities called 'games' have no feature that is common to all. Instead, they resemble each other in a way members of a family resemble each other. For example, a boy and his mother resemble each other in that they both have green eyes; the mother resembles her daughter in that they both are brunette; the daughter resembles her father in that they both have grey eyes. There is nothing this family of four all have in

common but they have similarities. Some members share a feature; other members share other features, namely 'similarities crop up and disappear'. It is possible that some members of the same category have nothing in common. It is in this way that members of the category 'games' are related to each other.

Such categories are not discrete, since natural categories are not constituted by necessary and sufficient conditions. Wittgenstein maintained that many categories lack shared features, and without a common feature, it is impossible to draw boundaries; and one feature of a member shared by a non-member makes it possible for the non-member to be included as a new member of the category. This is contrastive to the Aristotelian classical approach that assumes exact boundaries among categories on the basis of necessary and sufficient conditions that can be found in essential, ever-lasting properties within entities. This made it possible for the classical approach to form a one-or-the-other view, claiming that an entity either belongs or does not belong to a category. On the other hand, the fuzzy family resemblance category boundaries are always changing, including and excluding members over time. The potential for welcoming new members that share some 'family resemblance' features with another member always exists within categories.

The shift from the definitional to the family resemblance perspective of categorisation is, at the same time, a shift to a cognitive perspective. Wittgenstein repeatedly emphasised to 'look' and not 'think'; the family resemblance approach relies on cognition. This is an important shift that prepared for the cognitive approach to categorisations. The family resemblance perspective, however, did not identify different degrees of centrality in the category as did Rosch's prototype theory. This is the major difference between family resemblance and the prototype theory.

## 2.4 Different Degrees of Prototypicality

Rosch developed the prototype approach to categorisation, drawing on Wittgenstein's family resemblance. Rosch (1973a, b, 1975a, b) conducted a series of psycholinguistic research and established that members of categories of natural things ('bird', 'fruit', and so on) and nominal things ('furniture', 'toy', and so on) vary in their membership status. For

instance, Rosch asked subjects to rate a list of *furniture* ranging from 1 (very good example) to 7 (very bad example). Many of Rosch's subjects responded that *chair* and *sofa* were very good examples but that *fan* and *telephone* were very bad examples (Rosch 1975a). This series of experiments showed that category memberships are not uniform, contrary to the classical theory assumption, but that there really are different degrees of membership and that the central members of a category play an important role for people's cognition. Categories have central members and peripheral members, and category members vary in their prototypicality. Rosch observed prototype effects not only in natural categories but also in nominal categories such as 'toy', showing that many concepts that humans develop are cognitively oriented.

The evidence for degrees of category membership was demonstrated repeatedly by experiments using different methodologies. Another experiment by Rosch (1973b) showed differences in verification processing time between statements concerning a central membership of a category, 'a robin is a bird', and a peripheral membership of the category, 'a duck is a bird'. Statements concerning a central membership took less time than the peripheral ones and this indicates that the degree of prototypicality of a category is mapped out in cognition. Rosch (1973b) further observed that this difference between prototypical and peripheral instances is more salient with children and this indicates that central members of a category are learned earlier in the stages of language acquisition.

Hence, as Rosch and Mervis (1975) summarised, category membership is not digital but analogue because it is not an 'all-or-none phenomenon' (p. 573). Boundaries of prototype categories are fuzzy, and new members can join in and out across time. Categories, therefore, cannot be provided with a concrete definition, because not all category members share properties. Additionally, the fuzziness changes across time, making it meaningless in defining a category.

## 2.5 Four Features: Prototypical Effects

The concept of prototypical categories that Rosch developed within psychology impacted cognitive linguistic research, as the concept has profound implications for linguistic research, whereby the classical categorisation

was dominated concerning the definitions of words. Although prototype research gained popularity across disciplines, Posner (1986) pointed out that features of prototypicality are used differently among researchers. He further argued that prototypicality itself is a prototypical concept: 'I realized how much the concept of "prototype theory" as used in linguistics has itself a prototypical structure' (p. 59). According to Posner, it was because linguists appeared to use the concept 'prototype' focusing on different aspects of prototypicality. Posner pointed out that, for instance, Givon (1986) emphasised 'the graded character of prototype theory', which Lakoff would call radial structures made up of central and peripheral category members. Lakoff at the same time emphasised 'the imaging ability' (p. 59). Different aspects of the definition of prototypicality are inter-related and hence prototypicality itself presents a prototypical structure.

To sort out this complexity, Geeraerts (2010) proposed four features of prototypicality:

> First, prototypical categories exhibit degrees of typicality: not every member is equally representative for a category. Second, prototypical categories exhibit a family resemblance structure, or more generally, their semantic structure takes the form of a radial set of clustered and overlapping readings. Third, prototypical categories are blurred at the edges. Fourth, prototypical categories cannot be defined by means of a single set of criteria (necessary and sufficient) attributes. (Geeraerts 2010, p. 187)

Geeraerts explained that the distinction between non-discreteness and non-equality and the distinction between an intentional and an extensional perspective cross-classify each other as these four features are inter-related (Fig. 2.1).

Geeraerts further explained that, for example, 'fruit' has all four of the characteristics of prototypicality effects. Clearly, 'fruit' has the characteristic of '(d) absence of necessary and sufficient conditions', as Rosch showed that the category 'fruit' cannot be defined by the classical approach. This characteristic has to do with intentional characterisation at the level of definition and with non-discreteness (demarcation problems). The second characteristic is '(a) differences of typicality and membership salience' because there

are typical fruits, such as apples and oranges, as well as not-so-typical ones, such as pomegranates. This is an extensional characteristic at the level of exemplars and it has to do with non-equality between exemplars. The third characteristic of 'fruit' is '(c) fuzziness at the edges, membership uncertainty'. Olives and nuts are technically fruits because they contain seeds, but in the folk category, many people would disagree with calling them fruit. Hence, this is an extensional characterisation at the level of exemplars and it has to do with non-discreteness (demarcation problems), boundaries of the category. Finally, it has '(b) clustering into family resemblances'. Clusters of family resemblances emerge: (1) seed-containing parts of woody plant (e.g., oranges and apples), (2) sweet fruits (e.g., oranges, apples and strawberries), (3) juicy fruits (oranges, strawberries and lemons), and various other family resemblances that partly overlap each other. These family resemblance clusters have to do with intentional characterisation at the level of definition and with non-equality because core/periphery relationships are established between as well as within family resemblances.

Geeraerts observes that, whereas 'fruit' fulfils all four features of prototypicality effects, 'bird' lacks in one of the features of prototypicality: (c) fuzziness at the edges, membership uncertainty. We know what birds and non-birds are. Penguins are certainly an atypical exemplar of bird, but we know penguins are birds. Therefore, the prototype category 'fruit' has a higher degree of prototypicality than the prototype category 'bird'. Hence, many prototype categories have different degrees of prototypicality.

| | Extensional characterisation (exemplar level) | | Intensional characterisation (definition level) | |
|---|---|---|---|---|
| **Non-equality: salience effects, core/periphery** | a | differences of typicality and membership salience | b | clustering into family resemblances |
| **Non-discreteness: demarcation problems, flexibility** | c | fuzziness at the edges, membership uncertainty | d | absence of necessary and sufficient definitions |

**Fig. 2.1** Four types of prototypicality effects (Adapted from Geeraerts 2010, p. 189)

## 2.6 Paella as a Prototype Category

I consulted a paella cookbook (Herraiz 2011) on prototypical exemplars of dishes named paella. 'Strictly speaking', the book explains, 'the name "paella" only applies to the Valencian version' and therefore 'it is not correct to call other versions of the dish "paella"' (p. 8). As is indicated by the expression 'strictly speaking', however, the book introduces various unstrict paellas cooked in a paella pan, ranging from the traditional to sweet ones for dessert. This appears a good indication that the term 'paella' is a prototypical concept.

A Valencian 'paella', unlike a modern commercialised one that is cooked with seafood, was traditionally cooked with snails, chicken and rabbits. Also, despite my assumption that paella should always be a golden-yellow colour, there are instances in which this is not the case, such as in a black dish called *arroz negro*, more commonly known as *black rice* or *black paella*. Yet a*rroz negro* is cooked in the same way as a typical paella, except that it is cooked with cuttlefish ink, making it black. Even the use of rice doesn't seem to be a necessary and sufficient condition for paella: there are instances of paella that use pasta or noodles instead of rice (e.g., the one cooked with fideo noodles). It seems that for a dish to be called (not in a strict sense) 'paella', it simply needs to be cooked in a paella pan since the traditional, modern, black, and fideo noodle 'paellas' are all cooked using this method. However, I remember that, in Japan, people generally made paella at home in a rice cooker or in a frying pan. A paella pan is not widely available outside of Spain, especially in households. The dinner I had in Sydney was not cooked in a paella pan either. It was not even a one-dish meal.

Admittedly, these exemplars are 'strictly speaking' not 'paella'. Yet, clearly, folk categories do not allow the formulation of its definitional criteria and this suggests that paella is a prototypical concept. Examining the prototypicality of paella reveals that it fulfils all four characteristics of prototypicality. First, the category 'paella' exhibits degrees of prototypicality. The two Valencian versions are better representatives, having more shared features of the category than others. Second, the category exhibits a family resemblance structure. The category's semantic structure takes the form of a radial set of clustered and overlapping readings,

since grouping of these members are formed on the basis of common features that are radial (Fig. 2.2). The central members occupy the central position in the category, whereas other members form radial structures on the basis of their number of shared features. These shared features become a basis of overlapping readings, whereas instances are clustered at the edges, forming family resemblances. Third, the category boundary is fuzzy, since peripheral members such as the Sydney version may be at the fuzzy edge, having only three of the six features of paella that are examined (Table 2.1). The category is also fuzzy in that its new exemplars can be constantly added at the edge. Fourth, the category cannot be defined by means of a single set of criteria attributes. The category lacks in necessary and sufficient conditions. Many of the category members lack in the privileged feature. Moreover, one of the central members, the traditional Valencian one, lacks in a feature (seafood) that is common in the majority of members (Table 2.1; Fig. 2.2). Paella, therefore, is a prototype category.

This section concludes with Table 2.1 and Fig. 2.2 below, which are displayed in order to delineate the prototypicality effects in the category paella, which was drawn in a manner similar to that which Geeraerts (2010, p. 191, Fig. 5.2) drew in a figure concerning the prototypicality

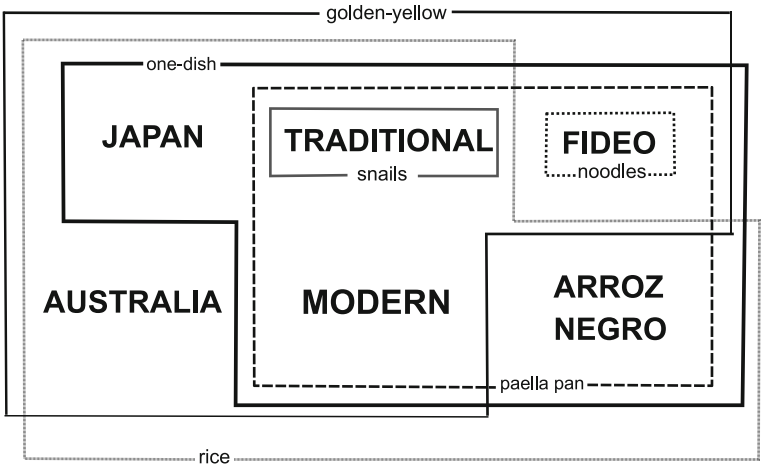


**Fig. 2.2** Prototypicality effects: *paella*

**Table 2.1** Prototypicality effects: *paella*

| | Golden-yellow | Rice | One-dish | Seafood | Cooked in a paella pan | Noodles | Snails |
|---|---|---|---|---|---|---|---|
| Traditional | + | + | + | − | + | − | + |
| Modern | + | + | + | + | + | − | − |
| Fideo | + | − | + | + | + | + | − |
| Arroz Negro/ Black paella | − | + | + | + | + | − | − |
| Japan | + | + | + | + | − | − | − |
| Sydney | + | + | − | + | − | − | − |

effects in the category of fruit. In this way, the radial structures of prototype effects and overlapping features become visually obvious.

## 2.7 Idealized Cognitive Models

It needs to be stressed that the perception of fruit discussed in the previous section is not universal: it is constrained by culture. Apples and oranges are central instances of fruits to people from some cultures, whereas to people from other cultures, typical fruits may be mangos, starfruits, durians, guavas, and so on. Importantly, prototype categories are not universal but depend on people's knowledge about the world. This is also apparent with the example of paella, whose typicality changes when it is adapted to different cultures. It is in Lakoff's ICMs that the role of knowledge structures that embody our understanding of the world became highlighted.

Inspired by Fillmore's (1975, 1982, 1985) 'frame semantics' in which 'frames' (knowledge structures) play a crucial role in his lexical semantics, Lakoff (1987) proposed that our knowledge is organised by means of structures and that 'category structures and prototype effects are by-products of that organization' (p. 68). Thus, ICM is based on the understanding that our mutual knowledge, our knowledge of the world shared by the members of a specific culture or community, plays a crucial role in cognitive processing of language usage. The notion of ICM should be understood not as a strictly constrained descriptive model but rather as

'a cover-term' (Geeraerts 2010, p. 225) for various models that bridge between the traditional semantics and pragmatics with which cognitive semantics is concerned. This book also uses ICM as a cover-term.

ICMs are considered to be incongruent with reality. The structure of knowledge with which we process reality and language is idealised, meaning that we cannot capture the world as it is: Our understanding of the world is different from the reality, and hence our understanding of the world varies across different groups of people in different times. Geeraerts's account of 'idealized' serves as a concise description: 'The models are called "idealized" because they are abstractions from the actual world: they do not capture all the complexity of reality, but provide a conceptual mould for flexibly dealing with that complexity' (Geeraerts 2010, p. 224).

However, it is by no means simple to understand how a conceptual mould functions for dealing with the complexity of reality. In *Women, Fire, and Dangerous Things*, Lakoff (1987) showed a number of cases whereby the flexibility of such a conceptual mould is evident. One of the cases is the word *lack*. Lakoff pointed out that the word *lack* entails presuppositions, whose conceptual mould flexibly deals with the complexity of reality. Below observe a sentence with *lack* taken from a medical research article (Luk et al. 2015, p. 794):

> Many clinicians lack experience and are unfamiliar with relevant guidelines.

The *lack* in the sentence entails (1) the background condition indicating that clinicians should have experience and (2) the foreground condition indicating that clinicians do not have it. These are the presuppositions *lack* entails: 'a background condition indicating that some person or thing *should have* something and a foreground condition indicating that that person or thing does *not* have it' (Lakoff 1987, p. 133). Hence, as Lakoff continued to point out, *lack* is not a synonym for *not have*. The negative is internal to *lack*-ICM. *Lack* is therefore defined relative to ICM that is 'not involved in the definitions of *not* and *have*' (Lakoff 1987, p. 135). Another (and maybe more) well-known example Lakoff provided is the word *bachelor*. The sentence *The Pope is a bachelor* is odd, since we share

the knowledge that the Pope does not marry and that *bachelor* is used for marriable single men. A conceptual mould that ICMs provide can flexibly deal with such complexity of the reality as they are abstractions from the actual complex world. Words such as *lack* and *bachelor* that entail presuppositions show a fairly lucid overview of how an ICM functions in relation to our understanding of the world. As indicated by ICM, many other lexical items also entail our understanding of the world in different ways.

Our conceptualisation of the same word varies depending on our understanding of the world. What can be included as fruits varies across cultures, within cultures, and across time as do central instances of them. Since boundaries of such lexical items are fuzzy, the conceptual mould enables us to process the complex conditions surrounding fuzzy boundaries. Meaning and our understanding of the world are indispensable to each other. It is for this reason that in cognitive semantics the distinction between semantics and pragmatics is deemed irrelevant.

In Chap. 4 of this book, the cognitive-oriented understanding of meaning making will be used to discuss generic structure components. Just as Lakoff (1987) proposed with lexical items, generic structure components are better described as prototype phenomena. The presuppositions concerning *lack*-ICM are used to describe Anglo-American mainstream academic discourse. The understanding of ICM is also going to be useful in Chap. 8 when we consider cultural and ideological diversity of academic writing construction.

## 2.8 Conceptual Metaphor Theory

The conceptual metaphor theory was introduced by Lakoff and Johnson (1980). Unlike those who hold the narrow traditional understanding of metaphor, Lakoff and Johnson hold that metaphors not only are for use in poetry but are seen in everyday language activities. Importantly, Lakoff and Johnson went on to point out that metaphors even structure our abstract thinking.

Conceptual metaphor theory occupies a central importance at a later stage of this book in the discussion about genre evolution and diversity

in relation to generic structure components. It is a cognitive-oriented approach to metaphor, characterised by the mapping of metaphor between two domains. For example, consider the following example sentence.

He is *going through a difficult stage* in life.

As Lakoff and Johnson formulated, this sentence involves two conceptual domains: 'life' and 'journey'. It is about life and is expressed in terms of journey and this is evident in that his life is expressed as 'going through a difficult stage'. As Lakoff and Johnson observed, the former conceptual domain, 'life', serves as a target domain, and the latter, 'journey', as a source domain. Source domain is the concept from which metaphorical prose is drawn to understand the target domain.

Conceptual metaphor is formulated by 'target domain is source domain'. Hence, the conceptual metaphor of the sentence, 'He is *going through a difficult stage* in life', is formulated as LIFE IS A JOURNEY (the use of small capitals is a convention in the conceptual metaphor theory). The conceptualisation of JOURNEY is pervasive and is structured by what Johnson (1987, 1993) referred to as the source-path-goal schema, since JOURNEY involves a starting point, trajectory, and destination.

Lakoff and Johnson pointed out that various linguistic metaphors can be formulated into conceptual metaphors. For instance:

**AN ARGUMENT IS A CONTAINER**

- Your argument does not have much *content*.
- That argument *has holes in it*.

**LOVE IS WAR**

- He is known for his many rapid *conquests*.
- She *fought for* him, but his mistress *won out*.

**AN ARGUMENT IS WAR**

- Your claims are *indefensible*.
- He *attacked every weak point* in my argument.

AN ARGUMENT IS A JOURNEY

– We have *set out* to prove that bats are birds.
– *So far*, we've seen that no current theories will work.

THEORIES ARE BUILDINGS

– Is that the *foundation* for your theory?
– The theory needs more *support*.

Lakoff and Johnson showed that many areas of everyday experience are metaphorically structured by a limited number of source domains or what they call image schemas such as JOURNEY, WAR. The same concepts can be characterised by means of metaphor through a number of source domains (e.g., AN ARGUMENT IS A CONTAINER and AN ARGUMENT IS WAR). According to Lakoff and Johnson, this may be because our concepts—in particular, abstract ones—have different aspects to them, which need to be expressed with different source domains. Conversely, a single source domain can be used to express a number of target domains. Later in this book (Chaps. 5, 6, and 8), this metaphorical variation potential of conceptual metaphor will be linked to the potential diversity of the preferred source domain to express research.

Importantly, Lakoff and Johnson proposed that our everyday expressions are not arbitrarily structured but constrained by our shared experiences and this should become apparent by analysing metaphors as a mapping between two domains. Shared experiences are crucial, because communication participants necessarily draw on conventionalised knowledge frames concerning source domains in order to understand metaphorical expressions. Lakoff and Johnson, hence, reasoned that metaphors are cognitive in nature and are processed through our conventional knowledge.

If the conventionalised knowledge concerning source domains plays a role in using conceptual metaphors, a question arises whether conceptual metaphors are solely culture-specific or in some ways universal. Cross-cultural research so far has established that some conceptual metaphors are near-universal. For example, a conceptual metaphor ANGER IS A HOT FLUID IN A CONTAINER has been reported in many languages, including

Chinese (King 1989), Japanese (Matsuki 1995), Polish (Mikolajczuk 1998), and Zulu (Taylor and Mbense 1998). Other metaphorical expressions concerning anger, on the contrary, have been reported to exhibit variations. Matsuki (1995) identified a conceptual metaphor concerning anger in Japanese which is characterised by means of a source domain that is not found in English: many expressions relating to anger are expressed through the domain *hara* (belly). Matsuki postulated that the conceptual metaphor ANGER IS (IN THE) hara relates to Japanese culture whereby people hide their real intentions inside; hence, anger is expressed as occurring in the belly. A source domain characterising the concept of happiness which is not found in English is identified in Chinese. Yu (1998) found a conceptual metaphor HAPPINESS IS FLOWERS IN THE HEART, which he analysed as reflecting the introverted character of Chinese people. Thus, studies have indicated the universality of metaphorical expressions to some extent whereas cross-cultural studies have shown that many metaphors seem to be grounded in culture-specific values and knowledge.

It follows that metaphors may change over time as people's value changes within a culture. Referring to Stearns's (1994) study on letters and journals in Victorian times, Kövecses (2010) observed that the source domains of a number of concepts have changed. One of the examples he pointed to is the concept of friendship. The Victorian letters and journals described friendship between males as 'fervent lovers' and their feeling as 'deep and burning affection' (Stearns, pp. 81–82, cited in Kövecses 2010). Today, friendship is described with warmth rather than the heat of fire; thus, the source metaphor of friendship seems to have changed from fire to something less intense: warmth. Such changes in expressions in accordance to value changes over time are worth discussing for the present purposes. I will come back to this topic in Chaps. 5, 6, and 8, where the evolution of academic writing is discussed.

## 2.9 Metaphorical Entailment

Metaphors are known to structure text. This is not only in literary works such as poems but also in everyday conversations. A short dialogue below, which Kövecses (2010) provided, is an excellent example (which

is his real exchange with a former teacher) of how a casual conversation between two speakers can be metaphorically structured across utterances (Kövecses 2010, p. 123):

> Teacher: You look like a healthy apple.
> Kövecses: I hope it's not rotten inside.
> Teacher: I hope, too, that it will last a long time.

The teacher's utterance, 'You look like a healthy apple', uses a conceptual metaphor, PEOPLE ARE PLANTS. To this, Kövecses takes over the conceptual mapping: an apple corresponds to a person. This is further taken over by the teacher. Both conversation participants cooperate to maintain the coherence of the conversation by using their common knowledge about apples. Apple is an item that belongs to the source domain, PLANT, which is continuously used to express Kövecses's condition, namely the target domain.

What occurs in the dialogue is that knowledge about source domains is carried over to the target domain. Lakoff and Johnson (1980) called this phenomenon a 'metaphorical entailment'. The examples of conceptual metaphors presented in the previous section are thus the result of metaphorical entailments. Metaphorical entailments are considered to be fundamental for abstract concepts to be expressed through the mapping of a source domain. Gibbs (1994), for example, holds the view that metaphors structure not only literary works but also everyday conversations as well as legal reasoning and scientific theories, since thinking is itself not independent of our experiences and, hence, our thinking is itself figurative and poetic.

So long as the image-schema overlaps between the source and the target domains, the knowledge about the source domain can be carried out. We tend to systematically deploy the image-schema of the same source domain to talk about aspects of specific target domains. There is, however, a restriction with metaphorical entailments, which is called the Invariance Principle (Lakoff 1990): 'Metaphorical mappings preserve the cognitive topology (image-schematic structure) of the source domain' (p. 54); that is, metaphorical entailments do not violate the actual mapping of the target domain.

A systematic mapping from a source to a target domain in a discourse acquires cohesion in a text. The uniformly structured metaphorical entailments in Kövecses's dialogue have obtained, as the systematic metaphorical entailments from the source to the target proceeds, a structuring potential of the text. A small number of studies, such as Ponterotto (2003), in conversation analysis explored the cohesive functions of metaphors. The text-structuring potential of metaphors should attract more attention and needs to be further explored in discourse analysis, in particular in academic discourse. This may reveal, as this book attempts to show, quite a different picture of academic writing structures.

## 2.10 'Lie' as a Prototype Across Cultures

Whereas the majority of studies used the prototype theory in the analysis of lexical items, Coleman and Kay (1981) expanded prototype approaches to category to a study of narrative. Coleman and Kay investigated the concept 'lie' by using short stories of situations that contained a lie. Their procedure was, first, to identify basic elements that a prototype lie contains (Coleman and Kay 1981, p. 28):

> Where the speaker (S) asserts some proposition (P) to an addressee (A):
>
> (a) P is false.
> (b) S believes P to be false.
> (c) In uttering P, S intends to deceive A.

Therefore, in a usual lie, (a) the proposition provided is false [+/– false], (b) the speaker believes that the proposition he or she is giving is false [+/– belief], and (c) the speaker has the intention to deceive the hearer [+/– intention]. Coleman and Kay hypothesised that the greater the number of prototypical elements a lie-story contains, the higher the proportion of people who would agree that the story contains a lie. To do this experiment, Coleman and Kay made up eight brief stories that contained different numbers of the prototypical elements of a lie and asked informants to rate each of the stories on a seven-point scale from 1 (very

sure non-lie) to 7 (very sure lie). A couple of their examples are displayed below (Coleman and Kay 1981, p. 31):

- Moe has eaten the cake Juliet was intending to serve to company. Juliet asks Moe, 'Did you eat the cake?' Moe says, 'No'. Did Moe lie?
- One morning Katerina has an arithmetic test she hasn't studied for, and so she doesn't want to go to school. She says to her mother, 'I'm sick'. Her mother takes her temperature, and it turns out to Katerina's surprise that she really is sick, later that day developing the measles. Did Katerina lie?

Moe's case fulfils all three of the prototype elements of a lie: Moe's proposition is false (a), Moe believes that her proposition is false (b), and Moe intends to deceive the hearer (c). Katerina's case, on the other hand, fulfils only one element: Katerina intends to deceive the hearer (c). With 67 completed questionnaires obtained from native speakers of American English, Coleman and Kay found that overall the greater the number of prototypical elements of lies the stories contained, the higher the certainty that the stories tended to be rated as a lie. The authors further found that there are degrees of importance among the prototype elements of lies. For example, two of their stories of a lie share an element, '(a) P is false' [+false], whereas it differs in two other elements: '(b) S believes P to be false' [+/− belief] and '(c) In uttering P, S intends to deceive A' [+/− intention]. The results (mean scale score) showed that the story that contained '(b) S believes P to be false' [+ belief] but not '(c) In uttering P, S intends to deceive A' [− intention] was rated higher (4.70: Story V: − + +) than the one that did not contain '(b) S believes P to be false' [− belief] and contained '(c) In uttering P, S intends to deceive A' [+ intention] (3.66: Story III: + − +).[1] Overall their results indicated that '(b) S believes P to be false' is the most important element for a story to be rated as a lie, followed by '(c) In uttering P, S intends to deceive A' and then by '(a) P is false'. Hence, the knowledge of the speaker that the speaker's proposition is false is found to be the most central prototype element of a lie in Coleman and Kay's study.

Their findings concerning 'lies', however, cannot be considered universal. Lying is arguably one of the most culture-bound concepts. Coleman

[1] See the stories of a lie in Coleman and Kay (1981, p. 31).

and Kay's study represents only the Anglo-American concepts of a lie. Sweetser (1987) argued, referring to Fillmore's (1982) prototype analysis of concepts such as 'bachelor', that meaning is determined by a central or prototype application, relative to ICM. Similar accounts of a cultural model of 'lie' are necessary, as specific areas of human experience play important roles in cognitive processing.

Hardin (2010) replicated Coleman and Kay's methodology with Spanish speakers in Ecuador in order to explore the issue of cultural variation. Hardin added five more stories to the original Coleman and Kay's study so that cultural situations in which a lie might commonly occur in Ecuadorian but not in American contexts could be included. They found that overall the Spanish informants rated the stories that contained more elements of a lie similarly to Coleman and Kay's informants despite slight differences. Further results on varied salience in semantic prototypical elements revealed that '(b) S believes P to be false' is the most important element for a story to be rated as a lie, similarly to Coleman and Kay's results. However, it was notable that '(c) In uttering P, S intends to deceive A' was impacted by cultural differences. In one of the additional stories, a store-owner gives inaccurate directions to a person who asks the way to her friend's house, so that the shop-owner can keep face. Many respondents said that it was a 'white lie' and, thus, acceptable. There was, in this story, no intention for the speaker to deceive the hearer. It was identified as a cultural variant of Ecuadorian Spanish that being friendly and showing warmth are important and acceptable. Hardin analysed that being friendly and showing warmth are considered important in Ecuador and that this leads to the higher acceptability to provide inaccurate information than in the United States, hence, providing a case of the culture-bound aspects of the concept of a lie.

## 2.11 Metaphors in Academic Discourse

A number of studies have shown that metaphors in scientific discourse are just as pervasive in casual conversations by laypersons, indicating that the assumption that mainstream academic writing is free of metaphorical expressions can no longer be maintained. One early research on metaphors in scientific discourse is Salager-Meyer's (1990) investigation

on medical terminology. Salager-Meyer found that, contrary to the popular belief that discourse in science does not use metaphors, many technical terms used in medicine are metaphorical.

Turner's (1998) research article on educational discourse, entitled 'Turns of Phrase and Routes to Learning: The Journey Metaphor in Educational Culture', is particularly relevant to this book. Turner pointed out that JOURNEY metaphors are particularly prevalent in Westerner's academic discourse and sought a root in Christianity and ancient Greek philosophy. Highlighting the biblical exhortation of 'Seek, and ye shall find', Turner argued that it is indicative of valorisation of exploration in the Western tradition. Exploration has a conceptual structure similar to that of a journey as it involves a starting point and an ending point. One example from Greek philosophy that Turner discussed was the Socratic technique, 'elenchus', whereby a series of questions between debaters are continuously conducted to eliminate contradictions in their belief. This is a dialectical process to reach truth by refuting an argument. Turner identified in this process 'a journey by questioning' (Turner 1998, p. 31). Namely, truth-seeking is a JOURNEY. Turner suggested that this cultural continuity is unlikely to be conscious (Turner 1998, p. 23) and that today's educational practices in Western societies may be a result of a continuous subconscious conceptualisation of knowledge-seeking. Turner noted that, in education in the West, 'the underlying "image schema" of source, path, and goal is paramount' (Turner 1998, p. 23).

Metaphors are reported to be pervasive in medical discourse as well. Gwyn (2002) explored health communication discourse and similarly found the metaphoric nature of talk about illness. Van Rijn-van Tongeren (1997) investigated conceptual metaphors in medical handbooks and found that metaphorical expressions are pervasive and that metaphors play an important role in making knowledge accessible. Van Rijn-van Tongeren observed that certain aspects are highlighted with metaphorical expressions in medical discourse, consequently disregarding the rest of its aspects. For example, machine metaphors commonly used in medical discourse disregards the aspects of unpredictability involved in natural phenomena whereas a machine, being man-made, works predictably. Van Rijn-van Tongeren reflected, it is the nature of metaphors to make meaning by highlighting certain features. Importantly, Van Rijn-van Tongeren's study suggested that there are patterns in specific features to be highlighted

in medical discourse. This implies the existence of conventionalised aspects of concepts or phenomena to be highlighted at work in construing a genre, which is instantiated by the use of conventionalised conceptual metaphors. It is interesting that Van Rijn-van Tongeren postulated the cases whereby conventionalised metaphors are found to be no longer adequate: because emerging new knowledge no longer fits the conventionalised metaphors 'Realizing that a metaphor always highlights some aspects while it hides others, is especially important when a metaphor seems no longer productive. An alternative metaphor then has to be sought' (Van Rijn-van Tongeren 1997, p. 93). Its implication for this book is that metaphors may play an important role in the evolution of genre. When a genre evolves, it may have to abandon a certain metaphor to use a new one.

Another substantial study that showed that metaphors are pervasive in different genres is Knudsen's (2003) study, which investigated metaphors in specialist and non-specialist discourses. Knudsen drew on Boyd's (1993) distinction between 'theory-constructive/generative' and 'pedagogical/exegetical' metaphors. The theory-constructive metaphors represent original scientific thoughts, whereas the pedagogical/exegetical metaphors are used for popularisation of science so that abstract, scientific knowledge can be explained to laypersons. Knudsen determined, however, that such a distinction was not valid, since the same metaphors are observed in both theory-constructive and pedagogical purposes. The metaphorical nature of scientific reasoning has been discussed from various perspectives (e.g., Brown 2003, in models in chemistry and biology; Nersessian 2010, in the problem-solving practices of the scientist). Lakoff and Johnson's (1980) claim that metaphors are so pervasive that even abstract knowledge is structured by metaphors, therefore, is fairly well established today.

## 2.12 Metaphors Govern Our Thoughts and Decisions

Research in cognitive science has gradually revealed that metaphors and analogies play a crucial role in shaping our thoughts and decisions. Early studies investigated a hypothesis in which prior contextual knowledge plays a role in comprehending prose passages and found it positive (Bransford

and Johnson 1972; Dooling and Lachman 1971). Gentner and Gentner (1983) sought psychological evidence for the conceptual role of analogy by examining people discussing electricity. They examined whether analogies generated scientific reasoning (people think in terms of analogy) or analogies did not interfere with people's reasoning. Gentner and Gentner demonstrated that the structure-mapping of basic domain influences people's interpretation and that electricity as a water-flow rather than a teeming-crowd analogy facilitates people's precise understanding of electricity.

A more recent article entitled 'Metaphors We Think With: The Role of Metaphors in Reasoning' (Thibodeau and Boroditsky 2011) provides strong evidence that metaphorical mappings structure our thoughts. In Thibodeau and Boroditsky's experiments, two reports about increasing crime in a fictional city were prepared: one of the reports depicts crime as a beast; the other as a virus. Both reports contained the same description of the statistics of alarmingly increasing crime in the city. The test subjects consisted of 1,485 university students and the participants were asked to read one of the two reports. Then, they were asked to provide the best way to solve the problem. The results showed striking differences. Seventy-one percent of the participants who read the crime-as-beast report suggested more law enforcement and punishment to solve the problem, but its rate dropped to 54 percent among those who read the crime-as-virus report; instead, they were more likely to suggest social reforms. When subjects were asked what influenced their decisions, the majority of them said that crime statistics, and not the metaphor, were the prime influence.

Thibodeau and Boroditsky reached two strong conclusions, which also provide important implications for the present purposes. One is that different metaphorical frames have a powerful influence on how people make decisions. The second is that this influence by metaphors is covert: people think that they are making objective decisions based on numbers and statistics without knowing about the influence of metaphors on their thinking and reasoning. Lakoff and Johnson's (1980) claim that metaphors structure our abstract thinking is proving correct.

If the structure of our abstract thinking is so powerfully influenced by metaphorical conceptualisations without our realising it, it is possible that we may be composing academic discourse by framing abstract phenomena under a powerful conceptualising influence of metaphors

without even knowing it. The way we structure academic writing, then, may not be as valid as research has so far assumed. Possibly, the structure of the mainstream academic writing that central scholars use may simply be a consequence of pre-existing knowledge structures.

## 2.13 Prototype Approaches in ESP/EAP

ESP/EAP approaches to genre, similarly to the ICM approach in cognitive semantics, place emphasis on the importance of prior knowledge, although ICM, to my knowledge, was not specifically mentioned in ESP/EAP approaches to genre. Swales stated that prior knowledge of genres contributes 'to a recognition of genres and so guide the production of exemplars' (Swales 1990, p. 86). Another related concept in ESP/EAP is Bhatia's (1993) 'cognitive structuring', which 'is the conventionalized and standardized organization used by almost all the members of the professional community' (Bhatia 1993, p. 32).

The prototype theory and the concept of family resemblance attracted attention in ESP/EAP. As mentioned in Chap. 1, these two concepts occupy a central importance in genre theory developed in the ESP tradition. In particular, Swales's (1990) genre identification method is explicitly grounded in the prototype theory and the concept of family resemblance, which currently are not fully used in that they were not extended to the identification of generic structure components.

The word 'prototypical' is widely seen in ESP/EAP genre analysis literature, referring to major or predominant generic structure components. However, prototypicality in the prototype theory does not denote the number of instances but cognitive process of 'what comes up' in the mind concerning a concept in question. The following sections overview the application of cognitive-oriented research on genre in ESP/EAP.

### 2.13.1 Genre as a Prototype Category

Swales's (1990) genre theory follows the prototype theory in that category boundaries are flexible and categories have non-equal, internal structures,

whose memberships are characterised by different degrees of centralness. Given that a genre evolves, constantly encountering new instances, genre as a prototype category achieves rationality. A genre is a prototype entity that cannot be constrained by a list of membership properties. Genre identification, according to Swales, becomes possible by a combinational approach: the central genre membership can follow the definitional approach, defined by concrete membership features; the peripheral membership involves cluster approaches. The combinational approach was originally proposed by Armstrong et al. (1983) and considers that central members of a category are similar to the members classified by classical categorisations, having necessary and sufficient properties. However, not all members share central properties and, hence, family resemblance descriptions are required for peripheral category members.

This arrangement can solve many of the difficulties in Swales's genre theory. Suppose we have six instances of a genre that have properties of AB, BC, BD, CD, DE, and EF respectively. It follows that the central properties of the genre are B and D, followed by C. It is important to note, however, that there is no single property that is shared by all six instances of the genre. The instance EF is the most peripheral, containing no central properties, followed by the instances AB and DE. Whereas the instances DE and EF share the property E, the instances AB and DE as well as the instances AB and EF share no properties. In such cases, we can say that these peripheral instances are connected by family resemblances: A in the instance AB is a unique property, but AB resembles BC and BD by sharing the property B; the instance EF is loosely connected to the category by sharing the property E with the instance DE.

Swales (1990) placed the genre's communicative purpose as the privileged property, which serves to be the identification criterion for a genre. Peripheral instances of genre, on the other hand, become possible with a family resemblance description as Swales stated: 'What holds shared membership together is not a shared list of defining features, but interrelationships of a somewhat looser kind' (Swales 1990, p. 49).

The integration of the definitional and family resemblance approaches in genre analysis was presented rather optimistically:

> This integration has considerable appeal. It allows the genre analyst to find a course between trying to produce unassailable definitions of a particular

> genre and relaxing into the irresponsibility of family resemblances. As we have seen, communicative purpose has been nominated as the *privileged* property of a genre. Other properties, such as form, structure and audience expectations operate to identify the extent to which an exemplar is *prototypical* of a particular genre. (Swales 1990, p. 52, original emphasis)

Although the arrangement appeared to be plausible, the genre theory of the ESP/EAP tradition, as outlined in Chap. 1, continued to suffer.

Placing communicative purpose as the privileged property of genre may serve as a primary identification criterion of a genre. An instance of a genre that does not share linguistic features with other instances of the genre can be identified as a member of the genre as long as it shares the same communicative purposes with other members. An instance that shares linguistic features with members of a genre but does not share their communicative purposes can be identified as belonging to a different genre, so that communicative purposes can disentangle, in Swales's words, 'the clever parody from "the real thing"' (Swales 1990, p. 49).

However, communicative purpose itself serves as neither a solid concept nor a criterion for genre identification. Swales himself conceded that it is also true that 'it may be objected that purpose is a somewhat less overt and demonstrable feature than, say, for and therefore serves less well as a primary criterion' (Swales 1990, p. 46). Yet it was claimed that the privilege of communicative purpose could be maintained because 'the fact that purposes of some genres may be hard to get at is itself of considerable heuristic value' (Swales 1990, p. 46).

The identification method of peripheral genre instances is less lucid. Although the use of family resemblances was proposed in identifying atypical instances of a genre, an exact method was not provided. Swales's expression, 'relaxing into the irresponsibility of family resemblances' (Swales 1990, p. 52), quoted earlier, seems to suggest that the concept of family resemblance is loosely applied. Given that it is the peripheral instances of a genre that may provide important implications to genre evolutions, the identification of a genre by using family resemblances would need to be more clearly focused. One cause of Swales's current approach to genre analysis poses difficulty in identifying diverse elements of genre, and this may be traced back to ambiguous representation of family resemblances. The over-assurance on the 'relaxed' family resemblance

approach can hardly identify 'other properties' that supposedly operate to tie peripheral exemplars to the genre membership category as well as 'identify the extent to which an exemplar is *prototypical* of a particular genre' (Swales 1990, p. 52, original emphasis).

Communicative purpose is an important concept that sets up 'a relationship between the purpose accomplished by a genre and the structure of the genre by suggesting that the communicative purpose of a genre (a "privileged" criterion) shapes the genre and provides it with an internal structure——a schematic structure' (Askehave and Swales 2001, p. 198). The relationship between communicative purpose and text structuring is unclear. Furthermore, given that 'structure' is included as one of the examples of 'other properties' in Swales's (1990) model, it is rather contradictory in that the structure model for academic writing genre is pre-categorised in terms of its linguistic realisations whereas it is communicative purpose that supposedly plays a crucial role in text structuring.

In sum, the inadequacy of the prototype theory and the concept of family resemblance applied to ESP/EAP approaches to genre is identified as one major cause of confusion in the generic structure analytical methods. To resolve this issue, it is necessary to develop more solid analytical methods to genre on the basis of the cognitive-oriented approaches.

### 2.13.2 Prototype Versus Optional

As discussed above, Swales's definition of genre drew on the prototype theory, but the generic structure analytical method does not use this. Notwithstanding, the term 'prototype' is widely used in structure analysis of academic writing to label common structures and components. This use of the term in academic writing studies is perhaps somewhat misleading in that it might give the impression that identifying 'prototypical' structures and components in academic writing studies is grounded in the prototype theory. The identification of prototypical elements in the field simply refers to major structural components that are held in common by typical academic texts.

Shared structures and structural elements of genre were originally called 'obligatory', which the SFL tradition to genre was using in order to

distinguish common properties of a genre (obligatory) from uncommon ones (optional) (Halliday and Hasan 1985). Halliday and Hasan considered that a genre was made up of a series of obligatory elements. Later, researchers (Lewin et al. 2001; Martin 1992; Ventola 1987, 1989, among others) preferred the term 'prototypical' to 'obligatory' because the term 'prototypical' appears to be a less prescriptive substitute term for 'obligatory'. Hence, research on what is called prototypicality in academic writing studies is not methodologically based on cognitive models nor does it attempt to identify different degrees of prototypicality and so on.

Studies that have been conducted under the conjecture that 'texts of a given genre exhibit prototypical structures' (Lewin et al. 2001, p. 86) have brought a wealth of research into the field, revealing the typical rhetorical structures of academic genres (Lewin et al. 2001; Nwogu 1997; Samraj 2002, 2008; Swales 1990, 2004; among others). These structure studies will be discussed in more detail in Chap. 3.

Although prototype theory enables flexible classification, the emphasis on the description of common features[2] without considering the cognitive-oriented approaches in ESP/EAP has caused monolithic descriptions of generic structure components. The issue is widely recognised. As Hyland (2004) put it, 'an enterprise that has tended to emphasise genre rather than discipline and similarity rather than difference' (p. 4). This seems a natural consequence of highlighting what all the instances have in common, because, essentially, this is a classical approach to categorisation, the approach against which prototype approaches to categorisation contrast. Although prototypicality can serve as another name for obligatory elements, it remained a classical approach to genre that is based on necessary and sufficient conditions. As discussed earlier, the classical approach to categorisation had a disadvantage in that it crystallises the category. Classical description becomes inevitably static and hence can hardly serve for descriptions of differences. The reason that previous generic structure analysis in academic writing studies has thus far been experienced difficulties in describing variations and evolutions of genre is that it took a classical categorisation approach to genre.

[2] It needs to be noted that Rosch and her colleagues were against the assumption that frequency of occurrence independently relates to the centrality of category membership (e.g., Rosch 1973a, 1975b). Taylor (2003, p. 56) also writes, 'The impression of a higher frequency of occurrence of prototypical members may well be a *symptom* of prototypicality, not its cause'.

A major aim for ESP/EAP and many SFL studies in academic writing is pedagogic development, and for that purpose, the description of academic genre has become to some extent characterised by the identification of 'good' static academic writing. This is also associated with the occasional remarks stating that ESP/EAP approaches to genre represented by the CARS analysis tend to be static (Chin 1994; Cooper 1989; Prior 1998). Later, many studies—along with the description of academic genres—shifted the research attention to disciplinary variations (Basturkmen 2012; Bruce 2010; Hyland 2004; Samraj 2005). Such a shift in research attention has revealed enormous disciplinary variations; however, their research process remains the comparison of different major elements as well as the commonality across disciplines. Elements that are not common have been marginalised as optional and have hardly been of central research attention.

What is necessary in academic writing studies is a shift in analytical methodology. Identification of generic structure components needs to be adjusted to the one that is grounded in the prototype theory, which has not yet been formulated. In the process, there is a potential to bring about a theoretically consistent approach to genre, both the definition of genre and componential identification methodology based on the prototype theory. Detailed new approaches will be presented in Chap. 4.

### 2.13.3 The Issue of Reliability and Validity

There is a practice of conducting inter-rater reliability testing in ESP/EAP studies. Inter-rater reliability testing is widely conducted in ESP/EAP approaches to generic structure (move analysis) for the purpose of increasing the validity of generic structure coding. This started as a solution proposed by Crookes (1986) for the difficulty of identifying moves, and since then the inter-rater reliability test has been considered a necessary component of move analysis and become conventional in many studies of moves (Biber et al. 2007; Crookes 1986; Upton and Cohen 2009; among others).

The inter-rater reliability is a statistical test that is used to determine the likelihood that the same result will occur among two or more raters.

The process first involves raters learning the rating method, scales, identification criteria, and so on. Concerning the analysis of move components, the process starts with the main researcher presenting coding methods—that is, move identification criteria—to raters. When raters learn to code at an adequate level, they independently code the data. The inter-rater reliability is then checked; where the raters disagree, a consensus is sought by discussion. Then the inter-rater reliability is checked again.

There are two issues here: first, the cognitive orientation is different from that of the prototype theory; second, it must be ensured that consistency in coding is not solving the essential issue of the model. The first issue concerns the disparity of the concept, cognition. Inter-rater reliability tests require the cognitive processing and judgement of raters, and what is involved in the cognition of 'cognitive' aspect of genre defined by Swales (1990) is the prototype theory. Prototypical cognition is supposedly gained through the person's living experience, and in this case, it is gained through the person's experience of genre. It is not a kind of knowledge raters learn temporarily for the purpose of conducting coding.

The second issue is that conducting inter-rater reliability in order to fix the difficulty of identifying move components shifts the responsibility to psychometrics. Repeating inter-rater reliability tests can bring about consistency in coding; however, it is important to stress that reliability and validity are two different concepts. Increasing reliability does not necessarily increase validity. A high inter-rater reliability tells us nothing more than the fact that several raters agreed on the coding, and validity needs to be considered separately. As researchers (Gwet 2010; Linacre 2002; Moss 1994) warn, it is possible that seemingly high inter-rater reliability means that all the raters agreed falsely. This is the issue Gwet (2010) refers to as 'the question as to whether the scores that raters agreed upon match the "true" scores' (p. xvi). A similar question may be asked in move analysis where raters discuss and reach a consensus even when the classification model represented with the CARS poses much difficulty but nonetheless achieves high inter-rater reliability. If the convention of conducting the inter-rater reliability test practically achieves little more than ensuring the consistency of coding, an intra-rater method that one researcher codes repeatedly may be sufficient to achieve the same goal. One unfortunate consequence, I must add here, is that researchers avoid

conducting move analysis simply because they are reluctant to, or cannot afford to, perform an inter-rater reliability test. Not all researchers are fortunate enough to have time and funding to hire raters and get them to do manual interpretive coding, which exhausts many resources. The widespread conventionalisation of performing inter-rater reliability tests on move analysis in ESP/EAP is reaching the extent that researchers can no longer afford to conduct move analysis.

It is high time, therefore, to consider the generic structure analytical models themselves in the ESP/EAP tradition. The established understanding that move identification is ambiguous, in fact, serves as proof that one or the other traditional perspective is useless in generic structure analysis. The bottom line of what generic structure is in academic discourse studies needs careful reconsideration.

## 2.14 Conclusion

This chapter has outlined the development of the selected models in the prototype theory and cognitive-oriented approaches to category, which are deployed in this book to present generic structure component identification methods of academic writing that are grounded in the prototype theory. This review has presented studies on the function of shared knowledge, metaphors, and analogies from both linguistics and cognitive science, which have shown that metaphors structure our abstract thinking. Furthermore, this chapter has lucidly presented the discrepancy between theory and practice in ESP/EAP research from cognitive-related application of research in academic genre analysis. Chapter 4 of this book will incorporate the prototype theory and structuralism in order to establish a new model that integrates social and cognitive aspects of genre.

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# 3

# Revisiting Structuralism

Imagine a situation:

You are shipwrecked on an island.

Locals don't know how you can get back to your country. They somehow welcome you. No other choice. You start living there.

This island has a civilisation quite different from your own. But what causes difficulty for you is not that this country is different but that this country doesn't allow you to be different. They seem to be rather totalitarian.

Further perplexing is that they don't cook at home. Households in this country do not have a kitchen. They eat out every meal. That's fine, but they don't give you the freedom to choose what you will eat.

Of course, you understand that even when you crave a hamburger or pizza, these familiar items are not possible to get to. You don't understand; they eat only sushi, and they don't allow you to eat anything else.

The sushi would not be too difficult for you if you could find a revolving sushi restaurant where you could liberally choose from a stream of sushi on small plates on a conveyor belt. Although it is fairly civilised, little is automated in this country. You are not allowed to choose what types of sushi you will eat; it is chosen for you. Actually, it's really not about



T. Sawaki, *Analysing Structure in Academic Writing*,
DOI 10.1057/978-1-137-54239-7_3

automation technology; they simply do not value choices. No need, no invention.

The natives say, 'It's the chef who decides what you eat, not you'. They place a high value on this point. You argue, 'But in my country, we have sushi restaurants and customers can choose what to eat'. This is when you feel uncomfortable; you are aware of the strange looks you receive the moment you say it.

You know that making you feel uncomfortable is not their intention. There is a look of pity behind their dim smiles, as if wanting to say, 'This poor little thing doesn't even know what civilised food is'. They tell me gently in a kind tone, 'Traditionally, sushi chefs make a course selection of sushi from the day's best catch in the best sequencing of different ranges of sushi to be served'. This is the end of the discussion.

Sometimes, you talk to them about other foods: pancakes, hamburgers, pastas, and all the yummy foods in the world. And you always get the same reaction, 'That's not food'.

It is annoying how totalitarian they are. They eat the same thing. They eat the same thing in the same sequencing. They say the same thing over and over again, as if they don't want any change in their life; in their society, they simply try to go on the way they are. It's annoying to hear them say 'That's not food' instead of 'That's not sushi'. It's annoying that they don't even consider non-sushi to have food status.

Since they include me, I guess I should be thankful.

But something really bothers you, which you don't know the exact words to describe. They include you on the condition that you follow the way they live their lives. Essentially they are assimilating you. Bringing it up is difficult, because they think that they are doing a good thing. They believe that everything they do is good for you.

Pizza is food, hamburger is food, and pasta is food. You eat food, no matter what, and it nurtures your body, and more important, if the food is something you like and prefer, it doesn't just nurture your body, it also makes you happy. You can have a bowl of salad and then a bowl of pasta or reverse the sequence; the choice should be up to you. They disagree and think that if you do as they do, it will always be good for you, no exceptions. The worst part is you must follow their customs just to survive.

*

Some parts of this chapter become highly theoretical concerning formalism and structuralism. So before I begin, I will very roughly summarise these two approaches. Formalism is a type of analytical approach that considers, for instance, that sushi is food, and food is sushi. Formalistic structure analysis also values discovering fixed sequencing. For instance, sequencing of different sushi plates is described in formalistic structure analysis. Structuralism, on the contrary, considers that sushi, hamburger, pizza, pasta, and so on are all food since the relationship between individual types of dishes and food is identical. Whatever is edible is food. Structuralism does not concern itself with the sequence in which you eat the food. No food is superior to another. This may sound simple, but it took a long history of analysis and discussion for the history of structure analysis to reach this point.

## 3.1 Introduction

Lévi-Strauss expressed his concern about the general confusion between structuralism and formalism, stating that structuralism is often accused of formalism (Lévi-Strauss 1983 [1958]). The confusion between the two—and, more problematically, the trend to accuse formalistic features as structuralism—seems even more widespread today in applied linguistic research in North America. This is due to the common misconception that structuralism and formalism are synonymous with colonialism and imperialism. Following this conception, structuralism may appear to be outdated and morally unacceptable, since today we recognise the value of diverse cultural practices rather than imposing mainstream practices on students and researchers from diverse backgrounds. This chapter reveals that the structuralist traditions and approaches have been misinterpreted and that, in fact, structuralism has the potential to serve as an approach that ensures the diversity of academic writing.

This chapter highlights the contributions of formalism and structuralism research that brought about Greimassian binary model, the simplest form of a generic structure analytical model that draws on structuralism. This binary model will serve as the basis for academic writing structure

analysis in this book. First, this chapter identifies the similarity between structuralism and the prototype theory.

## 3.2 Theoretical Surroundings

The Greimassian model ultimately derives from Saussure's distinction between *langue* (the whole linguistic or literary system) and *parole* (the individual utterance or work of art). Saussure's theory influenced both linguistics and literary theory, impacting the analytical approaches of Russian Formalism and French Structuralism to highlight the structure of a text. Most importantly, Saussure drew attention to the synchronic system of language. This was crucial for language studies to shift from the diachronic, historical descriptions to the synchronic structural features of the language system. The combination of diachronic and synchronic observations came to be seen as crucial (see Hawkes 1977, for details).

Structuralism, represented mainly by the Prague School, the Copenhagen School, and the Paris School, was based on Russian Formalism. Russian Formalism was developed by scholars such as Shklovsky, Jakobson, and Propp, whose analytical approach reduces text components to their most minimal units.

Jakobson, one of the Russian Formalism scholars and founder of the Prague School, coined the term *structuralism* in 1929 (Jakobson 1971). His most relevant work for the present purpose is with regard to phonology. Jakobson (1962, 1971) considered a phoneme to be 'a bundle of distinctive features' in terms of binary oppositions (voiced/unvoiced, aspirated/unaspirated, and so on), and he further considered the phonological conceptions as a 'lawful structural whole'. A phoneme—being a distinctive feature—is no more than a part of a structure of signification and therefore can be described only in relation to other phonemes. That is, he showed that the meaning-making process depends on the relationship between phonemes. In this perspective, it is notable that the relationship between sound patterns and their meaning-making functions is highlighted, namely the logical priority of semantics over syntax (Ducrot and Todorov 1979; Martinet 1962).

The Copenhagen School, another structuralism school, is represented by scholars such as Hjelmslev. The Copenhagen School highlights the function of 'form' in the meaning-making process. In the words of Hjelmslev (1961, p. 9, original emphasis): 'It would seem to be a generally valid thesis that for every *process* there is a corresponding *system* by which the process can be analysed and described by means of a limited number of premises'. Such reductionist approaches are distinctive features in structuralism, but what clearly characterises them is their emphasis on the abstract. That is, structuralism supposes the content of structure to be abstract rather than concrete. This separates structuralism from formalism. The difference between form and structure is lucidly explained by Lévi-Strauss (1983 [1958], p. 115, original emphasis): '*Form* is defined by opposition to content, an entity in its own right, but *structure* has no distinct content: it is content itself …'. Importantly, unlike formalism, structuralism does not consider form to be autonomous. Rather, the structuralist approaches shifted to a semiotic understanding of the elements and their patterns combined, which is called structure. That is, individual elements are related and the meaning is structured as a whole. This semiotic perspective of language was important for Greimas to develop his model.

## 3.3 Structures of Folktales

### 3.3.1 Propp

Lévi-Strauss pointed out inadequacies with Propp's model from a structuralist perspective. Greimas's model was produced with the aim of solving inadequacies with Propp's attempt to establish generic structure model for folktales. In this section, I review Propp's model by highlighting inadequacies that were pointed out by Lévi-Strauss.

In his book *Morphology of the Folktale* (1968 [1928]), Propp categorised a large number of Russian folktales into analysable units (narratemes) by drawing on the Russian Formalism approach that reduces sentence structures into analysable elements (morphemes). As *Morphology* in the title suggests, Propp observed the morphological order (internal structures)

of folktales in a similar way to the morphological order of a sentence described in linguistics by Noam Chomsky. Hence, it was an attempt to identify orders of events in folktales which take place one after another and which form a story line. Propp stated that the folktale genre's internal structure consists of the same basic characters and plot: seven dramatis personae and thirty-one action-developing events which he termed 'functions'. Dramatis personae include 'villain', 'dispatcher', 'helper', 'princess (and her father) or a sought for person', 'donor or provider', 'hero' and 'false hero'. Functions are described as linear story lines, such as Function 1, Abstention: 'One of the members of a family is absent from home'; Function 2, Interdiction: 'An interdiction is addressed to the hero'; Function 3, Violation of interdiction: 'The interdiction is violated'; and Function 31, Wedding: 'The hero is married and ascends the throne'. Functions thus are semantic descriptions of events, as displayed in Table 3.1.

It is important to note that the actions performed by the dramatis personae change across tales in Propp's model; therefore, various different characters serve to be an actor of the same functions. On the other hand, actions and functions do not change. 'The number of functions is startlingly small, compared with the great number of dramatis personae. This explains the twofold quality of a folktale: it is amazingly multiform, picturesque, and colourful, and, to no less a degree, remarkably uniform and recurrent' (Propp 1968 [1928], pp. 20–21, cited in Lévi-Strauss 1983 [1958]). Propp proposed that the overall structure of folktale is the same: these functions or events are linearly constrained; the sequencing of these thirty-one functions does not vary; the linear functions are constant, while dramatis personae serve no role other than supporting the functions. That is, Propp's model is characterised by 'form', which is considered to be clearly distinguished from and independent of 'content'. This section concludes with a summary of the principles of Propp's model:

- The functions are stable and independent of content, regardless of the various possible semantic participants who realise the functions;
- The number of functions in folktale is restrained; and
- The sequence of functions in folktale is restrained.

**Table 3.1** Propp's thirty-one functions

| | Definitions | Functions |
|---|---|---|
| 1 | Absentation | One of the members of a family absents himself from home |
| 2 | Interdiction | An interdiction is addressed to the hero |
| 3 | Violation | The interdiction is violated |
| 4 | Reconnaissance | The villain makes an attempt at reconnaissance |
| 5 | Delivery | The villain receives information about his victim |
| 6 | Trickery | The villain attempts to deceive his victim in order to take possession of him or of his belongings |
| 7 | Complicity | The victim submits to deception and thereby unwittingly helps his enemy |
| 8 | Villainy | The villain causes harm or injury to a member of a family |
| 8a | Lack | One member of a family either lacks something or desires to have something |
| 9 | Mediation | (The connective incident) Misfortune or lack is made known; the hero is approached with a request or command; he is allowed to go or he is dispatched |
| 10 | Beginning counteraction | The seeker agrees to or decides upon counteraction |
| 11 | Departure | The hero leaves home |
| 12 | The first function of the donor | The hero is tested, interrogated, attacked, and so on and this prepares the way for his receiving either a magical agent or helper |
| 13 | The hero's reaction | The hero reacts to the actions of the future donor |
| 14 | Receipt of a magical agent | The hero acquires the use of a magical agent |
| 15 | Guidance | (Spatial transference between two locations) The hero is transferred, delivered, or led to the whereabouts of an object of search |
| 16 | Struggle | The hero and the villain join in direct combat |
| 17 | Branding | The hero is branded |
| 18 | Victory | The villain is defeated |
| 19 | Liquidation | The initial misfortune or lack is liquidated |
| 20 | Return | The hero returns |
| 21 | Pursuit | The hero is pursued |
| 22 | Rescue | Rescue of the hero from pursuit |
| 23 | Unrecognised arrival | The hero, unrecognised, arrives home or in another country |
| 24 | Unfounded claims | A false hero presents unfounded claims |
| 25 | Difficult task | A difficult task is proposed to the hero |
| 26 | Solution | The task is resolved |

(*continued*)

**Table 3.1** (continued)

| | Definitions | Functions |
|---|---|---|
| 27 | Recognition | The hero is recognised |
| 28 | Exposure | The false hero or villain is exposed |
| 29 | Transfiguration | The hero is given a new appearance |
| 30 | Punishment | The villain is punished |
| 31 | Wedding | The hero is married and ascends the throne |

(Based on Propp 1968)

### 3.3.2 Criticism by Lévi-Strauss

A criticism against Propp's linear model was raised by Lévi-Strauss in his essay entitled 'Structure and Form: Reflections on a Work by Vladimir Propp' (1983 [1958]). For Lévi-Strauss, Propp's morphological perspective presented a number of prime differences between formalism and structuralism. That is, what Lévi-Strauss saw in Propp's model is formalism, despite Propp's attempt to analyse folktales from a structuralist perspective, which is summarised in the quote below.

> Propp divides oral literature in two: a form, which is of prime importance because it lends itself to morphological study, and an arbitrary content, which, just because it is arbitrary, he treats as less important. I would like to stress this point, since it sums up the difference between formalism and structuralism. For formalism, the two areas must be absolutely separate, as form alone is intelligible, and content is only a residual derived of any significant value. For structuralism, this opposition does not exist; structuralism does not treat one as abstract and the other as concrete. Form and content are of the same nature, amenable to the same type of analysis. Content receives its reality from its structure…. (Lévi-Strauss 1983 [1958], p. 179)

Regarding the formalistic nature of Propp's model, Lévi-Strauss was concerned that the model did not reduce the functions to a minimal level. Many of Propp's thirty-one functions, Lévi-Strauss revealed, overlap each other in that some functions are variants of others. Lévi-Strauss drew attention to some of the functions that can belong to only one of two series of linear functions. That is, functions belonging to the same series tend to co-occur in a tale but those belonging to different series do not. One of the two series consists of 'struggle', 'branding the

hero', 'victory', 'liquidation of lack', 'return', 'pursuit of the hero', and 'rescue' (Series 1); the other series consists of 'the hero's unrecognized arrival', 'assigning a difficult task', 'success', 'recognition of the hero', 'exposure of the false hero', and 'transfiguration of the hero' (Series 2). Importantly, Lévi-Strauss proposed the possibility that some of the functions belonging to different series are variables that can be treated as the same function. An example he offered is 'struggle' (Series 1) and 'assigning of a difficult task' (Series 2); another is 'victory' (Series 1) and 'success' (Series 2). These two do appear to serve the same function: The hero struggles and this leads to his victory; the hero is assigned a difficult task, in which he succeeds. Hence, Propp's model can be further reduced to minimal functions.

This relates to another issue of 'pairs of functions' which Propp himself recognised. Some of the functions can be grouped in pairs; examples are 'struggle' and 'victory'; 'assigning of a difficult task' and 'success'; 'interdiction' and 'violation'; and 'persecution' and 'rescue'. Lévi-Strauss pointed out that these pairs of functions form a binary relationship; in other words, one presupposes the other. Consider, for example, the reason for a story to present an interdiction. Where an interdiction is presented, it is always violated elsewhere in the story. Interdiction and violation in a folktale, therefore, semiotically depend on each other. That is, these pairs of functions are not related to each other by a linear sequential relationship.

Lévi-Strauss pointed out another issue with Propp's model, which is particularly relevant to this book, relating to the recurrent nature of linear structuring. Lévi-Strauss metaphorically expressed the recurrence of functions as successive card games whereby 'one periodically shuffles, cuts, deals, calls, plays, and takes the tricks'. Lévi-Strauss (1983) thereby emphasised, '*One repeats the same actions* in spite of *different deals*' (p. 173, original emphasis). The recurring nature of functions also relates to Lévi-Strauss's observation that some series of functions are inserted within a function. He further indicated that different series of functions may be introduced at the same location; for example, one series of functions that has already started is put on hold while another takes over temporarily and ends by being taken over by the original series of function. Different series of functions that occur simultaneously, Lévi-Strauss pointed out, may end with a single conclusion.

Lévi-Strauss goes on to identify the formalistic nature of Propp's model in the ways that Propp partly mixes semantic criteria for the identification of generic functions. As Lévi-Strauss indicates, Propp subdivided the generic function 'villainy' into steps, such as 'the villain abducts a person', 'the villain steals a magic agent', and 'the villain plunders or spoils the crops', so that less frequently encountered functions, or mere semantic variational elements, can look integrated. Importantly, by separating form from content as formalism does, Propp's model turned out not to be entirely capable of analysing variations in folktales. Then, Propp added semantically oriented criteria to fix the issue in the model, and this was a Band-Aid solution as Lévi-Strauss critically observed. Nevertheless, Propp explained that it is useful to isolate the model's most important functions from the rest that occur less frequently; namely, these functions are treated as obligatory and optional elements.

Lévi-Strauss then posed an important concern: 'Before the epoch of formalism we were indeed unaware of what these tales had in common. Now we are deprived of any means of understanding how they differ. We have passed from the concrete to the abstract but can no longer come down from the abstract to the concrete' (Lévi-Strauss 1983, p. 180). Establishing a generic structure model of a genre may seem to be advancement, but if it is a fixed formalistic model, variations among individual texts and the dynamism of genre evolutions are hardly described.

Lévi-Strauss stressed that structure analysis should rely not on the content of the function but on its context within the text. By this, Lévi-Strauss was referring to Jakobson's theory discussed earlier and arguing that just as Jakobson's phoneme forms a bundle of distinctive features, 'We define a "universe of the tale", analysable in pairs of oppositions interlocked within each character who——far from constituting a single entity——forms a bundle of distinctive features' (Lévi-Strauss 1983, p. 182), stressing the importance of identifying relationships between semantic elements. Form and content, when separated, do not make meaning, but it does for the first time when relationships between components that are made up of content are considered.

Lévi-Strauss's emphasis on the semiotic perspective of analysing the generic structuring of a text is identified here. This reminds us of his anthropology and mythology, in that he placed various elements of myth

or social customs from early non-Western cultures into minimal functional structures, with which he concluded that the elements generally deemed 'primitive' or 'savage' by European contemporaries are in fact functionally identical to those in 'civilised' societies (Lévi-Strauss 1963, 1966, 1976). In his book, *Structural Anthropology Volume I* (1963), he repeatedly acknowledges the role of the relation between units. For example: 'The error of traditional anthropology, like that of traditional linguistics, was to consider the terms and not the relations between the terms' (p. 46). Elsewhere, he wrote: 'Like phonemes, kinship terms are elements of meaning; like phonemes, they acquire meaning only if they are integrated into systems' (p. 34).

This is how Lévi-Strauss advocates the structuralist method that highlights the whole system in relation to the individual description of the elements or their content; that is, the method requires the researcher to reduce the elements to the extent that the relation of the element to the whole system appears. The inadequacy of Propp's analytical method is also widely recognised amongst researchers of structuralism and post-structuralism, as exemplified by Schleifer's (1987) remark: 'Propp … fails to develop a semiotics of plot, a "syntactic component" of the semio-narrative level of discourse situated between the immanence of grammar and the manifestation of meaning' (p. 93).

As many readers may have already noticed, a situation exists whereby the folktale genre structures described with a formalistic fixed model present a number of issues similar to the ones academic writing structure studies currently face. The similarities will be discussed later in this chapter.

## 3.3.3 Greimas

### 3.3.3.1 Overview of the Greimassian Approach

Greimas (1983) responded to the criticism of Lévi-Strauss on Propp's model and resolved the inadequacy of Propp's method by taking into account the relations among generic structure components. A text analytical perspective that combines structure and semantics is what structuralists, such as Hjelmslev and Lévi-Strauss, aimed for. With

this perspective in mind, Greimas proposed that—just like the Prague School's phonological analysis that highlights the logical priority of semantics over syntax (Ducrot and Todorov 1979; Martinet 1962)—the relations between generic structure components, which he termed 'seme', should also be taken into consideration during the analysis of a larger level, namely the content plane:

> Just as the expression plane can, through a functional analysis, be resolved into components with mutual relations (as in the ancient discovery of alphabetic writing and in modern phonemic theories), so also the content plane must be resolved by such an analysis into components with mutual relations that are smaller than the minimal-sign-contents. (Hjelmslev 1961, p. 67)

Hence, the generic structure components on the content plane can be mutually dependent in meaning-making. This bi-planar perspective that is extended to the generic structure level is summarised in Fig. 3.1.

Such doubling or bi-planar perspectives may be reminiscent of the SFL's hierarchical model of language (Halliday 1985). SFL similarly has been influenced by the theories of scholars such as Lévi-Strauss and Hjelmslev and by the Prague and Copenhagen Schools. As reviewed earlier, SFL considers that the structure of a text is a configuration of multiple functions. However, what is fundamentally different from Greimassian theory is that SFL does not take into consideration the relations between generic structure components. Also, in contrast to the structural elements in Greimassian theory, which are not autonomous but are dependent on the other parts of the text, the elements in Hasan's theory have an autonomous status. This is because, in GSP, some of these elements are considered to be obligatory in certain genres, regardless of the element's function in the overall structuring of the text. Greimassian theory, on the contrary, considers that the relations between the generic components are autonomous. Greimas asked, 'And, in the first place, what is the relation between narrative structure[1] and linguistic structure?' (1971, p. 793), and he clarifies the autonomous universal status of generic structure (p. 793):

[1] Greimas (1971) was concerned with the generic structure of fiction; hence, the expression 'narrative structure' is used.

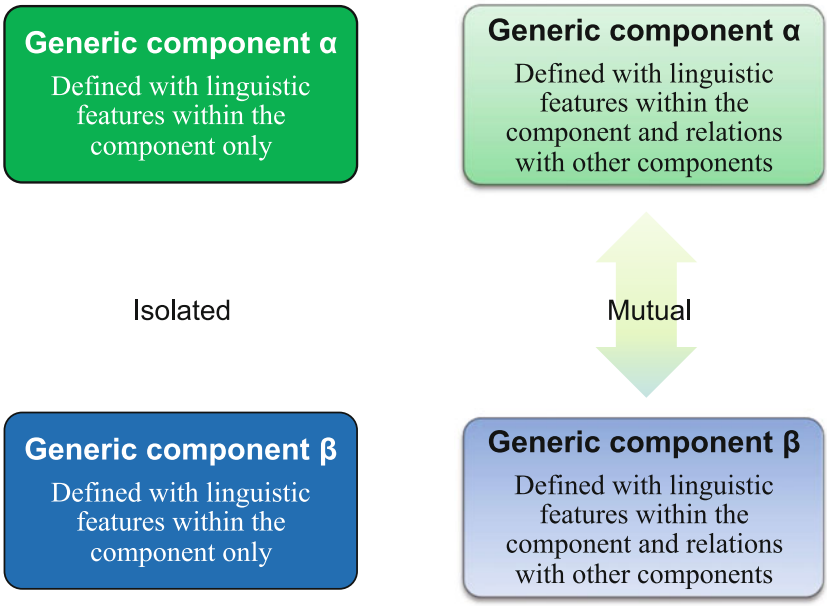


**Fig. 3.1** Generic components on biplane (*right*) and non-biplane (*left*)

1) Narrative structures are translinguistic because they are common to cultures with different natural languages (Alan Dundes has shown that the models which Vladimir Propp constructed for the analysis of Russian fairy tales are also relevant to the description of American Indian tales).
2) Narrative structures are distinct from linguistic structures because they can be revealed by languages other than the natural languages (in cinema, dreams, etc.).
3) Narrative structures are not to be confused with the so-called 'literary genres' (For example, the same narrative structure can be found in a novel or a play).
4) Narrative structures, although they serve as an organising principle of a great number of discourses, do not account for the economy of these discourses. If the analysis of discourse is able to reduce discourse to its deep 'semantic representation', the discrepancy which does exist between discursive sequences and narrative sequences can, nevertheless, be very important, although these two sequences are isotopic (Thus, only one narrative function can correspond to a whole paragraph of the discourse).

As a result of these, Greimas further summarised (p. 794):

a) Narrative structures are located at a deeper level than deep linguistic structures.
b) Although they are verifiable or apprehendable (or both) at the level of natural languages, narrative structures enjoy a certain autonomy with regard to linguistic structures and are not to be confused with them.

For Greimas, then, generic structure is a deep structure, and as this Chomskyan concept suggests, various linguistic structures are considered to be generated by a deep structure. So the relations between linguistic features and generic structures are summarised as follows (p. 797):

To the two linguistic levels,

1) surface linguistic structures
2) deep linguistic structures

two other narrative levels are added:

3) surface narrative structures
4) deep narrative structures.

Various move descriptions based on lexicogrammatical or semantic features, which so far have been made in the generic structure analysis of academic texts in the previous literature, fall within the third level, 'surface narrative structures'. This is the level at which Greimas (1971) noted that 'the temporalization and spatialization of narrative structures which at the third level are defined only by their logico-semantic relations' (p. 797). The third level in the Greimassian model, however, is merely a surface realisation generated by the fourth level, 'deep narrative structures', which is the most minimal generic structure that needs to be highlighted.

By these statements, however, Greimas himself is not denying that the deep structure is realised by linguistic components within each unit in the structure, but he considers that there are no rules—with for instance, the types of participants within a unit—in realising its

function in relation to other parts of text—any semantic participants and processes can realise a particular functional unit in discourse, because a deep structure can generate any semantic participants and processes.

Now the disparity between Greimassian theory and SFL becomes clearer. Although the Greimassian generic structure model shares European structuralist roots with SFL, it presupposes the basis of Chomskyan universal generative grammar, which SFL opposes; namely, surface structures are generated by deep structures (Halliday 1973). As such, the Greimassian perspective towards language highlights the innate structure operating universally among *homo loquens* and therefore may be disparate from the perspectives that foreground 'language development' in SFL (e.g., Halliday 1995). However, it may be possible to integrate these two perspectives, because developing a framework that extends the bi-planar perspective to the generic structure level does not necessarily presuppose the generative nature of it. This is, however, beyond the scope of this book.

On the other hand, Greimassian theory is integrative in that it does not deny universal as well as cultural aspects of text construction. This will be discussed in more detail later in this chapter. The system and realisations are actually integrated, but the emphasis is placed on the system. Greimassian theory is well known in semiotics, folktale studies, and various fields of language studies in Paris Schools, including linguistics, literary analysis, and genre analysis. By virtue of its simplicity and flexibility in classifying various texts' generic components, a Greimassian framework has been successfully applied to the analysis of a wide range of genres, such as legal discourse (Greimas and Landowski 1976; Jackson 1985, 1998), conversational logic (Cooren and Sanders 2002), advertisements (Bertrand 1988), narratives of career counselling (Vilhjálmsdóttir and Tulinius 2009), pauses in theatre (Teodorescu-Brînzeu 1984), the discourses on Western health-care systems (Askehave and Zethsen 2010), and multidimensional analyses of advertisements (Cian 2012), to name just a few.

Despite its successful application in a number of disciplines and cultures, Greimassian theory did not attract much attention in the research communities of Anglophone genre studies. Chomskyan linguistics,

which highlights an innate universal grammar spread in North America, was concerned mainly with syntax, not genres. SFL came to be concerned with genres, oriented in culture and contexts. Although SFL is also grounded in a European structuralist tradition, Greimassian theory was not taken over and this was possibly due to the explicit insistence on universal, innate, deep structures to be discovered in genre studies, to which SFL has been opposed.

It should be noted, however, that although Greimas advocated universal grammar, he was not opposed to the cultural and situational aspects of language construction. He asked whether linguistic realisations differ depending on culture and contexts (Greimas and Courtés 1979), while he maintained that the underlying deep structure is the same for texts belonging to the same genre. Hence, it can be said that Greimassian theory is an integrated theory that is quite distanced from theoretical conflicts[2] in academic discourse genre analysis.

One approach that is similarly influenced by the structuralist view of language, having been established in Anglophone linguistics research communities, may be the ethnographic approach towards narratives by Hymes (1979), in which he considers 'the rules of use without which the rules of grammar would be useless' (p. 15). This extends the Chomskyan notion of linguistic competence to communicative competence that involves rules of form as well as rules of use.

The time lag of translation can cause a theoretical gap. By the time Greimas's major work, *Sémantique Structurale* [Structural Semantics] (1966) was finally translated into English and published in 1983, Swales's model, with the publication of *Aspects of Article Introductions* (Swales 1981), was rapidly becoming dominant in academic writing studies. However neglected, the Greimassian theory is an integrative and flexible theory that comprises advantages of both universal and cultural perspectives towards language and has the potential to solve issues in the analysis of academic genres.

[2] It should be added that Hjelmslev, whose theory has been considered to have contributed to SFL, similarly pursued the universal structure of discourse, although he might not have been as explicit as Greimas on that point. See Bache (2010) for discussions on the application of Hjelmslev's theory on SFL.

#### 3.3.3.2 Greimas's Reformulation of Folktale Structure

Greimas (1983 [1966]) responded to the criticism of Lévi-Strauss on Propp and resolved the inadequacy of Propp's method by taking into account the relations between generic structure components. Hjelmslev aimed for a text analytical perspective that combined structure and semantics. With this perspective in mind, Greimas proposed that—just like the Prague School's phonological analysis that highlights the logical priority of semantics over syntax (Ducrot and Todorov 1979; Martinet 1962)—the relations between generic structure components (semes) should also be taken into consideration during the analysis of a larger level, namely at the content plane.

The Greimassian process of the generic structure analysis is deductive. Greimas, as a semiotician, suggested various methods to reduce texts to the most fundamental structural level, which he called 'semiotic reduction'. One such method is the 'actantial model', in which Greimas reduced Propp's thirty-one functions into pairs of actors by placing them in binary opposition to each other depending on the functional role the character of the story takes: 'subject' versus 'object', 'helper' versus 'opponent', 'sender' versus 'receiver', and so on (Greimas 1983). For example, one of Propp's thirty-one functions, 'the villain causes harm or injury to a member of a family', can be placed in the 'subject' versus 'object' binary opposition.

Thereby, regardless of the semantic and lexicogrammatical realisations the text contains, they can be summarised in one functional basis instead of increasing the number of generic structure components on the model for infinitely possible lexicogrammatical and semantic combinations of the same function. This solves what Lévi-Strauss referred to as two series of functions in Propp's model. So, 'subject' versus 'object' can also include 'the hero (subject) finds the princess (object)', 'the princess (subject) finds the hero (object)', and so on, without complicating the model. The functional roles are 'actants', which involve the manifestation of meaning. Actants can be, as Jameson (1972) put it, 'articulated either as a function (as the possibility of a certain type of performance) or as a qualification (involving the conferral of a certain number of attributes)' (p. 124). As such, actants are deep underlying narrative agents that are both structural and semantic elements at the same time, making it a structuralist model

and not a formalist one. Hence, the Greimassian method is characterised by its simplicity and radical deductive approach, reducing discourse elements to the minimal unit of meaning ('semes'/the paired actantial functions).

#### 3.3.3.3 Semiotic Square

Another Greimassian model, which is more directly relevant to this book, is the 'Semiotic Square'. The Semiotic Square is particularly useful in identifying the function of a newly encountered set of linguistic realisations, since it can sort out the realisations' logical meaning. Sorting out logical meanings that are seemingly complex at the surface level of a discourse becomes clear by placing generic structure components on the Semiotic Square. In that way, it further becomes possible, as will be shown later in this book, to hold off on the judgement of a component that seems to be ambiguous and wait to determine its status after a more extensive analysis has been conducted. The basic Semiotic Square displayed in Fig. 3.2 represents the semantic articulation on the content plane that Greimas developed:

In Fig. 3.2, four 'semes' (the minimal unit of meaning) are displayed on the square, and 'S1'——'S2' and 'Not S1'——'Not S2' are in opposition to one another. 'S1'——'Not S1' and 'S2'——'Not S2'contradict one another. 'Not S1' can be 'S2' or something other than 'S1'; similarly, 'Not S2' can be 'S1' or something other than 'S2'.

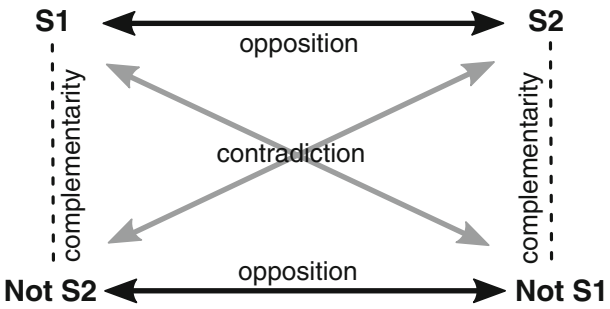


**Fig. 3.2** Basic semiotic square (Based on Greimas 1983)

Jackson's (1998) study on legal discourse may provide a good example of the application of the Semiotic Square. Jackson described both the differences and similarities between clear and unclear legal cases. In a lawsuit to determine whether the defendant is 'guilty (S1)' or 'innocent (S2)', it is not, in reality, always clear whether the defendant is actually guilty or innocent, as there may not be enough evidence to determine the verdict clearly. Being found not guilty, therefore, does not necessarily mean that the defendant is innocent. Jackson investigated this unclear nature of giving verdicts in a lawsuit by using the Semiotic Square. One of the models Jackson displayed reads as follows: S1: 'found guilty'; S2: 'found not guilty'; Not S1 'not found guilty'; Not S2 'not found not guilty' (Jackson 1998, p. 238) (Fig. 3.3).

Jackson pointed out that for a layperson 'not guilty' means 'innocent', partly because the layperson tends to construct meaning in terms of binary oppositions, namely guilty versus innocent. So the verdict 'not guilty' would be perceived as 'innocent' on the basis of this opposition without leaving room for the second level of the Semiotic Square that indicates that the defendant is possibly guilty or innocent. Importantly, the Semiotic Square enables the analyst to describe both the differences and similarities between an unclear case and a clear case. Instead of placing unclear cases rigidly into a pre-established category (using the first level of the square only), the second level of the square can flexibly identify the function of a newly encountered set of realisations.

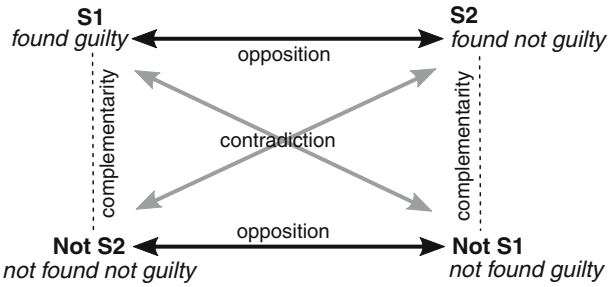


**Fig. 3.3** Semiotic square (Based on Jackson 1998, p. 238)

## 3.4 Similarity Between Propp's and Academic Writing Structure Models

As noted earlier, a number of formalistic characteristics with Propp's model are reminiscence of the current issues with the academic writing structural analysis models. In fact, Propp's method has much in common with the way structure analysis is conducted within academic writing studies today. To the best of my knowledge, none of the existing structure models for academic discourse analysis pays attention to the potential of the role relationships amongst generic structure components in meaning making.

First, the characteristic of Propp's model in which form and content are treated separately is shared with both Swales's model and the SFL model. The form and content in Swales's CARS model have a one-on-one relationship as its component's form is defined by its content. The descriptions of 'steps', namely components within a move, are described in terms of their contents; for instance, 'claiming centrality' (a step within Move 1) and 'counter-claiming' (a step within Move 2). These descriptions are the summary of the component's content, and hence they do not extend to the description of relationships beyond the component. The role that each of the components plays in relation to the whole is not considered. The way form (structure) and content are separated is essentially formalistic. Also, the way semantic elements are considered to constitute a generic structure component in Swales's model shows one of the prime similarities with Propp's model. Furthermore, the macro-structure model, namely IMRD, is a linear model and barely takes into account the relationships between components. This is evident from the study by Paltridge (2002) in which he revealed that, despite the thesis guidebooks' instruction to favour IMRD structure, many actual theses are written using different structures.

Macro-structural components could be added with a relational perspective so that the diverse surface features could be summarised in terms of their relations to the whole text, fixing the current macro-structure models that do not reach beyond formalistic, linear descriptions. As discussed earlier, the SFL approaches to generic structure similarly do not

consider relations between generic structure components. GSP holds that certain properties of text structures are signalled/realised by certain elements, assigning autonomous status to these components (Halliday and Hasan 1995; Hasan 1996). The bi-planar perspective that combines structure and semantics is not extended to the generic structure level in SFL and this leaves it formalistic rather than structuralistic.

Second, as previously mentioned, academic discourse structure models emphasise the sequential description of structural components similarly to Propp's model. As discussed in Chap. 1, Swales's (1981, 1990) original CARS model was sequentially fixed (Move 1—Move 2—Move 3). The sequence of generic structure components was constant, as in the case of Propp's model. Following studies that showed otherwise (e.g., Crookes 1986; Samraj 2002), the CARS model was later modified to allow non-linear and cyclical moves (Swales 2004). Taking the sequential constraint off the model and continuing to use the formalistic componential labelling, however, caused complexity of the model instead of correcting the essential issue.

The third issue is the complexity that is similar in kind to what Propp faced; namely, it concerns the two series of functions Lévi-Strauss identified in Propp's model. Such complexity has been observed by many studies, in particular by Samraj's (2002) study in wildlife behaviour and conservation biology RA introductions. Importantly, Samraj determined that research justification is made for concerning 'the external world' (external to the research world), 'epistemological spaces' (the research community), or both in the corpus. There are introductions that justify research by pointing out problems with external world topics concerning conservation biology. These form two series of functions/generic structure components. One series concerns the research community ('epistemological spaces'), justifying research by claiming the importance of research topics and by pointing out issues with the previous research. The other series concerns the external world, justifying research by claiming the importance of some object in the external world and by pointing out issues with it. Given that both are research justifications, these two series of generic structure components, if further minimised as Greimas did with Propp's model, can be reduced to one and the same component.

Similarly, cyclical moves and steps that occur in Move 3, which was observed in Samraj's study, also represent series of generic structure components that can be minimised. As presented in Chap. 1, Samraj's study showed that a Move 3 element that introduces the methodology of new research tends to contain a CARS structure. For example, if occurring inside Move 3, elements that assert background and relevance of the methodology are a sub-move (Move 1) of Move 3; and elements that point out problems with the methodology or other methodologies are a sub-move (Move 2) of Move 3. All of these sub-moves, however, can be reduced to the component in which all the research justifications are classified. One same component serves to be a minimal unit for research justifications concerning the external world, epistemology, and sub-moves. As for Move 3, Swales (2004, p. 231) pointed out that it 'can now be seen as typically more complex and elaborated than originally envisioned', and as to the reasons for it, Swales did not identify what exactly caused it, stating, 'It remains unclear whether this is the result of evolution in the genre itself or of further studies, or perhaps both'. This indicates that the current model cannot flexibly take into account the dynamic changing nature of genre.

It is notable that this exactly relates to the recurrent nature of linear structuring Lévi-Strauss found in Propp's model: some series of generic structure components are inserted within a generic structure component. This, as Lévi-Strauss observed, means that sometimes a series of linearly constrained components that have already started is put on hold, while another takes over temporarily and ultimately is taken over by the original series of generic structure components, so that both series of generic structure components end in a single conclusion. Consider, for example, an RA introduction that is constructed with a series of linearly constrained CARS structure, namely Move 1, Move 2, and Move 3. When Move 3 starts and presents the aim of the research, this series is put on hold to determine how important it is to choose the right methodology for the aim of research (sub-Move 1) and then the discourse moves on to present problems with many of the methodologies (sub-Move 2), all of which lead to the announcement of principal findings (Move 3). This final Move 3 is then the destination of both the inserted and the inserting CARS structures. As many academic writing researchers may have experienced in their attempts to analyse structures with the CARS model,

real text turns out to be full of complexities and recurrences that overlap among the CARS components.

The fourth issue is a logical result of the third. Lévi-Strauss pointed out that some functions in Propp's model are variants of others. In the CARS model, given their functional and relational similarities, it is clear that claiming the importance of research topic and the external world, and sub-Move 1 can be considered to be the variants of Move 1. Similarly, pointing out issues with research topic and the external world, and sub-Move 2 can be considered to be the variants of Move 2. However, it may appear less clear that Move 1 and Move 2 are also variants of each other. When these two are reduced to the minimal analysable units of meaning, they both belong to the same one that functions to push forward Move 3. Both of these, from the viewpoint of structuralism, are characterised by the same relationship to Move 3: increasing the value of Move 3 (research).

This is because content that constitutes a generic structure component alone cannot be the identification criterion of the component. Its generic componential status can be confirmed only in terms of its relationship with other parts of the text. Although the literature using the CARS model describes many categories called steps and sub-steps, such as 'reviewing items of previous research', 'importance in external world', 'importance in research', 'indicating a gap in external world', 'indicating a gap in research', and 'continuing a tradition', these can all be reduced to the same minimal analysable unit.

This may be most evident with Swales's component that reviews previous research, which has been somewhat controversial as to how to properly place it in a generic structure model. Originally, Swales allocated one move 'summarising previous research' (Move 2) followed by 'establishing the field' (Move 1) (Swales 1981). However, it was difficult to distinguish these two moves, mainly because establishing the field also requires citations. To solve this problem, Swales integrated these two into one move; hence, 'reviewing items of previous research' became the third step under Move 1. Bhatia (1993), however, argued that combining these two moves is a problematic arrangement and they should remain separate. What is important here is that Bhatia pointed out that citations that occur in 'establishing the field' and 'summarising previous research' moves have different discoursal functions.

In fact, academic writers deploy citations for different purposes, and hence a stretch of discourse containing a citation cannot alone be a criterion for a generic structure component. Later, Lewin et al. (2001) and Samraj (2002) indicated that citations can occur across moves. Following this, citations in the revised model (Swales 2004) can occur in all three moves. Lewin et al. (2001) pointed out that citations can be used for various different purposes. Citing previous studies on a research topic may show the importance of the research topic. Critical evaluations of previous studies may create a research space. Reviewing previous studies that developed a methodology that is going to be deployed for research can justify the methodology. All of these serve different rhetorical functions.

Moreover, what identifies the discoursal purposes of citations is that each citation tends to change its status as the discourse advances. For example, an aspect of a study is cited rather neutrally and proceeds to be discussed as an example of the relevance of a research topic. Then another aspect of the same study is criticised, all of this contributes to create a research space (Sawaki 2014b). Reviewing previous research alone cannot be a criterion for a generic structure component.

This long history of re-arranging a place for 'citations' within the CARS model itself demonstrates that an element concerned with content such as 'citation' alone cannot indicate a generic structure status. Cues in the content—in this case, citations (what previous researchers did and said)—do not signal a certain move.

Content is separated from form in SFL tradition of genre analysis. As presented earlier, generic structure components in Hasan's GSP are signalled by specific semantic elements, treating content that realises generic structure components as autonomous, without considering relationships between generic structure components. Just as Propp separated form (structure), sequencing of generic structure components (stages) within a genre is regarded as fairly stable in SFL. SFL academic genre studies highlight the description of stages such as 'recount', 'account', 'exposition', 'procedure', and 'narrative'. These stages are characterised by the types/genres of discourse, which are the content. These stages are realised by the content; however, relationships between stages are treated as sequential and not as semiotic relationships as the term 'stages' suggests.

From the perspective of SFL academic genre studies, Hood (2010) observed that narratives frequently occurring in postmodern humanities thesis introductions function as 'research warrants'. Importantly, what Hood called 'research warrants' can be characterised by a perspective of structuralism. 'Research warrants' can serve to be a reduced component in which any components that push forward 'present research' can fit; and the reduced component is also defined by its relationship to the other part of the text.

Such a binary relationship is also seen in the problem-solution model (Hoey 1983; Winter 1971). Although the model takes into account the relation between the two components, its scope is limited in that it cannot capture patterns other than the problem-solution. Academic writing is diverse. Personal narrative elements that are often present in humanities theses are one instance of diverse academic writing practices which do not fit into the model, since they pose no issues that need to be solved (Sawaki 2014c).

Another similarity between Propp's model and the generic structure models proposed in academic writing studies is the arrangement of obligatory and optional elements. As presented in Chap. 2, studies in ESP/EAP and SFL have attempted to distinguish between obligatory/prototypical elements and less frequently occurring optional elements. Where a generic structure is fixed and static, variations of elements that realise the same role in relation to other parts of the text lose a place to be classified. Propp's arrangement was to partly mix semantically oriented identification criteria with his form-oriented model. The consequence was a complex model with many steps and semantic variations under a component. Similarly, Swales's CARS model contains steps under moves, and as discussed, studies on disciplinary variations and thesis writing continuously discover optional moves and steps, which resulted in the endless descriptions of generic structure components. As discussed, Swales's model also mixes different types of identification criteria, namely cognitive and lexicogrammatical/semantic ones. These are inevitable consequences with a formalistic model. As Lévi-Strauss indicated, such issues of endless descriptions of minor elements made up of semantic variants of the same generic structure component can be solved if the dichotomous separation between form and content is reconsidered.

Identifying obligatory/prototypical and optional elements of genre and highlighting the obligatory/prototypical over the other may lead to a more serious issue: prescribing a monolithic central generic structure model. Although studies have revealed disciplinary variations, they tend to encourage instructing students to follow the obligatory/prototypical structures of their target discipline. Academic genre analysis, as discussed in Chap. 1, has been successful in providing a clear set of rules that students can easily understand and follow. At the same time, the concerns about the prescriptive nature of genre analysis at pedagogic settings remain unsolved (Swales 2004). Highlighting obligatory/prototypical elements cause standardisation of discourse and this is exactly what the New Rhetoric tradition has been cautious about. Less frequently observed elements, on the other hand, tend to be left out in research and pedagogy, although such elements may provide important implications for genre dynamism. The fact is that genre evolves and this is essentially ignored in both research and pedagogic settings.

To summarise, failure to describe genre diversities can be identified in both Propp's folktale and today's academic genre analytical traditions. The same situation that Lévi-Strauss described regarding Propp's model applies to academic genre analysis. Advances in academic structure research have fulfilled the aim of describing what academic texts have in common, and before the 1980s this was not addressed. Today, however, just as Lévi-Strauss suggested about the situation after formalism, we are deprived of a means of understanding how academic texts differ and this is because 'we have passed from the concrete to the abstract but can no longer come down from the abstract to the concrete' (Lévi-Strauss 1983 [1958], p. 180).

## 3.5 Conclusion

This chapter has explicated differences between formalism and structuralism, which, in today's academic discourse research, tend to be confused and used interchangeably. This chapter has further demonstrated that the major generic structure analytical traditions in academic discourse studies are of formalism, not of structuralism. One of the main reasons that

the academic writing research traditions remained formalistic relates to the confusion between formalism and structuralism. In other words, sorting out formalist and structuralist approaches becomes the importance impetus for solving the complexities that have arisen because of the confusion. Notably, structuralism has the potential for academic discourse studies to achieve the goal of analysing structure without crystallising discourse. As Lévi-Strauss emphasised, approaches in structuralism can flexibly take into account diversity, as evidenced by his own structuralist analysis in anthropology, which demonstrated that non-European, peripheral elements are not a sign of inferiority but are culturally meaningful.

As this chapter has illustrated, structuralism and the prototype theory have much in common and are flexible in classifying diverse elements. These two approaches are both adaptable, but if applied separately, they would fall short of reaching the goal of this book. The prototype approaches need be extended to the generic structure level of analysis, and structuralist approaches can complement the prototype-oriented identification of generic structure components. These potentials will be presented in Chap. 4.

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# 4

# The Binary Model

## 4.1 Introduction

In this chapter, I propose a generic structure model for academic writing which integrates structuralism and the prototype theory. As reviewed earlier, the application of the prototype theory has not been extended to generic structure analysis. This is enabled by a Greimassian approach, which is a generic structure analysis. Hence, this chapter aims to establish a structuralist model for academic writing without falling into formalism.

As reviewed earlier, many genre analysts have relied on formalistic descriptions of genre without intending to do so. The method that will be presented in this chapter enables a structuralist description of academic writing by using the Semiotic Square that Greimas proposed. A number of instances are analysed in line with the structuralist approach that assumes the content of structure to be abstract, not concrete. First, I will establish the definition of 'genre', which serves as a crucial foundation

An earlier version of this chapter appeared as 'The CARS Model and Binary Opposition Structure' in *The Public Journal of Semiotics*, *6*(1), 73–90, and parts of it appear here with full permission of PJOS.



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DOI 10.1057/978-1-137-54239-7_4

on which an integral theory is built. More specifically, the definition of genre integrates the structural model of this chapter and the prototype approach presented in Chap. 5.

Some of the excerpts from academic texts examined in this and subsequent chapters establish the new model, and they are the ones that were used to establish previous models in genre analysis. These include an aerospace science engineering research article (Almosnino 1985), which Swales (1990) used in establishing the CARS model. In addition, I examine a conservation biology research article (Peres and Terborgh 1995), in which Samraj (2002) revealed that centrality claims can be made not only by reviewing previous research but by describing real-world phenomena. Undoubtedly, these text analyses marked milestones in academic genre analysis. For that reason, these texts provide excellent examples for showing a contrast between the analysis performed by the previous generic structure models and the present model. This chapter starts with establishing the foundation of the new model by demonstrating that 'genre' is a prototype concept; it moves on to present the binary structural model.

## 4.2 Definition of Genre

One of the most significant achievements of Swales's generic structure model is arguably the deployment of the prototype theory in the identification of genre. Swales, however, did not extend his prototype approach to genre beyond the identification of the term. As this book will show, it is possible to apply the prototype approach to both the definition of genre and the identification of generic structure components. This is because the definition of genre and generic structure component identification need to be consistent. I argue that one of the reasons that genre theory and its analysis became inconsistent is the discrepancy between genre definition and identification. Genre theory achieves integrity by applying the prototype theory to the definition of genre as well as to the identification and analytical frameworks.

The concept of genre, as has always been the case with the previous models of genre analysis, occupies a central position in the present project. It is also important to note that researchers have not reached

an agreement on the definition of genre, although the concept has been widely discussed for ages. My proposal that the definition of genre itself is prototypical comes from what Cohen (1986) put forward: 'Genres are open categories' (p. 204) that cannot be treated as determinate groupings.

Chapter 1 reviewed different perspectives concerning the concept of genre within ESP/EAP. Outside of ESP/EAP, a number of scholars, particularly in literary analysis, have contributed to the discussions concerning the definition of genre. Not simply because this book is a post-disciplinary one but also because there are quality discussions that are relevant to ESP/EAP genre analysis, it is useful to present a quick review of the history of defining genre in literary analysis before going on to the presentation of genre definition. It is, in fact, interesting to note that the issues surrounding the concept of genre in ESP/EAP appear quite similar to those in literary studies whereby Cohen (1986) eventually proposed that genres are open categories.

## 4.3 Definition of Genre in Literary Analysis

I started with a review of Romantic genre theory. Represented mainly by German Romanticism, it highlighted three genres (lyric, epic, and dramatic). Some scholars of Romanticism, on the other hand, were sceptical of the concept of genre, claiming that the concept was arbitrary, reductionist, and even tyrannical. Beneddetto Croce (1922 [1909]), in particular, was extreme in his position in which he denied the concept of genre. Croce considered every literary work to be new and so he believed that a given work should not be evaluated according to how well it conforms to prior norms. He criticised the concept of genre represented in formalism and structuralism altogether for emphasising structure rather than the uniqueness of individual texts.

Gérard Genette (2014 [1977]) pointed out that the convention of German Romanticism that distinguished the three genres confused genre and mode. Instead, Genette emphasised that genre (historic categories that change over time) and mode (methods of enunciation: the ways something is told [e.g., narrative and dialogue]) should be considered separately.

Partly expanding on Genette's idea that the two concepts, genre and mode, should be separated, Derrida (2014 [1980]), in his article entitled 'The Law of Genre', pointed to the previous confusion concerning genres and individual texts. Derrida demonstrated that individual texts participate in genre but cannot belong to it. That is, although individual texts may intend to belong to a specific genre, marking genre (modes, specific text styles, purposes, norms, and so on) cannot, because belonging to genre and marking it are different. Various kinds of genre marking, according to Derrida, do not equate to membership in a genre. This is also because the interpretation of a text participating in genre is indeterminate. Importantly, Derrida is concerned with the identification of genre, which he considered a subjective activity. Derrida, thus, put this as a paradox: 'Making genre its mark, a text demarcates itself' (p. 212). Derrida further discussed this paradox in relation to the intermixing of genres. An individual text can be constructed with marks not only of a specific genre but of different genres. For example, a novel can contain history, letters, poems, drawings, and so on. This occurs because no features of a text serve to be an absolute signal for a specific genre; deeming such a text as belonging to a genre distorts the fact that it contains other features. Hence, this is 'a sort of participation without belonging…without having membership in a set', which he called, 'a principal of contamination' (Derrida 2014 [1980], p. 206).

Derrida's view towards genre is certainly in line with his postmodern perspective that a text's intention and its interpretation are different, however, his genre paradox represents extreme nominalism. Cohen (1986) agreed with Derrida that genre may be better treated if essentialist categories and definitions were abandoned. Cohen stated, 'He [Derrida] assumes that all such [genre] participations are to be distinguished from belonging. Indeed, for him, the individual text has so many contrary markings that participations undo belonging' (p. 205). Such mixing of genre properties, according to Cohen, can bear more fruitful analytical potential if categories that don't determine genre definitions are made open. Cohen recognised that there are multiple definitions of genre and considered that genre categories are regularly changing shapes. New, unique instances of genre that contain different constituents are constantly added, changing the concept of genre over time. It is important

that Cohen attributed the triggers for genre change to the human need to classify, and people's needs and purposes to classify genres vary. Hence, depending on different needs and purposes to classify genres, the definitions as well as groupings of genres vary: 'It is self-evident that the same texts can belong to different groupings or genres and serve different generic purposes' (Cohen 1986, p. 204).

Interestingly, it is analysts who make genre. Cohen was aware that genre is not a kind of entity that can be dealt with by classical categorisations; genre 'classifications are empirical, not logical' (Cohen 1986, p. 210). To Cohen, genres are historical assumptions that are 'constructed by authors, audiences, and critics in order to serve communicative and aesthetic purposes' (p. 210). Genres are a system of community that are inter-related, defined by each other, and, most importantly, open. This makes genres not defined by common traits but viewed as processes that are produced by genres' and their members' inter-relating potential.

## 4.4 Defining Genre as a Prototypical Concept

Up to this stage, it is clear that many difficulties surrounding the definition of genre which the literary analytical traditions have experienced are similar to those of the ESP/EAP traditions. First, the criticism against the genre analysis of the Romanticism tradition that it is formalistic and ignores individual texts is comparable to the criticisms against the academic genre analysis traditions for being formalistic and ignoring diversity. Fixing genre categories and their structural and textual properties to match the mainstream features consequently cements genre and runs the risk that diverse individual texts will be less valued simply because they lack some of the mainstream elements of the genre.

Second, the distinction between genre and mode that Genette proposed relates to diverse discourse styles with which academic writing genre can be constructed. This is notable not so much in ESP/EAP but in the SFL analytical approach to genre that describes staging (narrative, recount, account, and so on) of discourse. This is a stable analytical framework in that, as Genette observed, modes, the ways something is told, are identifiable and hence stable, whereas genre consists of historic categories

that change over time. This relates to the phenomenon of genre-mix that, as reviewed earlier, has been observed in academic discourse.

Derrida would consider the phenomenon of genre-mix to be an indication that 'making genre its mark, a text demarcates itself'. It is interesting to contrast this view with the assumption of academic genre studies that individual texts that mix genres belong to a genre. In a sense, the fact that various marks of different genres intermix in individual texts needs serious questioning if genre as such exists at all. It is also interesting to note that what Derrida calls 'marks of genre' include everything that can be considered to mark a genre, including purposes of a text.

The view that even text's purposes do not correspond to a genre may be perplexing to academic genre analysts, but it does provide a couple of important insights into the relationships between the concept of genre and the purposes of individual texts. Recall Swales's formulation of communicative purposes as a privileged property of genre (Chap. 2). One of his rationales for this was that an instance of genre that does not share linguistic features with other instances of genre can be identified as a member of a genre as long as they share communicative purposes. On the other hand, an instance that does share linguistic features with members of a genre but does not share their communicative purposes can be identified as belonging to a different genre, so 'the clever parody from "the real thing"' (Swales 1990, p. 49) can be disentangled. When Derrida's perspective is adopted, however, a different shape of purposes in relation to genre emerges.

A parody that contains many properties of an original text, Derrida would say, participates in at least two genres: parody and the original text. Such a text could be identified as high in the level of genre inter-mixing, and in the sense that it mixes genres, it is no different from instances of genre-mix in academic texts that include narrative elements. Such texts participate in two or more genres, belonging to no genres. This is in line with what Bhatia (1995) observed as mixture of complementary purposes whereby genres rarely serve single purposes. Although communicative purposes may in a way be a privileged property of genre, it is nonetheless no more than a heuristic arrangement, as Swales himself acknowledges. Major communicative purposes of each author of a research journal article may vary, from research community-oriented communicative purposes, such as telling the community that previous mainstream approaches are

outdated, a discovery has been made, the author is a skilled researcher, and so on, to rather institutionalised communicative purposes such as publishing for a PhD degree requirement or for maintaining a job, promotional purposes, and so on. It is common that academic authors have multiple communicative purposes for one text as well as that texts belonging to different genres share the same purpose. Hence, from Derrida's perspective, purposes are no more than another mark of genre, namely, 'making genre its mark, a text demarcates itself'.

Although Derrida's observation revealed the impossibility of directly relating individual texts to a specific genre, there is another side of the same coin which remains little discussed. That is, determinate definitions can hardly capture genre. As Cohen (1986) proposed, it is the essentialist genre categories and definitions that need to be abandoned for the reasons that logical classifications of genre necessarily fail; genre cannot be defined by common traits, because multiple definitions of genre always co-exist; new instances of genre are regularly added; genres are open, and inter-related systems continue to change their shapes; therefore, it is not the instances of texts but human needs to classify that define genres. In fact, Cohen's arrangements in response to Derrida's observations appear to be straightforwardly applicable to ESP/EAP genre analysis. This is because ESP/EAP genre analysis has also suffered from the determinate conceptualisation of genre.

As reviewed in Chap. 1, different approaches to academic discourse studies put forward different definitions and conceptualisations of genre, be they communicative purposes among the members of discourse community (Swales 1990); staged, goal-oriented, social processes (Martin 2009); or social actions (Bazerman 1997; Miller 1984). Every approach to genre has its rationale, and yet none has been adequately successful in taking into account new, peripheral, minor, diverse instances of genre that contain various features of different genres.

At this stage, it becomes important to point out that both literary analysis and ESP/EAP traditions to genre assumed classical categorisation approaches that are based on necessary and sufficient conditions and that both have gone through similar definitional and analytical issues (except for Cohen). Both traditions of genre feature classifications that are based on sufficient and necessary conditions.

The need to implement academic writing structure pedagogies equates to the need to analyse structure in academic writing. Cohen's (1986) claim that it is the needs of the research community to analyse genres that define genres appears valid. It seems that we need to admit that drawing a categorical boundary with a definition of genre is impossible. That is, such a boundary necessarily becomes fuzzy. New instances of genre always appear, disturbing the boundary. The shape of a genre is constantly changing. Its components are always changing. However, academic genre analysts and practitioners want a clear-cut concrete model to implement. It is the needs of researchers which define genre.

Cohen's observation was made from an orientation different from that of the prototype theory. However, given the similarities and validity, it should be safe to propose that the definition of genre is a prototypical concept, further extending Cohen's view towards genre. As presented in Chap. 2 and as emphasised by Geeraerts (2010), Posner (1986) pointed out, that the definition of prototypicality is itself a prototypical concept. That is, different researchers define prototypicality focusing on different aspects and not all of the features listed as the four features of prototypicality do necessarily co-occur. Similarly, genre theorists focus on different aspects of genre. Features of genre definitions have inter-relationships that are similar to the inter-relationships between features of prototypicality, revealing that not all features necessarily co-occur. Definitions of genre, such as purposes, structures, modes, social actions, and norms, have inter-relationships. Various definitions of genre can co-occur, overlapping each other. Many definitions provided by different approaches to genre, in fact, do not discriminate against each other.

For example, communicative purposes that Swales (1990) placed as a privileged property of genre can co-occur with other properties. To recall, the rationale for Swales to prioritise communicative purposes is that other properties of genre are less reliable; one example was represented by the difficulty in identifying the genre of parodies. I would argue, however, that this serves as a fine instance in which the concept of genre is prototypical. Parody may be said to contain properties of different genres within. A parody may have, on the one hand, the structures and modes identical to the original text that are characteristics of the original text's genre. It has, on the other hand, the properties of parody that are represented by parody's communicative purposes and by intertextual relationship to the original genre.

Concerning parody, communicative purpose can be said to be a more prototypical feature of genre than the textual features of genre of the original text. However, the claim can remain valid only under the condition that a boundary of genre pre-exists. That is, the argument presupposes that parody as a genre is established without any investigations to establish it. A parody may share a number of characteristics with the original text, and it may be that its communicative purpose of making fun of the original text to amuse the reader/viewer is one of the few properties in which it differs from the original text. It depends on the analyst classification approach how a text in question is classified into a genre. Consider an analytical approach that does not rely on pre-established genre categories but relies on the number of shared properties; a parody may not be classified as a parody but as the one with the original text.

The latter might often be the case in many academic discourses that are high in intertextual features. For instance, an academic text that relies heavily on a previous text may be on the same topic and present features of the previous text, and the only difference is that it is written solely for the purpose of criticising the original text. Is such an academic text in a genre different from that of the previous, original text? This may sound like a nonsense question whereby academic genre is presupposed to be established: of course, they are both academic writing. However, what about a parody, then? Both a parody and a criticism rely heavily on another text. The communicative purposes of both criticising and parodying are different from those of the original texts. Nonetheless, parody is granted as a genre whereas criticism is not.

The only clear difference is that parody is commonly thought of as an established genre but that critical discourse is commonly thought of as an academic writing genre or as a sub-genre under academic writing genre. In other words, what is thought of as a genre depends on the analyst's cognition.

The same situation holds with so-called genre-mix instances that have been reported in ESP/EAP studies. What to recognise as a genre depends on the analyst's idealised cognition. For example, if an analyst is trained as an ESP/EAP researcher, a text that contains multiple different modes is identified as an instance of genre-mix; if he or she is trained as an SFL researcher, such a text is considered to have different stages.

However, the complexities arising from multiple modes or what ESP/EAP would sometimes call genres occurring in an academic text can be resolved

by approaching genre from the perspective prototype theory. Definitions of genre overlap with each other and this is apparent in instances of a genre containing mixed properties of different systems of genres. Definitions or properties of genre are inter-related, and the definitions have degrees of prototypicality: some of the definitions (e.g., 'purpose') are more prototypical than others (e.g., 'mode'). The shape of genre constantly changes; no definite definitions of genre can capture the entire dynamism. New instances of genre are constantly added, shaping inter-relations with other texts in the genre and with the surrounding systems of genres. At the same time, the definition of genre within the system of genre gradually changes. The process maintains the fuzziness of the boundaries within a genre system and between different genre systems. Definitions of genre also orient researchers' needs to classify, making the presented definitions of genre essentially cognitive.

The concept of genre, in fact, satisfies all four characteristics of prototypicality which Geeraerts (2010) formulated (Fig. 2.1): (a) differences of typicality and membership salience; some members of a category are more typical or salient representatives than others; (b) clustering into family resemblances: the properties of members overlap, most salient core characteristics emanating the peripheral; (c) fuzzy at the edges, membership uncertainty; and (d) absence of necessary and sufficient definitions. Genre, therefore, is a prototypical concept.

The definitions and identifications of genre are closely related. Classical categorisation approaches to genre have proven inadequate. Instead, genre has shown all the properties of prototype. The problem with definitional approaches to genre has been recognised in ESP/EAP. Swales (2004, p. 61) casts doubt on his former definitional depictions of genre in *Genre Analysis* (1990), suggesting instead a metaphorical meaning. The shift in attention from definitional to metaphorical approaches to genre is promising, although the metaphorical or cognitive theorisation of genre has not been fully accomplished.

Enforcing prototype approaches to definitional, categorisational, and analytical methods to genre should finally enable the development of a consistent theoretical and analytical framework to genre, resolving discrepancies between theory and practice. I end this section by summarising prototype-based definitions of genre that are borne in this book.

Genre is a cognitive-oriented category whose definition depends on the cognitive processing of analysts, authors, speakers, readers, and

listeners of the text. It is a prototype category whose members (definitions) vary in their prototypicality at a given time in a given culture and ideology. The boundaries of genre definitions are fuzzy; new definitions of genre are constantly added without necessarily sharing central membership definitions.

## 4.5 Binary Structure

The binary generic structure model that Greimas formulated serves as a basic apparatus for the academic writing structural analytical method this book presents. As this chapter and the entire book demonstrate, the combination of the Greimassian binary model as a structural template and the prototype theory as a structural componential variation descriptive method enables an analysis of genre that is diverse and dynamic. It is enabled because the binary generic structure can be matched with Lakoff's arrangement of metaphor on a binary system, namely 'Conceptual domain A is conceptual domain B'. Unlike the metaphor component analysis that was developed in cognitive semantics, the present project contains complexity, since it extends the analysis to the discourse level. For this reason, the deployment of the Greimassian generic structure analytical model is useful to sort out the complex nature of discourse. It can reduce the relationships between generic structure components, which otherwise are quite complex, into simple binary structures, so that cognitive-based metaphorical analysis can be directly applied therein.

Hence, the working hypothesis to be proven in this chapter is that the structure of academic writing can be analysed by using a binary model. By the structure of academic writing, I do not refer to formal structures such as sections and chapters but rather to the structuralist perspective, whereby relationships between elements become the basis of a text's structural identification. Also to consider is the view that the generic structure components that are positioned on the binary model can be treated as prototype categories, which will be presented in Chap. 5.

The subsequent sections propose that academic writing can be divided into 'presentation of research' and 'the rest'. It is true that 'the rest' does not serve as a nominal category, denoting no specificity. However, it is important for the category to remain as such in order to achieve flexibility

to analyse diverse academic discourse without cementing the discourse with a pre-set structural content. It is also important for the position to remain empty in content so that diverse academic writing structural content that has not yet emerged can be analysed. This will also enable the analysis of disciplinary and cultural writing in Chap. 6. The importance of the category to remain empty and open to new instances will be further explained in Chap. 5.

## 4.6 Reducing the Structure of Introductory Sections

To explicate how apparently complex generic structure components can be reduced into two elements, I will use introductory portions of academic writing for an example. It is important to emphasise, however, that I use introductory portions for the purpose of explicating the model. The binary structure model can analyse other portions of academic writing such as abstract, methodology, discussion, and conclusion, which will be further discussed in later chapters.

Introductory portions are a familiar place to start since 'introductions' have been a centre of attention in the academic writing research tradition, represented in particular with studies using the CARS model. In many disciplines and cultures, the introduction is one of the most important and, therefore, most difficult sections to write, requiring strategic engagement with the research community.

Introductions can be divided into 'research' (presentation of research) and 'the rest', regardless of different surface features obvious in these elements. The rest, namely the remainder of the 'research', can be classified as 'the rest'. Certainly, 'the rest' does not seem to satisfy as a category name and this is because it doesn't specify anything except that it is not a presentation of research. However, as mentioned earlier, leaving its content unspecific, judging from the experiential difficulties genre analysis has gone through, is the only way to enable the comprehensiveness and flexibility of the analysis. However, it should be safe to say that 'the rest' has a feature that increases the value of research in Anglophone mainstream academic writing. I demonstrate this in the subsequent sections.

### 4.6.1 Presentation of Research

As noted earlier, it is fairly simple to identify a part of academic discourse that presents research. If a portion of discourse is presenting research, it is identified as 'research'.

The previous generic structure models and formulations of academic writing have the element of 'research'. Consider the CARS model (Swales 1990). The majority of elements in Move 3, 'establishing a niche', can be unproblematically classified into 'research', except for those functionally equivalent to Move 1 or Move 2 or both (e.g., asserting relevance or pointing out problems with previous methods and approaches). Lewin et al. (2001) described Move 3 as 'previewing author's new accomplishments' instead of 'establishing a niche' in order to avoid confusions due to metaphorical expressions. The more functional labelling, 'previewing author's new accomplishments', indicates that the majority of elements in Move 3 can be classified unproblematically into 'research'. The problem-solution pattern that Hoey (1983) proposed also reflects the simplicity of a binary model, and the solution part fits into 'research', albeit the 'solution' is much more limited in scope.

### 4.6.2 The Rest

It is similarly easy to identify 'the rest' since anything that is not 'research' can be classified as 'the rest'. In this component, considerably diverse instances of text can be classified, even a kind of instance that has yet to be identified. The flexibility of the component to take into account diverse elements is enabled simply because of the nature of the component: it is not pre-fixed with semantic, lexical, or functional terms. Importantly, however, the components classified into 'the rest' have a similarity in that they have a similar relationship to 'research'. The nature of this binary relationship will be clarified later in this chapter.

Again, I start with the CARS model. The rest of the discourse that is not 'research' constitutes Move 1: 'establishing territory' and Move 2: 'establishing a niche'; these are automatically classified into this category. As obvious in Lewin et al.'s (2001) functional labelling as 'claiming

relevance of field' and 'establishing the gap present research is meant to fill' respectively, these two moves, in fact, share a similar discourse function. That is, these two moves both increase the value of research being presented; in more general terms, they both prepare for research to be introduced or put forward. In other words, in spite of the apparent differences between Move 1 and Move 2, these moves are similar in relation to 'research'. Likewise, the 'problem' part of the 'problem-solution' pattern is close in meaning and functions in Move 2 to form a similar relationship to the research being presented, and hence it can be classified unproblematically as 'the rest'.

The flexibility of these categories becomes particularly powerful when an analyst encounters components that have not been previously placed within a generic structure model. The variation of academic writing, as gradually becomes obvious in this book, occurs in 'the rest' part and not in 'research'. Personal narrative elements that are frequently observed in the introductory chapters of humanities theses can fit into 'the rest' category.

It is assumed that, other than these elements that don't fit into the existing generic structure models for academic writing, there are diverse elements that have not been discovered or that have not been described because of the difficulty of taking diverse elements into account. Analysis that has been abandoned on such diverse elements as well as other elements that emerge in the future can also be classified into 'the rest'.

### 4.6.3 Move 1 and Move 2 as 'Lack-ICM': Pragmatic Conditions

The binary model may be perceived as unacceptable for those who are familiar with the CARS model, particularly in that the binary model considers that Move 1 and Move 2 can be reduced into one generic structure component. Claiming centrality (Move 1) and creating a gap (Move 2) are indispensable to each other in exactly the way *lack* entails foreground and background presuppositions (Chap. 2).

To demonstrate this, I reanalyse the introduction section of a research article which Swales (1990) used to provide an instance of the CARS

model. The journal article (Almosnino 1985) is from the American Institute of Aeronautics and Astronautics, which publishes aerospace science engineering research (Table 4.1).

As Swales (1990) analysed, the introduction section in Table 4.1 proceeds in the sequence starting from Move 1, Step 1, 'claiming centrality'; Move 1, Step 2, 'making topic generalizations'; Move 1, Step 3, 'reviewing items of previous research'; Move 2, Step 1B, 'indicating a gap'; and lastly Move 3, Step 1B, 'announcing present research'.

To recall, Lakoff (1987) formulated that *lack* entails 'a background condition indicating that some person or thing *should have* something and a foreground condition indicating that that person or thing does *not* have it' (1987, p. 133) and that *lack* is not a synonym of *not have* since the negative is internal to *lack*-ICM. Observe Move 1 and Move 2 of the aeronautics and astronautics text (Fig. 4.1) once again. The discourse in Move 1, Step 1, claims centrality of the research topic that develops a computational tool suitable for predicting the flowfield and the aerodynamic coefficients in high-angle-of-attack aerodynamics, followed by Move 1, Step 2, which generalises the topic, followed by Move 1, Step 3, which reviews the previous research for similar computational methods. These Move 1 elements are followed by Move 2, Step 1B, to point out that the previous methods are not adequate to predict the flowfield and the aerodynamic coefficients in high-angle-of-attack aerodynamics. I reorganise these discourse elements with a background and foreground condition of *lack*-ICM:

**The background condition:**

The research community *should have* a computational method suitable to predict the flowfield and the aerodynamic coefficients in high-angle-of-attack aerodynamics.

**The foreground condition:**

The research community does *not* have one.

For these two conditions to be expressed in the introduction, a pragmatic condition needs to be added: they are dependent on each other. Suppose a situation in which the background condition, 'The research community *should have* a computational method suitable to predict the

**Table 4.1** Aeronautics and Astronautics text analysed by Swales (1990)

| |
|---|
| The increasing interest in high-angle-of-attack aerodynamics has heightened the need for computational tools suitable to predict the flowfield and the aerodynamic coefficients in this regime. Of particular interest and complexity are the symmetric and the asymmetric separated vortex flows which develop about slender bodies as the angle of attack is increased. [Move 1, Step 1, 'claiming centrality'] |
| The viscous influence on the separation lines and the unknown three-dimensional (3D) shape of the vortex wake are some of the main flow features that must be remodelled in the construction of a computational method to properly treat this problem. [Move 1, Step 2, 'making topic generalizations'] |
| Among the many potential flow methods developed in attempting to solve body vortex flows are early two-dimensional (2D) multivortex methods, 2D time-stepping vortex models that include boundary-layer considerations, and a quasi-3D potential flow method that uses source and vortex elements. Linear, unseparated potential flow models and purely viscous models are not mentioned here. A survey of the various methods may also be found in Ref. 10. The potential flow methods are of special interest because of their ability to treat 3D body shapes and their separated vortex flows using a simple and relatively inexpensive model. [Move 1, Step 3, 'reviewing items of previous research'] |
| However, the previously mentioned methods suffer from some limitations mainly concerning the treatment of the vortex wake formation and its interaction with the body. The first group of methods cannot treat 3D flows and is limited to very slender bodies. The second group of computational methods is time-consuming and therefore expensive, and its separation prediction is not sufficiently accurate. Both the methods in this group and the method in Ref. 9 suffer from the dependency on too many semi-empirical inputs and assumptions concerning the vortex wake and its separation. The steady, 3D non-linear vortex-lattice method, upon which the present method is based, eliminates many of these limitations by introducing a more consistent model but can treat only symmetrical flow cases. [Move 2, Step 1B, 'indicating a gap'] |
| The present work extends the use of the last model to asymmetric, body-vortex flow cases, thus increasing the range of flow problems that can be investigated. In addition, an effort is made to improve the numerical procedure to accelerate the convergence of the iterative solution and to get a better rollup of the vortex lines representing the wake. [Move 3, Step 1B, 'announcing present research'] |

Almosino, D. (1985, p. 1150). High angle-of-attack calculations of the subsonic vortex flow in slender bodies. *AIAA Journal 23*(8), 1150–56

flowfield and the aerodynamic coefficients in high-angle-of-attack aerodynamics', is fulfilled but the foreground condition, 'The research community does *not* have one', is not. That is, a situation in which many researchers are interested but a good method already exists. In that case, the pragmatic condition for new research is not fulfilled. Similarly, even if a method for it does not exist, if the research topic is not important, the research community does not *lack* in a method. Move 1 and Move 2, therefore, depend on each other, and importantly they are defined relative to *lack*-ICM. The discourse combining the Move 1 and Move 2 elements can be reduced to one sentence:

> The research community *lacks* a computational method suitable to predict the flowfield and the aerodynamic coefficients in high-angle-of-attack aerodynamics.

Recall that Lakoff (1987) pointed out that *lack* is defined relative to ICM and is not involved in the definitions of *not* and *have*. Instead, *lack* involves a conceptual mould, namely ICM that deals with the complexity of the reality. Therefore, Move 1 and Move 2, being reduced to a sentence that involves the concept of *lack*, cannot be independently defined with *not* (Move 2) and *have* (Move 1). Move 1 and Move 2 together can be defined relative to *lack*-ICM. It is also important to note that *lack*-ICM is analogous to what the New Rhetorics call 'exigence', which (as explained in Chap. 1) denotes 'an imperfection marked by urgency' (Bitzer 1968, p. 6). In other words, this is one of the most commonly observed ICMs functioning in mainstream Anglophone academic writing.

Furthermore, a close examination of the discourse reveals that both Move 1 and Move 2 contain each other's elements within. Consider the very first sentence of the introduction: 'The increasing interest in … has heightened the need for … [Move 1, Step 1, 'claiming centrality']'. This sentence claims centrality of the research topic by indicating the increasing interest among the research community and at the same time by indicating the gap, which is obvious with 'the need for …'. The interest

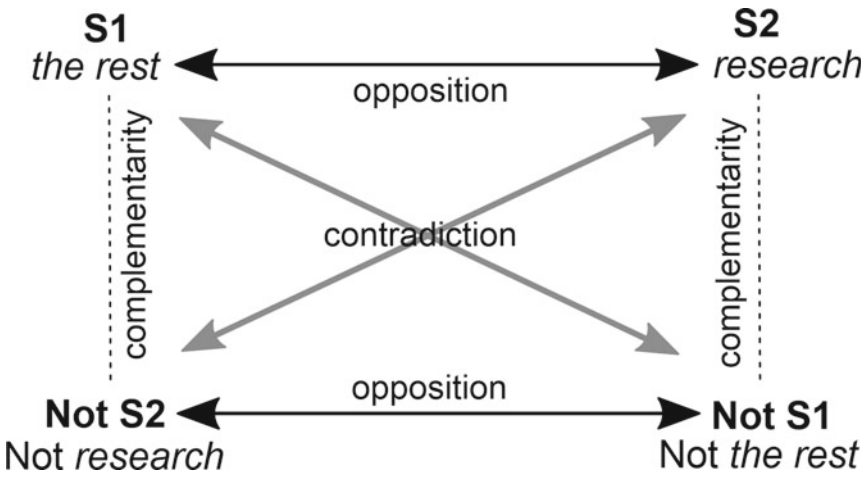


**Fig. 4.1** The basic Semiotic Square for academic writing

is heightened and the need is there, clearly indicating the gap in research. Interestingly, the phenomenon whereby Move 1 and Move 2 occur at very close or overlapping locations is nothing new; it has been widely known in ESP/EAP genre studies for many decades. Even within a sentence, multiple move elements tend to occur. Naturally, this has caused complexity in move coding. Hence, Crookes (1986) proposed to code the most substantial move element as the move of the sentence, thus maintaining the sentence as a unit of move analysis but overlooking the less substantial move elements. I will discuss how the new binary model can take account of the phenomena of multi-move elements within sentences in detail later in this chapter.

The reported difficulties in the ESP/EAP research community as to how to code mixed move elements in the same location of discourse seem to suggest that many Move 1 and Move 2 elements are, in fact, not independent moves but one generic structure component that serves to form a *lack*-ICM. This, however, cannot be considered a universally observable or an obligatory element for academic writing. Later in this chapter, I will argue that this is merely one of the idealised conceptual domains that came to be used to report academic findings that dominantly emerged in mainstream Anglophone academic writing.

## 4.7 The Binary Model Displayed on the Semiotic Square

The Semiotic Square (Greimas 1983), which developed as a structuralist generic structure analytical framework (as reviewed in Chap. 3), is a useful tool in text analysis and is capable of sorting diverse instances of genre. In this book, the Semiotic Square has two purposes. First, it is used to visualise the minimally reduced generic structure of diverse academic discourse. The second purpose, which is subsequent to the first, is to enable the extraction of a conceptual metaphor through the minimal binary structure to enable analysis of diverse academic discourse elements.

As reviewed earlier, the Semiotic Square is a semiotically oriented generic structure model that is capable of sorting out complex relationships between discoursal elements. The difficulty is that discourse analysts tend to get lost in the complex layered web of relationships between these elements. The complex elements that are sorted out in the Semiotic Square can be dealt with directly as two conceptual domains necessary to formulate a conceptual metaphor (Chap. 2). If a conceptual metaphor of discourse is formulated, it also becomes possible to clearly identify the structural characteristics of discourse. Hence, this method enables the first prototype approach to generic structure analysis: the application of the prototype theory so far having been restricted mainly to the lexical and sentential level of the discourse level analysis.

Figure 4.1 is the basic Semiotic Square for academic writing formulated to analyse structures of diverse academic discourse. On the Semiotic Square, discourse is divided between 'research' and 'the rest'.

Among the four *semes* (semiotic elements) displayed on the Square, *the rest* (S1)——*research* (S2) and Not *the rest* (Not S1)——Not *research* (Not S2) are in opposition to one another. *The rest* (S1)——Not *the rest* (Not S1) and *research* (S2)——Not *research* (Not S2) contradict one another. Not *the rest* (Not S1) can be *research* (S2) or something other than *the rest* (S1); similarly, Not *research* (Not S2) can be *the rest* (S1) or something other than *research* (S2). Although it was presumed that academic writing should be easily divided into 'research' and 'the rest', we never know unless all academic writing in the world is analysed, and this

is, of course, impossible (see Derrida 2014 [1980] for the discussion of this impossibility). Nonetheless, the Semiotic Square is capable of analysing discourse without setting concrete 'form' and 'content'; hence, we can be quite optimistic.

This is because, more specifically, the second level of the Semiotic Square promises the flexibility of analysis. For example, if the analyst is unsure whether a given element of discourse is 'research', she can place the component on the second level, 'Not *the rest*'——'Not *research*', and then consider whether the component is complementary to '*the rest*' and is in a similar relationship to '*research*' as '*the rest*' is to '*research*'. If not, she can consider whether the component is complementary to '*research*' and is in a similar relationship to '*the rest*' as '*research*' is to '*the rest*'. This basic Semiotic Square is thus useful in identifying the relationship, or discoursal function, of a stretch of discourse relative to the other parts of the text.

The basic Semiotic Square is also applicable to the structure analysis of the entire academic text, both in place of and together with the analysis of formal macro-structure, such as IMRD structure, and the smaller formal surface level structures, such as sections or chapters. Although it is possible to conduct the Semiotic Square analysis within introductory sections, methodology sections, and so on, the fundamental difference between the structure analysis based on the Semiotic Square and formal structure analysis needs to be emphasised. The binary generic structure model using the Semiotic Square does not look at the surface structure but at the relativity, as is the case in Greimassian generic structure analysis reviewed in Chap. 2. For this reason, elements in the binary structure can be found across formal structural components.

Recall also that Greimassian generic structure analysis does not rely on the sequencing of structural elements. This means that the Greimassian analysis based on the Semiotic Square does not require different generic structure models for different formal structures. Hence, the binary model of 'research' and 'the rest' is applicable to all or any part of the text, regardless of whether it was formerly labelled as introduction, methodology, discussion, and so on. In other words, the model does not assume that a section of a research article or a chapter of a thesis can be entirely composed of 'research' or 'the rest'; however, a section or a chapter may be predominant with either 'research' or 'the rest'.

As discussed earlier, many of the complexities of ESP/EAP research traditions of generic structure analysis have been a consequence of treating 'form' and 'content' discretely. This causes difficulties when the analyst encounters mixed elements within a formal structural component; for example, a sentence can contain Move 1 and Move 2 elements as discussed earlier. Another example, possibly a more obvious one, is the fact that reviewing the previous literature occurs across moves as well as across sections/chapters. Reviewing the literature is not 'research'; hence, it is 'the rest'. The relationship literature review holds with the research being reported is to increase the value of research, similarly to other elements such as Move 1 and Move 2 to 'research'. Academic text across moves, sections, and chapters is made up of the two components. I present further details of analysis with the Semiotic Square by using examples in the subsequent sections.

### 4.7.1 *Lack* on the Semiotic Square

In this section, I provide an analytical example using the Semiotic Square which relates to an earlier discussion in this chapter, namely the mainstream introduction section component that constructs *lack*-ICM. Two substantial components were observed in the aeronautics and astronautics text (Table 4.1): (1) the background condition that the research community *should have* something and (2) the foreground condition that the research community does *not* have it. It was observed that the background condition is expressed mainly with Move 1 elements: 'claiming centrality', 'making topic generalizations', and 'reviewing items of previous research', whereas the foreground condition is expressed mainly with Move 2 elements: 'indicating a gap'. These two components are displayed in Fig. 4.2 on the Semiotic Square.

On the Semiotic Square (Fig. 4.2), the background condition that the research community *should have* something is placed in the S1 position, and *research* on the S2 position, since the need for research is not itself research. *Should have* (S1)——*research* (S2) and Not *should have* (Not S1)——Not *research* (Not S2) are in opposition to one another. *Should have* (S1)——Not *should have* (Not S1) and *research* (S2)——Not

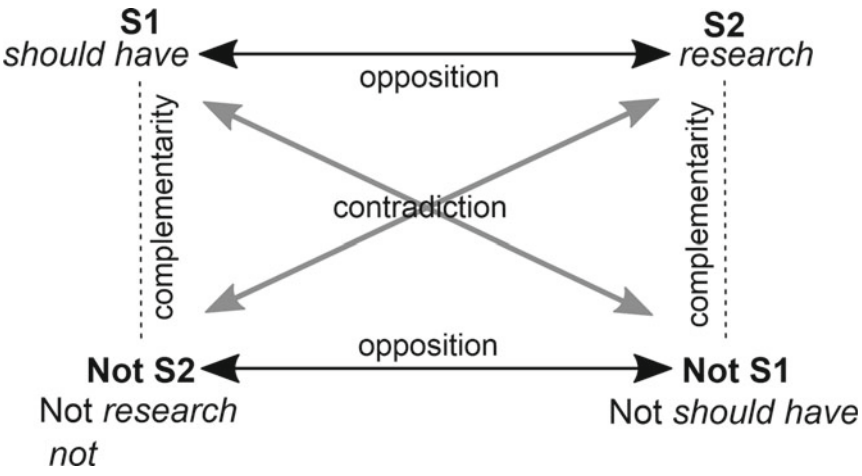


**Fig. 4.2** Semiotic Square: *lack*

*research* (Not S2) contradict one another. Not *should have* (Not S1) can be *research* (S2) or something other than *should have* (S1); similarly, Not *research* (Not S2) can be *should have* (S1) or something other than *research* (S2). The foreground condition that the research community does *not* have it is placed on the Not S2 position since the absence of research is not itself research. The Not S2 position is also appropriate for the foreground condition, since it is in opposition to Not *should have* and contradicts with *research*. Finally, it becomes clear on the Square that the foreground condition can be *should have*. Therefore, *not* can be *should have*. Together, they form *lack* of research, increasing the need for *research* to be conducted.

### 4.7.2 *Move 1*, *Move 2*, and *Move 3* on the Semiotic Square

Typical moves in introductory sections of academic writing—namely Move 1, Move 2, and Move 3 in the CARS model—can be placed in a similar manner as the *lack* on the Semiotic Square. Move 3 can be placed on S2 as *research* occupies the S2 position in the analysis of *lack* in Fig. 4.2. Move 1 can be placed in the S1 position, the same position

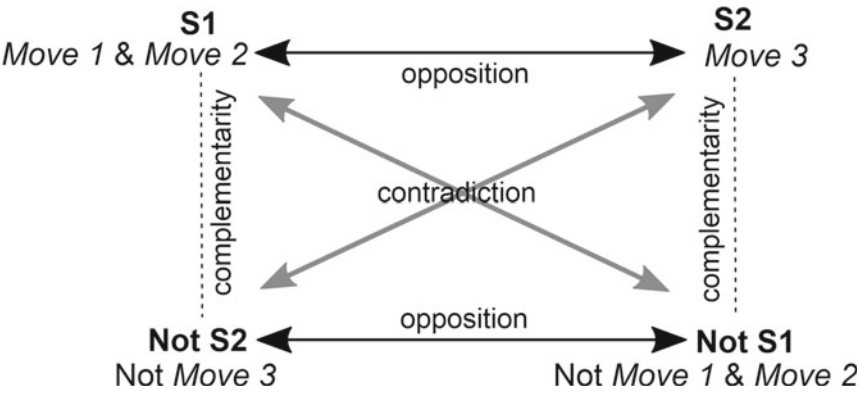


**Fig. 4.3** Semiotic Square for moves in introductions

as *should have*. Move 2 then takes the Not S2 position just as *not* does. It is clear that Move 1 and Move 2 are in a complementary position with each other. It is also clear that both Move 1 and Move 2 are in the shared relationship to Move 3; that is, they both increase the value of Move 3, research.

This Semiotic Square analysis of moves can be extended to a further formulation that Move 1 and Move 2 belong to the same component in the binary structure, which is displayed in Fig. 4.3. It is important to note that moves displayed in Fig. 4.3 are not entirely equivalent to those in the CARS model. As discussed earlier in this chapter, moves in the CARS model are based on the classical approach to categorisation, consequently containing both of the binary structure elements within. On the Semiotic Square in Fig. 4.3, Move 1 refers to a move that asserts relevance of research; Move 2 refers to a move that points out issues; and Move 3 is research, excluding so-called 'sub-moves' (Move 1 or Move 2 [or both] that occur within Move 3) reviewed earlier in Swales's (2004) CARS model. These issues will be sorted later in this chapter.

On the Semiotic Square (Fig. 4.3), Move 3 'research' is placed on the S2 position. Move 1 and Move 2 are not 'research' (Move 3), namely 'the rest', and rather construct the same function of increasing the value of research; hence, together they are placed on the S1 position. *Move 1 & Move 2* (S1)——*Move 3* (S2) and Not *Move 1 & Move 2* (Not S1)——

Not *Move 3* (Not S2) are in opposition to one another. *Move 1 & Move 2* (S1)——Not *Move 1 & Move 2* (Not S1) and *Move 3* (S2)——Not *Move 3* (Not S2) contradict one another. Not *Move 1 & Move 2* (Not S1) can be *Move 3* (S2) or something other than *Move 1 & Move 2* (S1); similarly, Not *Move 3* (Not S2) can be *Move 1 & Move 2* (S1) or something other than *Move 3* (S2). *Move 1 & Move 2* together increase the value of *Move 3*.

### 4.7.3 *Method* on the Semiotic Square

One of the most puzzling moments for the researcher analysing with the CARS model is when he or she encounters a stretch of discourse that concerns research other than the research topic, such as methods and approaches. Various questions occur in the analyst's mind.

Method is a part of presenting research, but when the real text is examined, it soon becomes obvious that a stretch of discourse concerning method cannot always be straightforwardly classified as Move 3. After a close examination of such a discourse, the analyst may soon become aware that there are two types of discourse concerning methodology, and this is the cause of confusion.

One is the procedural description of research method that is used in research, which is non-problematically considered a part of presentation of research, as displayed on the Semiotic Square in Fig. 4.4.

On the Semiotic Square (Fig. 4.4), *research* is on the S2 position, while this fills S1 with *the rest* and Not S2 with Not *research*. The position for *research method* can be placed on the second level of the Square. As the presentation of *research method* is a part of research, it can be placed on the Not S1 position, forming a complementary relation to *research* and a contradictory/oppositional relation to non-research.

However, there is another type of discourse concerning method, which is a part of discourse that justifies research method. The analyst then would question how to place it in a generic structure model. Justifying a selection of a particular method to use in research and justifying many other aspects of research, such as approaches and interpretation of results, are among the important elements in mainstream academic writing (e.g., see Swales and Feak's observation on results section, 1994, pp. 170–171).

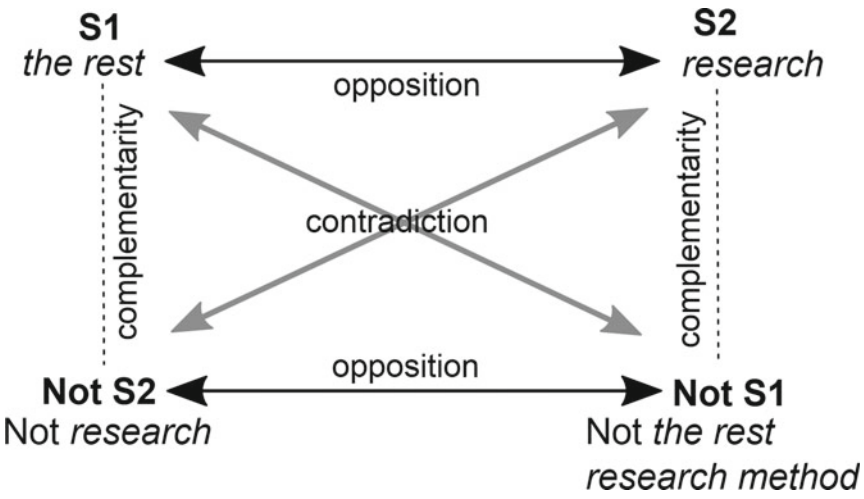


**Fig. 4.4** Semiotic Square for research method

As Swales (2004, p. 225) observed, it is common for academic writing to explain why a particular method was used. The justifying method occurs not only in methodology sections but also in introduction sections (Samraj 2002) and introductory chapters (Bunton 2002; Sawaki 2014a, d).

In fact, much of the introduction section in the aeronautics and astronautics text (Table 4.1), which clearly is methodologically oriented research, is composed of methodological descriptions, ranging from Move 1, Move 2, to Move 3. In Move 1, step 3, 'reviewing items of previous research', previous potential flow methods developed in an attempt to solve body vortex flows are reviewed. In Move 2, step 1B, 'indicating a gap', problems with the methods reviewed in Move 1 are indicated. Finally in Move 3, Step 1B, 'announcing present research', the method that is used for research is announced. The last element (Move 3) is 'research' that occupies the S2 position in Fig. 4.4. The former two elements (Move 1 and Move 2), though similarly concerning methods, are background information that prepares for the discourse to justify the choice of research method. Hence, the discourses concerning methods in Move 1 and Move 2 together increase the value of the method the author of the article chooses and announces in Move 3. The methodological justification and

presentation of the research method of the author's choice form a binary structure on the Semiotic Square, which is shown in Fig. 4.5.

On the Semiotic Square (Fig. 4.5), *justification* (of the research topic) can be placed on S1, forming an oppositional relation to *research*, which occupies the S2 position. The *research method* is not a justification but a part of the research; hence, it can be placed on the Not S1 position, forming a complementary relation to *research*. The *research method* is rationalised by *method justification* in the same way that research justification occupies the Not S1 position. Thus, *justification* (S1)——*research* (S2) and *method justification* (Not S2)——*research method* (Not S1) form the same oppositional relationship.

Figure 4.5 solves another confusion concerning the description of aspects of research (methods, approaches, and so on), namely the recycling of moves or sub-moves (Samraj 2002; Swales 2004). In the aeronautics and astronautics text (Table 4.1) written with the same elements but in different sequences, the discourse that functions to justify method (Move 1 and Move 2) might be inserted within Move 3, perhaps right after announcing a method to be used. In such a case, the Semiotic Square in Fig. 4.5 would apply exactly the same way. A similar arrangement can apply to other sections as well as the occurrences of 'research' and

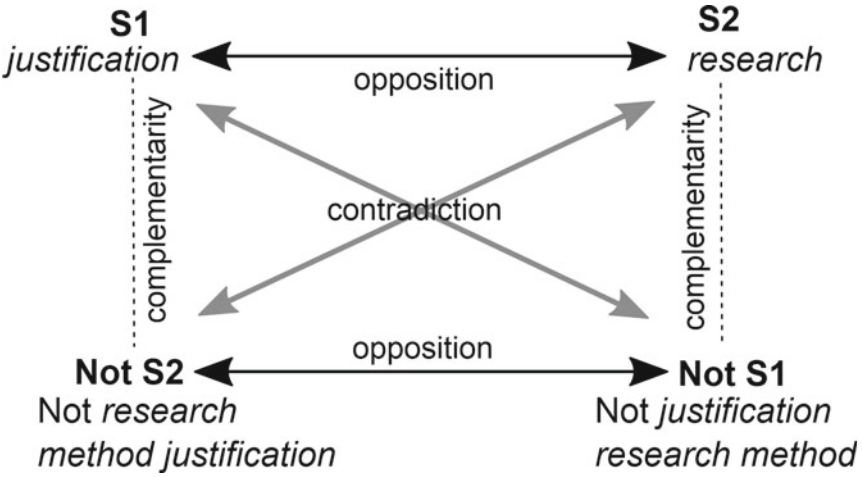


**Fig. 4.5** Semiotic Square for methodological justification

'the rest' across macro-structures. This is enabled because analysis with the Semiotic Square does not involve formal structural units nor is it constrained by linear sequencing. It is concerned only with the minimal relationship between elements that construct text. Consequently, there is no need to complicate the analysis with the Semiotic Square.

### 4.7.4 Various Objects of Research on the Semiotic Square

One reason that the semantically oriented structure analysis of academic discourse encounters difficulty is the variations in the objects of research. The variations typically occur in justification of research because, depending on disciplines and fields, the semantic types of the object of study naturally differ, as does the medium to justify research. For example, Samraj (2002) conducted a move analysis on conservation biology and wildlife behaviour research article introductions and found that the former tends to justify the research being reported in terms of 'importance in real world' and 'problems in environment' rather than in terms of previous literature.

Excerpt 1 is a paragraph that includes an example passage that Samraj (2002) provided. Samraj (2002) classified it (from *tropical-forest nature reserves* to *of reserve boundaries and regulations*) as Move 1, Step 1: establishing centrality.

1. Tropical-forest nature reserves are experiencing mounting human encroachment, raising concerns over their future viability even in remote areas. Long-term maintenance of nature reserves in economically marginal areas of the tropics is particularly problematical because protection is based on severely restricted funding from politically and administratively weak governments. Many tropical forest reserves consequently operate on skeletal budgets, are chronically understaffed, lack the most basic infrastructure, and cannot count on effective institutional support to enforce conservation legislation. Such frailties render reserves susceptible to a wide range of illegal activities——hunting, fishing, logging, mining, land clearing——carried out by both individuals and corporations. Worse, the frequent inability of guards,

> who are often unarmed and lacking authority to make arrests, to prosecute violators leads to a general disregard of reserve boundaries and regulations. Once it is observed that the responsible authorities are unable to intervene, large-scale invasions by colonists, poachers, loggers, and miners may ensue and jeopardize the reserve's biological resources. (Peres and Terborgh 1995, p. 35)

Excerpt 1 is notable in its intensity that is created through the discourse that tropical-forest nature reserves severely lack adequate protection. More specifically, the intensity is construed by describing various aspects of inadequacies concerning the reserves' protection. The excerpt continues to detail issues that need to be resolved, and, in that sense, it also contains Move 2-like elements. The issues listed in Excerpt 1 are, in fact, what the research being reported aims to solve, as is evident later in the introduction clarifying its research purpose: 'We focus on the pragmatic issue of how to design and locate reserves to minimize implementation costs and maximize defensibility against existing and future external threats' (p. 35). This, therefore, matches the earlier discourse in Excerpt 1 describing the problems surrounding reserves in terms of costs and defensibility. However, this becomes tricky if relying on the CARS model, because Excerpt 1 provides the centrality of the research topic, and this, in fact, is a central Move 1 feature of Swales's CARS model. Excerpt 1 contains Move 1 and Move 2 features simultaneously.

It appears, therefore, less confusing to treat it as one generic structure component without distinguishing between Move 1 and Move 2. Excerpt 1 serves as justification for conducting the research presented. Whether or not the discourse refers to previous research does not serve as an identification criterion, as implied in Samraj's findings.

Research justifications in typical traditional articles represented with the CARS model (Swales 1990) are assumed to be made epistemologically (that is, by reviewing the previous literature). However, as Samraj (2002) proposed, embedding 'research' and 'real world' in moves may be a solution if the three-move structure needs to be followed. One alternative solution is to use a binary structure, because such semantically oriented variations can be neatly described on the Semiotic Square (Fig. 4.6) without complexities.

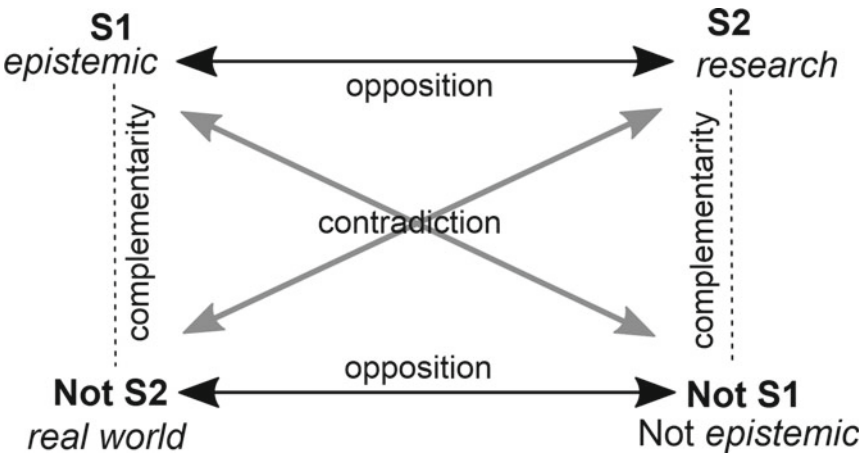


**Fig. 4.6** Semiotic Square for epistemic and real-world justifications

The Semiotic Square in Fig. 4.6 shows *research* in the S2 position, and it is in oppositional relation to the *epistemic* review that justifies research; hence, *epistemic* occupies the S1 position. Elements that justify research non-epistemologically are complementary to *epistemic* research justification; hence, they can be placed in the Not S2 position (in this case, as *real world*).

The text wherein Excerpt 1 appears will be referred to as conservation biology text hereafter. The text will be further discussed in Chap. 5 in relation to the construction of *lack*-ICM in mainstream academic writing.

### 4.7.5 *Citation* on the Semiotic Square

As reviewed earlier, reviewing literature often occurs across various parts of moves, sections, and chapters. Citations, for instance, in the CARS model do not just occur in Move 1. This is another inadequacy of formal generic structure identification, which the Semiotic Square can resolve. Reviewing literature, however complex it appears, is, in fact, simple to classify with the Semiotic Square. It is easy to classify because reviewing literature means that it is not itself research, making it the same position as 'the rest'. Observe the Semiotic Square in Fig. 4.7.

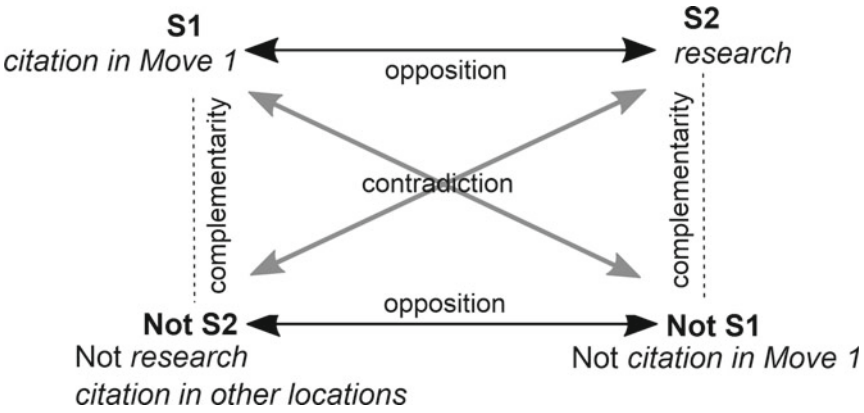


**Fig. 4.7** Semiotic Square for citation

*Citation in Move 1* occupies the S1 position. *Research* takes the S2 position, so that literature reviews have a function to support the research being reported. Then consider citations that occur in other parts of the text. Regardless of which parts of the text they occur in, citations justify and support the research being reported. If previous literature is reviewed in the method section, its ultimate function is to justify the method the author chooses to deploy, hence supporting the research being reported. Citations that occur in results, discussion, and conclusion sections similarly support the research being presented in one way or the other. For example, citations in discussion sections are discussed for the purpose of justifying the interpretation of results the author makes.

Hence, *citation in other locations* occupies the Not S2 position, forming the same relation to *research* as *citation in Move 1* is to *research*, and it is in a complementary relation to *citation in Move 1*. Similar citation elements that occur in different formal locations are non-problematically classified, since Greimassian generic structure is not linearly constrained.

### 4.7.6 Personal Anecdotes on the Semiotic Square

One of the inflexibilities with a fixed model is the difficulty in considering emerging elements of genre. As reviewed earlier, complexities

were recognised with the emergence of personal narrative elements in humanity theses, which are said to be a consequence of postmodern and poststructuralist problematisations of representation and meaning (e.g., Hall 1985; Hodge 1995). Excerpt 2 represents such an element, which appears early in the prologue chapter of an academic history book in the field of 'participant history', entitled, *Basket Weavers and True Believers: Making and Unmaking the Labor Left in Leichardt Municipality, c. 1970–1991* (Harris 2007). In Excerpt 2, the author attempts to write a history of the Australian Labor Party as a participant historian[1, 2]:

2. Like many of those who became active in the ALP Left politics of Leichhardt Municipality, my political development accelerated at university during the 1960s. I went to the Australian National University at the beginning of 1966 having been brought up in a country town (Orange) as the child of parents who typified the post-World War II middle class. My father had come from a working-class background and left school to work in the 'woollen mills' at Orange before fleeing the certainties of factory labour (in a reserved occupation) to enlist in the Second AIF. A prisoner of war after the fall of Singapore, he returned home after the war and built a successful small business as a contract painter. My mother also came from a rural working-class background and met my father after the war on a bus on a hockey trip (they were both hockey players). Except for a brief period, my mother didn't do paid work during her married life, though she 'did the books' for my father's business and kept the home. It was a comfortable upbringing for me in what was a happy and supportive, conventional post-war nuclear family (I have a younger sister). I was interested in politics at my local high school and my memory is that it predisposed me to a more Left-wing sensibility than that suggested by the more conservative political environment around me. This was a town that was part of Country Party electorates, state and federal, during the

[1] This excerpt is much the same as what appeared in the introductory chapter of the author's PhD thesis from which this book developed.

[2] See Sawaki (2014c) for more accounts of autobiographical narratives in thesis writing.

dominant anti-communism of the 1950s and early 1960s, though my father mostly voted Labor and my mother always did.

At University I was stimulated by the more formal opening of ideas as part of an economics and politics degree course as well as the climate of debate and sense of a changing world that was infused through campus life in the late sixties. (Harris 2007, p. 7)

A semantically oriented description of the above excerpt may be 'giving an autobiographical recount' but that would be no more than a description of surface textual feature and does not place it in a clear position in relation to the text's generic structuring.

It is important to point out that the excerpt is not just a random memory-talk. The author, in fact, clarifies what he is doing with this autobiographical narrative. He tells the reader that he is aware of the danger of imposing his memory and interpretation on the past events (Harris 2007, p. 9). This is followed by justifications for using his memory of historical interpretation in that his experiences are also those of others, so that it can be placed as a dialectical approach to history. The author claims that introducing the history of his own life early in the text is an important step, so that he can explain how he—a participant historian—has been brought up to have a particular political view and consequently to be involved in the political movement he is going to research.

The discourse in Excerpt 2, in fact, strongly exhibits this approach to history; it is not simply autobiographical; the excerpt is carefully crafted, starting with: 'Like many of those who became active in the ALP Left politics of Leichhardt Municipality, my political development accelerated at university during the 1960s'. The items to be recounted are carefully selected—'typified the post-World War II middle class', 'a working-class background', 'politics at my local high school', 'an economics and politics degree course', and so on—so that the narrative gradually moves on to an account of why the author has come to be interested in politics and to be involved in a political movement. The excerpt is preparing to introduce the main part of the discourse, the new research. Hood (2010) similarly identified the rhetorical function of the personal anecdotes in research articles in the field of cultural studies: '[They] function to establish the

significance of the object of study, and contribute in similar ways to the construction of the research warrant' (p. 46).

If the categories within the CARS model are used, Excerpt 2 can be categorised as either Move 1 or Move 2 because it prepares for Move 3. Some may classify it as Move 1 because in some ways it provides background information for the new research; however, it keeps some distance from a prototypical realisation of Move 1, the purpose of which is to establish a territory by claiming that the area is important. Others may identify a Move 2-like feature in this excerpt in that it builds tension that triggers the new research. However, this is somewhat implicit and is far from the prototypical Move 2 strategies of expressing the author's own opinions about the need for the current research. Thus, the status of *personal anecdotes* on the Semiotic Square can be summarised similarly to the other components that prepare for research, occupying the *Not S2* position (Fig. 4.8).

The function of *personal anecdotes* is complementary to *Move 1 & Move 2* (S2); hence, *personal anecdotes* is placed on the Not S2 position. Both of these are in structural opposition to *Move 3* and Not *Move 1 & Move 2*. This is an example that the function of emerging elements such as personal anecdotes can be clearly sorted out and visualised in the Semiotic Square. This text will be referred to as participant history text hereafter.

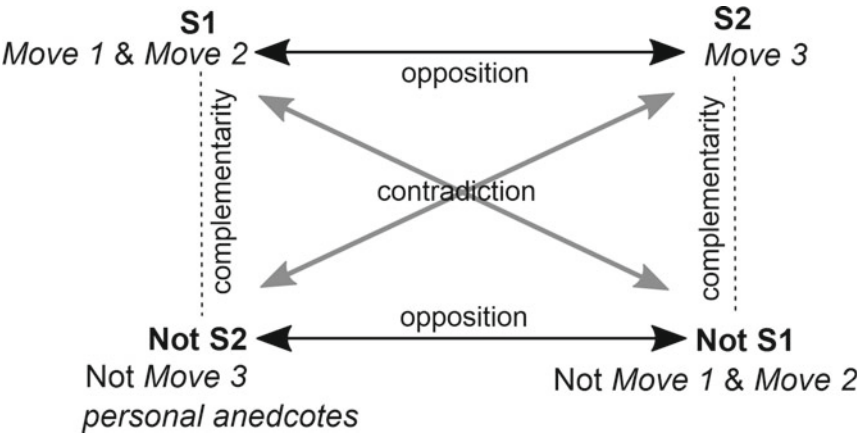


**Fig. 4.8** Semiotic Square for personal anecdotes in relation to moves

It may also be useful to note here that there are other atypical elements reported in history texts. The discipline of history, in particular, has been reported to contain diverse elements. Bondi (2005) investigated the discourse of history and economics abstracts and found that history abstracts contain two sub-genres, which she called 'history as story-telling or narrative' and 'history as argument'. In the 'history as story-telling or narrative' part of the discourse, the author of the research article as a third-person anonymous narrator reports the scene behind the discourse. Bondi explained that both 'history as story-telling/narrative' and 'history as argument' claim significance and credibility. She further observed that—in abstracts with more explicit 'history as argument' in contrast to 'history as story-telling/narrative'—the claim of significance and credibility is rather epistemologically oriented, relating the argument to theoretical issues, discourse community, and so on. Similarities between what Bondi observed as 'history as story-telling/narrative' and the personal anecdotes in the participant history text can be identified. Different orientations that manifest different surface discoursal features that realise what Bondi calls claiming significance and credibility share the same relationship to 'research'. Hence, these 'two sub-genres' can be similarly placed on the oppositional or contradiction position ('the rest') to 'research' on the Semiotic Square.

## 4.8 Components Across Formal Chapters and Sections

As mentioned earlier, although mainly introductory parts of academic writing have been analysed so far, the binary structure is applicable for any parts of a text. What was observed in *citation* on the Semiotic Square (Sect. 2.9) is crucial in demonstrating the present theory that a similar role that relates to the other component on the binary structure occurs regardless of formal structuring such as chapters and sections. It is important to note that, just as reviewing literature occurs across different formal parts of a text, other elements that may constitute 'the rest' occur across formal structures. Such a phenomenon has been observed in the previous literature. One noteworthy example is the observation of 'genre-mix' in Bhatia's (1995) study. Bhatia presented a foreword and

a preface, both from academic books, which start with 'promotional' elements with a positive summary of the book, followed by the writer's expressions of gratitude. Although Bhatia presented these excerpts as an example of genre mixing, from the perspective of the Greimassian model, these 'promotional' elements are no different from other elements that serve to increase the value of research in that they claim the importance of the work of research being presented.

It is interesting that promotional elements occur in a foreword and a preface of academic writing. Again, from a Greimassian analytical view, it doesn't matter where generic structure elements occur in a text. Furthermore, the binary model would not classify a promotional element in an academic writing to be a mixing or embedding of a promotional genre; instead, it considers the element's relationship to the rest of the text. These promotional elements in the foreword and the preface are complementary to Move 1 or Move 2 ('the rest') and in structural opposition to 'research'.

## 4.9 Summary of the Binary Generic Structure Model

As shown so far, the generic structure analysis based on the Semiotic Square is not characterised by the surface features of discourse, including lexical, semantic, textual, and sequential elements. The binary generic structure identification is made solely on its relationship to the other parts of the text. This means that visible boundaries of text such as sentences, sections, and chapters do not play a criterial role in the structural analysis. This further indicates that the two essential elements scatter across formal structures.

There is much overlapping between the formal surface features of a text and the binary semiotic relationships; the majority of elements in introduction sections/chapters may overlap with 'the rest', whereas results sections/chapters may overlap with 'research'. Within introduction sections/chapters, the majority of elements in Move 1 and Move 2 of the CARS model may overlap with 'the rest' whereas the majority of Move 3 with 'research'. However, it is important to take notice that the location of discourse elements and the surface structuring do not serve as an identifying role of its function or its binary generic structure component.

Similarly, textual features of discourse are represented by such concepts as 'mode' (Genette, 2014 [1977]) and 'stage' in the SFL tradition. These textual features are solid (that is, unchangeable) and hence easy to identify, as reviewed earlier concerning Genette's (2014 [1977]) genre theory. Describing stages, such as 'narrative' and 'account', is a very stable way of describing genre (if that is definitional to the concept of genre), as Genette proposed. Although surface textual features such as modes/stages are a stable and reliable classification tool for the analyst to compare texts within and across genres, these features also need to be clearly distinguished from Greimassian generic structure components. In other words, from a semiotically oriented perspective to generic structure, modes/stages serve no better than other surface features such as lexical and semantic ones in indicating the function of the component in relation to the making of the whole text. The same modes/stages may satisfy different discoursal roles depending on the text; likewise, different modes/stages may satisfy the same discoursal role. Only in relationship with the other part of the text can a given mode/stage in question be identified in its role.

This relates directly to what Derrida pointed out that genre features do not equate with a membership of a genre. Identifying a new genre component is a paradox. Mixing new modes to a genre, or genre-mix, is a paradox.

Genre is changing constantly; every text is different, containing different amounts and different features. Academic texts as an evolving entity may constantly take different features from different genres for different purposes to assign different discourse functions. Modes/stages such as narratives, account, story-telling, business, and promotion, just as other surface features, may contain 'the rest' and 'research'. The Semiotic Square enables identification of elements that appear to be complex in the surface discourse.

## 4.10 Conclusion

This chapter has provided the definition of genre for this study, not in a classical sense but in a prototypical sense; namely, genre is a cognitive-oriented category. To solve the seemingly endless discrepancies between

generic structure model and componential identification and analytical methods, this chapter has established a binary structural model for academic writing. This simple flexible model that draws on the Greimassian Semiotic Square has been shown to sort out and reduce relationships among discoursal components in academic writing. The model will serve as a foundation for this book to formulate conceptual domains and conceptual metaphors in Chap. 5. The conceptual metaphors will be further used as comparative analytical tools for academic writing from diverse ideological and cultural orientations, so that the model can further enable the description of genre's diachronic changes. This chapter, hence, is meant to provide the groundwork for subsequent cognitive-oriented genre analytical exploration for academic discourse.

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# 5

# Conceptualisation of Generic Structure Components

## 5.1 Introduction

Thus far, this book has highlighted the binary structures of academic discourse while keeping in mind Lévi-Strauss's perspective that structure has no distinct content. This chapter further builds upon that model by highlighting the abstract nature of the content from the perspective of the prototype theory. Structuralism emphasises that structure is not defined by its content and vice versa. However, it is also true from a genre analyst's point of view that leaving content as an abstract entity can scarcely make the model practical as a framework for analysing diversity in genre.

In this chapter, using the binary generic structure model presented in Chap. 4, I demonstrate that generic structure components can be systematically analysed if portrayed as a consequence of cognitive processing. In other words, this chapter depends on a cognitive semantics frameworks. Just as Lakoff and Johnson (1980) proposed that metaphors are grounded in experience, this chapter argues that the manner of research presented is grounded in experience. In other words, this book proposes that the way research is presented is grounded in experience.



T. Sawaki, *Analysing Structure in Academic Writing*,
DOI 10.1057/978-1-137-54239-7_5

To do this, I first consider the prototypicality effects of the structural components. Then the conceptualisation processes of components are theorised in relation to ICMs and conceptual metaphors. Finally, the bottom line of structuralism—namely that structure is content itself—is joined with the metaphor analysis. This is because producing a metaphor relies on a structure or a relationship between its contents. Although this chapter highlights current mainstream English academic writing, the conceptual model of structural content proposed in this chapter will play a vital role in Chap. 7. In that chapter, the comparative method using conceptual metaphors for analysing diverse instances of academic writing will be presented.

## 5.2 Prototypicality Effects in Structural Components

Chapter 4 showed that the concept of genre fulfils all four features of prototypicality. This section will demonstrate that structural components in academic writing also have prototypicality. This achieves a consistent theorising of generic structure analysis.

The category 'the rest', which, as the category name suggests, cannot constitute a category name from a perspective of the classical approach to categorisation, because it does not provide necessary and sufficient definitions. It does not present a clear boundary between what can be included as 'the rest' and something other than 'the rest'. Some instances that are classified into 'the rest' are more central than others. Other rare instances do not seem to share central features of the category, loosely positioned at a peripheral position of the category. Clearly, 'the rest' is a prototype category.

It is understandable that many readers of this book may already be aware of the awkwardness of the category name 'the rest'. Nonetheless, not only does 'the rest' capture the prototypical nature of the category, but the indefinite, residual connotation facilitates the identification of instances of the category in real text analysis. This residual implication is, in fact, crucial for the generic structure analytical process this book presents. The category must remain open for new instances and at the same time needs to be adequately limiting for selective purposes. That is,

the category name 'the rest' can still identify elements in real text analysis that it needs to classify. More specifically, potential category names such as 'justification for research' become too restrictive because they define the content of the category. The category needs to stay open for new instances of non-research components that are constantly being found. It is particularly important for a generic structure analytical model to take into account that genre is a diverse and continually evolving entity. Alternatively, a new term for such a part of academic discourse relative to 'research' may be proposed. To avoid over-jargonising the theory and the model, I would rather not do that in this book.

Importantly, the difficulty or impossibility of assigning a specific name to the category may be said to indicate the category's high degree of prototypicality, while it is again not a necessary and sufficient condition of being prototypical. The category 'the rest' has so far been shown to have all the features of prototypicality.

As indicated earlier, prototype features of genre do not remain on a flat mono-layer but spread across multi-layers. Prototype concepts have sub-concepts, under which observers can find another layer of concepts. Rosch (1978, pp. 30–32) termed these layers superordinate, basic, and subordinate levels, which are characterised by different levels of inclusiveness and abstraction. Basic-level categories are considered distinctive (e.g., *chair*), superordinate-level categories have the highest level of inclusiveness and abstraction (e.g., *furniture*), and subordinate-level categories have the lowest level of inclusiveness and abstraction (e.g., *office chair*).

The concept of basic-level categories was empirically tested by Berlin et al. (1974), who observed that Tzeltal speakers of Mexico have more basic-level than other levels of categories in botany and zoology. Although such a classificatory perspective towards layers of prototype categories based on basic-level categories may be useful at a lexical level of analysis, distinguishing among these three levels does not seem to be important in discourse studies. Levels of prototype categories may continue indefinitely, depending on the length and type of text and the type of prototype concepts in question. Moreover, it is not clear which level can be identified as a distinct basic level when the analysis is concerned with genre components. A basic-level category, for being cognitively distinct, is generally identified by asking a person a simple question concerning

the person's present direct experiences: for instance, by asking a person sitting on a chair, 'What are you sitting on?' The answer should be something like, 'a chair', reflecting the most distinct cognitive category level under question. But what about 'What are you reading?' Possible answers such as 'a paper' and 'a thesis' are not the levels of generic structure components in which this book is interested.[1] Hence, this book will not use the three specific level terms but rather refer to them simply as higher or lower category levels when the discussion necessitates identifying levels.

I display a chart of prototypicality of *lack*-ICM for the purpose of showing how features overlap each other to form a higher level of prototype concept in Fig. 5.1. The first feature is 'importance', by which the importance or centrality of research is asserted or the author insists that the research community should have something that the community doesn't have, and this, as analysed, serves as a background condition for *lack*-ICM. The second feature is 'absence'. This feature includes absence, scarcity, or problem, which serves as a foreground condition for *lack*-ICM. *Lack*-ICM itself is also one of the features, displayed as 'lack' in the chart. As discussed earlier, the feature 'lack' is nearly equivalent to 'indicating a gap', one of the steps in Move 2 of the CARS model. However, the metaphorical expression 'indicating a gap' falls short of taking into account that a gap indication requires presuppositions. Namely, the background condition that there is something important and the foreground condition that the important thing is missing constitute layers that conceptualise that a *lack*-ICM is not explicitly represented. It needs to be noted once again that, unlike the CARS components that are limited to introductions, prototype features such as 'lack', 'importance', and 'absence' can occur across sections and chapters of an academic text.

In the overlapping layered features (prototypical concepts/categories) charted in Fig. 5.1, the category 'the rest' has a number of possible features that are prototype categories themselves. One of the most central

[1] The concept 'basic' level is not free from controversies. See Rosch et al. (1976) for their discussion that individuals' cultural backgrounds and expertise can impact on variations in the conception of basic-level categories. Mervis (1987) and Mervis and Mervis (1982) found discrepancies between child basic and adult basic levels, which make the concept of basic-level categories problematic. Mandler and Bauer (1988) showed that, contrary to the common belief in prototype theory, children's early conceptual categories should be basic-level categories. Children don't seem to acquire the adult's basic level first, which questions the validity of the concept of basic-level categories.

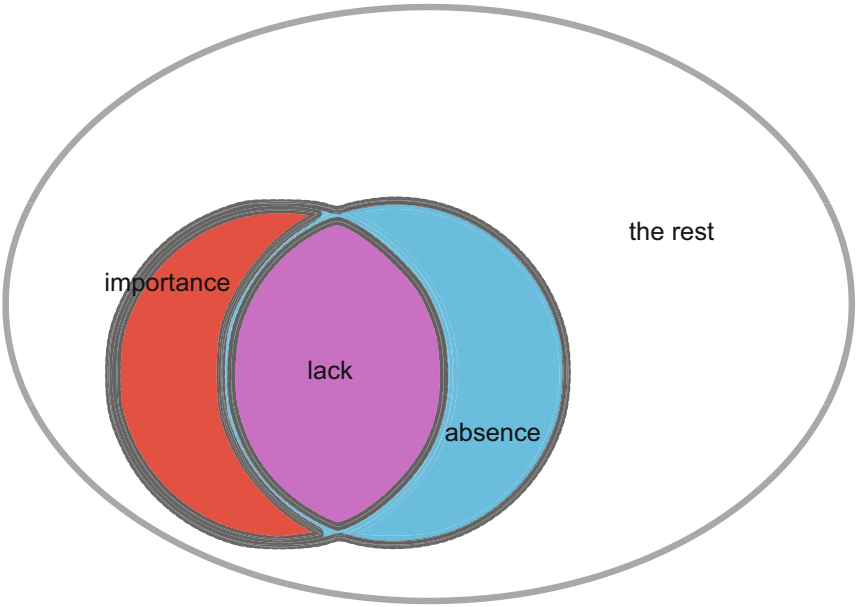


**Fig. 5.1** Prototypicality layers

features in today's mainstream academic writing is arguably 'lack'. The category 'lack' has its own features: 'importance and absence'. In other words, the prototype 'lack' occurs when 'importance' and 'absence' overlap. The areas in 'importance' and 'absence' that do not overlap each other indicate that there may be instances that can occur independently without constituting 'lack'. Furthermore, the presence of both 'importance' and 'absence' in a text does not automatically constitute 'lack', since 'importance' and 'absence' can occur without being a foreground or a background condition of each other.

A real text is construed with a potentially indefinite number of category levels. The category 'importance' in Fig. 5.1 may continue to form lower-level categories such as asserting importance of research in the real world or in epistemology, importance of method, approaches, analytical tools, and so on. Moreover, there can be an indefinite number of extending discourses, which form lower-level categories. For instance, the discourse may continue to claim importance of research by pointing out

that it attracts attention from many researchers. Also, all of these categories can be constituted by citations since reviewing literature can occur not only across different generic structure components but across different levels, which can constitute another sub-category in each prototype category. Higher levels also exist. The binary components 'the rest' and 'research' constitute a higher-level category that includes 'paper', 'thesis', and so on, and at further higher levels may be disciplinary and academic writing categories.

Most important for this book is the level that constitutes 'the rest'. That is, the theory and analytical methods presented in this book revolve around this level. This is also the level where prototype theory and structuralism most actively interact and become integrated later in this chapter.

## 5.3 Metaphor and Structure

So far, this chapter has shown that assorted semantic variations may nest under the generic structure prototype category 'lack'. These range from pointing out that something lacks in the previous literature, in the real world, in methodology, and so on. These features can push forward the research being reported. I propose in this section that a conceptual mould is functioning in the processing of semantic variations to be understood in relation to the binary structure. Hereafter, *lack*-ICMs construed discursively are referred to as discursive *lack*-ICMs in order to distinguish them from the ones typically discussed in cognitive semantics.

To recall, a conceptual mould that relates to the processing of the meaning of *lack* is a structure that deals with the complexity of reality. A conceptual mould, as Lakoff (1987) theorised, is a knowledge structure that processes 'the reality' according to our understanding of the world. According to Lakoff, knowledge we process is incongruent with reality, and it is our knowledge organised in specific ways that produces prototype effects and category structures. Lakoff showed how a conceptual mould that constitutes specific knowledge structures deals with the complexity of reality (e.g., the word *lack* has presuppositions), and therefore the generic structure prototype category 'lack' can be seen in relation to specific knowledge structures. In other words, the presupposition that

something important is missing and needs to be filled is a specific knowledge structure that processes research presentation.

The prototype category 'lack' can be identified, for instance, in Samraj's (2002) comparative study of two related fields in environmental science: conservation biology and wildlife behaviour. As reviewed earlier, Samraj reported that the conservation biology research article introductions do not fit well with Swales's (1990) descriptions of the CARS model. Samraj found that Move 1 and Move 2 of the conservation biology introductions, in contrast to the wildlife behaviour introductions that follow the CARS descriptions, contain a substantial number of real-world entities and very few epistemological references. Samraj's data consist of twelve introductions from each of the disciplines, each from a journal representative of the field. In conservation biology, Samraj identified elements that claim research centrality by 'importance in the real world' (Excerpt 1 in Chap. 4) in ten introductions. Six introductions contained 'problems in environment'. Samraj discovered that only one conservation biology introduction established the centrality of the research about to be reported solely by epistemology. To conclude the study, Samraj proposed a revised CARS model that embedded with 'in research' and 'in real world' (Samraj 2002. p. 15, Fig. 2). The phenomena observed, however, can be simply dealt with by taking into account the role of knowledge structures that embody our understanding of the world in processing diverse objects of research and the context which academic writers deal with.

Samraj (2002) explained that one reason the literature in review in conservative biology is limited may be that the discipline is young and hence the justification of research is made through references to the external-world phenomena. The perspective of a discursive *lack*-ICM combined with the need to justify research through referring to the external-world phenomena provides further insights into the nesting layers underneath a discursive *lack*-ICM. Again in Excerpt 1 from a conservative biology text in Chap. 4, it is obvious that the discursive *lack*-ICM functions as a knowledge structure that processes the new situations in academic writing. Under the discursive *lack*-ICM emerges nesting with presuppositions construed with the external-world phenomena. In the excerpt, not only does the very word *lack* occur frequently but the entire excerpt constructs

the prototype category 'lack'. Let me show this by summarising two presuppositions the paragraph entails:

**The background condition:**
Tropical-forest nature reserves *should have* adequate protection.

**The foreground condition:**
Tropical-forest nature reserves in many respects do *not* have adequate protection.

**Through these presuppositions, the *lack*-ICM in the paragraph is summarised as:**
Tropical-forest nature reserve *lacks* adequate protection.

Importantly, given the intensity with which the sense of 'lack' is construed, Excerpt 1 seems to show the authors' strong inclination towards the concept of *lack*, be it intentionally or subconsciously. Proceeding with Samraj's argument that newer disciplines claim centrality of research without relying much on the previous literature, academic writers in Anglophone research communities rely on the *lack*-ICM. This suggests an intriguing possibility: what they rely on primarily may, in fact, not be the existence of adequate epistemology but a conceptual mould that processes 'lack'.

As discussed in Chap. 2, a conceptual mould flexibly deals with the complexity of the reality. It appears that a conceptual mould powerfully functions to deal with the complexity of today's research world by flexibly processing complex information through discursive *lack*-ICMs, so that the prototype category 'lack' construed in the discourse can justify research being reported and, as a consequence, smoothly contribute to the construction of the generic structure component 'the rest' and be smoothly united with 'research'.

As reviewed in Chap. 2, Lakoff (1987) posited that our knowledge is organised by means of structures and that 'category structures and prototype effects are by-products of that organization' (p. 68). It appears that the construction of the sense of 'lack' with references to real-world phenomena is a fine example of a by-product of knowledge organisation.

That is, the presuppositional structures of the structural category 'lack' and the occurrence of it in a newer discipline (a prototype effect) are by-products of mainstream Anglophone academic discourse knowledge organisation.

Hence, when a situation whereby a new object of study needs to be classified as academic writing is encountered, the structural category 'lack', a pre-existing category for organising the epistemic knowledge (the central category) shared by the research community, emerges in their information-processing mind. As a result, the entire cognitive process produces another 'lack' structure in a new academic text.

Figure 5.2 displays the position of the category 'lack in real world'. The category 'lack in real world', therefore, is nested under the category 'lack', which is under the category 'the rest'. The level that the category 'lack' in the real world is placed on is the same level as that in research, in a location that is not very central.

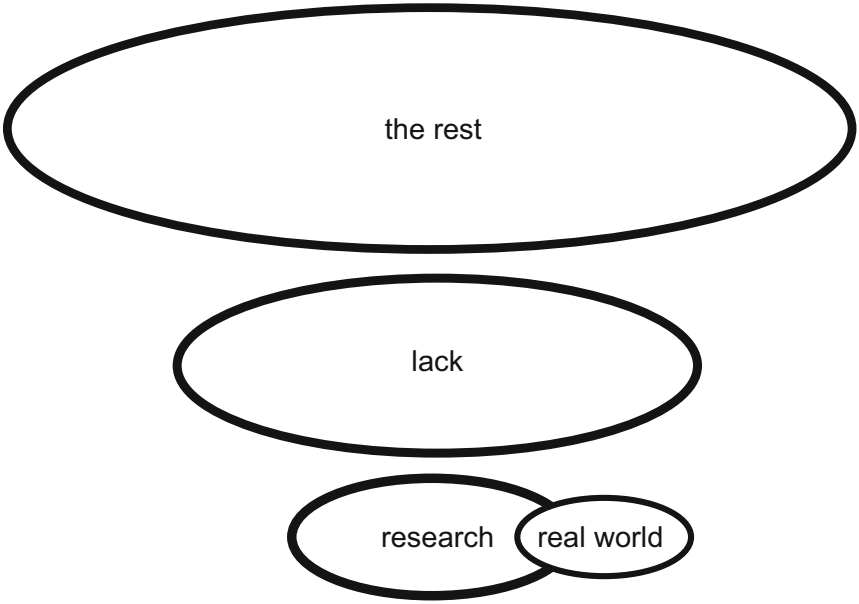


**Fig. 5.2** Levels of categories and prototype effects

## 5.4 Idealised Nature of Generic Structure Components

Analysing how the generic structure category 'lack' is reproduced in order to conceptualise a different object of research has been identified so far in this chapter. The next step is to propose that processing information through the concept 'lack' in academic writing is idealised. It is learned from experience and is not at all universal.

The structures of knowledge are incongruent with reality as structural semanticists maintain. I do not suggest that an academic text that has inevitably gone through cognitive schematic processing does not reflect reality. However, it is important to stress that the structure of knowledge displayed in the text is sorted out according to our knowledge structure. It is an abstraction from the actual world mediated by our knowledge structure. Therefore, it is idealised.

Since the idealised knowledge structure is based on the understanding that our knowledge of the world is shared by the members of a specific community, the present discussion falls in the spheres of both pragmatics and cognitive science. This further means that the mediation of the *lack-ICM* in the processing of academic information is based on the academic community's mutual knowledge, which is not universal but specific to culture. Given that the wealth of research in ESP/EAP has established that typical research article introductions most likely follow the CARS structure, it is safe to say that it has been made evident that the *lack*-ICM occupies the central prototypicality in mainstream Anglophone academic writing. The *lack*-ICM, therefore, forms a culture-bound conceptual mould and functions to process complexity of information that meets pragmatic needs for it to be presented academically.

## 5.5 Conceptual Metaphors

As Lakoff and Johnson (1980) proposed, metaphors play an important role in structuring text. The phenomenon is observable throughout text structuring. Again in Excerpt 1 (conservation biology text), it is clear that the source domain of conceptual metaphors is predominantly WAR. Observe the underlined expressions from Excerpt 1 (Peres and Terborgh 1995, p. 35):

- Tropical-forest nature reserves are experiencing mounting human encroachment …
- Long-term maintenance of nature reserves…is particularly problematical because protection is …
- Many tropical forest reserves … are chronically understaffed, lack the most basic infrastructure, and cannot count on effective institutional support to enforce conservation legislation.
- Such frailties render reserves susceptible to a wide range of illegal activities—hunting, fishing, logging, mining, land clearing—carried out by both individuals and corporations.
- … the frequent inability of guards, who are often unarmed and lacking authority to make arrests, to prosecute violators leads to a general disregard of reserve boundaries and regulations.
- … the responsible authorities are unable to intervene, large-scale invasions by colonists, poachers, loggers, and miners may ensue and jeopardize the reserve's biological resources.

Consistently, tropical nature reserves are expressed in terms of a defenceless victim in warfare. These metaphors that share the same source domain structure a specific image of the tropical nature reserves.

These WAR metaphors construe the image of a tropical reserve that is seriously damaged. Because of the metaphors of the WAR domains, high intensity is created so that the reader who feels the high tension would feel that something urgently needs to be done to end the 'war' between the attackers and the reserves. It can be considered that this is a strategic use of metaphors of the same domains to create an image to the reader that the research topic is important, urgent, and hence justified.

It is also noteworthy that it is, in fact, possible to write an introductory section of the same content with metaphors belonging to different domains. Consider, for example, JOURNEY metaphors:

- The management of nature reserve has been off the track.
- The plan for nature reserves has been going through difficult stages.

However, the image of tropical nature reserves as a JOURNEY may create less intensity and seriousness in comparison with the one created

with the WAR metaphors. The use of WAR metaphors may also be more appropriate than JOURNEY metaphors in that the discourse necessitates a recounting of a real-world situation that lacks in citable literature, whereas the image with JOURNEY metaphors would be more efficiently and effectively construed with citations, namely through temporal epistemological references.

Hence, the discursive *lack*-ICM construed in Excerpt 1 is structured with the source domain of WAR metaphors. The image of the lack created with WAR metaphors was apparently preferred by the authors over those that could be created with other metaphors. Therefore, different images construe, depending crucially on conceptual metaphors, in particular on the choice of source domains. The readers' impressions created by a stretch of discourse vary enormously depending on the type of conceptual metaphors relied on by academic writers. Different sets of metaphors, therefore, can structure the same higher hierarchical prototype category, such as the category 'lack'.

Below I list some of the source domains commonly seen in academic writing. These source domains are based on Lakoff and Johnson (1980, 1999). The conceptual metaphors Lakoff and Johnson formulated for the target domain ARGUMENT have much in common with conceptual metaphors used in academic discourse. Note that there can be many more source domains that can be identified in real academic discourse than the ones listed below.

JOURNEY
*The goal of this study is …*
*The investigation starts with …*
*This study requires three stages of investigation.*
*There are a number of obstacles with the method.*
*We have reached a conclusion.*
*It follows that …*

CONTAINER
*This research article is full of content.*
*The data contains diverse elements …*
*The large amount of research displays increasing interest in …*

BUILDING
*The foundation of this study is …*
*This study is built on …*

PLANT
*The most fertile site to collect date for this study is …*
*The series of research has been fruitful.*

PRODUCT
*The new measurement tool produced a number of studies.*
*The research generated potential for …*
*The methodology for … has been refined.*

RESOURCE
*The concept of … is useful for …*
*The series of studies have been useless.*
*Failure in the project may waste many resources.*
*The researchers of the approach ran out of ideas.*

PEOPLE
*The research in the field of … is in its infancy.*
*The field of research gave birth to …*

MONEY
*This approach has a wealth of research.*
*The rich research methodology …*
*The poor handling of research topic …*

FASHION
*Today's research trend is …*
*The methodology is outdated.*
*Up-to-date review of the research in …*

SEEING
*From the perspective of …*
*Examining this phenomenon, a different picture emerges.*
*The study sheds light on …*
*The point of view that …*
*The clear methodology …*

LIGHTSOURCES
*The method clarified …*
*The lucidity of discussion …*
*Clearly, research in this field has a number of problems.*

PHYSICAL FORCE
*The approach has attracted attention.*
*These studies revolve around …*

PATIENT
*The field of study was once dead but is now revived.*
*Healthy research ethics …*

HIDDEN OBJECT
*A number of researchers found that …*
*Many researchers searched for …*
*The study discovered that …*
*The series of studies revealed that …*

WAR
*The battle between the two theories …*
*Many studies attacked the approach.*
*The theory won a dominant position in the field of study.*

MADNESS
*The research craze in …*
*Researchers of the approach must be out of their minds.*

Of course, the source domain MADNESS may rarely be found in a mainstream written academic discourse, but what is important here is that it is actually possible to construe the same content we put forward in academic writing through the conceptualisation with MADNESS metaphors. Conceptualisations that occur in academic discourse seem to be idealised in accordance with the shared understanding of the research community as well as with the institutionalised goals. Crucially, a specific conceptualisation, even if it is a major one, does not mean that it is a better one. It is just one possible conceptualisation of a particular meaning.

## 5.6 Conceptualisation Hierarchy Under *Lack*

A discursive *lack*-ICM is not monolithic. On the contrary, it involves highly complex layers of conceptualisation processes when used in academic writing. In fact, although discursive-*lack* ICMs seem to play a crucial role in the construction of generic structure, they may be no more than a conceptualising element that is trendy in today's academic writing. Nonetheless, the present exploration of the relationship between cognitive-oriented elements and generic structuring requires the investigation of major conceptualising elements in major academic discourse in the first place. Hence, placing discursive-*lack* ICMs tentatively as a key conceptualising element, I present qualitative observations as to how a discursive-*lack* ICM, together with its other conceptualising elements such as conceptual metaphors, relates to the construal of generic structural components.

Conceptualisations concerning discursive *lack*-ICMs vary, as discussed in the previous section. In Sect. 5.6.1, I expand on the use of conceptual metaphors developed in cognitive semantics (Lakoff and Johnson 1980) in academic discourse analysis. More specifically, I relate the formulation of conceptual metaphors to the conceptualisation of discursive *lack-ICMs*. The way discursive *lack*-ICMs are conceptualised presents wide variations; hence, analysing these by identifying conceptual metaphors that appear in the discourse should be useful in explicating cultural and ideological variations, which I will further discuss in Chap. 7.

Subsequent sections reveal how the discursive *lack*-ICMs can be conceptualised through different conceptual metaphors by showing that they overlap each other to construe images in text. This is in line with the formulations of Lakoff and Johnson (1980), who observed overlapping between multiple metaphors defined as coherence in which different domains of metaphor are linked in text, so that the coherence 'allows them to "fit together"' (p. 93).

Excerpts 3 and 4 in the subsequent sections are taken from an introduction section of a research article entitled 'Aggression Between Siblings: Associations with the Home Environment and Peer Bullying' (Tippett and Wolke 2015), which investigates sibling aggression and

its associations with family characteristics and also its relationship with peer bullying. The article was published in a multidisciplinary journal, *Aggressive Behaviour*, which covers research subjects concerning conflict behaviours clustering around psychology. A number of discursive *lack*-ICMs are identified in the introductory section of this article (referred to as 'aggressive behaviour text' hereafter). The construal of hierarchical discursive *lack*-ICMs (Sect. 5.6.2) and the reinforcement of the image that something important is lacking through the repeated construal of discursive *lack*-ICMs through conceptual metaphors (Sect. 5.6.3) are analysed by using the discursive development of the aggressive behaviour text.

## 5.6.1 Construing a Discursive *Lack*-ICM

The discursive *lack*-ICM in Excerpt 3 contains what Lakoff and Johnson (1999, p. 211) referred to as causal link metaphors.

> 3. Sibling relationships uniquely contribute to children's social, cognitive, and emotional development ([citations]). Positive relationships, characterized by warmth and affection, can foster social adjustment, enhance self-esteem, improve friendship quality, and reduce the likelihood of adolescent delinquency or substance abuse ([citations]). In contrast, negative relationships, where there are high levels of physical aggression or hostility between siblings, have been linked with behavioral and mental health problems in adolescence and adulthood, including anxiety, problematic peer relationships, and anti-social or delinquent behavior ([citations]). (Tippett and Wolke 2015, p. 14, underlining added)

Excerpt 3 construes a discursive *lack*-ICM concerning the authors' research topic (that is, sibling relationships). This discursive *lack*-ICM entails two presuppositions:

> **The background condition:**
> Siblings *need* positive relationships for their developmental well-being.
>
> **The foreground condition:**
> *Not* having positive sibling relationships may be detrimental to children's developmental well-being.

**These presuppositions construe a discursive *lack*-ICM that can be summarised as:**

*Lack* of positive relationships may be detrimental to children's developmental well-being.

This is a strategic conceptualisation of an otherwise everyday view towards sister/brotherhood. By problematising the potentially serious consequences of siblings who fail to form positive relationships, Excerpt 3 prepares for the discourse to justify the need to investigate sibling aggressions and their associations with family and peer bullying.

However, this discursive *lack*-ICM keeps some distance from the research aim. The aim of the research is not to go directly into households to save children who are currently involved in sibling aggression. The situation whereby some children are in a negative sibling relationship despite the evidence that a positive sibling relationship is important for their future well-being does relate to the need to investigate sibling aggressions and their associations with family and peer relationships, but not directly. On this discursive *lack*-ICM, a further discourse is built to take the readers to the location that fits directly to 'research'. This discursive *lack*-ICM, thus, increases the value of researching sibling relationships at the baseline. The higher hierarchical discourse that is built on it more directly pushes forward the other generic structure component, 'research', which I will discuss in the next section.

Beneath this discursive *lack*-ICM are causal link metaphors,[2] as in 'Sibling relationships uniquely contribute to children's social, cognitive, and emotional development' and 'Negative relationships, where there are high levels of physical aggression or hostility between siblings, have been linked with behavioral and mental health problems in adolescence and adulthood …'. In the former causal link metaphor, 'sibling relationships' is presented as a cause for children to have either sound or unsound development. The latter one moves on to present a more specific causal link

[2] Lakoff and Johnson (1999) maintained that all causal logic is different: 'There is neither a single, literal concept of causation nor a single literal logic of causation, no matter how we conceptualize them' (p. 170). It is not, however, that Lakoff and Johnson (1999) are claiming that what is presented as causes are not causes but suggesting that the logic behind causation links can vary because of the speaker's/writer's conceptualisation patterns.

in that 'negative relationships' are linked to 'problems'. These causes and effects are conceptualised as objects and linked to each other (Lakoff and Johnson 1999). That is, the cause, sibling relationships, and the effect, children's development, which are otherwise somewhat ambiguous, are presented as two entities, namely objects, which then are conceptualised as objects that are linked as a cause and an effect. Similarly, the cause, negative relationships, and the effect, behavioural and metal health problems, are conceptualised as linked objects. What is significant here is that negative sibling relationships, which in everyday settings are talked about rather vaguely simply as brothers and sisters who tend to fight each other, are presented as a cause of serious developmental consequences for children. This is a strategic conceptualisation of the research topic that has been viewed as being negligible but is, in fact, important for children's well-being.

Also important to note is the existence of citations at the end of both sentences. The causal link is supported by previous literature. Although this is normal and expected in academic writing, it is, in fact, a distinct pattern of causal conceptualisation, given that the same causal link can be settings supported not so much by previous literature but by an individual's direct everyday experiences.

These causal link metaphors in Excerpt 3 are conceptualised with CONTAINER and FLUID metaphors. This is evident in the expressions concerning the increasing and decreasing likelihood of aggressiveness, such as 'Positive relationships … enhance self-esteem, improve friendship quality, and reduce the likelihood of adolescent delinquency' and 'negative relationships, where there are high levels of physical aggression … have been linked with behavioral and mental health problems'. These metaphors conceptualise positive correlations between sibling relationships and well-being: as the quality of sibling relationships increases, the level of fluid in a container increases; as the quality of sibling relationships decreases, the level of fluid in a container decreases. Fluid in this metaphor refers to wellness.

These causal link metaphors relate to what Lakoff and Johnson (1999) referred to as 'causes are forces and changes are movements'. That is, what is conceptualised as a cause becomes conceptualised as a force; and the forces cause changes and movements. The causal link

metaphors in Excerpt 3 are entailed with LIQUID and CONTAINER metaphors, conceptualising the causal link between sibling relationships and children's developmental well-being in terms of the level of liquid in a container, which is mapped structurally with the metaphor of forces that a cause (sibling relationships) generates.

These metaphorical conceptualisations, therefore, are entailed with each other and constitute the causal link between sibling aggression and children's developmental issues, and this further construes the discursive *lack*-ICM in Excerpt 3.

### 5.6.2 Construing a Discursive *Lack*-ICM over Another

As mentioned earlier, the introductory section of the aggressive behaviour text goes on to construe another discursive *lack*-ICM on top of the one construed in Excerpt 3. As displayed in Excerpt 4 below, the discourse highlights a lack of research in sibling aggression (research), moving on from Excerpt 3, which highlights the potentially serious consequences of having conflictive sibling relationships for young children, lacking in positive sibling relationships (real-world phenomenon).

> 4. Aggression between siblings is one of the most commonly occurring forms of aggression within families ([citations]) but is often viewed as harmless or as a normal part of family life ([citations]). In comparison to the study of peer aggression, sibling aggression has received less research attention ([citations]); however, recently there appears to be a renewed interest in the subject, marked by attempts to more clearly define and document the extent of aggression among siblings ([citations]). (Tippett and Wolke 2015, p. 14, underlining added)

The discursive *lack*-ICM in Excerpt 4 has two presuppositions:

**The background condition:**
Research in sibling aggression *should attract* attention.

**The foreground condition:**
Research in sibling aggression did *not* attract attention (in the past).

**Through these presuppositions, a discursive *lack*-ICM is summarised as:**
Research in sibling aggression *lacked* attention.

Much of the background condition that the issues concerning sibling aggression need attention was established in its earlier passage (real-world phenomenon), which is further enforced in Excerpt 4, construing the background condition for another discursive *lack*-ICM.

The discursive *lack*-ICM in Excerpt 4 is conceptualised primarily with SEEING metaphors, which structure different perspectives towards sibling aggression. First, a folk perspective of sibling aggression conceptualised with a SEEING metaphor: '[it] is often viewed as harmless or as a normal part of family life'. Another SEEING metaphor expresses the past perspective in the research community that research in peer aggression is more important than among siblings: 'sibling aggression has received less research attention'. Finally, after a contrast between the folk and the past epistemological views, an updated perspective of research community is presented with a SEEING metaphor, 'recently there appears to be a renewed interest in the subject'. These, therefore, are structured by a pattern of SEEING metaphors.

The SEEING metaphors in Excerpt 4 entail a different pattern of metaphors within the same excerpt, which conceptualises research etymology as a JOURNEY. The excerpt presents a change in the research community's interest from peer aggression to sibling aggression in temporal contrastive terms, locating the previous interest of the research community in a temporal location to another updated location. In other words, the change is represented as a JOURNEY of the research community. Furthermore, another pattern of metaphors is identified with expressions such as 'attention' and 'interest'. Although these are expressed by SEEING metaphors, these express research as if it had forces to attract researchers. Hence, these expressions also conceptualise an image of a conceptual metaphor, RESEARCH TOPIC IS A PHYSICAL FORCE (cf. LOVE IS A PHYSICAL FORCE [Lakoff and Johnson 1980, p. 48]).

The research justification made through a *lack*-ICM first by causal link metaphors that are conceptualised with CONTAINER and FLUID metaphors in Excerpt 3 is further reinforced in Excerpt 4 by a *lack*-ICM conceptualised with SEEING metaphors. These are further entailed by

JOURNEY and PHYSICAL FORCE metaphors, which together construe the discursive *lack*-ICM in Excerpt 3 by gradually enforcing it. The 'lack' conceptualisation continues to be built as the discourse develops. The first discursive *lack*-ICM in the sibling aggression text, therefore, becomes a background condition for another discursive *lack*-ICM, which is enforced with images construed with different metaphors as the discourse moves on.

Thus, these different, inconsistent metaphors are involved with one another to achieve a coherence as Lakoff and Johnson (1980) predicted. It is interesting to observe this phenomenon in a lengthy discourse as in this case. In the sibling aggression text, multiple layered conceptualisations are observed to entail each other to successfully structure a coherent discourse that justifies the research topic that has been viewed as being negligible despite its actual importance, which is now beginning to attract attention.

### 5.6.3 Strengthening Discursive *Lack*-ICMs and Metaphors

Excerpt 4 discussed in the previous section is not the end of the construction of discursive *lack*-ICMs for the aggressive behaviour text. Continuously after Excerpt 4, the text goes on to reinforce the sense of 'lack' from various aspects of the research subject, partly overlapping each other, each highlighting different aspects of 'lack'. As the introduction section[3] moves on, the section becomes divided into subsections: *Definition and Prevalence*, *Correlates and Risk Factors*, *Sibling Aggression and Peer Bullying*, and *Aims*. These formal divisions, structurally speaking, are not important since structural components do not equate formal structures. As indicated earlier, elements that have the same conceptualisation scatter across formal divisions. What is important to point out is that in the aggressive behaviour text, discursive *lack*-ICMs are observed across subsections, each one reinforcing and building *lack*-ICMs that conceptually overlap one another.

[3] The entire introduction section of the article is lengthy and hence is not displayed as an excerpt in this book, but the full article is available online: https://www.researchgate.net/profile/Dieter_Wolke/publication/265297147_Aggression_between_siblings_Associations_with_the_home_environment_and_peer_bullying/links/543796160cf2590375c52e30.pdf.

In *Definition and Prevalence* (pp. 14–15), another 'lack' is introduced. The discourse moves on to highlight the lack of definitions and measurement in sibling aggression research, strengthening the *lack*-ICM that was formulated in Excerpt 4, 'Research in sibling aggression *lacked* attention', from a more specific aspect. The new discursive *lack*-ICM is conceptualised with a JOURNEY metaphor, which is evident in the expression that the lack of agreed definitions is a 'barrier' (p. 15) to sibling aggression research. This metaphor at the same time conceptualises two locations on the path of the journey: one before the barrier and another over it. This conceptualisation implies that the study being reported may overcome the barrier so that the research etymology can progress from one location to another, strategically using the structural conceptualisation of the JOURNEY metaphor.

The subsection moves on to say that the prevalence of sibling aggression is quite high, claiming that all types of sibling aggressions (both physical and mental ones) are linked with mental health issues. The cause and effect is expressed with a causal link metaphor, using the literal phrase 'have been linked with' (p. 15). Here, the new causal link metaphor overlaps with the discursive *lack*-ICM that appeared in Excerpt 3, '*Lack* of positive relationships may be detrimental to children's developmental well-being so that the seriousness of sibling aggression is further reinforced'. Interesting to note is that using another causal link metaphor to strengthen the conceptualisation used to express the causal link that appeared in Excerpt 3 seems to strengthen the discursive *lack*-ICM that appeared in Excerpt 3 at the same time.

The discourse goes on to refer to studies that indicated that children who experienced more than one type of sibling aggression will suffer more distress. Finally, the subsection stresses the importance of identifying the range of sibling aggression in children's experiences. This final remark plays a function in further reinforcing the need to conduct research that is based on a more delicate classification and definition of sibling aggressions so that the link between different types of sibling aggression and their different consequences can be made clearer.

In the next subsection, *Correlates and Risk Factors* (pp. 15–16), another discursive *lack*-ICM emerges, conceptualising the lack of studies that explored the antecedents of sibling aggression, despite its potentially

strong correlation with age and sex. This overlaps with the *lack*-ICM in Excerpt 4. The overlapping and referring to further specific aspects of 'lack' continue in the discourse. The discourse subsequently is concerned specifically with the lack of research that investigates sibling aggression in relation to socio-economic characteristics, despite the small number of studies that indicated correlations between socio-economic characteristics and sibling aggression. Thus, in this subsection, pointing out the lack of studies that explored socio-economic characteristics as an antecedent to sibling aggression strengthens the lack of studies that explored antecedents to sibling aggression pointed out earlier in the subsection. Both of these discursive *lack*-ICMs strengthen the conceptualisation of 'lack' in sibling aggression research that appeared in Excerpt 4.

The next subsection, *Sibling Aggression and Peer Bullying*, claims a lack of research that 'examined links' (p. 16) between sibling and peer aggressions. This is a causal link metaphor, which overlaps with the one that appeared in Excerpt 3, strengthening the discursive *lack*-ICM that was construed with it. Another metaphor identified in this subsection is a BUILDING metaphor, 'based on a handful of studies' (p. 16). The BUILDING metaphor expressed that a handful of studies suggest a close relation between sibling and peer aggression. This BUILDING metaphor conceptualises the previous studies/etymology as a structure that continuously builds up. Finally, a HIDDEN OBJECT metaphor, 'study … found that …' (p. 16), which metaphorically expresses the finding that sibling bullying can be seen as an antecedent to peer bullying. Thus, the discursive *lack*-ICMs in the subsections are further made clear, or conceptualised, in terms of what exactly is lacking, by delineating the kind of research that has been done and what has been indicated.

Much of the final subsection, *Aims*, involves the 'research' component of the binary structure. The predominant function of discourse in this subsection is to unite the discursive *lack*-ICMs construed so far in the introductory section to the research being reported. The first part of this final subsection summarises the lack of research on sibling aggression that the discourse has previously presented; the nature, extent, correlates, and consequences of sibling aggression are unknown; and definition and methodological issues remain. This summary of 'lack' is conceptualised with JOURNEY metaphors that are evident in that these issues

'have hindered … research progress …' (p. 16). Hence, all the discursive *lack*-ICMs so far construed in the introductory section are summarised, united, and strengthened once again, conceptualising the research etymology as a JOURNEY.

The discourse moves on to present the measure the research being reported uses, which comprises various types of aggression. Here, a BUILDING metaphor is used, 'based on data …' (p. 16). The measures the study to be reported uses are introduced, comprising physical, verbal, psychological, and property-based (stealing) aggression. Then the two specific aims of the study are clarified as examining associations between sibling aggression and different household characteristics, including socio-economic ones, so that its causes can be explained. This directly unites the discursive *lack*-ICMs so far construed and 'research' that constitutes the rest of the discourse in the article. The introductory section ends with the emphasis on the goal of research that examines 'the link' (p. 16) between sibling and peer forms of aggression, again using a causal link metaphor.

Hence, the discourse of the introductory section gradually construes discursive *lack*-ICMs by strengthening them with specific patterns of metaphors entailing each other, so that it can eventually make an image of an intense situation in which the research being reported is necessary. What is important in these observations is that the overlapping images of 'lack' construed across formal subsections play a crucial role in bringing up the discourse to directly push forward 'research'; namely, it construes binary generic structure components, as observed in the next section.

## 5.7 Image Construction and Generic Structuring

So far, a cognitive-oriented account of generic structure construction has been presented. Constituents of structures are hierarchically overlapping images construed by cognitive elements, such as metaphors. This suggests that the surface structures of a text or linguistic units that constitute a text, which were assumed to be the only constituents of text structuring in the previous models, play only a secondary or even a lesser role

in the structuring of academic discourse. The observations so far suggest that structures are primarily a cognitive construct. Internal to structural components are overlapping images that construe a larger structuring in the text.

In other words, generic structure components are construed by images. As observed in the introductory section of the aggressive behaviour text, the text generates the consistent image of 'lack'. And each time that the overlapping image occurs, the image becomes further reinforced. As the image construes itself, it becomes clearer. This enables the formation of a binary generic structure component to gain a clear relationship with the other component.

The process of an image becoming clearer and more exact is what was observed in the aggressive behaviour text in the previous section. The first discursive *lack*-ICM identified in Excerpt 3 was somewhat unclear at the point of discourse as to how it related to the research being reported. As discursive *lack*-ICMs are repeatedly construed, the discourse fully forms the 'lack' image that exactly fits into the research being reported.

As pointed out, the first discursive *lack*-ICM (*lack* of positive relationships may be detrimental to children's developmental well-being) that appeared in the aggressive behaviour text is construed as part of the background condition for the second discursive *lack*-ICM (research in sibling aggression *lacked* attention). This further builds a more exact *lack* in research (*lack* of definitions and measurement in sibling aggression research). Reporting the high prevalence of sibling aggression reinforces the serious consequences for children caused by the lack of a positive sibling relationship and by negative sibling relationships, at the same time reinforcing the first discursive *lack*-ICM. Indicating the lack of studies that explored antecedents makes the second discursive *lack*-ICM more specific and hence reinforces it. Indicating the lack of research that explored socio-economic characteristics as an antecedent of sibling aggression further makes the second discursive *lack*-ICM more specific as well as the one that appeared immediately before (*lack* of studies concerning antecedents), hence reinforcing both the second discursive *lack*-ICM and the discursive *lack*-ICM that appeared immediately before. Finally, indicating the *lack* of research that examined the link between sibling and peer aggression specifies and reinforces the second discursive *lack*-ICM.

It is significant that the *lack*-ICMs have become more intense and more specific as the discourse proceeds. The discourse gains a direction and moves towards the research being reported.

What construes 'research' in the introduction of the aggressive behaviour text is where the discourse reveals that the research being reported measures physical, verbal, psychological, and property-based (stealing) aggression. This directly unites with the third appearing discursive *lack*-ICM (*lack* of definitions and measurement in sibling aggression research). The first of the two research aims presented at the end of the introductory section clarifies that the paper examines the associations between sibling aggression and different household characteristics, such as socio-economic ones. This unites directly with the discursive *lack*-ICM that appeared before (*lack* of research that explored socio-economic characteristics as an antecedent of sibling aggression). The second of the two research aims states that it examines the link between sibling and peer forms of aggression, which directly unites with the final discursive *lack*-ICM the introductory section builds.

Hence, overlapping images construe a delicately delineated conceptual mould of *lack* for the reader, which forms a binary structural component that unites with the other components. These built images of *lack* create a binary generic structure component, 'the rest', in such a way as to perfectly fit into the other component, 'research'.

These are strategically constructed and completed images that are tailored for the research being reported. Consider, for example, a possible link between sibling aggression and child abuse. Despite a possible link, it is not mentioned in the introductory section nor does it indicate a lack of research that explored the link, unless the research to be reported explores the research topic. There may be a number of other possible research topics concerning sibling aggression that are underexplored, yet it is not considered appropriate to review the entire underexplored areas of a research topic concerned. Otherwise, the generic structure component construed would not fit well with the other component.

A multitude of images constructed the generic structure component that fits perfectly well with 'research'. In other words, it is images that construe structures.

## 5.8 Discursive Metaphors and Coherence

So far, what has been established is in line with what Lakoff and Johnson (1980) proposed: metaphors structure our perceptions, understanding, and abstract thinking. Lakoff and Johnson (1980) claimed that the metaphor is a property of concepts and not of words and that the function of metaphor is to better understand certain concepts. Following this view, I attempt to build a foundational understanding concerning how concepts construed by discourse play a crucial role in text structuring, in particular, highlighting metaphors and coherence.

The conservation biology text and the aggressive behaviour text observed earlier exhibit a profound number of metaphors, which play a crucial role in structuring the knowledge those texts construe. In this section, I highlight the text-constructive function of metaphors from an intra-interactive perspective; that is, metaphors interact with each other to create cohesion and to construct a text. This directly relates to the knowledge-structuring role of metaphors. Again, the metaphors used in the aggressive behaviour text are used to demonstrate their interactions.

As evidenced from earlier observations, the introductory section of the aggressive behaviour text is constructed with dominant metaphors. The role of causal link metaphors is particularly extensive. The causal link metaphors at the beginning of the introductory section, which are conceptualised through FLUID IN A CONTAINER metaphors, reveal that sibling aggression affects children's development (Excerpt 3). The SEEING metaphors then take over (Excerpt 4), displaying three perspectives: the popular folk view that does not take brothers' and sisters' fights seriously, past researchers' views that peer aggression is an important topic but sibling aggression is not, and a recent view that sibling aggression may be an important research topic.

Here, an interaction between the causal link metaphors occurred earlier and the SEEING metaphors can be identified. Sibling aggression, which was linked with serious consequences in Excerpt 3, is presented as an object that is seen by three different perspectives. Two perspectives (a folk view and an old epistemic view) overlook the serious consequences of sibling aggression without being able to find importance in exploring

sibling aggression; and recent epistemic views finally see sibling aggression seriously; hence, the discourse can successfully place the research topic at the centre of attention. Moreover, the PHYSICAL FORCE metaphors (*attention* and *interest*) used to conceptualise the varying perspectives towards the research topic add the image of the research topic as an object that gains increasing forces to attract researchers. Interactions between the causal link, SEEING, and PHYSICAL FORCE metaphors, work together to further conceptualise the image of the increasing importance of the research topic.

Furthermore, since the image of the research topic as an object that increasingly gains importance with SEEING metaphors in Excerpt 4 is entailed with JOURNEY metaphors RESEARCH ETYMOLOGY IS A JOURNEY at the same time, a path is conceptually created between the past and the present perspectives towards the research topic. The image created by these metaphorical interactions extends the path created by the JOURNEY metaphors. As observed, by expressing the lack of definitions and measurement in sibling aggression research as a 'barrier', the discourse adds another JOURNEY metaphor. This time the path is extended: the path of research etymology created by the earlier JOURNEY metaphors is extended because the metaphor of the path conceptualised by a barrier presupposes that the path exists after overcoming the barrier.

From then on, an interaction with this JOURNEY metaphor with a causal link metaphor is made: the discourse returns to add some work on the causal link metaphor, by adding links between types of sibling aggression (relating to what defines sibling aggression which became a basis for a JOURNEY metaphor immediately before) and mental health issues.

Then again, the JOURNEY metaphor discourse returns, expressing the lack of studies that explored antecedents and causes for sibling aggressions. The target domain is again RESEARCH ETYMOLOGY, further adding to the conceptual metaphor, RESEARCH ETYMOLOGY IS A JOURNEY (or more specifically, EXPLORATION). Importantly, as the discourse highlights different aspects of the research topic, metaphorical interaction between JOURNEY and the causal link continues, as this JOURNEY metaphor discourse specifically refers to antecedents and causes. From then on, as observed, the causal link metaphor links between sibling aggression and family relationships/socio-economic conditions, which further links

sibling aggression with peer aggression. Previous studies, which have been expressed with JOURNEY metaphors, namely RESEARCH ETYMOLOGY IS A JOURNEY, are entailed with a BUILDING metaphor 'based on a handful of studies' (p. 16).

The interactions between conceptualisations cohere the discourse to the end of the introductory section (and, of course, to the rest of the text, although owing to the limitation of the space, I could not qualitatively observe the entire article). Finally, summarising the situation as a 'clear lack of research in sibling aggression' (p. 16), the introductory section develops a SEEING metaphor 'clear' in relation to RESEARCH ETYMOLOGY IS A JOURNEY. Then the discourse on research epistemology returns its predominance to JOURNEY metaphors, 'hindered … research progress'. The JOURNEY metaphor then entails with a BUILDING metaphor, 'The present study is based on' (p. 16). This metaphorically places 'the present study' at the top of the etymological journey. The final causal link metaphor whereby the purpose of the study is presented—to investigate the link between sibling aggression and peer aggression that has been ignored—metaphorically echoes with the causal link metaphors that have been used so far throughout the introductory section.

Substantial among these interacting metaphors are the ones between the causal link and JOURNEY metaphors. The aggressive behaviour text made causal links between what sibling aggression mediates: causes and consequences of sibling aggression. The text places JOURNEY metaphors in locations relating to the causal links made by metaphors. (e.g., barriers on the path of a JOURNEY are expressed in terms of causes and consequences and vice versa). Furthermore, the causal links that sibling aggression mediates almost always accompany citations. Non-integral citations also contribute to the formation of RESEARCH ETYMOLOGY IS A JOURNEY metaphors, since citations are expressions of research etymology. Therefore, the continuous interaction between causal links and JOURNEY metaphors occurs not just within the main discursive flow but also outside of it through non-integral citations, and this coheres the text.

Such interactions between apparently different metaphors that conceptualise an image can be explained if we extend the distinction that Lakoff and Johnson (1980) make between coherence and consistency to

discourse analysis. Lakoff and Johnson provided example sentences such as '*At this point* our argument doesn't have *much content*' (Lakoff and Johnson 1980, p. 92). In this sentence, for the target domain, ARGUMENT, two source domains, JOURNEY and CONTAINER, are jointly used. This overlap is possible, Lakoff and Johnson explained, because these metaphors have shared entailments. That is, the longer the path created by the JOURNEY, the more surface for the CONTAINER is created, and hence the content of the CONTAINER increases. The metaphors used in the sentence, according to Lakoff and Johnson, are not consistent since 'there is no "single image" that completely fits both metaphors' (p. 93). These metaphors, however, are coherent, they proposed, because the overlap between the two metaphors enables some aspects of the two images to fit together.

If Lakoff and Johnson's formulation to discursively conceptualised images is extended, it is possible to find coherency between the two inconsistent metaphors. To take one of the substantial combinations in the aggressive behaviour text, JOURNEY and causal link metaphors strongly cohere the discourse. The target domain for the JOURNEY metaphors is RESEARCH ETYMOLOGY, presenting previous studies on the path of the JOURNEY. The metaphors that are used in causal links, on the other hand, are concerned with the research topic, sibling aggression, linking causes and consequences that sibling aggression can manifest. It can be observed that the causal links and the path of RESEARCH ETYMOLOGY JOURNEY are conceptually correlated:

> As the path covered by RESEARCH ETYMOLOGY IS A JOURNEY extends, the causal links strengthen.
>
> As the causal links strengthen, the path covered by RESEARCH ETYMOLOGY IS A JOURNEY extends.

Although the two metaphors are described as inconsistent in Lakoff and Johnson' terminology, they partly overlap reciprocally in such a way that the two images fit together. The coherent images created by these metaphors work together to conceptually increase the importance of the research topic.

The aggressive behaviour text shows further overlapping, which coheres conceptualisations in the entire introductory section. To provide a further instance, another substantial discursive metaphorical entailment occurs between SEEING, JOURNEY, causal link, and PHYSICAL FORCE metaphors in the aggressive behaviour text. As observed, a shift in perspective across time (JOURNEY and SEEING) is expressed in terms of PHYSICAL FORCE. This is because more perspectives create forces that link between cause and effect surrounding sibling aggression, and vice versa. The reciprocal relationships across the discursive metaphors are summarised below.

As the path (JOURNEY) becomes longer, more perspectives (SEEING) occur.
As more perspectives (SEEING) occur, the path (JOURNEY) becomes longer.

As more perspectives (SEEING) occur, more attention (FORCE) occurs.
As more attention (FORCE) occurs, more perspectives (SEEING) occur.

As more attention (FORCE) occurs, the path (JOURNEY) becomes longer.
As the path (JOURNEY) becomes longer, more attention (FORCE) occurs.

As more attention (FORCE) occurs, more causal links are established.
As more causal links are established, more attention (FORCE) occurs.

As more causal links are established, the path (JOURNEY) becomes longer.
As the path (JOURNEY) becomes longer, more causal links are established.

As more causal links are established, more perspectives (SEEING) occur.
As more perspectives (SEEING) occur, more causal links are established.

As more causal links are established, more attention (FORCE) occurs.
As more attention (FORCE) occurs, more causal links are established.

The images created by inconsistent metaphors all reciprocally fit together. Importantly, however, the exhausting list of overlapping discursive metaphors above does not provide all of the metaphors identifiable in the aggressive behaviour text. For example, the BUILDING metaphor, which is not so substantial in the text, serves to place the research to be reported at the top of RESEARCH ETYMOLOGY IS A JOURNEY, which coheres with other

metaphors. Metaphors instantiate a metaphor, which further instantiates a metaphor, and this can go on and on, enabled by the creative potential of metaphor. The multitude of metaphors of different hierarchical levels interact with each other to create a coherent image. In the case of the aggressive behaviour text, the overlapping multitude of images coheres in such a way as to conceptualise the research topic as important and worth investigating. In other words, metaphors justify research.

## 5.9 Discursive *Lack*-ICM Revisited

So far, this book has shown that metaphors are crucial elements for structuring generic structure components, but then questions arise as to the relationship discursive *lack*-ICM forms with all of those metaphors. Beneath the *lack*-ICMs, it has been observed that metaphors help instantiate presuppositions for *lack*-ICMs. It has also been observed that discursive *lack*-ICMs are conceptualised entities. It follows from the observation of interacting metaphors that *lack*-ICMs are also part of metaphor interactions.

I propose that discursive *lack*-ICMs so pervasively used in major academic discourse are an element that instantiates a JOURNEY metaphor. Pointing out the lack of research, first of all, conceptualises an image of an incomplete path on a RESEARCH ETYMOLOGY IS A JOURNEY, making it dysfunctional. The aeronautics and astronautics text (Fig. 4.1, Chap. 4), originally analysed by Swales (1990), also exhibits this metaphorical structure. Although the aspect of research concerned in the aeronautics and astronautics text is methodological, it exhibits a clear discursive *lack-ICM* structure in that it depicts a lack of method, which is led in the discourse to be placed as the goal for the research community. To recall, the discursive *lack*-ICM of the text claimed that the research community *should have* a computational method suitable to predict the flowfield and the aerodynamic coefficients in the high-angle-of-attack aerodynamics, but the research community does *not* have one. The study is conducted to fill this gap since it 'extends the use of the last model to asymmetric, body-vortex flow cases, thus increasing the range of flow problems that can be investigated' (Almosnino 1985, p. 1150). Hence, the author's

study serves as a step towards the goal for the research community. The discursive *lack*-ICM, then, is a sub-theme under JOURNEY.

Such discursive *lack*-ICMs not only occur concerning etymology but also can occur in a wide range of semantic orientation in discourse. One such example is the conservative biology text (Excerpt 1, Chap. 4), which constructed the *lack*-ICM concerning environmental issues. In this case, as Samraj (2002) argued, the existing previous literature is small because of its youth as a discipline, and hence the discursive *lack*-ICM was created with the environmental issues instead of epistemology. To recall, the *lack*-ICM in Excerpt 1 functions as a knowledge structure that processes the new situations in academic writing, which simply forms a different type of nesting under the prototype category 'lack'. In the excerpt, not only does the very word *lack* frequently occur but the entire paragraph constructs 'lack': Tropical-forest nature reserves *lack* adequate protection. As observed, the discourse that instantiates this discursive *lack*-ICM is construed predominantly with WAR metaphors. However, at the same time, the descriptions of the struggle the nature reserves are experiencing construe the image of journey.

The discourse internal to the discursive *lack*-ICM exhibits JOURNEY metaphors to some extent. Observe once again the description of the series of events surrounding the nature reserves in Excerpt 1. The nature reserves are continuously expressed as experience (e.g., 'Tropical-forest nature reserves are experiencing mounting human encroachment' [Peres and Terborgh 1995, p. 35]). This conceptualises the nature reserves as a living thing that is having a journey, a difficult journey of war constantly under attack. The predominant WAR metaphors, therefore, are partly overlapping with the JOURNEY metaphors. Furthermore, and more significantly, the discursive *lack*-ICM itself serves as a metaphor; namely, something important is missing on the path of a JOURNEY: The *lack* construed by discourse corresponds to an impediment on a path of a JOURNEY.

The overlapping of WAR and JOURNEY metaphors, or entailment of these two domains, is common in scientific discourse, in particular in medical discourse where disease tends to be conceptualised as an enemy to be defeated. The fact that illness—for example, cancer—is frequently expressed with WAR metaphors is well known (Sontag 1978). Sontag warned against stigmatising illness through the widespread practice of

expressing illness with metaphors, such as 'war against cancer', and suggested instead the use of neutral, metaphor-free language. This, however, may not be realistic, since today it is fairly well established that metaphors are pervasive in our language and that they play a crucial role in structuring our thinking (Chap. 2). However, it is possible to increase awareness for language-users regarding the impact of metaphors.

Van Rijn-van Tongeren (1997) found that WAR metaphors are pervasive and play a crucial role in construing knowledge in medical handbooks, identifying conceptual metaphors such as 'cancer is war' and 'tumour cells are enemies'. Williams Camus (2009) identified a conceptual metaphor 'cancer finding is movement forward' in her scientific popularisation corpus. For example, 'This [understanding] could *open up new avenues* for treating a range of diseases' (Williams Camus 2009, p. 484), which is a JOURNEY metaphor. Importantly, Goatly (2007) observes that WAR metaphors are often entailed with JOURNEY metaphors. Goatly (2007, p. 73) found instances such as 'work hard to achieve' and 'attempt to stop something', which express activity as fighting for the purpose of reaching a goal, namely a combination of WAR and JOURNEY metaphors. Hence, Goatly placed 'activity is fighting' as a sub-theme of 'activity/process is a movement forward'.

These metaphors that are tied together are in line with the earlier observations in Excerpt 1 (conservation biology text), which is full of WAR metaphors tied with JOURNEY metaphors. Furthermore, the discursive *lack*-ICM serves to be an element to further conceptualise the situation as a journey. Not only does this multitude of entailed metaphors occur at the lexical or the phrasal levels, but the discourse itself construes an image that serves to generate a metaphor. Academic discourse, then, may be a construal of a multitude of images conceptualising one another, which constitutes a text.

Another possibility concerning the making of a discursive *lack*-ICM to be an element of JOURNEY is that it is perhaps not the discursive *lack*-ICMs that were conceptualised first in the writer's mind. It is the conceptualisation of JOURNEY that occurred first and then the conceptualisation of the *lack*-ICMs followed to form a conceptualisation of JOURNEY.

Concerning prototype phenomena (radial categories), Lakoff (1987, p. 153) proposed that the non-central models are *motivated* by the central models but stressed that it does not mean that they are *predicted* by the

central models. Along this line, metaphors, which are conceptual entities as with radial categories, can be motivated by central instances. It follows that the predominant use of JOURNEY metaphors, which occupy a central place in mainstream academic writing, may have motivated the conceptualisation of the nature reserves in Excerpt 1. That is, it may be that the nature reserves conceptualised with the discursive *lack*-ICM did not motivate JOURNEY metaphors, but the other way around. The entire conceptualisation elements and processes may have been motivated by JOURNEY metaphors. This follows that the goal of the series of the conceptualisations construed in the discourse, then, may be to realise the mainstream central metaphor.

As discussed earlier, Samraj (2002) explained that one reason her corpus from conservation biology research articles created research space (namely *lack*-ICMs) by referring to real-world phenomena may be that newer disciplines do not have much epistemology in comparison with the more traditional ones; a text may construe elements that are missing to construe a mainstream conceptual metaphor with an alternative element. In the case of the conservation biology text, the alternative element was environmental issues, the external-world phenomena. The external-world phenomena can still construe a discursive-*lack* ICM, which can effectively construe a JOURNEY metaphor. Therefore, when a typical element is missing, a text fixes itself with a goal to construe a particular conceptual metaphor. In other words, when a conventionalised target domain is missing to conceptualise a conventionalised conceptual metaphor in a conventionalised genre writing situation, the source domain *motivates* the writing. Then, the use of JOURNEY metaphor with the construal of discursive *lack*-ICMs still occurs with a new target domain. This may be what occurred in the conservation biology text.

A conventionalised conceptualisation structures new situations. The situations of the natural reserves in the conservation biology text may not necessarily be conceptualised with a discursive *lack*-ICM, but it was conceptualised as such because of the pre-existing conceptual metaphors. This is not to say that the discursive *lack*-ICM construed does not reflect reality. As the invariance principle holds, the reality of the target domain must in one aspect contain situations that can be expressed with *lack*-ICMs and the JOURNEY metaphor. It is crucial that the mapping of

the source domain, which is predominant in the genre, seems to have highlighted one particular aspect of the target domain.

Potentially, this is a substantial notion that needs further investigating in relation to genre variations and evolution. It is possible that disciplines that contain new elements such as new objects of research and new ideology tend instead to miss a major element that construes a mainstream conceptualisation of genre. It is possible that this motivates the evolution of genre.

## 5.10 Conceptualised Images as Constituents of Generic Structure Components

So far, it has been suggested that a series of conceptualisations constitutes generic structure components. Overlapping images instantiate another image, and the continuous production of images eventually instantiates an image that fits together with the other binary generic structure component. As proposed in Lakoff and Johnson's (1980) theory of metaphor, it has been observed that the domains of concrete concepts provide a mapping that structures abstract concepts. Construed images, therefore, can be identified as the constituents of academic discourse.

Furthermore, this cognitive-oriented account of generic structure components invalidates the view that places a primary role on linear sequencing of discursively or linguistically oriented components. This is not to say that linguistic elements and sequencing do not play a role in constituting generic structure components. There is no denying that linguistic elements and various formal sequencing (words, phrases, sentences, and so on) realise images and text as a whole. Experiential evidence suggests, however, that templates that cognitively process discourse to produce and receive information are at work in generic structuring. Furthermore, these templates that conceptualise images are independent of formal linguistic structuring. This explains why this cognitive-oriented view towards generic structuring processes does not rely on linear text structuring. Image structuring is not a linear process that follows the changes on the surface of text, but a hierarchical process that overlays.

The findings in cognitive semantics as well as the cognitive-oriented observations of generic structure elements that have been made so far seem to support the structuralist view that the surface forms alone cannot independently be a unit for meaning making. Overlapping conceptualisation that occurs across formal units plays a crucial role in meaning making whether it be at lexical or discursive levels, invalidating the use of formal structuring as a unit analysis for the analysis of the meaning-making process. Such a cognitive-oriented perspective on discourse analysis has the potential to sort out many unresolved issues in generic structure analysis.

## 5.11 Conclusion

This chapter has proposed a cognitive-oriented account for the construal of generic structure components. The academic writing structure model, therefore, proposes that generic structure components are construed by overlapping images. A full account of generic structure modelling for academic writing structure has been presented. This chapter has also achieved the application of a cognitive-oriented approach to discourse analysis, which takes into account linguistic, cognitive, and pragmatic roles in constructing discourse in genre.

However, a central conceptualisation mapping represented with typical conceptual metaphors cannot automatically be considered a well-composed text. This relates to the idealised nature of conceptualisation. The central conceptualisation characteristics are no more than a dominant feature of a mainstream culture or ideology. Importantly, the shared knowledge of the discourse community plays an important role in the construction of generic structure elements in this model, since it is the shared knowledge that forms prototypicality and motivates changes in genre. That is, the knowledge that structures concepts is crucial for both text construal and conceptualising newly encountered research elements (subject of research, research methodology, research ideology, and so on). The latter potential plays an important role in accounting for genre evolution and diversity in academic writing, which will be presented in Chaps. 6 and 8. Similarly, the deployment of discursive *lack*-ICM, which appears to be so central, is a culture-bound construct. This will be discussed in Chaps. 6 and 8 as well.

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# 6

# Diversity in Academic Writing

> Western people have a tendency to believe that words and concepts are more real than the definite facts and existence are. This is quite dangerous. The history of science is full of examples in which the correct observations were neglected by the believers in false concepts. Once a Zen master said that we should not mistake the pointing finger for the moon to which it points. Although the finger teaches us that the moon exists, it is proper to say that the finger created the moon? Although the word 'moon' is needed to refer to the thing shining up in the heavens, is it proper to say that the word created it, and thus that the word is more real than that celestial existence? (Motokawa 1989, p. 499)

Images that are conceptualised depend on the knowledge of the writer/speaker. This means that depending on the culture and ideology concerning academic writing, the look of academic writing may vary enormously.

The model presented in Chap. 5 was displayed with the instances of today's mainstream academic writing. This chapter explores non-mainstream atypical instances of genre, highlighting different ways of conceptualising research.

If the prototype understanding of categories is applicable to genre evolution, emerging, atypical instances of genre should exhibit a small



T. Sawaki, *Analysing Structure in Academic Writing*,
DOI 10.1057/978-1-137-54239-7_6

number of shared features or family resemblances with the mainstream instances of genre of the culture. Hence, the aim of this chapter is to investigate academic writing variations within and across cultures. Therefore, by analysing various possible instantiations of genre, this chapter attempts to add to the account that has been made in Chap. 5 in that common sense or shared knowledge determines the conceptualisation of academic writing. Whereas Chap. 5 highlighted shared conceptualisations or shared entailments, this chapter highlights shared conceptualisations from the perspective of genre variations. Overlapping conceptualisations that construe generic structure components between the mainstream and atypical/emerging writings and the excerpts are displayed as prototypicality effects (Fig. 6.1), so that variations of generic structure components can be accounted for by the prototype theory.

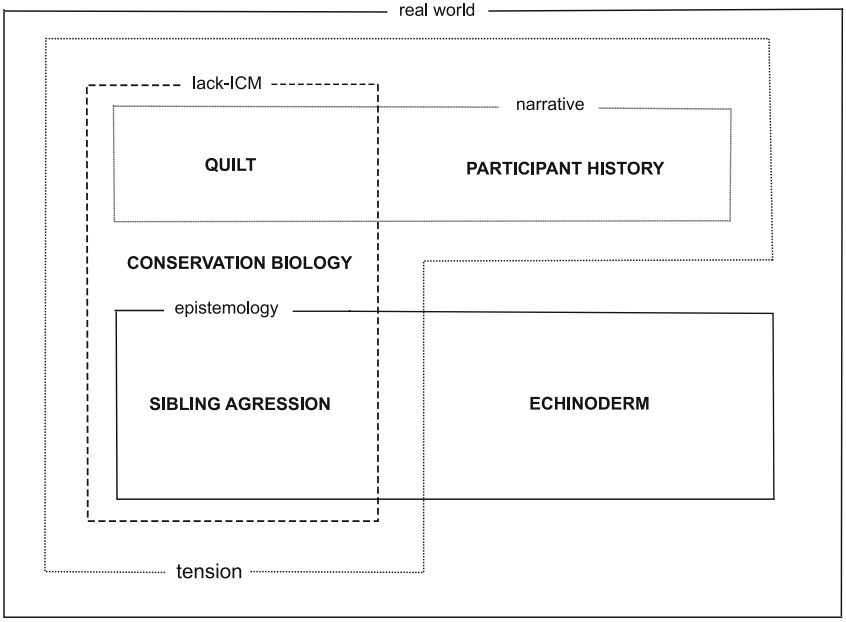


**Fig. 6.1** Prototypicality effects: conceptualisation features of five texts (*Note*: Displays in the figure are limited to a part of conceptualisation features evident in the excerpts, and not in the entire texts)

## 6.1 Diverse Academic Writing Within Anglophone Academic Writing

If shared conceptualisation of genre plays an important role in instantiating generic structure components, a question arises as to why genre instances look so different. Although the binary generic structure remains stable, images that construe generic structure components do not at first glance appear to have any stability. This is not just across cultures and disciplines but also within cultures and disciplines. What, then, triggers variations? Which conceptualised images remain shared and which change? The subsequent sections investigate how variations occur at the levels of conceptualisations within English academic writing by further observing the texts that have been examined so far from the perspective of cognitive-oriented formulations.

### 6.1.1 Structures of JOURNEY Metaphors at Work on WAR Metaphors

Chapter 5 observed that JOURNEY metaphors are predominant in the instances of academic writing observed, which is represented with the conceptual metaphor, RESEARCH ETYMOLOGY IS A JOURNEY. Recall, however, the observations regarding Excerpt 1 (the conservation biology text) wherein WAR metaphors are predominant and, in fact, share features with RESEARCH ETYMOLOGY IS A JOURNEY in that discursive *lack*-ICMs are commonly used. This is because the conceptualisation that an important point on a path is missing also forms a JOURNEY metaphor.

The following sentence is from Excerpt 1: 'Many tropical forest reserves consequently operate on skeletal budgets, are chronically understaffed, lack the most basic infrastructure, and cannot count on effective institutional support to enforce conservation legislation' (Peres and Terborgh 1995, p. 35). In this sentence, the conceptualisation of the discursive *lack*-ICM is within a JOURNEY metaphor, and at the same time this discursive *lack*-ICM projects a goal. The goal that is metaphorically implicated is to overcome the lack of basic infrastructure and to establish appropriate conservation legislation. The mapping of an obstacle and a goal is thus

conceptualised in accordance with the mapping of the JOURNEY. Hence, the discursive *lack*-ICM structures a mapping that overlaps with the mapping of ETYMOLOGY IS A JOURNEY, which is a central instance of genre, although the target domain is real-world phenomena and non-research.

Another overlapping feature that the discursive *lack*-ICM in Excerpt 1 exhibits is tension. Something important is missing, and something that needs to be protected is under serious attack by offenders. In fact, in comparison with tension created in a typical RESEARCH ETYMOLOGY IS A JOURNEY discourse, the degree of tension created with the predominant WAR metaphors seems to further intensify the urgency of the situation described in the discourse.

Given these overlaps, Excerpt 1 construed with WAR metaphors has much in common with the central instances of the genre construed with RESEARCH ETYMOLOGY IS A JOURNEY. Except for the fact that the target domain is a real-life phenomenon, the conceptualisation mapping is shared with RESEARCH ETYMOLOGY IS A JOURNEY. As Samraj (2002) originally postulated, these changes in Excerpt 1 were triggered as a not-so-etymological nature of the discipline. Excerpt 1, therefore, is an instance of genre variation that occurred because of a new research object that is non-epistemologically oriented. Importantly, the new situation is still instantiated based on the shared conceptual mould with mainstream academic discourse.

### 6.1.2 Narrative Conceptualised Academically

In contrast to Excerpt 1, Excerpt 2 (the participant history text) appears to keep distant from the mainstream academic discourse. The discourse, however, reveals common features of academic discourse. As observed, the author narrates his life history, which has much in common with JOURNEY metaphors. The conceptual metaphor for Excerpt 2 can be formulated as LIFE IS A JOURNEY/TIME IS A JOURNEY. In Excerpt 2, the target domain is LIFE infused with TIME, which is the only difference from RESEARCH ETYMOLOGY IS A JOURNEY.

Before writing the history of the Labour Left in an Australian local municipality during the 1970s and 1980s (which is his research), the

author narrates his life journey that manifested him to develop his own political view, become interested in the research topic, and think about the subjectivity of history writing in relation to his life history. The author describes his comfortable upbringing supported by his parents, both of whom are from working-class backgrounds; his high school experience, which he thinks predisposed him to a left-wing sensibility; and his university time during the 1960s, when his political development was accelerated. This is a conceptualisation of the author's lifetime events expressed as a journey of a participant historian.

Another conceptualisation that Excerpt 2 shares with the mainstream academic discourse is tension, which increases as the discourse continues. The increasing tension or intensity in the discourse is represented by such expressions as 'my political development accelerated at University' and 'At University I was stimulated by the more formal opening of ideas as part of an economics and politics degree course as well as the climate of debate and sense of a changing world that was infused through campus life in the late sixties' (Harris 2007, p.7, underlining added). The expression *accelerated* forms a conceptual metaphor, LIFE IS A JOURNEY, since the speed of personal development corresponds to the speed of movement in a journey, namely THE FAST PERSONAL POLITICAL DEVELOPMENT IS THE FAST MOVEMENT, hence not only forming a JOURNEY metaphor but heightening the intensity of his political development. The second sentence similarly increases intensity in his political development by referring to an economics and politics degree course which *stimulated* the author. The sense of the changing world that was *infused* through college life in the sixties also stimulated the author to consequently become involved in a political movement and write its history. These events described in a stretch of discourse consistently conceptualise one image: the author's political awareness was intensified by a series of these events. This creates tension in the discourse.

This tension created by the discourse that pushes forward 'research' partly overlaps with the tension that discursive *lack*-ICMs create. Importantly, even with an apparently very atypical academic discourse such as Excerpt 2, there are small parts of conceptualisations that overlap with those in mainstream academic writing. Perhaps, the intensity or tension that pushes forward the research to be reported has occurred

because of the shared knowledge of how typical central cases of academic discourse are conceptually structured. The construal of tension in Anglophone academic writing is further discussed later in this chapter. From this perspective, the apparently atypical surface features of Excerpt 2 are still considered a product of mainstream conceptualisation.

The participant history text may be radical in that it combines the author's own and other participants' memories and written documents for the interpretation of historical events, as the author writes that he attempts to treat 'oral and written sources with the same degree of critical analysis, weighing one against another, with [his] own subjective intrusion fairly transparent' (Harris 2007, p. 9). This newer approach to history emerged as participant history created the necessity to narrate the historian's own life journey. Nevertheless, this new necessity has taken over a small number of features of mainstream academic writing conceptualisation, although many other accompanying conceptualisations have been lost. Some family resemblance to the mainstream genre discourse, therefore, can be identified in this instance.

### 6.1.3 Feminist Research

Not all scholars have taken for granted the ideologies and conceptualisations exhibited in mainstream academic discourse. In particular, scholars of feminism are aware of the masculinity in conceptualisations of mainstream academic writing (Benjamin 1993; Flannery 2001; Koelsch 2012; Merchant 1980; Namenwirth 1986; Rose 1983, 1994; Saukko 2000). Feminism has contributed to a shift in academic discourse in using gender-neutral language; however, conceptualisations remain masculine. This is because lexical features are after all the surface features of discourse. Gender is deeply rooted beyond the surface discourse, which may change little by mere lexical choices. Male-centred conceptualisations of academic discourse may be a reflection of an academia that has been developed predominantly by males. This is, in fact, a good site for investigation wherein the interplay among ideology, conceptualisations, and generic structure componential formations may be seen, although little has been explored on this topic. The overlapping and differences between

mainstream, or masculine, academic discourse and feminist academic discourse, then, is worth investigating for the present purpose.

In a research article entitled, 'Quilting: A Feminist Metaphor for Scientific Inquiry', a biologist, Maura Flannery, pointed out that the discourse of science is dominantly masculine (Flannery 2001). This is evident, Flannery argues, in metaphors used in scientific discourse such as exploring and hunting. Flannery further pointed out that although metaphors may be essential for scientific communications, they do not necessarily have to be masculine. Instead of conceptualising scientific phenomena and activities with masculine metaphors, it should be possible to do so with feminine ones. What Flannery proposed, hence, is to use quilt-making metaphors instead of the mainstream masculine ones:

> The quilting metaphor could have positive effects on people's attitudes toward science by presenting it as less threatening, more accessible, more aesthetically appealing, and more collegial. By portraying science as a craft as much as an intellectual pursuit, the metaphor might make science seem more doable to many students who think it is only for geniuses. (Flannery 2001, pp. 640–641)

Flannery's comments on the aggressiveness of scientific discourse are in line with what has been observed thus far: conceptualisation patterns with WAR and JOURNEY metaphors in mainstream academic writing. Meaning making in scientific discourse does not necessitate masculine metaphors, and quilting metaphors may well complement the predominant masculine metaphors in science. It is interesting, however, that Flannery considers one of the commonalities between masculine and quilt-making metaphors to be that 'there is a tension between creativity and conformity, with great value placed on creativity, but always within a framework' (Flannery 2001, p. 633).

When Flannery mentioned the word 'tension', it seemed to be a keyword to describe Anglophone academic discourse that tends to occur across different ideological as well as disciplinary perspectives. Tension occurs when attempting to achieve conformity with other studies and creativity of the research being reported, namely in the gap creation. As discussed earlier, mainstream conceptualisations of research gap are

instantiated by heightened tension, whether in the research world or in real-world phenomena (Excerpt 1).

Although Flannery did not explicitly construe her article with quilt-making metaphors, I found some images describing the features of quilt-making that contain personal stories and warmth, which are 'challenging the perception of scientific inquiry as a cold, calculating, even menacing pursuit' (Flannery 2001, p. 641). Excerpt 5 is an early part of Flannery's article wherein she describes how she came up with the idea of using quilt-making metaphors for scientific inquiry. Preceding Excerpt 5, Flannery presented the last stanza of Lucille Clifton's (Clifton 1991) poem about quilting. The stanza asks how the poem, which is like quilting as well as science, seems to spin away from each other, can end.

5. This is a question that bothers me a great deal in teaching non-science majors: Must their worlds and mine continue to spin away from each other, is there any way I can bring them together in my teaching, or are these worlds destined to remain separate forever? …

   I am writing this article as both a scientist (a biologist) and a quilter, although my experience in the two fields is hardly similar. I have been a scientist for 30 years and a quilter for only 3, and oddly enough, it was science that brought me to quilting. Because I teach non-majors, I am always searching for ways to make science more understandable and approachable for my students. One way to do this is through metaphor, through comparing an area of science to something that is familiar and perhaps even interesting to them. So, over the years, I have become rather adept at creating metaphors. Although we all think metaphorically to a greater extent than most of us realize, I am conscious of this tendency because I like to mine metaphors for class.

   One day, as I was leaving an art gallery where an artist had described the thinking and experiences behind a striking series of collages, it struck me that doing science was like making a collage: It involves taking bits and pieces of information and experimental results that may have been acquired at very different times and putting them together to form a satisfying whole. I liked this metaphor and continued to play with it until a couple of weeks later, when I came across a magazine article on quilts. It suddenly struck me that doing science was even more like

> quilting than like making collages because quilting, unlike collage making, often involves very defined patterns, as does science, and like science, quilting has communal connotations. (Flannery 2001, pp. 628–629)

The discourse is non-aggressive and non-competitive. At the same time, the discourse creates a tension. The tension is created with the description of a scientist teaching science to non-science majors, increasing the sense of separation between scientists' and folk language. This tension is construed with a discursive *lack*-ICM: We *should have* more accessible metaphors to explain science to non-science majors, but we do *not* have them. The tension which Flannery described as the similarity between masculine and quilt-making metaphors seems to be just different realisations of the same Anglophone academic discourse conceptualisation feature that uses a discursive *lack*-ICM.

From the perspective of conceptual metaphor, Excerpt 5 contains some features of JOURNEY metaphors. The image of the tension created at the start of the article continues to run beneath the narrative-like discourse that recounts how Flannery came up with the idea of using quilt-making metaphors so that scientific discourse would be more accessible to all. Hence, this narrative is her life or career journey about how she encountered quilt-making metaphors. The image that is conceptualised here is equivalent to the one conceptualised with JOURNEY metaphors. The tension created at the start goes through a journey to reach a goal, which is a discovery of quilt-making metaphors. I refer to this excerpt as the 'quilt text' hereafter.

The quilt text, like the participant history text, seems very different from mainstream academic discourse in terms of its surface features. However, in terms of its conceptualisation mappings, it is not so different from the mainstream: tension and JOURNEY metaphors are commonly present. It is a personal struggle of having had to communicate well while alienation inevitably arises through the use of predominantly masculine scientific discourse. The description of what has gone before creates tension, which pushes forward research.

Although wide variations in conceptualising the surroundings of research ('the rest') are identified, it is interesting to note that emerging fields such as

the ones from the perspectives of participant history and feminism remain dependent on traditional conceptualisation to some extent. This is at least a partial explanation, given that the conceptualisation of genre depends on prior knowledge. Observations that so far have been made on the diverse academic discourse instantiations suggest that genre may evolve in accordance with new ideologies and values but that some of the new features of genre conceptually overlap with the older, central instances of genre.

I will return to the feminist perspectives on academic discourse in Chap. 8, in which the accessibility of academic discourse in diverse pedagogic settings will be discussed.

### 6.1.4 Zen Conceptualisation: The Finger Pointing to the Moon

The excerpt from Motokawa's article displayed at the beginning of this chapter introduces a famous Zen teaching about a fallacy that a logocentric view might lead people. More famously, the teaching is put as a Zen proverb: Ignorant people mistake the pointing finger for the moon. The moon, in Zen, is a symbol of enlightenment. The pointing finger symbolises the words that describe the moon. This Zen proverb teaches people to make a distinction between the moon and the pointing finger so as not to confuse it with the way words describe things. This is where Motokawa identifies a danger as well as the feeling of his alienation in Western scientific writing. From the perspective of Zen, mainstream scientific writing celebrates highly processed discourse, making a story whose hero is the researcher who explores and fights in order to achieve a goal.

The pointing finger here may be equivalent to what this book has referred to as 'the rest', and the moon to 'research'. Just as there are variations in the ways to point to the moon, there may be diverse conceptualisations that can surround the research being reported. Zen teaches people not to mistake the pointing finger, which keeps changing and ceases to exist at any moment, for the moon, which remains unchanged and continues to exist. For many people brought up in East Asia, the kind of academic discourse that mainstream Western scholars value as a good, logical, and rational reasoning is equivalent to the pointing finger which

might create fallacy. In Zen, actual experience is the enlightenment, not the words. The conceptualisations of 'knowledge' between these two cultures are completely different.

Such a perspective of Zen seems to be gaining popularity in today's West, which is seen, for example, with the increasing popularity of mindfulness meditation. Mindfulness is rooted in Zen and teaches us to observe our thoughts and experience them without judgement. In academic writing conceptualisations, on the contrary, no drastic change in perspective seems to have occurred since 1989, when Motokawa's article was published. With the spread in pedagogy to teach students to write like an expert (a mainstream researcher), the predominance of mainstream writing may even be more strengthened today.

Motokawa pointed out a number of unique features of Western science, such as general aggressiveness, the 'loud voice' that explicitly advertises our own research, the tendency to try to be different from other scientists and to be a hero of his or her own story, and the construction of a clear logic whose statements in the structure are tightly and linearly arranged to reach a conclusion. Among the features directly relevant to the present purposes is the hypothesis-centred conceptualisation of Western science. The value of hypothesis in Western science, Motokawa observes, is not measured by its correctness but by its size. A big hypothesis is a good hypothesis. And by big hypothesis, they mean an influential one, which many researchers view.

This is identified in one of the metaphors that this book has observed so far, namely SEEING metaphors. The mainstream conceptualisations of academic writing commonly emphasise that the hypothesis/topic to be investigated is the one that has been attracting many researchers' attention. A conceptualisation that commonly occurs with it is JOURNEY metaphors: a successfully proven hypothesis leads the research community to the next stage, and hence the hypothesis will be even more influential and impactful. Such a discourse sometimes may be made additionally intense and aggressive when combined with WAR metaphors. The story of a hero is tightly construed . The tension created by a tightly construed discourse increases through a construal of a story that the field of research is suffering from serious issues, which are successfully solved by the researcher as a hero and consequently impact a great many researchers. To tell such

a long research story, many words typically are consumed to increase the value of research. Research, hence, is still a story told, using Motokawa's words again, in a loud voice.

Although researchers have no difficulty justifying research as a journey of a hero out of practice or in need of being regarded as an expert, questions arise as to the validity of doing so. First, the correlation between the value of research and its popularity is not validated. It is possible that a research topic in which only one researcher is interested has high value. Popularity does not increase the value of research, unless the value of the research scale is defined as the level of popularity. Second, a good practical justification for why a researcher has to be construed as a hero is not necessary. Research is not a superhero movie. Third, the practice of referring to influence and impact of research does not seem to be essential. How can you be sure that the hypothesis can influence so many? Furthermore, why is it that research has to influence so many and by so much? A research finding may influence society many decades after in a way that was not expected at the time of a finding. All of these oddities are truer today than they were in 1989 when Motokawa wrote about them. Today's journals are normally ranked by impact factors: the more citations articles in the journal get (influence), the higher the journal is ranked. It is increasingly regarded as important to produce impactful research. Claiming the immediate and large impact of a research project, therefore, has a pragmatic necessity in a research world whereby persuading others and securing funding have become crucial elements. However, none of these is a valid indication for good research. It depends on what defines good research; in other words, there is no definite, universal norm that measures the quality of research, only relative ones. Researchers today conduct and write research in accordance with the predominant norms, so that the research can be successfully completed in an ever more competitive research world where everyone has to look like a mainstream expert researcher.

I searched for Motokawa's biology research articles. It is interesting that I found that his articles were simply written, with little or no construed tension. An introduction section of one of his research articles published in a biochemistry and physiology journal, *Comparative Biochemistry and Physiology Part C: Comparative Pharmacology*, is displayed below as Excerpt 6, which henceforth is referred to as the 'echinoderms text'.

6. Echinoderms have connective tissues which can exhibit rapid changes in mechanical properties. These connective tissues, the catch connective tissues, play important roles in the life of echinoderms [citations]. The change in mechanical properties is controlled by nerves. This has been directly shown in the catch apparatus of sea urchins by stimulation on radial nerves [citations]. Acetylcholine (Ach) and adrenaline change the mechanical properties of the catch apparatus [citations]. The nervous control in other catch connective tissues has been poorly understood.

Excerpt 6 construes very little or no tension. It is also noticeable that metaphors play very little part in the text. The excerpt does not give an impression of atypicality; rather, it is formal in that it contains all the necessary information for the reader to proceed in the research. The excerpt explains what has been investigated and found previously in the field, simply, concisely and explicitly. This may be due in part to the disciplinary feature of biochemistry and physiology, but given that Motokawa was criticising predominant hero stories in science, it may not be so.

> The body wall of sea cucumbers is composed of a thick dermis which is a catch connective tissue. The dermis changes its mechanical properties in response to various stimuli [citations]. Acaesthesia prevents the changes caused by stimulation, which suggests nervous control [citations]. Among the putative neurotransmitters, Ach alone causes viscosity change: it stiffens the dermis soon after application of the chemical and then it softens it [citations].
>
> In the present study, effects of Ach, Ach-agonists and Ach-antagonists on the mechanical properties of the dermis of sea cucumbers were studied. It was concluded that both the stiffening response and the softening response were mediated by Ach-receptors, but the receptor types were different in the respective responses. (Motokawa 1987, p. 333)

A notable difference of the echinoderms text from the other excerpts presented is the lack of tension. No big journey story, no hero, no war, no aggression, and hence it does not construe tension. Most notably, a discursive *lack*-ICM is hardly identified, yet the writing is clear and simple. There are epistemological references, but they do not construe a story of the West. In the echinoderms text, a pointing finger is not

highlighted, since, I suppose, for Motokawa, doing so is *their* kind of science and not *his*.

## 6.2 Overlaps in Conceptualisation

Describing conceptualisation patterns is useful in a variational investigation of academic writing. As observed so far in this chapter, descriptions of conceptualisation features are useful in two aspects of genre study.

First, identifying conceptualisation is useful in describing the features of generic structure components. It has been argued so far that formal units do not serve as a unit of analysis for generic structure components. This is because formal structure and generic structure are different; formal structural units such as sentences, paragraphs, and chapters are not the same as generic structure components. As Lévi-Strauss (1983) emphasised, form and structure should not be confused with each other, because form is defined by opposition to content. On the contrary, structure has no distinct content. The observation of various instances of 'the rest' so far reveals that, as Lévi-Strauss argued, structure has no distinct content. Instead, overlapping conceptualisations that are not constrained by formal units instantiate generic structure components.

Second, conceptualisation patterns tend to be taken over as genre evolves. On the surface of discourse, emerging instances of genre look very different. Some of the instances such as the quilt text, a participant history text, seem completely different from the traditional academic writing in that they are narratives done by a researcher as a participant observer. This is a kind of discourse that involves subjectivity of the researcher, which was avoided in the discourse of the traditional academic writing that values objective descriptions and is optimistic about the possibility of objective descriptions.[1]

With extensive surface linguistic and ideological differences, these observer participants' narratives exhibit some amount of conceptualisation overlapping with the typical traditional academic discourse. I display such

[1] See Hodge (1995) for descriptional differences between the traditional and postmodern academic discourse in thesis writing.

overlaps among the excerpts as prototypicality effects in Table 6.1 and Fig. 6.1. The mapping in the figure is a partial description of major conceptualisation features evident in the excerpts because there are so many complex conceptualisation overlaps identifiable in discourse. The mapping, therefore, is by no means intended to generalise cultural and ideological variations, nor does it describe comprehensive features of the entire texts. The present purpose of displaying the mapping is to show the prototypicality effects of conceptualisation features. Hence, overlapping conceptual metaphors are not included in this mapping but will be discussed in the analysis of overlapping features. Also, the mapping is intended to show prototypicality effects of conceptualisation features and is not meant to be a representative of academic writing genre. It also needs be noted that the mapping is limited to the discourses observed in only six excerpts from five texts (many other features appear in the other part of the text).

All five texts include a feature that refers to real-world phenomena. Tropical nature reserves in the conservation biology text (Excerpt 1), the history described in the participant history text (Excerpt 2), sibling aggression in the sibling aggression texts (Excerpts 3 and 4), scientific accessibility in the quilt text (Excerpt 5), and echinoderms in the echinoderms text (Excerpt 6) are real-world phenomena. However, epistemologically oriented disciplines or fields may commonly conceptualise discourse without referring to or co-occurring with the reference to real-world phenomenon.

Tension has been identified in all of the excerpts except for Motokawa's echinoderms text (Excerpt 6). Tension, in other words, is a tightly woven story that gradually accumulates the feeling of intensity in discourse. The conservation biology text (Excerpt 1) construes tension by referring to

**Table 6.1** Prototypicality effects: conceptualisation features of five texts

| | Real world | Tension | Lack-ICM | Epistemology | Narrative |
|---|---|---|---|---|---|
| Text | | | | | |
| Conservation biology | + | + | + | − | − |
| Participant history | + | + | − | − | + |
| Sibling aggression | + | + | + | + | − |
| Quilt | + | + | + | − | + |
| Echinoderm | + | − | − | + | − |

real-world phenomenon. The sibling aggression text (Excerpts 3 and 4) shows a tension typically found in academic discourse, which construes tension by referring to situations (real-world phenomena) as well as epistemology. The quilt text (Excerpt 5) construes tension by referring to real-world phenomena with narratives. Finally, the participant history text (Excerpt 2) construes tension by referring to real-world phenomenon with narratives, without construing a *lack*-ICM.

On the other hand, three of the texts that exhibit tension (the conservation biology [Excerpt 1], the sibling aggression [Excerpts 3 and 4], and the quilt texts [Excerpt 5]) share the conceptualisation feature of discursive *lack*-ICM. As tension in academic discourse seems to be predominantly construed with a discursive *lack*-ICM, it has a heavy overlap with *lack*-ICM on the prototypicality effects figure. Only the participant history text (Excerpt 2) does not overlap with *lack*-ICM.

The sibling aggression (Excerpts 3 and 4) and echinoderm (Excerpt 6) texts have a feature that refers to previous literature. It is notable that despite having little in common with typical academic texts, references to others' research is the only feature that the echinoderm text has in common with typical academic writing.

Finally, the quilt (Excerpt 5) and the participant history (Excerpt 2) texts deploy the participant observer approach and hence are conceptualised through narrative. As pointed out, the narrative in the quilt text construes tension through *lack*-ICMs, in aspects that are quite similar to the central instances. The participant history text also overlaps with central instances in that tension is construed.

Importantly, the fact that the instances of conceptualisation features of genre can be mapped out as prototypicality effects indicates that the variations in genre instance features so far observed are prototypical phenomena. Returning to Geeraerts's (2010) four characteristics of prototypicality (Fig. 2.1), the features of genre satisfy all four characteristics of prototypicality. Among the four texts, the sibling aggression text can be identified as more typical than the others, whereas the echinoderm text is more atypical than the others, and instances in between present different degrees of membership. This satisfies the prototypicality characteristic (a): differences of typicality and membership salience; some members of a category are more typical or salient representatives than others.

The features overlap in such a way that salient core features, such as tension and epistemology, are radiated to the peripheral. Tension (and a *lack*-ICM) has been identified in the apparently atypical quilt text. Even in the participant history text that looks very peripheral, tension was still borne in the discourse. The echinoderm text maintained epistemological references, which is a central characteristic of the group. Hence, the group of genre features satisfies (b): clustering into family resemblances: the properties of members overlap, and the peripheral are emanated from most salient core characteristics.

The boundary of the group and those within the group are fuzzy. New features and new instances may join the group at any time. The features 'tension' and '*lack*-ICM', among other categories within the group, seem to have much in common. Hence, the group satisfies (c): fuzzy at the edges, membership uncertainty.

Finally, no necessary and sufficient definitions can be identified in the group of conceptualisations. None of the features identified is absolute. The echinoderm text does not even present 'tension'. 'Real-world' references are not absolute either, as we know experientially that many research articles of epistemologically oriented disciplines do not refer to real-world phenomena. Hence, the group satisfies (d): absence of necessary and sufficient definitions. Academic writing conceptualisation features, which instantiate generic structure components, are a prototypical concept.

## 6.3 Evolution of Genre and Culture

In the previous section, I identified the features of conceptualisation that instantiate generic structure components as prototypical entities. This indicates that the inter-relationships between central and peripheral conceptualisations present important implications in the evolution of genre. The central conceptualisation characteristics, namely the shared knowledge, seem to motivate changes in genre.

It is particularly intriguing that apparently divergent instances of genre share some features with central members of genre. Changes in ideologies and values may certainly trigger genre evolution, but this does not mean that a completely different instantiation occurs. As has often been the

case in this book, beneath the change in the surface discourse is a feature of conceptualisation shared with a feature of the typical instances of the genre. Extending this observation, I would argue that a shared feature of conceptualisations plays a role in the construal of a new instance of genre. Additionally, it appears that features to be taken over to emerging instances are culture-bound.

This hypothesis is suggested by the overlapping patterns that appear to vary across cultures. In Anglophone conceptualisations, tension seemed a central feature, followed by *lack*-ICM. The quilt text, which questions mainstream masculinity in scientific discourse and the deployment of personal narratives as a participant observer instead of maintaining the traditional practice of cutting off subjectivity for the absolute value of maintaining objectivity, still takes over tension and *lack*-ICM, which are the central features. The participant history text, which also deploys the participant observer approach, maintains tension in discourse. The tension, construed with a tight story line, seems to be a feature of Anglophone academic discourse. Almost unconsciously, many Anglophone academic writers have been brought up and educated to conceptualise in this way and can hardly escape from this internalised pattern.

The construction of a story that triggers the research to be reported does seem to be culturally specific. Motokawa (1989) referred to this feature of construing a story to justify and advertise research in Anglophone scientific discourse as 'overcooking' and a 'bad manner' (p. 498) in his culture. Other studies have reported the possibility of Anglophone writing being perceived as peculiar and too promotional. For example, as reviewed earlier, Swales pointed out that there are academic cultures that tend to resist the American habit of blowing one's own horn. The conceptualisation in academic writing as a tight sequential story line of increasing tension that creates the feeling that new research needs to be conducted seems to run deep in the Anglophone academic writing culture. Although new ideologies, values, and academic settings may occur and trigger changes in academic writing, the deep conceptualisation of it, which is most likely a central feature of genre, is taken over. In that sense, new instances of genre are the same old stories.

On the other hand, the echinoderm text by Motokawa takes over little of the central conceptualisation features of genre. It refers to the previous

research, but not the story-construing features, which, as Motokawa argued, were to be avoided in his science and his culture. Some may argue that the simplicity of the echinoderm text may be due to a discipline-specific feature, which may not form a major factor; otherwise, it would not make sense that Motokawa complained about the story-construing tendency of the mainstream Anglophone scientific discourse.

It is interesting to note that instances of paella outside of Spain are characterised by one or a small number of shared features with the central members of paella; academic discourse in different cultures seems to be tied in with family resemblances. However, it is not appropriate at this early stage of exploring the relation between genre evolution, culture, and new ideology to identify the precise mechanism of genre evolution. It is at the very least, however, appropriate to say that prototypicality effects of generic structure conceptualisations, together with the shared knowledge of academic discourse, play a crucial role in the evolution of genre. In fact, culture and value systems are not discrete notions but intervening ones. Hence, it would be correct to consider that culturally shared values closely relate to the cognitive mechanism. The cognitive mechanism determines which conceptualisation features of genres can be inherited to the new instance. On the other hand, family resemblances seem to play a major part in forming genre between distant cultures that do not have main cultural values in common.

## 6.4 Conclusion

This chapter has further explored the efficacy of identifying conceptualisations in genre analysis in relation to describing genre's diversity and evolutions. The conceptualisation features of 'the rest' have been identified as a prototype entity. By identifying instantiations as a prototype entity, this chapter was able to further extend the prototype theory to the observation of genre diversity and genre evolution. It was proposed that some of the culture-specific conceptualisations that are deeply rooted may more likely be inherited but that other cultures may inherit something that is more peripheral. It has been concluded that the prototype theory is useful in mapping genre variations and conceptualisation features that instantiate generic structure components. It has also been found useful in analysing

evolution of genre in relation to academic writing in culturally and ideologically diverse academic settings. It is concluded in this chapter that the tight story-construing features such as tension and *lack-ICM* seem central and tend to be inherited in Anglophone academic culture but that many other cultures may tend to avoid such features whereas other features are shared and adopted for usage. The prototypicality effects observed in this chapter are not the kind that comprehensively map out the entire features of the texts but are limited, and for that reason the conclusion should not overgeneralise. Taking into account the conceptual metaphor analysis that observed overlapping features across texts provided in the previous chapter may partly complement this chapter. The observations that have been made in this chapter will become a basis for discussion in Chap. 8.

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# 7

# Identifying Generic Structure Components

## 7.1 Introduction

So far, this book has highlighted the cognitive-oriented nature of generic structure components. The present prototype approach has revealed that generic structure components are better understood as overlapping conceptualisations rather than as an entity defined by formal units. Formal linguistic units, such as sentences, do not coincide with conceptualisations, which instantiate generic structure components. A question arises: What is the unit of analysis for this model? This chapter proposes a cognitive-oriented unit of analysis and describes analytical methods for genre conceptualisations. The present analytical model, however, does not attempt to provide a cemented analytical process but to propose various options that can be selected depending on the purpose of the research.



T. Sawaki, *Analysing Structure in Academic Writing*,
DOI 10.1057/978-1-137-54239-7_7

## 7.2 Cognitive-Oriented Unit of Analysis

The generic structure model this book proposes relies on cognitive descriptions of genre instantiation. However, cognitive descriptions are sometimes hard to perform because they are unseen, unlike the formal identifications that rely on linguistic units.

If research aims necessitate setting a unit of analysis, one possibility is to rely on conceptual metaphors. This type of analysis can depend on linguistic realisations whereby metaphorical conceptualisations are signalled by metaphors. The unit of analysis for metaphorical conceptualisations is normally set as a conceptual metaphor if it is necessary to set one, represented as 'target domain is source domain'.

Using conceptual metaphors as a unit of analysis requires identifying words and phrases that signal the mappings of metaphor between two domains. The commonly occurring source domain metaphors in academic discourse may be JOURNEY, CONTAINER, WAR, BUILDING, and so on, examples of which were presented in Chap. 2. These are fairly simple to identify; however, a complexity may arise whereby a discourse presents a multitude of shared entailments, or hierarchical sub-conceptualisations.

As observed earlier, a text is structured through conceptualisation, often through metaphors: the knowledge structure/the image-schema of the source domain is carried over to the target domain. This process plays a crucial part in construing generic structure. To take a unit such as RESEARCH IS A JOURNEY, a conceptualisation of research epistemology as a journey, can structure a lengthy stretch of discourse concerning research etymology coherently as a journey. To make up something that may be familiar, 'The early *stage* of academic writing structure research *set off* formalistic *explorations* of discourse'. The next stage of conceptualisation of research epistemology as a JOURNEY may normally point out a gap in research, which may be something like, 'There is a need to find *alternative ways* to better understand discourse structures'. The JOURNEY conceptualisation of research epistemology continues to prepare the discourse to present the research being reported, 'The *goal* of this study is to *explore* the potential of structuralism in analysing discourse structures'. The series of events concerning research etymology is all structured as a journey. Hence, the series can be identified as a unit of analysis that is based on a conceptual metaphor.

Conceptual metaphors can be identified from these lexical cues (which are italicised) that are represented by metaphorical expressions. Through the patterns of these lexical cues that represent dominant metaphors, the domains that structure the materials (target domain) into the image-schema of the dominant metaphor (source domain) become apparent. Dominant metaphors cohere and put together abstract notions and instantiate the dominant conceptualisations to structure 'the rest'.

The option of placing the conceptual metaphor as a unit of analysis, however, poses complexity because a multitude of shared entailment can occur in a text. Instantiation of a generic structure component commonly involves a number of metaphors. It is complex to analyse the multitude of metaphors that tend to be entailed to each other. This was observed, for example, in Chap. 5 in the interaction between causal link, SEEING, and PHYSICAL FORCE metaphors, working together to conceptualise the image of increasing importance of the research topic. Such a multitude of metaphors that are commonly identified in discourse present a contrast with relatively simple metaphors identified in sentences commonly explored in cognitive linguistics, in which no more than one or two metaphors are normally involved in a shared entailment. A conceptual metaphor that involves both a single entailment and conceptually complex shared entailment in discourse achieves coherence if used successfully.

That is, a set of shared entailment can also serve to be a unit of analysis. This one is a coherence-oriented unit, whereas a conceptual metaphor unit of analysis is metaphor-oriented. The coherence-oriented unit may involve a number of metaphorical entailments, whereas the conceptual metaphor unit involves only one. Which unit of analysis is to be taken may again depend on the purpose of study; however, the most comprehensive and rational choice is to use both. Given that one main function of conceptual metaphors is to cohere the text, the analysis ideally should describe how different metaphors and conceptualisations contribute to form a coherent discourse, namely a coherence-oriented conceptualisation unit.

Such analysis requires qualitative observation. Shared discoursal metaphorical entailments can be visually mapped out in a manner similar to that of mapping of prototypicality effects. Again, however, conceptualising elements that instantiate a generic structure component may present a multitude of complexity. In the case of too many metaphors existing in

a discourse, it may be necessary for practical purposes to limit the number of shared metaphorical entailments to a small number of dominant ones.

Another complication in setting a unit of analysis for this generic structure model is concerned not with the complexity of conceptualisations but with the lack of metaphors. Some texts are more metaphorical and conceptualisation-dependent than others. For example, the echinoderm text lacks conceptual metaphors. This, in fact, indicates the usefulness of investigating the degree of metaphor dependency in discourse analysis as well as in generic structure analysis. Metaphor dependencies vary across academic writing from different ideological orientations and cultures. Highlighting the intensity of conceptual metaphors, therefore, may serve as an interesting scale for comparative studies that measure metaphors across texts.

## 7.3 Conceptualisation Features Construed by Discourse

Although conceptual metaphors are useful in identifying conceptualisation features in discourse which instantiate a generic structure component, it is important to notice that not all the crucial conceptualisations are signalled by lexical or phrasal metaphors. Entailment occurs between metaphors and an image conceptualised in discourse. This was observed in the construal of a discursive *lack*-ICM. Mainstream academic writing typically construes a discursive *lack*-ICM by increasing the value of, say, a research topic and by pointing out that the research community does not have it. In order for a discourse to construe a discursive *lack*-ICM, the discourse does not necessarily contain metaphors. Yet the image a discursive *lack*-ICM construes serves to be a metaphorical element that entails with JOURNEY metaphors by functioning as an obstacle on a path of a JOURNEY.

This may not only be the case with discursive *lack*-ICM. It is assumed that a number of other conceptualisation images may be present in academic discourse and are entailed with conceptual metaphors. Identifying such an image construal in a text may help pinpoint the role that such specific images play in construing metaphors and a larger discourse.

## 7.4 Generic Structure Components and Formal Units

As shown so far, linguistic features or formal units do not signal or directly realise a generic structure component. Sentences, sections, and chapters in an academic text are not assigned with a feature that becomes a necessary and sufficient condition for generic structure components or a specific rhetorical function. In order not to be confused when analysing structures of discourse, it is crucial to understand that formal units and generic structure components are different. In the tradition of move analysis, the rationale for using inter-rater reliability testing for move coding is to maintain reliability of move analysis that tends to be unreliable.[1] This is because the move analysis model confuses form and structure. A sentence tends to realise two or more rhetorical purposes. A sentence actively makes new meaning in discourse, which has been the rationale for setting the sentence as a unit of analysis for generic structure analysis. However, the relationship between active meaning making and generic structuring, and the relevance of the rationale, to my knowledge, has never been questioned. The sentence, as far as this book has shown so far, does not seem to be a good candidate for a unit of generic structure analysis. The practice of using the sentence as a unit of analysis has been questioned even in the tradition of move analysis where it has been widely practiced. Swales (2004) proposed that moves can be flexible in terms of linguistic realisation. Bhatia (1999) and Hyland (2002) warned of the risk of oversimplifying the complex relationships between rhetorical functions and lexicogrammatical patterning.

Just as the sentence should not be confused with generic structure components, sections and chapters cannot be considered an autonomous unit that divides and forms generic structures. That is, sections and chapters may contain different degrees of both 'the rest' and 'research', and

[1] In fact, the inter-rater reliability test is not solely for increasing reliability and validity. Low reliability results need to prompt the question whether the rater needs more training on coding or the coding model itself is faulty. The latter possibility, to my knowledge, has never been explored in move analysis. See Gwet (2010, 2014) and Stemler (2004) for details of inter-rater reliability approaches.

hence they do not serve in their entirety to instantiate either one of the generic structure components.

Much of an introduction section/chapter may relate to the conceptualisation of 'the rest', providing the background or surroundings of the research to be reported, with a small amount of 'research' presentation. A methodology section/chapter may present the methodology of new 'research', whereas justifications of the chosen method conceptualise 'the rest'. Much of the result section/chapter may conceptualise 'research', whereas references to previous studies for comparison may serve to conceptualise 'the rest'. Similarly, discussion and conclusion sections/chapters do not just conceptualise 'research' but play a role in conceptualising 'the rest' by discussing the new findings with the previously established knowledge. These relate to the observation that references to other research occur across all moves (Lewin et al. 2001; Samraj 2002).

A conclusion section/chapter is known to include implications of the research, suggestions of how the findings can be used in real life, and so on. Some may consider these elements to be a part of research; however, I would argue that these conceptualise 'the rest'. Most importantly, research implications are themselves not research that has been reported. Moreover, research implications are promotional, claiming how the research will impact the research community or the real world. These elements increase the value of research, construing the same relationship that the justification of research forms with 'research'. The difference is time: references to the past or to the present. References to different scopes of time between what has gone before or what will happen in the future do not make a difference in relation to 'research'.

## 7.5 Analysing Through Conceptualisation Features

Highlighting conceptualisation features is useful in generic structure analysis. Text is a deeply complex conglomeration of various conceptualisation features. As observed earlier in this book, various features work together to form a coherent text. Conceptualisation features that

are apparent on the surface of discourse include what Derrida called 'markings' of genre such as semantically oriented features (e.g., Samraj's 'research' and 'real-world' phenomena) and modes such as narratives and dialogues. Importantly, as this book has shown so far, these features overlap one another to conceptualise a generic structure; none of these features alone corresponds to a generic structure component.

As long as the analyst is aware that generic structure components and the text's surface elements are not to be confused, it can be useful to identify surface elements in generic structure analysis. It is not realistic to code all of the conceptualisation features, but it is possible to identify the dominant ones that entail and cohere text. It is also useful to highlight specific linguistic or discourse features that help conceptualise generic structure components. The following sub-sections propose some of the coding methods for conceptualisation features.

### 7.5.1 Highlighting Discursive *Lack*-ICM

The occurrence of discursive *lack*-ICM, which is so predominant in mainstream academic discourse, may be merely a culture-specific conceptualisation of academic discourse, as Motokawa (1989) suggested. Yet it is useful as an analytical method to observe how discursive *lack*-ICMs are instantiated through discourse. In other words, discursive *lack*-ICM can serve as a central feature that is useful in highlighting generic structure analysis in academic writing. I provide three conceptualisation features for *lack*-ICM that can be investigated in research. Conceptualisation features can be selected depending on the purpose of research.

#### 7.5.1.1 Research Aspects

Academic writing addresses various aspects of research. Not only the research topic but also the research's chosen methodology, approach, ideology, and so on tend to be justified in academic writing. Similarly, various research aspects to which the academic discourse refers tend to form a discursive *lack*-ICM. It is useful, then, to sub-label the *lack*-ICMs in question in terms of their research aspects.

For example, a discursive *lack*-ICM was identified in Chap. 4 in the aeronautics and astronautics text (Table 4.1) (originally analysed for the CARS model by Swales [1990]). It was analysed that what Swales (1990) identified as Move 1 and 2 form a lack ICM (since the Move 1 and 2 conceptualise that the research community *lacks* a computational method that is suitable to predict the flowfield and the aerodynamic coefficients in high-angle-of-attack aerodynamics). The *lack*-ICM that directly pushes forward 'research' in the excerpt stretches from 'Among the many potential flow methods developed in attempting to solve body vortex flows are early two-dimensional (2D) multivortex methods' to 'The potential flow methods are of special interest because of their ability to treat 3D body shapes and their separated vortex flows using a simple and relatively inexpensive model' (which was classified as 'reviewing items of previous research' of Move 1 in the CARS model) and from 'However, the previously mentioned methods suffer from some limitations mainly concerning the treatment of the vortex wake formation and its interaction with the body' to 'The steady, 3D non-linear vortex-lattice method, upon which the present method is based, eliminates many of these limitations by introducing a more consistent model, but it can treat only symmetrical flow cases' (which is 'indicating a gap' of Move 2 in the CARS model). In this case, since the entire passage concerns the method, this discursive *lack*-ICM can be sub-labelled as 'method'.

The discursive *lack*-ICM with a sub-label 'method' can include the entirety of 'the rest' category of the introductory section of the aeronautics and astronautics text. Preceding the discursive *lack*-ICM that directly pushes forward 'research' is the very start of the article: 'The increasing interest in high-angle-of-attack aerodynamics has heightened the need for computational tools suitable to predict the flowfield and the aerodynamic coefficients in this regime. Of particular interest and complexity are the symmetric and the asymmetric separated vortex flows which develop about slender bodies as the angle of attack is increased' ('claiming centrality' of Move 1 in the CARS model) and 'The viscous influence on the separation lines and the unknown three-dimensional (3D) shape of the vortex wake are some of the main flow features that must be remodelled in the construction of a computational method to properly treat this problem' ('making topic generalization' of Move 1 in the

CARS model). Both of these increase the value of new method, hence constituting a background condition for the discursive *lack*-ICM with the sub-label 'method'. This indicates that they are part of the same *lack*-ICM. Therefore, the entirety of 'the rest' of the introductory section is coherent with a discursive *lack*-ICM labelled with 'method'.

Thus, the conceptualisation of the introductory section of the aeronautics and astronautics text is quite simple. The research to be reported is concerned with new methodological improvements, and hence a discursive *lack*-ICM with a sub-label 'method' is in full use to instantiate 'the rest'. Instances of discursive *lack*-ICM which are concerned with research field, topic, approach, ideology, and so on can be sub-labelled as such. There are instances of *lack*-ICM conceptualisations which are not as simple as the aeronautics and astronautics text, because multiple *lack*-ICMs can occur in a text, overlapping each other. Identifying overlapping between ICMs of different aspectual sub-labels may become useful when relating how these reinforce the sense of 'lack' and how these help further increase the value of research being reported.

#### 7.5.1.2 Conceptual Metaphor

A *lack*-ICM can be labelled with the conceptual metaphor with which it is entailed. As pointed out repeatedly, a contiguous relationship appears between discursive *lack*-ICMs and conceptual metaphors. Discursive *lack*-ICMs seem to be an element that is part of the JOURNEY metaphor, conceptualising a missing point on a path of a JOURNEY. At the same time, discursive *lack*-ICMs themselves are often given their role by a conceptual metaphor, RESEARCH IS JOURNEY. Hence, another labelling option for *lack*-ICMs is to use a source domain by identifying a conceptual metaphor.

It was observed that the discursive *lack*-ICM in Excerpts 2 and 5 (the participant history and the quilt texts) is an element that construes a JOURNEY metaphor. Hence, these discursive *lack*-ICMs can be labelled as 'JOURNEY'. Excerpt 1 (the conservation biology text) was observed to conceptualise a discursive *lack*-ICM with WAR metaphors, hence labelled 'WAR'. Excerpt 3 from the sibling aggression text construed a discursive *lack*-ICM within

a causal link metaphor; hence, it can be labelled 'causal link'. Excerpt 4 from the sibling aggression text construes a discursive *lack*-ICM with a SEEING metaphor; hence, it can be labelled 'SEEING'. These metaphors that *lack*-ICMs can construe may be a sub-type of a JOURNEY metaphor or an element of a shared multiple entailment that includes JOURNEY, and hence a close qualitative examination of the discourse is necessary.

#### 7.5.1.3 Mode

Different discourse modes can conceptualise a discursive *lack*-ICM, which can also serve as a labelling. As discussed earlier, various modes can occur in academic discourse, not only 'persuasive', 'argumentative', and 'descriptive' modes but also 'narrative' modes, which commonly occur in the humanities and social sciences. As observed in Excerpt 2 (the participant history text) and Excerpt 5 (the quilt text), narratives in academic discourse are a common conceptualisation feature today. A discursive *lack*-ICM was observed in the quilt text construed with personal narratives. It appears that various modes can conceptualise a discursive *lack*-ICM, which can be labelled in accordance with its type of mode.

#### 7.5.1.4 Semantics

There are discursive *lack*-ICMs that are construed through epistemological references to the previous literature and through real-world phenomena (Samraj 2002). These are semantically oriented differences, which may serve as another set of labelling that can describe features of discursive *lack*-ICMs. Whereby referencing to other literature construes a discursive *lack*-ICM, as observed in Excerpt 4 (the sibling aggression text), a semantically oriented labelling 'epistemology' can be used. In Excerpt 1 (the conservation biology text), real-world phenomena construe a discursive *lack*-ICM, hence, it can be labelled as 'real-world'. Importantly, 'epistemology' and 'real-world' features tend to overlap in the same stretch of discourse. For instance, references to real-world phenomena reported by other researchers can construe a discursive *lack*-ICM. In that case, double-labelling of 'epistemology' and 'real-world' may be applied.

### 7.5.2 Placing Other Conceptualisation Features that Can Be Analysed

Although it may be safe to say that 'the rest' is dominantly conceptualised with discursive *lack*-ICMs in academic writing today, there are instances that do not contain a discursive *lack*-ICM. It is equally useful to point out when a discursive *lack*-ICM is absent without making a judgement that the instance is a bad-quality writing simply because of its lack of discursive *lack*-ICM.

Excerpt 6 (the echinoderm text), for example, differed from the other texts investigated in that it did not conceptualise a discursive *lack*-ICM. It is also important to note that there are different degrees of conceptual metaphor utilisations across texts. Excerpt 6 was apparently free of metaphors. On the other hand, Excerpt 3, the sibling aggression text, contained a number of shared metaphorical entailments, whereas some excerpts from different texts were highly metaphorically construed. Hence, it may be useful to consider the degree of conceptual metaphor use in the text. Lakoff and Johnson (1980) proposed that different metaphors entail and cohere to each other. The entailment and coherence likewise may relate to the construal of a tightly structured research story. Investigating the degree of metaphor use in relation to the degree of text-constructive function may provide another useful approach to academic writing analysis.

Some texts appear to have no conceptualisation features; however, it is possible for the analyst to find a feature in the text that is shared with prototypical ones. Excerpt 6 is so simply construed that at first glance it appears to have no distinct features. Yet, when compared with prototypical ones, a fairly prototypical semantically oriented feature emerges referring to the previous research. So it is useful to consider that beneath the absence of distinct conceptualisation of generic structure components lies a family resemblance link even when an instance of genre seems to have little in common. Some features of genre can be found that loosely link a very atypical instance of genre to other instances of the genre.

More important than identifying features of generic structure components is observing interactions between different features of conceptualisations. This relates to the difference between 'consistency' and 'coherency', which Lakoff and Johnson (1980) emphasised. Just as

seemingly inconsistent multiple metaphors actually work together and cohere each other, multiple discursive conceptualisations may seem inconsistent and yet they powerfully cohere each other to structure a text. The mechanism of how conceptualisations overlap and construe generic structure should be considered an interesting and important analytical highlight for generic structure analysis.

## 7.6 Analysing Generic Structure in Relation to Formal Structure

Along with the presentation of various features that may be useful in exploring conceptualisations of generic structure components, it has been emphasised that generic structure components are instantiated by piles of entailed conceptualisations and that they are not equivalent to formal structure units. This, of course, does not mean that researchers of generic structure analysis have to abandon the exploration of formal units in relation to generic structure conceptualisation.

Investigating relationships between generic structure and formal structure is useful so long as researchers are aware that these two structures are distinct and should not be mixed up. However, maintaining a valid analysis of generic structure in relation to formal units can be tricky because of our instinct to rely on what we immediately see, namely the surface discourse. The instantiation of meaning involves conceptualisations made beneath and above the discourse. That is, for a complete instantiation at one point of discourse to be processed requires the conceptualisations having been made both before and after the point of discourse. For one point of discourse to make its full meaning, all conceptualisations from the entire text must be considered. What this means is that a particular conceptualisation being actively instantiated at one point of discourse is no more than one layer of overlapping conceptualisations in the entire text which interact with each other to make meaning. Hence, not only is a formal unit not equivalent to a generic structure unit, it does not semantically capture the full meaning it is instantiating. The difference between a conceptualisation actively occurring at a point of discourse and other conceptualisations occurring in other parts of the text is that the

former is visually present as an active instantiation and the latter are not. In other words, all conceptualisations in a text are equally present at every point of discourse, as structuralism holds.

Therefore, researchers, when focusing on formal units in relation to generic structures, need to be aware of the fact that the form they are viewing is merely part of a conceptualisation that is actively being made. With this knowledge in mind, it is safe to consider generic structure in relation to formal units. Drawing a line on a surface discourse on a unit whereby active conceptualisations are occurring across the formal boundary is itself a complex task since drawing a boundary on discourse cannot exactly be accurate. This is an inherent issue whereby conceptualisation units and formal units cannot be equivalent. Dividing discourse into small units without setting a formal unit of analysis is one way to approach this task. Observe Excerpt 7 from the first section of the quilt text.

> 7. I want to look at this problem [the dominantly masculine approach to science] from a feminist perspective and seek a partial solution by suggesting a new kind of metaphor for scientific inquiry. (Flannery 2001, p. 629)

Excerpt 7 would be classified as Move 3 if analysed by using the CARS model. The main highlight of the excerpt certainly is construing 'research'; the discourse still present overlaps of conceptualisations. The first clause, 'I want to look at this problem from a feminist perspective', can be divided into three active conceptualisation units: 'I want to look at', 'this problem', and 'from a feminist perspective'. The first part, 'I want to look at', actively construes a generic structure component, 'research'. This part is conceptualised by a 'SEEING' metaphor and by a 'narrative' mode. This is followed by 'this problem', which actively construes 'the rest', with a 'discursive *lack*-ICM'. This is because 'this problem' is a compact, re-conceptualised form of the foreground and background conditions for the *lack*-ICM construed preceding Excerpt 7. Finally, the discourse returns to construe 'research' by 'from a feminist perspective', which uses a 'SEEING' metaphor.

The latter part of the sentence 'and seek a partial solution by suggesting a new kind of metaphor for scientific inquiry' conceptualises 'research'

with a 'JOURNEY/EXPLORATION' metaphor, 'seek'. As presented in Chap. 2, research conceptualised as an exploratory journey was identified in Turner (1998). Turner identified a number of JOURNEY metaphors in academic writing and pointed out that the concept of exploration that combines the start and the end of a journey is a biblical exhortation indicative of the valorisation in the Western academic writing tradition, exemplified, for instance, by 'pursuit of knowledge' (Turner 1998, pp. 29–30). Notice also that whereas the part 'I want to look at' presents itself fairly strongly as a personal narrative, the rest of the sentence shifts its mode to a rather typical academic one. By comparison, consider 'I want to look at from a feminist perspective and seek a partial solution by suggesting a new kind of metaphor for scientific inquiry', which is the academic construction Flannery has put, to, for example, 'I want to look at in a feminist way, and to make a difference by using feminist metaphors in science', which may be a less scholarly presentation of the same meaning.

It is important for genre analysts to understand that conceptualisation features emerge and fade at all times on the surface of discourse. The surface sentence is itself construed with multiple conceptualisations that overlap. I summarise the conceptualisation labels of Excerpt 7 below.

*I want to look at*
'research' 'SEEING' 'narrative'

*this problem*
'the rest' 'discursive *lack*-ICM'

*from a feminist perspective*
'research' 'SEEING'

*and seek a partial solution by suggesting a new kind of metaphor for scientific inquiry.*
'research' 'JOURNEY/EXPLORATION'

Another example analysis for descriptions of features is presented below in Excerpt 8, which appears at the end of the introduction section from the aeronautics and astronautics text (Table 4.1), which Swales (1990) used for his CARS model analysis.

> 8. The steady, 3D non-linear vortex-lattice method, upon which the present method is based, eliminates many of these limitations by introducing a more consistent model, but it can treat only symmetrical flow cases. The present work extends the use of the last model to asymmetric, body-vortex flow cases, thus increasing the range of flow problems that can be investigated. In addition, an effort is made to improve the numerical procedure to accelerate the convergence of the iterative solution and to get a better rollup of the vortex lines representing the wake. (Almosnino 1985, p. 1150)

The active conceptualisations that are exhibited in Excerpt 8 are displayed below.

> *The steady, 3D non-linear vortex-lattice method, upon which the present method is based,*
> 'research' 'method' 'BUILDING'
>
> *eliminates many of these limitations by introducing a more consistent model,*
> 'the rest' 'method' 'JOURNEY'
>
> *but it can treat only symmetrical flow cases.*
> 'the rest' 'discursive *lack*-ICM' 'method'
>
> *The present work extends the use of the last model to asymmetric, body-vortex flow cases, thus increasing the range of flow problems that can be investigated.*
> 'research' 'method' 'JOURNEY' 'LIQUID'

Although the first sentence of Excerpt 8 was classified as Move 2 'indicating a gap' in Swales's model (and the second as Move 3 'announcing present research'), the observation of overlapping conceptualisations reveals much more complexity as displayed above. The inserted clause, 'upon which the present method is based', cognitively places 'the research' conceptualisation on top of 'the rest', which is conceptualised with the sentence in which it is inserted. Furthermore, 'but it can treat only symmetrical flow cases' helps conceptualise a discursive *lack*-ICM, which is evident in the way the discourse delineates exactly what is missing. In this way, the discourse further delineates what the modified method being reported may enable.

Also, the discourse is quite metaphorical. 'Eliminates' conceptualises an obstacle on a path in a JOURNEY, and 'is based' coheres BUILDING and JOURNEY metaphors by a shared entailment. Finally, 'extends' conceptualises JOURNEY, and 'increasing' conceptualises LIQUID, which is also a shared entailment. It also becomes clear that the excerpt conceptualises research justification in terms of methodology.

Overlapping conceptualisations can, in fact, be identified throughout the discourse. An active conceptualisation of 'the rest' emerges on an active conceptualisation of 'research' within a sentence, a paragraph, a section, or a chapter, which construes an entire text. This is what is meant by the fact that surface units do not monolithically represent a generic structure component. These small units are merely a conceptualisation that emerged on the surface of the discourse. The accumulation of these units, like waves in the ocean, forms larger waves (conceptualisations), which cause another wave (conceptualisation) to emerge.

## 7.7 Metaphors

As proposed earlier, the types of conceptualisation features that are coded in generic structure analysis can vary depending on the research aim. Features of genre can emerge and disappear, and none of the features can claim a supreme status as a genre identification criterion. As reviewed in Chap. 4, this is what Derrida (2014 [1980]) described as 'making genre its mark, a text demarcates itself' (p. 212). However, among various features that can be identified in today's academic writing, metaphorical conceptualisation is undoubtedly one of the good and useful candidates for highlighting a majority of generic structure studies. This is because metaphors consistently exhibit cultural or idealised conceptualisation patterns of academic writing. Metaphors are not solely a semantic property. They enable the semantically diverse realisations of genre to structure in accordance with culturally specific conceptualisations, in which a shared knowledge structure plays a crucial role in formation. This has been shown in the predominant use of JOURNEY metaphors in the participant history and the quilt texts, which at the surface level discourse were found to be atypical. The prevalent use of discursive *lack*-ICM may also be closely considered in relation to the JOURNEY metaphor.

If metaphors are embodied as Lakoff and Johnson (1980) proposed, it makes sense to draw attention to metaphors in discourse when cultural and ideological diversity in academic writing is of research interest. Furthermore, variations may be measured in terms of the extent and the type of metaphor used in discourse. It is highly possible that conceptualisation of generic structure components in academic writing in some cultures, disciplines, or fields is characterised by different types and extents of metaphors.

Metaphors also serve as a safe analytical concept in the field of academic writing studies in which specific cultural or scientific values tend to be imposed on marginal disciplines and minorities without being able to provide acceptable justification to do so. I will further discuss the political implication of this new generic structure model in Chap. 8.

## 7.8 Quantitative Method

Therefore, the descriptive method that enables one to identify the delicate overlapping conceptualising features of generic structure is qualitative. It would be of interest to identify many conceptualisations and entailments in a research article discourse being investigated; however, it would be too time-consuming. Another way to analyse is to identify conceptualisations that emerged on the surface discourse as shown in Sect. 7.6. Identifying features this way may further enable the quantitative measurement of generic structure components.

There may be two ways to do this. One way to quantify features is on the basis of word number. Surface conceptualisations are coded in the way they were dealt with in Sect. 7.6, and then the word number for each conceptualisation feature observed can be calculated against the total word number in the text. The results can be used for various comparative purposes. For example, it can investigate which conceptualisation features are dominant within a text as well as across texts, which can be used in disciplinary analysis, for instance.

Another way to quantify features within generic structure components in a corpus is to count the number of surface conceptualisation elements. The ratio of certain conceptualisation features against the total number of conceptualisation features identified in a text can be calculated. It may be

more appropriate to use the word number approach rather than the feature number basis in research in which multiple sub-conceptualisations are identified. This is because, as pointed out, there may be a number of underlying conceptualisations below the surface discourse. This is also because some overlapping conceptualisation units may maintain their function over multiple surface units. There may be an extreme case whereby a conceptualisation feature functions throughout the text. In such a case, the word number approach may promise increased accuracy because otherwise the substantial feature that constitutes the text is counted as one, failing to measure its high conceptualising extent.

## 7.9 Conclusion

This chapter has presented possible analytical methods that can be used for the new generic structure model for academic writing. It was emphasised that generic structure components are structured by various types of conceptualisations, none of which forms an absolute identification criteria for a genre. This is because genre, generic structure, generic structure components, and conceptualisations that structure generic structure and its components are all prototypical entities, not formal linguistic entities. Coding methods that enable the adjustment of generic structure analysis in accordance with different research purposes were presented. This chapter bridges the argument introduced in Chap. 8, which discusses the advantages of analysing with this model in diverse academic settings.

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# 8

# In the Midst of Globalisation in Academic Writing

## 8.1 Introduction

Educational institutions today increasingly value diversity. This trend can be identified in a number of aspects in university educational systems. For example, it can be recognised by *Diversity in the Classroom* (Garibay 2014), a booklet for staff members at the University of California Los Angeles which outlines how to maintain diversity. It posits that one aim of the booklet is to present research on 'microaggressions in order to help faculty members meet the needs of diverse student responsibly' (p. 3). Furthermore, the University of California website posted a brochure (Office of the President, University of California 2014) detailing examples of problematic, microaggressive remarks and behaviours in the classroom, drawing on a book entitled *Microaggressions in Everyday Life: Race, Gender, and Sexual Orientation* (Sue 2010). The examples include saying to an Asian, Latino or Native American, 'Why are you so quiet? We want to know what you think. Be more verbal', 'Speak up more', and 'When I look at you, I don't see color'. In the brochure, these comments are classified as a category of microaggressions that conveys a hidden message: 'assimilate to the dominant culture'. Sue (2010), a social psychologist,



T. Sawaki, *Analysing Structure in Academic Writing*,
DOI 10.1057/978-1-137-54239-7_8

defines microaggressions as everyday 'slights, insults, invalidations, and indignities visited upon marginalized groups' (p. xv), which can be delivered by well-intentioned, decent people. Sue emphasises that a microaggression powerfully threatens and demeans the recipient because of the innocence of the perpetrator. That is, the perpetrator is unaware of his or her threatening behaviour, and hence the recipient tends to put up with it for fear of being perceived as rude as a result of pointing it out. Microaggressions are invisible and internalised. Hence, it is difficult to stop microaggressions from being imposed on the marginal until internalised aggressions are made visible and people become aware of them.

The unaware, invisible conceptualisations in academic discourse have been observed in the earlier chapters in this book. Conceptualisations that structure academic discourse are idealised. Seemingly very different instances of genre still tend to take over some features of central conceptualisation in a new instance of genre. The process is unmindful. It is seen in a way that the participant history or the quilt text explicitly attempts to reject traditional or dominant academic discourse, and yet their discourse is still structured with JOURNEY metaphors that are obviously a characteristic of a mainstream traditional Anglophone academic discourse. Researchers are not fully aware of the way they construct and perceive knowledge.

On one hand, being unaware of idealised conceptualisations relates to a healthy process for genre evolution. On the other hand, being unaware of the idealised nature of academic discourse relates to innocent aggressions, namely microaggressions Implementing idealised academic discourse without awareness has a risk of causing microaggressions to marginalised students and researchers, although it may seem a shortcut for their success.

'A loud voice', the expression Motokawa (1989) used to describe the heroic journey-like story line of the Anglophone scientific discourse, seems to echo 'Why are you so quiet? We want to know what you think. Be more verbal' and 'Speak up more'. Perhaps, these are the other side of the same coin. To be successful in a classroom, students are expected to be eloquent, while well-meaning encouragements are imposed on minority students. 'When I look at you, I don't see color' resonates the tendency in academic writing research and pedagogy to praise the lack of atypicalness

as an achievement. Non-central, peripheral academic writing instances are often automatically deemed inadequate. Instead, the lack of peripheral features is encouraged, explicitly or subtly, as an achievement. In this aspect, the tendency in ESP/EAP research and practice to encourage marginalised students to write in a mainstream conceptualisation of knowledge is likewise a microaggression.

However, unlike these potential classroom microaggressions that get listed and distributed on the Internet to raise awareness, little is discussed in detail about imposing dominant academic writing conceptualisation patterns on marginalised students and researchers. A silent student in the classroom may, in practice, cause difficulties in terms of not providing an opinion in a classroom discussion. On the other hand, a student not constructing an essay with JOURNEY metaphors is providing necessary information needed for the task. It may not always be the case that such an essay ends up being under-evaluated, but when it does, the microaggressiveness of the incident is more serious than an incident of a student from not-so-verbal values and backgrounds being completely silent and told 'Why are you so quiet? We want to know what you think. Be more verbal' and 'Speak up more' in the classroom. Everything is expressed, and yet the essay is devaluated for not being conceptualised in a central, dominant, mainstream manner by a well-meaning, decent lecturer. The student is unlikely to complain for fear that he or she might be perceived vulgar, unsophisticated, and rude, while the feeling that something inside the student is being damaged persists and grows.

Arguably, the current movement to raise awareness about microaggressions in particular at US universities may be going too far, reflecting their recent rather fanatical goal to promote diversity in higher education. Despite their thorough implementations in verbal microaggressions in the classroom, little has been done in the area of essay-writing practices. While universities become more and more extreme about verbal microaggressions, the tension between minority and majority students increases, and this may leave campuses in a conflictive atmosphere, contrary to promoting the diversity that the institutions originally intended.

Writing constitutes a major academic activity in higher education, a more important place than speaking, and yet understanding equal writing practices is under-developed. As a result, higher educational institutions

have failed to work on the maintenance of equality in the area of academic writing. Although promoting a dominant academic discourse has increasingly been problematised, practically nothing other than assimilating students and scholars to the dominant academic discourse has been done to promote equality and inclusion. The failure to implement academic writing equality has resulted in educational institutions and academia remaining oppressive in spite of increased efforts to promote diversity.

The issue of power imbalance that is evident in academic writing research and pedagogic practices has been widely addressed and problematised. Benesch's (2001) book, *Critical English for Academic Purposes: Theory, Politics, and Practice*, is a pioneering work that opened up a critical perspective on EAP practices. A special issue of *Journal of English for Academic Purposes*, 8(2), which featured *Critical English for Academic Purposes* in 2009, presented related political issues in regard to EAP. The studies concerning academic writing practices from a critical perspective that concern the power imbalance include Belcher (2007), Canagarajah (1996), Curry and Lillis (2004), and Flowerdew (2001) in ESP/EAP; Englander and López-Bonilla (2011) and Helal (2014) in discourse analysis; Kubota (2014, 2015), Kubota and Lin (2009), and Pennycook (2001) in critical applied linguistics; and Macoun and Miller (2014) in gender studies, just to name a few.

Despite the increased awareness of ethical issues in academic writing research and pedagogies, effective implementations that can ensure equality in academic writing education have scarcely been proposed. As a result, in contrast to the detailed list of microaggressions that can be damaging to minority students in the classroom, a list or a consensus that can be widely and practically applied in order to avoid oppressive academic writing teaching is unavailable.

The current situation is a consequence of the lack of empirical research in this area. Research in academic writing has traditionally prioritised pragmatics rather than a thorough discourse analysis based on rigid theoretical foundations. The disproportional pursuit undertaken generally in academic writing pedagogy studies is lucidly described in a forward written by Dudley-Evans (2001) for Benesch's (2001) book on critical EAP. Dudley-Evans (2001, p. ix) wrote, 'Perhaps because of the early

British influences on its development, it has avoided broad questions of theory'. There has been little empirical observation as to how a mainstream academic discourse gains and increases in power, based on linguistic analysis and theory.

The current situation, therefore, is quite disturbing. Educators and researchers are generally well intentioned and willing to ensure equality in education but are unaware of their idealised conceptualisations in producing academic discourse, and this has resulted in enforcing and reproducing power imbalances among individuals from diverse ideological and cultural backgrounds. The lack of a valid understanding of discourse mechanisms has resulted in spouts of endless blame. Academics accuse marginal discursive conceptualisations as unsatisfactory writing. Students and researchers outside of the central circle blame the dominant practice as imperialism. This situation needs to be put to an end.

Given that a bias generally relates to idealised conceptualisation processes that people are unaware of, it is crucial that a critical perspective on academic writing carefully investigate discourse from theoretical grounds with a particular emphasis on cognitive linguistic approaches, which this book has attempted to achieve. Crucially, as shown in the earlier chapters, the understanding that linguistic conceptualisation is idealised and that the idealised conceptualisations relate to the structuring of abstract knowledge becomes a fundamental step in providing valid solutions to the issues.

In this chapter, I use the foundations developed in the earlier chapters and place 'overlap' as a central concept to understand diversity in academic writing. The subsequent sections attempt to lay a solid foundation to form unproblematic implementation of genre.

## 8.2 Placing 'Overlap' as an Anchor

As mentioned in Chap. 2, many different paellas exist on the globe. Just because the paella you encounter is different from what you think it should look like does not mean it is inferior. Similarly, a piece of academic writing that looks different from central instances does not automatically mean it is substandard. However, it is easy for people to become

lost in ostensible differences. This can be avoided, first of all, by searching for overlapping features that a new instance shares with other instances of genre, as the earlier chapters of this book have shown. This can be a starting point for understanding conceptualisation patterns of a new instance without getting caught in our own bias.

Searching for and observing such overlaps are simultaneous processes of finding rationality in the unfamiliar text structure, which a new instance of genre construes. As observed in the earlier chapters, identifying overlapping features between instances of genre helps to uncover the logic functioning underneath the unfamiliar features. For example, one of the most notable non-central features in the participant history text (Excerpt 2) was a personal narrative and the conceptualisation of the author as a traveller on a path of a journey. Because the non-central features, in fact, share a JOURNEY metaphor with dominant instances, the text unfolds what is not shared, which is an intrinsic difference, namely the ideological difference. Ideologically, the participant history text abandons a traditional value of traditional academic discourse, which maintains the positivistic belief in objectivity. For the participant history text, the positivistic belief in objectivity, therefore, is an unavailable feature for the structuring of a text. The text still relies on the conceptualisation of the JOURNEY metaphor with a researcher as a traveller instead of standard epistemology. Thus, the text is processed and completed. A similar conceptualisation was observed in the quilt text (Excerpt 5), where in the absence of a male-dominated metaphor, the text was filled with personal narratives that conceptualise the researcher as a traveller on a journey.

The conservation biology text (Excerpt 1) overlaps with a prototype category feature in the use of the discursive *lack*-ICM. The discursive *lack*-ICM was not realised with the epistemological journey but with the real-world phenomena. The conceptual metaphor that was used was WAR, not the prototypical JOURNEY. The absence of adequate epistemology because of the fairly young history of conservation biology, as Samraj (2002) suggested, may be a major reason that the real-world phenomena construe the discursive *lack*-ICM. This, then, is an ideational condition of the field that is absent in adequate epistemology. Perhaps, owing to the more political ideology involved in conservation biology, the JOURNEY metaphor used to construe a discursive *lack*-ICM may not sufficiently

create a political tension and, instead, a WAR metaphor is suitable to create sufficient tension in the discourse.

Unavailable prototypical academic writing features can be substituted with something else to construe discourse. This is characteristic of prototype categories, as identified in the diversity of paella. A paella pan is not easily available in many parts of the world outside of Spain; hence, the paella is cooked in a frying pan, a pot, or a rice cooker. Despite a lack of the essential property, a paella pan, the cooking of paella can still be accomplished. Most likely, it is still called paella. Shared features with other paella make it possible for a new instance to remain linked to the prototype category paella.

Focusing on such overlapping features enables the observer to identify the kind of prototypical features that are absent, why they are absent, and how the circumstance has been construed without the prototypical features. The participant history text shares a JOURNEY metaphor with central instances of genre. Placing this overlap as an anchor enables the observer to consider why other features are not shared in the text. In the case of the participant history text, it was the ideology of the observer participant that denied positivistic objectivity and valued the anecdotal narrative that influenced the historian's perspective. The absence is filled with a substitute feature that fits the new ideological orientation. At this stage, the analyst becomes aware that the anecdotal narrative has the same function as the typical JOURNEY metaphor in academic writing. Overlaps as an anchor further enable the analyst to clearly identify that this anecdotal narrative construes an oppositional structural component to 'research'.

The applicability of overlap as an anchor can extend to those who mark students' essays and review papers. By no means should differences prevent us from appreciating innovative good-quality food or academic writing. Being distracted by superficial differences keeps us from ensuring the diverse conceptualisations that occur naturally in accordance with globalisation and diversification in society and contexts that surround genre. Identifying how a new instance of genre shares with others helps us understand the rationale that constitutes the new instance.

There are, however, circumstances in which low-quality writing contains insignificant content, just as a dish with a new spice added to it can spoil the finished taste. Nevertheless, overlaps as an anchor can help the reader

of a new instance of genre to take a moment, before misjudging a different instance from his or her own idealised conceptualisation of the genre, and search for unfamiliar conceptualisation patterns that actually work.

## 8.3 Properties of Genre that Change and Do Not Change

Previous chapters have shown that academic writing structure is binary. The surrounding of the research being presented, 'the rest', changes substantially. The oppositional component, 'research', also fluctuates in that the way it is positioned changes in accordance with the way 'the rest' surrounds the research. Dominant academic discourse, as observed, could combine a journey story with a discursive *lack*-ICM, which constitutes 'the rest', while 'research' is placed as a goal of the journey story. There may be a number of other instances of academic discourse that surround research in various ways, and accordingly research is positioned differently. What is stable and unchanged, therefore, is the binary structure between 'the rest' and 'research'.

It is interesting to observe that variations of genre can be elucidated not by rejecting the existence of a shared structure but by granting an unchangeable simple structure. Diverse research conceptualisation becomes analysable on the basis of the stability of the binary structure. Furthermore, diverse instantiations of genre emerge where overlaps in conceptualisation features are identified. Hence, diverse instances of genre that constantly change can be observable through the binary structure and overlapping conceptualisations.

## 8.4 Journey as a Predominant Feature

The celebration of diversity does not solve real problems. On this issue, Kubota (2014) points out that the current trend of pursuing diversity functions merely as a legitimate mainstream ideology and that the celebration of plurality in recent applied linguistics in general serves little more than maintaining institutional neoliberal purposes. Academic

writing practices also reflect the attitudes of scholars who attempt to be competitive to meet such institutionalised purposes. As Kubota (2014) further points out:

> Researchers are often rewarded by how many times their works were cited. The basic principle is indeed the more the merrier! This implies that popular theories and concepts proposed by prominent scholars tend to get cited, recycled, and propagated incessantly, while opposing or deviant ideas are likely to be relegated to a form of inadequate diversity. In this way, the multi/plural trend becomes a fashionable commodity to be consumed but not necessarily to fix real-life problems. (Kubota 2014, pp. 15–16)

A link between what Kubota argues as neoliberalism in academic writing practices and the tendency for central features to be reproduced as well as the JOURNEY metaphor's central position in today's mainstream academic writing identified in this book can be found here.

It is the journey or exploration story that necessitates heroes. The story of famed predecessors (central scholars) on a respected mission (central research topic) with sacred tools (central methodology) has been repeatedly told in central academia as if there were no other research stories to tell. It is the same story: a number of famed scholars have been exploring this field of journey; they attempted to conquer the unknown with reputed tools and approaches; there is something unknown in the field that everybody is having trouble with; the goal for the field is to solve the problem; a new hero came to the troubled field with a reputed precious tool everybody is talking about; the hero approached the problem on the basis of a prestigious theory with the prestigious tool and brilliantly conquers the problem; the goal is accomplished, impacting the field a great deal; and the journey continues in the field for other researchers to keep making discoveries. The story line is reminiscent of what Yakhontova (2002) observed as a characteristic of English academic discourse: English writers write promotional discourse whereby the writers present their research as a more valuable product than their predecessors', apparently trying to sell their research story rather than telling it.

Importantly, the association between the dominance of the JOURNEY metaphor in today's mainstream academic writing and the reproduction of the discourse is not unilateral. Cultural—as well as male—centrism in

academia may have established the use of the journey story to present the research being reported. Institutionalised as well as neoliberal purposes have reinforced the journey story. I discuss the bilateral making of dominant academic discourse in the subsequent sections.

### 8.4.1 Hero Increases Inequality

Both Motokawa (1989) and Turner (1998) stress the importance of the influence of religion in academic discourse. Motokawa (1989) pointed out that science and religion may have a similar structure because both are concerned with the pursuit of truth, and hence society has a shared thinking pattern in its activities. Motokawa considered that a similar reasoning pattern exists between a religion with one almighty god and Western science that highly regards interpretations, concepts, and rules highly. Turner (1998) likewise identified the image-schema of the JOURNEY metaphor prevalent in the Western academic writing, analysing that the placement of the value in the bible on exploration relates to the predominance of the JOURNEY metaphor in Western academic writing: 'the exploratory journey is typically one of pursuit, i.e. the pursuit of truth' (p. 29). Deeply rooted thinking patterns in the society play a crucial role in conceptualising what academic writing should look like.

The predominance of the JOURNEY metaphor, namely the conceptualisation of research as a journey which this book has observed, relates also to citation practices and reinforcement of power imbalances in academia. It was identified that the central conceptualisation in mainstream academic writing is the epistemological journey. Epistemology involves a number of scholars who have made the path of the journey in the research field; hence, mainstream academic writing involves a story of heroes, including the story of the author of new research being reported. Such a journey story contributes as one cause that reproduces inequality.

Motokawa (1989) pointed out that the science in the West measures the value of research by the number of scientists who are interested in it, and hence mainstream academic discourse refers to a number of researchers. Motokawa analysed that, in Western science where the story of 'everybody wants to be a hero' exists, everybody wants to stand out.

These ambitious scientists 'advertise their hypotheses and their recreated world in a loud voice to be visible and to persuade other scientists' (Motokawa 1989, p. 498). This is the pattern of mainstream researchers who become visible and are considered central in the field. When this happens, it becomes almost imperative to cite them. They become the indispensable participants (the heroes) of the epistemology journey story.

Bazerman (1988) observed citation practices in scientific research articles between the seventeenth and twentieth centuries and reported an increase in the number of citations as well as the length of the articles in the twentieth century. It was after the Second World War that the English language became the universal language of scientific inquiry, ending the triumvirate of English, French, and German (Gordin 2015). Today, English research articles are reported to have lengthy citations in comparison with the ones written in other European languages.[1] Dominant, central, Anglophone academic discourse today requires long, in-depth references to legitimate predecessors of the field, namely the conceptualisation of heroes on the path of a journey. Claiming centrality is a major constituent of Anglophone academic discourse and has been included as a step in the CARS model. However, another side of the same coin emerges, denying and devaluing non-centrality.

As presented earlier in Motokawa's (1989) argument, it is not just epistemology but also theory, methodology, and so on which require centrality in Anglophone academic discourse. Every part of a research article is expected to be something that will interest everyone. The use of dominant research topics and tools seems to be enforced even today. Altbach (2013) observed that researchers today cannot deploy anything but the central norms, values, methodologies, and orientations of the academic communities since they are expected to choose dominant academic activities that are considered legitimate in globalising academia.

The dominance in conceptualisation is not limited to ethno-religious influence. As studies from feminist perspectives to scientific discourse revealed (e.g., Flannery 2001), conceptualisation in academic and edu-

[1] See, for example, a study by Helal (2014), which compared American and French scientific research articles, wherein Helal found American articles are longer and consistently review previous literature more than French ones.

cational discourse is largely dominated by masculine metaphors, such as exploration. Conceptualisation of research as an exploration of strong, powerful heroes, as the feminist research pointed out, is a masculine-dominated discourse that precludes the feminine gender from participating in academic activities. The discourse of dominance has continued to be reproduced, although diversity rather than dominance by a particular group is encouraged in academia.

### 8.4.2 Institutionalisation of Academic Discourse

What has enforced the dominance of the conceptualisation of a journey in academic writing may not be simply the Anglophone textual conventionalisation. It is doubtful that the enforcement of a specific discourse can be maintained over time unless the discourse meets the social purposes typically held, in the discourse community as approaches to text from social perspective, such as SFL holds.

It is true that academic activities today are competitive. Altbach (2013) points out that many universities are placed in a fiercely competitive situation which is measured by productivity that counts publications in prestigious international journals, and as a result peripheral local research topics and methodologies have been further marginalised even in local settings. Research that is considered central by internationally recognised scholars tends to be funded and conducted. Central research is also more publishable than peripheral studies. To survive in an increasingly competitive and standardised research situation, universities and research institutions need to accommodate their researcher to write in a standardised form that can be productive for the institution's neoliberal/capitalist needs (Chun 2009; Hirtt 2009; Mufwene 2010, among others).

Hence, the standardisation of academic writing conceptualisation as a journey of heroes has been mutually reinforced from both text's conventionalisation and text's external institutional constraints. Questions then arise: Do we have to continue with this standardised academic writing if it also meets the institutional purposes? Do the competitive neoliberal/capitalist needs outside of the text justify the text to be institutionalised?

## 8.5 Text and Context

It has been assumed in ESP/EAP and generally in applied linguistics that the aim of research and pedagogy of academic writing is to help students and researchers produce texts that meet social purposes. In a way, it appears natural that a text needs to be adjusted to its context, as the world outside of the text is inseparable from context. At the same time, however, it should not be assumed that the relationship between text and context is one-way; text and context are inseparable and reciprocal. In academic writing studies, it has rarely been discussed how context can reflect text (that is, how text can change context). The following subsections explore the reciprocity of text and context on the basis of the findings made in the previous chapters of this book.

### 8.5.1 Context Changes Text

Text—in particular, a purposeful one represented by academic writing—fulfils its social purpose. The very reason that the text is composed is to serve its purpose. The purpose exists prior to the text. A purposeful text in an institutionalised setting, in this way, is obedient to its context.

As discussed earlier, scholars today have limited freedom to produce an unconventional, original text. Under the fierce institutional pressures and the personal need to survive in academia, scholars would rather not take the risk of experimenting on a new type of research in a new type of discourse. The risk is widespread across every stage of career in academia, from undergraduates writing course essays to mature scholars writing research articles. As noted, the risk of a postmodern Ph.D. thesis in humanities and social sciences presenting subjective and personal discursive features being misjudged by examiners who hold on to the traditional academic writing norm (Hodge 1995) is just one instance.

There may also be two types of contexts that influence text. One is institutional power; the other is more local, disciplinary, ideological power. If the local context of ideological change overpowers the institutional one, Hodge's concern that postmodern theses might be misevaluated by gatekeepers may not happen. On the other hand, if the institutional context

suppresses the local power, then Hodge's concern will be real. It is a matter of autonomous status that local research settings can maintain against the power of institutions. However, many recent studies cited so far in this chapter indicate that local research settings today hold little autonomy against the ever-more powerful institutional purposes.

Owing to increasingly more specific requirements that institutions pose on academic writers across all levels, standardisation has become progressively stronger. It is in this context that ESP/EAP as well as SFL place purpose as a crucial element in their genre studies. Social purposes that exist outside of the text (context) do play a crucial role in construing academic discourse because otherwise the text might lose its raison d'être. The role of the text as a medium that fulfils its social purposes has been treated as an unquestionable fact in academic genre studies. However, this is also one main reason why academic writing has become too standardised. As observed in the earlier chapters, conceptualisations with JOURNEY metaphors seem prevalent. This standardisation of academic writing as a uniform journey story of heroes may partly be due to the overpowering institutional purposes. A paradigm change is necessary for this ever-increasing standardisation of academic writing that is expected to meet external values.

### 8.5.2 Text Changes Context

Surprisingly, the idea that text can have the power to change the external world has been scarcely proposed with all the evident issues that academic writing is more and more standardised because of the overpowering contexts. Outside of academia, the awareness of appropriate language use is heightened. Gender-neutral language has been used widely for a few decades now. For instance, we no longer use words that assume that males normally take a profession; rather, we substitute 'salesperson' for 'salesman', 'firefighter' for 'fireman', and so on. To prevent copycat acts by vulnerable people, suicide reporting in news media today is urged not to report precise methods that have been performed. It is also recommended not to use the expression 'commit suicide' and instead to use 'die by suicide' to reduce the stigma. It is also common today to use the term

'a person with disability' instead of 'a disabled person' so that a disability does not define a person. All of these changes in language use increase awareness so that the society can be a better place; namely, text changes context.

Some may ask whether mere alterations in words change people's minds and ultimately the society. As reviewed in Chaps. 2 and 5, a number of recent studies demonstrate that replacing words does influence our abstract thinking. This relates to metaphor's potential to structure our abstract thinking, which can even change our decisions.

Thibodeau and Boroditsky (2011) reviewed a number of reports and suggested that metaphors do change our mind and public policy. After Ronald Reagan declared 'war on drugs', people involved in drugs, including those addicted and in need of recovery, were defined as the enemy, and this resulted in harsher sentences for drug- related crimes and a quadrupled incarceration rate (Office of Justice Programs). Kelling (1991) reported that capturing a serial rapist took the Chicago police 15 months, during which time 11 women were attacked. According to Kelling, the reason that the police took so long is that they saw their mission as hunting down and catching the rapist. This caused the police to keep information about the rapist from the public so that they could set traps to catch the suspect, delaying capture of the suspect and increasing the number of victims who had been unaware of the rapist in the community at large. Kelly argued that the women were victims not only of the crime but also of a metaphor. Furthermore, in medical settings, public health experts proposed that treating crime as a disease helps them find the cure (Guerrero and Concha-Eastman 2001; Kotlowitz 2008).

As noted earlier, the potential of metaphors to structure our mind, text, and context has scarcely been considered in academic writing structure analysis and pedagogy. On the other hand, lexical level implementations such as gender-neutral words and renouncing microagressions have been fairly successful in higher education, using the power of text to change the context and vice versa. The reason that higher education has failed to ensure diversity in academic writing despite its acute awareness to include minority students from diverse backgrounds is, I propose, the lack of available knowledge concerning the power of metaphor. There is a good amount of awareness for the value of diversity. What lacks in higher

education is the understanding that metaphor in academic writing is idealised and that metaphor structures affect not only text but also context.

## 8.6 Conducting a Research JOURNEY of Suppression

Despite all of the good intentions of academics to include students from diverse ideological orientations and cultural backgrounds, the implementation of standardised academic writing has become a process of assimilation. Becoming a successful academic writer today is equivalent to becoming an academic who can write like an Anglophone, central, prestigious scholar. As a result, students and researchers who have peripheral research interests and non-Anglophone backgrounds, non-dominant genders, emerging ideologies, and all sorts of other non-central features face a dilemma: to achieve an academic goal is to lose something inherent.

For many, the dilemma may present a barrier that prevents access to academic success. This is what Flannery (2001) pointed out regarding the predominance of male-oriented metaphor that conceptualises science as exploration rather than quilt-making. In scientific discourse, this might pose unfamiliarity to female students, making female students feel that they do not fit in and are unwelcome to pursue a career in the sciences. As discussed earlier, the male-centred metaphor that Flannery is concerned about overlaps with the JOURNEY metaphor that dominates today's academic writing. Similar to the alienating effects of male-oriented metaphors, non-Anglophone academic writers feel alienated from the conceptualisations and structure peculiar to Anglophone academic writing. Motokawa's (1989) concern with the construal of Anglophone science is reflected in situations where big heroes shine in a story leading to over-interpretation of results. This is what Motokawa referred to as 'hamburger science' wherein science becomes over-saturated. A metaphor to food, in fact, is relevant in this situation. It is structurally similar to a situation in which you have to eat something you are not used to or you don't wish to eat. If that is a one-off situation and it is unlikely that you have to eat hamburger all the time, the situation would not cause much of a problem. However, it becomes highly problematic when the situation

demands that you eat only hamburger and nothing else, as that is the only way to survive. The choice is between not joining the game of academia or being willing to assimilate in order to survive. This is degrading.

As discussed, claiming centrality in every aspect of research has become a norm in academic writing. Everything has to be presented as central and big. It is expected to contain a big theory, a big hypothesis, a big methodology, big data, a big result, a big interpretation, and a big implication, and importantly everything has to be the thing that everyone (especially big scholars) is looking at, namely a centrality of research being reported. However, the conventionalisation of a specific conceptualisation of research as a JOURNEY presents a number of devastating issues in academia. I discuss these issues in relation to the practices in academia and the reproduction of power relationships.

### 8.6.1 Gatekeepers

The obsession with centrality that prevails in today's research and education reflects the decisions that gatekeepers make. Given that reviewers and editors of a journal (gatekeepers) consider that centrality is one of the most crucial elements because of their unaware conceptualisation of research as a JOURNEY, research articles that meet such criteria are based on their idealised conceptualisation of how research articles should be presented in order to be accepted for publication.

Going through the selection processes with such criteria requires additional hurdles for scholars who try to publish research involving an emerging research topic, theory, hypothesis, methodology, ideology, and most importantly research conceptualisations. Delicate care is required to persuade gatekeepers that the paper is worth publishing.

Previous central studies conducted by prestigious scholars which are not relevant to the research reported may need to be cited just to demonstrate that the author is aware that these are big heroes in the field. This functions to persuade the gatekeepers that the author is an expert researcher. Not mentioning big heroes, on the other hand, runs the risk that the paper will be rejected for publication. Consider the following situation: You found a very high-quality research article that is directly

relevant to your research; however, you have never heard the name of the author before, and the article is published in an unknown journal that has a low impact factor. What would you do? There would be mixed responses to this question. Now consider this case: You found an article relevant to your research, which is written by one of the most prominent scholars of the field in an established prestigious journal. The answer would be simple: cite.

If gatekeepers who value centrality read a paper that contains a number of citations to high-quality marginal studies, they would question whether the author has sufficient knowledge of the field, and this may lead to questioning the validity of the entire research presented in the paper. Demonstrating expert knowledge constitutes a crucial element in academic writing publications today. Not referring to central scholars in the field may run the risk of being perceived as a novice or a non-expert. Even if new research being reported has little to do with previous central studies of the field, it is safer for a paper to cite renowned studies just to convince the gatekeepers that the author is an expert.

This conventionalised widespread practice contains three problems. First, it concerns the skill and care required of authors who need to conduct and cite peripheral research. Whereas it is relatively easy to cite irrelevant famous studies and impress gatekeepers, it requires great skill for the author to justify a peripheral aspect of research by explaining its difference from central ones and to persuade the reader of the advantage of the new peripheral aspect of research. Although such persuasive skill is highly praised, this brings about a further imbalance between the central and the periphery. Peripheral research also needs to cite previous studies that are likely to be peripheral as well. Citing studies unknown to gatekeepers runs the risk that the author will be misevaluated as lacking knowledge of the history of the field. What makes it worse is that it is also unlikely that busy gatekeepers take the trouble to read the unknown studies in order to reach a proper judgement. For many central researchers, an unheard-of study equates with unimportant research.

Those who have conducted central research need little persuasive skills. The gatekeepers can see the research as a central type, and hence it is unnecessary for the author to put any effort into persuasion. In other words, less skill and effort are needed in central research, whereas much

higher justification skill is expected for peripheral research in a research community that values centrality. The worst case scenario is the failure to persuade gatekeepers regardless of the author's skilled effort. Ultimately, a successful publication of peripheral research depends on how flexibly gatekeepers consider non-central research rather than on the skill of the author and this is because it is, after all, the gatekeepers who make the decisions.

Second, showing off central knowledge becomes a major issue in research production in a community valuing centrality. Researchers put more and more effort into showing off the amount of their central knowledge, as shown by longer and longer citations (Bazerman 1988), which gradually overpower the new study being reported. Conventional and standard research conceptualised as a JOURNEY itself has replaced the purpose of research, as if writing a more dramatic journey story with prestigious heroes becomes a primary task in research activity. Presenting new and innovative research may not necessitate relating it to irrelevant, influential previous studies, but not doing so runs the risk of being denounced as 'not relating the new study to the research community'.

Third, innovative research is more difficult to publish. This is another ironic aspect of today's research world. New and innovative research is ever more in-demand, but the dominant academic writing practices make it difficult to generate. The result is a mass production of the same old stories that claim to be different but fundamentally are not. Interdisciplinary research poses a similar difficulty. An interdisciplinary research paper that cites many studies unheard of for a traditional central member of one of the research fields involved in the paper can promptly create a dismissal of the paper because it cites unknown studies. In a research practice valuing centrality, citing studies a gatekeeper does not know becomes too risky, and hence interdisciplinary studies become too risky to conduct. Although interdisciplinarity is increasingly encouraged, the academic writing conceptualisation of the gatekeeper does not keep up with its implementation.

Gatekeepers also rule students in university courses. Essay writing constitutes a major task for students in course work. Good student writing follows the criteria of research article writing: that is, the JOURNEY metaphor and the claim of centrality. For diverse students, narrow accessibility

to male Anglophone-dominated academic discourse is not the only problem; a gatekeeper will be a marker or lecturer of their papers. Marginal students who have not sufficiently assimilated their writing into the dominant male Anglophone writing conceptualisation may be underevaluated. Again, the evaluation of students' writing situation depends somewhat on the gatekeeper's flexibility.

This perspective, furthermore, poses a question regarding a widespread research methodology in ESP/EAP studies that compare student essays of high and low marks. The methodology is meant to identify good writing for the purpose of developing and implementing academic writing pedagogies. However, this identification method for good writing lacks a process of investigating whether essays that obtained a high mark really reflect good-quality writing or whether they simply meet with the conceptualisation of academic writing of the gatekeeper. That is, if the marking criteria follow the standardised academic writing construed by the JOURNEY metaphor, it may mean no more than a set of criteria for a dominant discourse. Hence, well-meaning gatekeeping conducted without awareness of consequences spreads across every stage of academia in both teaching and research settings.

### 8.6.2 Reproduction of Power

Presenting pioneering research at the frontier of a prestigious central story line is highly encouraged today. Marginality, on the contrary, is discouraged. The norm in today's academia that measures the quality of academic writing by the degree of centrality inevitably widens the power imbalances that already exist, reproducing and enforcing the distribution of power.

It is important to point out that rather than helping academia to mitigate the power imbalances, current practices in ESP/EAP contribute to maintain and enforce inequalities. For one thing, ESP/EAP implementation of genre approaches writing in a discipline as an apprenticeship. It is certainly important for students to learn the rules of the discipline, but it is also important to learn to produce original work under the constraint of the conventionalised rules in the discipline. The latter, perhaps, is more important because becoming a central participant in a discipline

is not a goal of education. Education, undeniably, is meant to provide students the opportunity to become competent, knowledgeable people who can use knowledge to bring about innovations.

Current ESP/EAP research practices seek to identify well-perceived mainstream academic writing so that students and researchers can survive and thrive in academia. The rules of success found in studies are automatically treated in ESP/EAP research as the rules that students and researchers need to follow. Little is questioned concerning ethical issues of imposing the dominant rules on marginal students and researchers. Little is questioned about the perception of the gatekeepers who hold dominant criteria for the evaluation of academic work. Little is questioned about the roles of an academic text to meet the norm of academia. As a result, the norm of academia celebrates prestigious journey stories that are reciprocally enforced, maintained, and reproduced.

Putting an end to this firmly established incessant reproduction of a power imbalance may not be an easy task. The current context in which academic writing is placed appears to be going against the task. Nevertheless, a change should be made somewhere; it should be possible to make a change from the side of ESP/EAP. Now that the relationship between the conceptualisation bias of academic writing structuring and the maintenance of dominant discourse has been made clearer, it is finally possible to start working on changing the loop of power imbalance reproduction.

One area where the celebration of diversity tends to fail is the stereotyping of different cultures. Many critical applied linguists, such as Kubota and Pennycock, have been deeply concerned with this situation. Celebration of diversity and inclusion without a solid understanding of the prototype nature of academic writing tends to end up creating stereotypes of marginal cultures, and this is not the intended goal. With the understanding of genre and culture as prototype entities, the approach this book has proposed poses no risk of falling into the contradiction of praising diversity and cementing each culture at the same time. In a prototype understanding of genre and generic structure analysis, category members are not monolithic; they are constantly and dynamically changing. Hence, the prototype approach is helpful in promoting a healthy and natural evolution of genre but without cementing power imbalances and reproducing them.

## 8.7 Liberating Academic Writing

As I repeatedly stated, what has lacked in ESP/EAP is not a pursuit of diversity, equality, and inclusion but the knowledge concerning the conceptualisation of generic structure components and the social mechanism that maintains the dominant discourse in academic writing. So far, it has been argued that the lack of attempts from the side of ESP/EAP studies and pedagogies to influence the context in which academic text is placed, namely the social structure, needs to change. Academic writing does not have to be obedient to the social structure that oppresses students, researchers, and other academic activities. Academic writing, on the contrary, can make a big difference in the circumstances surrounding the text. Too much emphasis has been placed on the fact that academic writing should reflect the structure of the outside world, neglecting the text's potential to change the world. ESP/EAP can take a new stance to be actively involved in fostering diversity in higher education. This can be achieved, I argue, by three liberations: liberating researchers and educators from dominant conceptualisations, liberating text from contextual constraints, and liberating academia from reproducing power imbalances.

We are unaware of our own discourse conceptualisation patterns although they play a crucial role in both structuring and comprehending a text. This does not mean that we are unable to be free from the internalised bias through the learned genre knowledge. Awareness about our own patterns of conceptualisation can liberate our minds from misjudging an instance of genre.

Therefore, it is important to know that metaphors structure our abstract thinking and that such metaphorical structuring process relates directly to the structuring of academic writing. Learning that our own idealised conceptualising as well as structuring patterns at the undergraduate level as a part of foundation courses may be useful. Crucially, this constitutes a reading skill necessary to understand the content of writing without judging it too quickly on the basis of idealised conceptualisations that we developed without awareness.

Reading skill development, in fact, has been neglected in higher educational settings in comparison with writing skill development. There is no doubt that writing is an important skill to develop in higher education;

however, highlighting writing skill development most likely results in implementing standardised academic writing. There has been an imbalance between the implementations of writing and reading skills, and it is in reading development where a bias-free reading skill can mature.

To some Anglophone researchers, Motokawa's JOURNEY metaphor-free introductory section (Excerpt 6) may be perceived as inadequate in connecting new research to the previous studies although it contains all the necessary information to present new research. If the reader is aware that the dominantly deployed structures of academic writing are simply a culture-ideology specific and that it does not necessarily have to be structured through JOURNEY metaphors, the reader may not be distracted by his or her own conceptualisation patterns and can read it with ease without falling into a conceptualisation trap of misjudging it. Knowing that it is not an absolute criterion for good-quality academic writing to tell a long prestigious journey story with big heroes helps to free us from bias.

When encountering unfamiliar conceptualisation of an instance of genre, it is helpful to seek out overlapping features that the instance shares with other instances of the genre. Placing an anchor on overlaps is a starting point to understand the new instance of genre without being trapped by our own bias. Once overlaps are identified, the remaining features that construe conceptualisation emerge and the structuring of the whole text becomes lucid, as the previous chapters of this book have demonstrated.

Pedagogies for writing also need some adjustment. With an increase in awareness of academic writing conceptualisations and the structuring function of conceptualisations represented by metaphors, the standardisation of writing may ease. It is necessary to make explicit that conventions do exist within disciplines, and it is most important for writing pedagogies to teach students how to be original in writing in a conventionalised discipline. As I observed elsewhere (Sawaki 2014d), academic writing that contains peripheral elements, in fact, refers to its own marginal nature. By so doing, the text can persuade a gatekeeper why the research uses, for example, personal narratives, which enables the text to succeed not only in persuading the gatekeeper but also in demonstrating the researcher's central as well as extensive knowledge as a researcher. Consequently, research does not have to be assimilated into the mainstream; it can maintain its autonomy and it can belong to the discipline at the same time.

Most importantly, a writing pedagogy that encourages students to find a way to challenge conventions can foster original, innovative research. Therefore, liberating academic writing from the path of the JOURNEY can change the conventionalised context that has been suppressive to students and researchers into the one that can ensure diversity. Instead of staying obedient, texts can actively contribute to the development of academic activities. Furthermore, text can contribute to inclusion rather than exclusion, alienation, and the reproduction of power imbalances in academia.

This way, ESP/EAP can actively contribute to facilitating students and researchers to be innovative in academic activities. Simultaneously, ESP/EAP can contribute to the advancement of science by eliminating obstacles for scholars to conduct research. This can lead to liberating scholars' research interest in peripheral topics. The suppression that has been imposed on non-central research may be alleviated when many scholars are more aware of the danger of imposing the value of praising centrality in research. Likewise, the external context such as institutional purposes that endlessly demand scholars to be productive and competitive may slow down. Notwithstanding that text cannot change the entire situation, it can at least contribute to making a difference. A shift from being a faithful servant to the institutional purposes to becoming an active participant involved in making a better, more accessible research world is needed with ESP/EAP approaches to genre. This is one of the main advantages of the proposed generic structure model.

## 8.8 Conclusion

The potential of generic structure analysis that highlights conceptualisation of research has been discussed in relation to how the cognitive-oriented approach to genre can contribute to promoting diversity and inclusion in higher education. The method used to sort out conceptualisation variations of academic writing that identifies overlapping features between instances of genre has been proposed.

Proposing a new generic structure analytical method that can promote diversity instead of enforcing a dominant conventionalised discourse was one of the most important aims of this book; hence, the discussion conducted in this chapter was intended to be a focal point of this entire

book. However, this does not indicate that this chapter is conclusive. A number of implications and shortcomings remain undiscussed and will be presented in the concluding chapter.

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# 9

# Conclusion

## 9.1 Introduction

This book has proposed a generic structure analytical framework for academic writing studies to sort out issues that have arisen from formalistic approaches, in such a way that linguistic, cognitive, and pragmatic roles can be taken into account in genre analysis. This has been enabled by integrating approaches to discourse and language that have developed across different disciplines. This book has argued that disciplinary constraints that value central features inevitably denounce peripheral features and that this results in alienating marginal individuals from academic activities.

Where such power hierarchy systems maintain reproduction of their own system, integration of theories and approaches across disciplines is difficult. Gatekeepers know little about situations beyond their small specialised fields, and hence they cannot identify the value of academic work beyond their speciality. Regrettably, this often results in the rejection of innovative post-disciplinary approaches. This book itself is a post-disciplinary attempt, enabling an original contribution to the development of a flexible generic structure model for academic writing that has so far suffered because of traditional, disciplinary-constrained practices.



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DOI 10.1057/978-1-137-54239-7_9

However, this book has not fully explored the implications of a new generic structure model. In order for the model to be used in future studies, it is crucial to reflect on its inadequacies, which can be explored to further establish and refine the model. This chapter outlines implications and shortcomings that future research can explore.

## 9.2 Form, Content, and Conceptualisations

This book has advanced the analytical method for academic writing studies from a formalistic to a structuralist approach. It has further advanced the structuralist approach to genre by combining it with the prototype theory. By so doing, this book has enabled the presentation of a generic structure model that is capable of analysing the dynamically changing nature of genre. Similarly to prototypical categories, genre cannot be defined by necessary and sufficient conditions and neither can its structural components. This is in line with Derrida's (2014 [1980]) perspective on genre; to repeat Derrida's paradox, 'Making genre its mark, a text demarcates itself' (p. 212).

Shifting the identification criteria of genre analysis from linguistic cues to conceptualisation patterns has further provided an analytical method that delineates cultural, ideological, pragmatic, and linguistic factors that influence the realisations of an instance of genre. Interestingly, it is not the formal identification criteria that directly relate to these factors but an undefined fuzzy identification method based on the prototype theory that enables the plotting of these and other potential factors that may newly constitute an instance of genre.

Structuralism holds that the formalist assumption that a specific content can occupy a form in generic structuring and its components can cement descriptions of genre; this has been re-confirmed by this book. An understanding of the generic structure model, from this perspective, is an open system that can liberally bring new instances of genre into its own system without defining them. In this way, the model no longer needs to be adjusted to the evolving genre nor does it need to forcefully classify a newly encountered instance into the seemingly closest category of a formalist generic structure model.

## 9.3 Potential of Entailment

Entailment plays a crucial role in construing a coherent discourse. Although this book has revealed a number of entailment instances in academic discourse, more investigation is necessary given the extensiveness and complexity of their role in text construction. It is also necessary to further explore relationships between entailment patterns and culturally oriented shared conceptualisations.

### 9.3.1 Complexity of Hierarchical Entailments

The analysis that has been made in this book suggests that the complexity of conceptualisations relates to multiple shared discoursal entailments. Unlike sentential shared entailments whereby two or more conceptual metaphors are used to cohere a sentence, discoursal shared entailments cohere the entire text and therefore can be highly complex.

One relatively simple example may be the entailments of a discursive *lack*-ICM to a JOURNEY metaphor. As observed earlier, pointing out a gap or a problem in research, which frequently occurs in academic discourse, can form a presupposition that constitutes a *not have* element of a discursive *lack*-ICM. On the other hand, pointing out the importance of the research forms another presupposition of the discursive *lack*-ICM, constituting a *should have* element. In this way, a discursive *lack*-ICM is formed, constituting an element in a JOURNEY metaphor, namely an obstacle on a path of a JOURNEY. In other words, a discursive *lack*-ICM is entailed to a JOURNEY metaphor.

It has been observed that the conceptualisation of journey that contains a discursive *lack*-ICM tends to recur through semantically varied realisations such as 'epistemology', 'real world', 'personal anecdote', 'methodology', 'approach', and 'theory'. In other words, JOURNEY metaphors conceptualised with a discursive-*lack* ICM may occur anywhere across sections or chapters in an academic text.

Furthermore, multiple JOURNEY metaphors that occur in a text can be entailed to a different metaphor. For instance, as observed earlier, they can be entailed to a BUILDING metaphor, a causal link metaphor, and so on. There can be many more complex instances of entailments that

cohere apparently inconsistent conceptualisations. Although this is an interesting site for future research, the phenomenon might cause analytical difficulty as to determining how far the complexity should be described, especially when the text being analysed is lengthy.

A text contains multitudes of conceptualisations, which are delicately entailed to each other to make a coherent meaning. It is not realistic for discourse studies—unlike metaphor research, which observes metaphors at the sentence level—to identify every conceptualising process that occurs in the entire text. A small number of proposals on this matter has been made in Chap. 7, including identifying major metaphors used in the text (for example, JOURNEY) and then describing their semantic features such as epistemology and real world. There can be other useful methods in describing the hierarchical conceptualisation mechanisms, which may be explored in future studies.

Furthermore, relationships between conceptualisation processes and various conceptualising features such as ICMs and semantics, and their interacting text construal processes, need further investigating. In this book, various features concerning conceptualisations in texts are mapped out in the prototypicality effects tables (Tables 2.1 & 61). However, the features vary widely in their part of speech and their level of hierarchy in conceptualisation processes. Exploring how different features of conceptualisations construe a coherent text would be an interesting area for future research.

### 9.3.2 Shared Cultural Knowledge, Metaphor, and Entailment

This book has observed pervasive as well as highly complex hierarchical conceptualisations and entailments that are typical of Anglophone academic writing. However, non-Anglophone writing may be less complex in its conceptualisation patterns and entailments in construing academic discourse. There appear to be different degrees of hierarchical conceptualisations in genre across different cultural and ideological orientations in academia.

The least complex conceptualisation instance of academic writing observed in this book is Motokawa's (1987) echinoderms text (Excerpt

6 in Chap. 6). It was analysed that Motokawa's text is simple, referring to the minimally necessary information for new research being introduced. The text does not exhibit a constructed plot equivalent to the hero story line, which is specific to the typical Anglophone conceptualisation of academic writing. Given Motokawa's (1989) discussion, the simplicity in his writing is the influence of Zen Buddhism, whereby saturated interpretations of phenomena are disdained; instead, minimal presentation is celebrated.

Academic discourse that avoids the construction of an intense story line and highly complex conceptualisations seems common in other non-Anglophone cultures. In line with Yakhontova's (2002) observation that Anglophone academic discourse is self-promotional, a number of contrastive rhetoric studies showed that non-Anglophone academic writing does not construct a research gap as clearly as Anglophone academic writing. Ahmad (1997) showed that the Move 2 element of the CARS model rarely occurs in her corpus of 62 Malay research articles from science disciplines. Fredrickson and Swales (1994) observed in Swedish texts that Move 2 elements rarely occur. In Spanish computing theses, Move 2 was not present in a number of theses and hence was identified as an 'optional' element (Soler-Monreal et al. 2011). Samar et al. (2014) found reluctance among both Iranian and East Asian conference abstract writers to make counter-claims (Move 2). Introductory chapters in Spanish theses on computing (Soler-Monreal et al. 2011) and in Japanese theses on English literature (Ono 2012) contained fewer generic structure components than the ones produced in Anglophone cultures. These findings suggest that non-Anglophone academic writing construes a lower-intensity story line (if any) that depends less on establishing the niche. This may further suggest that it construes fewer conceptualisations than Anglophone writing, which may result in fewer generic structure components.

Hence, instead of describing the variations of genre in such terms as the frequency of formal structural elements or a number of different formal structural elements that occur in a corpus, it may be useful to measure variations by identifying different degrees of conceptualisations. These observations relate to what Lakoff and Johnson (1980, 1999) observed in metaphors that function to construe text and our thoughts. Depending

on the culture, ideology, and various other factors and contexts in which a text is placed, the extent of conceptualisations used in discourse may vary. However, a reliable measure for discourse conceptualisations is, to my knowledge, not yet developed. Thus, this area of research has the potential to bring about a fruitful contribution to future academic writing studies.

## 9.4 Reading

There is no doubt that both writing and reading are important in developing academic writing skill. The emphasis in ESP/EAP pedagogy has been predominantly on writing. However, the findings in this book have suggested that more emphasis on developing reading skills is needed.

The earlier chapters pointed out that a pedagogy that places its goal for students to write like a professional scholar is, from the structuralist generic structure observation and the conceptualisation pattern identifications having been made in this book, not so much endorsing superior academic writing as imposing a dominant discourse. Emphasising the development of writing skills often falls into this trap of assimilating students into the mainstream. Hence, it is important that writing instructions be conducted with awareness against this trap.

More importantly, the findings of this book have suggested that raising such awareness through reading skill development has the potential to promote skilful writing as well as an impartial stance towards diverse conceptualisations in writing. The reading task that involves identifying conceptual metaphors and various conceptualisation patterns, and mapping out prototypicality effects may effectively increase students' awareness that conceptualisations and writing patterns are idealised. This may also effectively lead to the development of impartial reading skills with which the reader does not misjudge instances of genre that are different from the reader's own idealised conceptualisations as inferior.

Furthermore, becoming aware of the role of conceptualisations in construing discourse may effectively foster writing skills. This is, in fact, an essential writing skill implementation that has been lacking in academic writing pedagogy. Discourse at one point of a logogenetic flow is not

a one-off thing. A conceptualisation realised at one point of discourse overlays those that were accumulated in its earlier discourse. The overlaying conceptualisation may be enforcing the ones realised in the earlier discourse by way of, for instance, overlaying another JOURNEY metaphor. At another point in the discourse, the overlaying conceptualisation may be an entailment (for instance, a BUILDING metaphor that overlays JOURNEY metaphors may entail each other), which not only coheres the text but also construes an additional dimension to the discourse that has been linear due to the two-dimensionally continual nature of JOURNEY. Becoming aware of the crucial role that conceptualisations play in construing text as well as becoming a writer who can pay attention to making coherent conceptualisation should be set as goals for students. In pedagogy that increases students' awareness about conceptualisation mechanisms in relation to text construction, writing like a mainstream scholar is removed as a goal, and assimilation may rarely occur. Such a reading-centred pedagogy may educate students, and some of those who acquired the skill may become scholars who eventually play the role of gatekeepers. They may maintain diversity in academic writing.

## 9.5 Evolution of Genre

Along with its main goal, which is to establish a new flexible generic structure analytical model for academic writing, this book has provided a method to describe the evolution of genre. The flexible new generic structure analytical methods, in other words, enable the description of new instances of genre.

It has been observed in this book that an apparently wide range of genre instances and different strategies to push forward 'research' can, in fact, be systematically analysed by identifying overlapping conceptualisations between new and traditional instances. The identification of overlaps between apparently different academic writing instances can delineate shared conceptualisations of genre. This enables placement of a new instance on the continuum of genre evolution. It has also been found that culturally oriented, shared, and idealised conceptualisations seem to be taken over in new instances of genre. As seen

in the wide use of JOURNEY metaphors in Anglophone academic writing, culture-specific conceptualisations that are pervasive tend to be taken over to a new instance of genre, no matter how new ideologies and other factors influence its semantic or other linguistic realisation features.

At this stage, it is interesting to refer to Lewin et al. (2001), who postulated that academic writing structure may have derived from folklore. Mainstream academic writing is truly similar to folklore in that both are hero stories of exploration in which the hero identifies a gap in the path of the JOURNEY to save the field. To add a further speculation to this, the strong preference for JOURNEY metaphors in mainstream academic writing may have influenced not only the structure of discourse but also the structure analytical model. The generic structure descriptive models that are characterised by tightly woven linear logogenetic structural lines proposed in ESP/EAP research traditions themselves represent a JOURNEY. The conceptualisations of academic writing as a JOURNEY structured the abstract thinking of researchers, which structured the linear models. In a research tradition where research as a JOURNEY is idealised, it would be quite unnatural for researchers to develop a structure model that does not depend on sequences of event/components.

However, the relationship between cultures, other factors, and the evolution of genre needs further exploring, as the number of texts analysed in this book is insufficient to make generalisations. Future research may reveal further relationships between factors concerning genre evolution and the mechanism of genre evolution.

## 9.6 Multimodality

Although this book has considered generic structural components in terms of text construed by language, it should not be forgotten that non-linguistic realisations also play a role in realising conceptualisations that constitute generic structure components. Figures and tables play an indispensable role in construing academic text. Other types of images, such as photos and artwork, also play an essential part in academic texts.

The study of multimodality in relation to academic text structuring is itself a vast research topic, which deserves to be explored alone as a book-length project. For this reason, multimodality was beyond the scope of the present book. Given that academic texts are construed not solely by language but also by multimodal features including language, the conceptualisation-oriented structuralist generic structure analysis needs to include multimodal analysis in order to gain a more comprehensive understanding of generic structure in academic discourse. Hence, this task of exploring the potential of multimodality in relation to generic structure in academic discourse is left for future research.

## 9.7 Active English for Academic Purposes

Chapter 8 argued that academic writing studies have been passive to the suppressions imposed from a text's external world. Although academic writing studies have been concerned with inequalities caused by increasingly standardising academic discourse, they have remained faithful to the power of the dominant, revealing the kind of writing valued across disciplines. They instruct students to reproduce the kind of writing that is valued in their target discipline. This is not about respecting variation and diversity but about cementing a disciplinary writing.

The generic structure analysis has suggested that academic writing is not monolithic but is constantly and dynamically changing even within disciplines. Furthermore, it has been proposed that given the reciprocal nature of text and context, the text can take a more active role than staying obedient to the context. This has constituted one of the most crucial suggestions in this book. Text should explore its potential to change the world.

Following the proposal to pursue a healthy power balance between text and context, the role of ESP/EAP has been questioned. It has been proposed that ESP/EAP take a more active role in helping text to change context, namely addressing the pursuit of a healthy power balance between ESP/EAP and text as well as context. From this perspective, ESP/EAP needs to take an active role in promoting academic diversity rather than obediently implementing the inequality that academia tends to impose on the peripheral.

ESP/EAP surely is not meant to impede the development of academic activity. Instead, if consciously implemented, ESP/EAP may serve an active, important role in helping and developing a wide range of knowledge in sciences and humanities. Active English for Academic Purposes, therefore, forms one of the main proposals of this book.

## 9.8 Conclusion

This book has addressed the issue of practices in generic structure analysis in English academic writing studies and pointed out that they have remained formalistic. Although one of the main goals of academic writing studies has been, and continues to be, to increase accessibility for diverse students and to reduce standardisation of academic discourse, research and pedagogic practices have been conducted, on the contrary, to reinforce formalism.

This book provided a new generic structure analytical model for academic writing so that flexible analysis of diverse academic writing instances is finally enabled. The flexibility of the analytical model was enabled by the integration of structuralism and the prototype theory. A structuralist approach has enabled the flexibility of the identification of generic structure elements that do not depend on their content or surface linguistic features. The prototype theory has enabled the model to categorise generic structure components as prototype categories. More specifically, the prototype theory enabled the definition of genre as an open system with genre's structural components being fuzzy at the edges and having different degrees of prototypicality within the components. Highlighting the overlapping area between genre's instances as well as between generic structure components has enabled this book to account for variations and diversity in genre as well as for the evolution of genre.

Importantly, these integrations have achieved a consistency in genre analysis theory. Both the definition of genre and the analytical approaches are based on the prototype theory, while these are reinforced by the integration of structuralist theories as an underlying foundation.

Political implications of this book involve liberating academic writing through increasing awareness that its conceptualisations are not necessarily

superior or inferior. It has been suggested that a text may make a commitment to change its context rather than perpetually staying submissive to the institutional purposes of the outside world.

This book adopts a post-disciplinary approach to discourse. It combined multiple theories and approaches from different disciplines, thus resolving many issues in previous studies. Theoretical discrepancies exist between different approaches to genre study; however, integrating different approaches may sometimes provide new knowledge, since progress is not limited to occur on a path of a JOURNEY within a discipline or a theory/approach. Faith in a particular theory may exist with analysts, but it may also be necessary to allow for the potential of different perspectives. As a result of exploring what will work in a real-text analysis, a new theory may follow. Hopefully, a more dynamic view of language, along with new integrative approaches in discourse analysis, will further reveal the nature of academic writing in the future.

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