

Academic Writing

Luke Strongman

Academic Writing

Academic Writing

By

Luke Strongman

CAMBRIDGE
SCHOLARS

P U B L I S H I N G

Academic Writing
By Luke Strongman

This book first published 2013

Cambridge Scholars Publishing

12 Back Chapman Street, Newcastle upon Tyne, NE6 2XX, UK

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

Copyright © 2013 by Luke Strongman

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN (10): 1-4438-5054-3, ISBN (13): 978-1-4438-5054-4

For Ken and Averil,
Lara and Neil,
Tom and Lily

TABLE OF CONTENTS

List of Illustrations	ix
Acknowledgements	xi
Introduction	xiii
Chapter One.....	1
Essay-Writing Skills	
Chapter Two	9
Oratory: The Power of Speech	
Chapter Three	15
Writing For The Web	
Chapter Four	23
A Critique of the Digital Humanities	
Chapter Five	39
The Rhetoric of Legal Reasoning	
Chapter Six	47
Reasoning Errors in Prose Writing	
Chapter Seven.....	59
Persuasive Rhetoric in Language Use	
Chapter Eight.....	73
The “Straightforward” Prose Style	
Chapter Nine.....	77
Philosophy of Language	
Chapter Ten	83
Language Evolution	

Chapter Eleven	97
Psycholinguistics	
Chapter Twelve	105
Language Diversity	
Chapter Thirteen.....	113
Genre Theory	
Chapter Fourteen	119
Creativity	
Conclusion.....	129
Index	131

LIST OF ILLUSTRATIONS

Fig. 3-1: Web interaction for web writers.....	17
Fig. 3-2: Qualities of effective web content	22
Fig. 8-3: The “straightforward” prose style	73
Fig. 10-4: Evolution of life	88
Fig. 10-5: Three-cycle process of language change.....	91
Fig. 11-6: Levels of common knowledge	102
Fig. 12-7: The characteristics of stable language ecologies.....	108
Fig. 12-8: The characteristics of competitive language ecologies	108
Fig. 13-9: The two-dimensional genre model.....	116
Fig. 14-10: Cultural values and creational dimensions.....	120

ACKNOWLEDGEMENTS

I am grateful to Dr Polly Kobeleva for comments and suggestions on several chapters in this book. Thank you also to WriteGroup for editorial advice.

INTRODUCTION

Writing is about communicating with words, and academic writing is about choosing words carefully to communicate complex ideas to a range of readers and audiences. The purpose of the fourteen chapters of this book is to provide an introduction to the practice of academic writing for both print-based and online media, with an emphasis on prose writing in English. Each of the fourteen chapters explores different aspects of academic writing in English from practical, professional and theoretical perspectives.

Chapter 1 explores essay-writing skills and describes, from a practical viewpoint, the basic steps that an academic essayist needs to take in order to produce an adequate essay. The chapter highlights the best procedures and practices involved in academic essay writing. Chapter 2 discusses oratory and the power of speech, exploring the various techniques and instructional purposes that have been attributed to oratory in classical antiquity and in current professional spheres such as public speaking and lecturing. Chapter 3 discusses the techniques and best practices in the online writing medium of the *World Wide Web*. Chapter 4 discusses the emerging interdisciplinary rubric of the digital humanities. Chapter 5 is an exposition on the “authoritative character,” a writing style, and the rhetoric of legal reasoning. Chapter 6 is concerned with describing, from a good-humoured point of view, the various errors in reasoning that give rise to argumentation bias in critical writing. Chapter 7 discusses persuasive rhetoric in argumentation, setting out the best techniques and practices for rhetorical prose writing. Chapter 8 comments on the practicalities of straightforward prose writing, and posits a style of writing in English that is useful, plain and ubiquitous. Chapter 9 discusses primary academic concepts of the philosophy of language—what language does and how it works to shape ideas and thought. Chapter 10 explains the complex ideas of language evolution—how languages evolved and how they have shaped human society and development. Chapter 11 is concerned with “psycholinguistics” and discusses, from a cognitive perspective, how languages are conceived of and used. Chapter 12 is about language diversity, delineating some of the main issues and the consequences that have arisen from consideration of the number and kinds of language patterns that have spread throughout human society and what they mean

from a socio-political perspective. Chapter 13 discusses the concept of genre theory—how different characteristics and types of writing may be collocated in characteristic collections of language use, termed genres. Chapter 14 explores the concept of creativity in writing—how language use is generated by complex patterns of thinking, and the way in which thinking may inform language use to create new meanings and to solve articulatory problems. The aim of this monograph is to inform, entertain, discuss, explain and promote ideas about the salient characteristics and features of language use in academic writing in English. The writer hopes that the reader will gain some stimulation and usefulness from it.

CHAPTER ONE

ESSAY-WRITING SKILLS

The origins of prose writing are probably coeval with the use of alphabets to form narrative statements. As Martin (1994, 8) writes:

Writing arose among agricultural peoples, usually peoples settled along the banks of fertilizing rivers or on lands whose intensive cultivation required a clear division of labour and a rigorous hierarchy.

Despite the fact that language might be becoming increasingly oral and visual, and despite the effect of mobile technologies as shaping devices of how language is used (leading towards the “casualisation” of communication), essay writing is still one of the foundational building blocks of academic research, teaching and learning. As Schmandt-Besserat (1996, 1) states:

Speech, the universal way by which humans communicate and transmit experience, fades instantly: before a word is fully pronounced it has already vanished forever. Writing, the first technology to make the spoken word permanent, changed the human condition.

The reason writers (students, teachers, researchers) write essays is manifold. First, in any academic enterprise it is the fundamental means through which ideas are organised and communicated. Essays reflect comprehension, writing skills, and organisational skills. People write essays for a variety of reasons—to communicate, to persuade, to argue, to pass exams, and to research. Second, writing essays is both a skill in itself (as the product of reading and writing) and also a life skill—it reflects learning and intellectual, social, cultural integration. As Martin (1998, 87) suggests in the context of cultural evolution, writing is valued for two main reasons. First, because culture is primarily “what the thought of successive generations has produced” and so writing permits thought to be stored; second, “writing casts speech onto a two-dimensional space and fixes it there, thus permitting speech to be an object of reflection outside any context.” The fundamental quantum of essay writing is “thinking”—essays reflect thought, consciousness and ideas. Consequently, writing

makes thought visible and quality thought clearly visible, thus enabling new cognitive connections to be made.

Readers of essays are as varied in their taste as is any group of subjective and critical thinkers. Given that certain standards of composition, legibility, spelling, punctuation (and, in an academic context, referencing) are met, the expectations of readers of essays include such factors as: quality of content; focus on a set topic; critical reading; logical argument; adherence to format (and, again, in an academic context, writing an essay to schedule often involves meeting a due date). In return, writers of essays are sometimes offered feedback on their writing in the form of reviews or letters (or in some academic contexts marking feedback, a grade, and advice from their tutor or instructor).

The three main factors involved in the expression of contemporary essay writing are based on considerations of fair representation of ideas, concepts and parties to an argument or situation; the avoidance of biased thinking; and the avoidance of over-reliance on self-referential language. Three examples of such pitfalls include the need not to plagiarise (copy material which is not the author's own and is unattributed), the need to avoid sexism (discriminating negatively or positively on the basis of gender), and the need to avoid self-referential language which detracts the reader from the subject of the essay. These three writing correctives have been observed since at least the 1960s and represent standards which may be compromised under some writing conditions.

The essay-writing process

The first task in any essay-writing activity (particularly in the academic context) is usually locating sources that will be used to ground, reinforce and scaffold the essay's argument. There is a difference between primary and secondary sources. Primary sources include articles, websites, reports, experiment results and first-hand knowledge/experience that form the basis for sources on a particular topic and provide data, information and enhancement for specific problems. These need to be acknowledged in references. Secondary sources include a larger group of sources and comprise materials that provide general views of a subject area, which advance possible arguments. These are acknowledged in bibliographic references. An important part of essay preparation is then to make a reading list on which references are based. The purpose of the reading of primary and secondary sources is to help compile evidence and reasons that reinforce your argument, and also on the advantages and disadvantages of the position for and against your argument.

Note-taking

Once the primary and secondary materials are assimilated, notes are taken. This is a written substitute for memory and comprises the basic fund of evidence to use in an argument. Note-taking is regarded as the first step towards the organisation of an essay and is a process of selection. Note-taking strategies differ amongst people. Some writers take very brief notes while others take lengthier notes. Brief notes might act as important signposts for idea in essay writing. Taking lengthier notes ensures capture of material but necessitates meticulous referencing. The two main features of essay note-taking are: first, to maintain the clarity of reason and record, faithfully retaining the basis of an argument's plot and pattern; and second, to maintain accuracy in the notation and quotation of a source, which is important when taking notes that contain direct quotations that might be used in your essay.

Essay planning

Making a plan for an essay involves the principle of “scaffolding,” which means deciding which basic arrangement of arguments and fundamental points the essay will make and arranging them according to a pattern that will give the essay structure. The essay is then composed of layers—sentences explaining ideas, concepts, viewpoints, and arguments which comprise paragraphs that are the “building blocks” of the essay composition. An essay plan provides the essay structure. Almost all essays have the basic structure of an introduction, a middle argumentative section and a conclusion, but within that structure a plan provides the sequential points that form the basis of the essay's argument. The argument should follow the points of the essay plan. Essay planning needs to be progressive and to lead the writer to an essay's beginning and end sections. Formulating the essay plan involves dividing the essay into paragraphs or groups of paragraphs that might differ according to the subject that is being dealt with or the complexity of an issue raised. Making an essay plan involves knowing how an essay should proceed, what pattern it will follow, and the particular thesis or proposition it will argue.

The concept of “argument”

All academic prose essays—even those that have both qualitative and quantitative elements—are based on the concept of forming an argument. Arguments promote a particular opinion, point of view, or belief. An

argument carries the basis of the message (set of attitudes, propositions, beliefs, concepts or ideas) that the essay will advance. A difference between the essay and other forms of argument is that in the essay the opponent or opposing proposition or belief is not present, so it is necessary to anticipate their argument(s) but it is also necessary to represent their arguments fairly. The essay argument may be based on the confirmation or refutation of a particular set of ideas, concepts or beliefs (or of some inter-relation of these). Writing an essay argument is also an act of persuasion. If the refutation of a set of ideas is used as the cornerstone of the argument, then two alternative strategies to use in an essay are to point to the shortcomings of a particular opposing belief at the beginning, or to demolish an opposing argument by making use of individual points as you proceed to defend your argument. The advantage of this strategy is to let points produced by the opposition construct one's own argument. However, the writer needs to be careful that his or her argument is not merely an attack, refutation or indeed counter-attack without introducing anything new into the area of debate. Thus, there are two forms of essay argument. One treats argument as an orderly presentation of linked ideas throughout the essay; the other treats "argument" as a brief statement of the proposition to be confirmed/refuted (i.e., the thesis statement). Thus, the essay argument contains the proposition or position that the argument is going to be proved or argued for or against, and states in a sentence or two the exact nature of the argument that the essay is attempting to promote or refute. At the beginning of the essay is the thesis statement, which must be closely related to the problem you are challenged on by the topic to solve or the ideas, concepts and set of inter-relations that you are asked to demonstrate. The thesis statement must be an arguable proposition.

Essay structure

Many essays, particularly those written for professional academic contexts, require an abstract to summarise the essay. An abstract may be defined by five characteristics: completeness, precision, objectivity, clarity, and brevity (Ebel et al. 2004, 146). It includes a synopsis of the scope of the topic investigated in the essay, a description of the methods used, and descriptions of results and conclusions (147). The first paragraph of the essay begins with an introductory statement that tells the reader what the essay is about and the proposition that the essay argues. At the opening stage of the essay the reader will not usually see the fruition of the argument or necessarily how the essay writer came to form his or her

opinions. The remainder of the essay is devoted to showing the reader how the thesis statement may be asserted, proved and defended. Thus the logic of the argument shapes the paragraph structure. Paragraphs are influential in demonstrating the shape and process of a particular argument. Paragraphs are logical structures (the equivalent of the logician's table): thus, a paragraph does more than state something—it provides an idea and demonstrates the truth of the idea by using evidence.

There are generally three types of paragraphs. These are termed *deductive paragraphs*, *inductive paragraphs*, and *linking paragraphs*. Deductive paragraphs present a main idea first, and then develop sequential ideas. Inductive paragraphs present and explore ideas developed from research and lead to the main conclusion of the paragraph which is a topic sentence—usually the final sentence. Linking paragraphs present support for the thesis statement or argument and lead logically into the following paragraphs (Grellier and Goerke 2010, 122–3). Aside from differing argument types, essays basically have a three-tier paragraph structure—an introductory paragraph; middle paragraphs (the body); and end paragraphs (the conclusion). The introductory paragraph provides the essay opening—it is used to attract readers to a particular topic. Opening paragraphs also develop an argument; they provide the approach to a particular thesis and prepare a way from a thesis statement, which is usually the last sentence of an introductory paragraph, to a sketch of the essay argument development. The middle paragraphs (or body of the essay) are standard paragraphs that comprise a list of topics with sequential (or parallel or alternative) points in order to prove a thesis of an essay. The paragraph ending comes to a conclusion about an idea so that the reader can move on to the idea in the next paragraph. It is important that these paragraph topics are ordered and that there is a logical connection between concepts and ideas in the paragraph. The middle or body paragraphs provide the essay's evidence—the proof of the essay's argument. The point or concept with the strongest evidential proof is usually reserved for the final paragraph of the essay body. The final section of the essay contains the end paragraphs. The end paragraphs contain the reworded thesis, with general statements of issues which assess and state their importance and their implications. The final sentence of the end paragraph is usually brief and makes a strong impression. The whole essay is an expansion of the process of the paragraph. The writer should avoid writing “one-sentence” paragraphs; however, as a result of the increasing use of Information and Computer Technology (ICT) and increasing communication with mobile technologies, the one-sentence paragraph is becoming increasingly common.

The draft essay

The essential group to keep in mind when writing essays is the essay's audience. In academic contexts the audience for a student's essay is the lecturer or tutor who sets the course that the essay is written for, or who allocates a grade or delivers feedback. Where an essay does not have a specific intended audience, the essayist must consider the group of people who might read the essay. However, in most situations it is generally best to write an essay according to what the material is and your understanding of it and what this asks of you. Thus the essay writer might treat the audience as a group of generally intelligent persons who have some interest in the topic being discussed, but who might nevertheless not yet be in a sufficiently informed position to agree or disagree with your point of view. In most academic contexts it is also likely that the reader will have some knowledge of the texts discussed by the essay writer. So it is important to assume that the readers will have read the texts and don't need a summary of them; on the other hand, you need to convey to them that you know more about the topic than they do. As an expert the essay writer needs to be a leader who will direct the reader through the essay. Consequently it is important to keep the reader's interest and to give clear direction to the argument.

From the writer's perspective, choosing the authorial voice to use will depend on a combination of the subject material and the audience. As Chambers and Northedge (2008, 183) state:

Writing is a very special form of "conversation." As you write, you are talking to someone you cannot see and who does not reply. You have to assume that he or she is "listening"... you have to take all the responsibility for deciding what is to be said and how, and for sustaining the other person's interest.

A writer has to maintain a form of relationship with the reader. A more formal voice or register may be used for "official" contexts and a less formal voice for more "generalist" or popular audiences. In the academic essay-writing context, there is no ban on using "I" in an essay, but overuse of that pronoun can distract the reader. Too frequent use of "I" will emphasise the presence of the writer at the expense of the subject matter of the argument. After all, the essay's argument is the primary consideration of the essay. Similarly, both writing style and writing tone may also be adjusted according to the audience and content matter of the essay. Style might be influenced by previous writing experience, knowledge and ability

to use language, and an understanding of the context in which the writing may be read or used.

Constructing a winning argument

Arguments are best constructed on sound organising principles. These organising principles may have three main interconnected features. First, an argument needs to be developed in stages towards a conclusion; second, an argument needs to have a link to the subsequent stage so the sentences and paragraphs lead the reader in a particular direction; and third, the main points of the argument have to be organised into a satisfactory sequence within each stage of the argument (Chambers and Northedge 2008, 165). Creating an argument may have a multiplicity of motivations. An argument might be a riposte—a reply to something with which the arguer disagrees; it might be an act of persuasion—a writing that tries to convince the reader of how something should be, be seen, or be interpreted; or it might be a considered disagreement with a particular point of view. But in each case an argument is not to be considered as an end in itself. As Spence (1995, 25) suggests: “Argument is the mechanism by which we reveal the truth—the truth for us. It is [counter-intuitively] the incomparable art by which we connect and interact successfully with the *Other*.” Whatever the “other” is, however, presumably, fundamentally, the other is at one level the reader. Arguably the basis of any good argument is authenticity. The truth often wins out. The flipside of this argument about argument is that those who lie create unnecessary risk for others. It is difficult to protect oneself from an undiscovered lie. Thus any essayist should be arguing towards a state of truth.

References

- Chambers, Ellie, and Andrew Northedge. 2008. *The Arts Good Study Guide*. Milton Keynes, UK: Open University.
- Ebel, Hans F., Claus Bliefert, and William. E. Russey. 2004. “The Art of Scientific Writing.” In *From Student Reports to Professional Publications in Chemistry and Related Fields*. Weinheim, FRG: Wiley.
- Grellier, Jane, and Veronike Goerke. 2010. *Communication Skills Toolkit: Unlocking the Secrets of Tertiary Success*. 2nd ed. South Melbourne, VIC: Cengage Learning Australia.
- Martin, Henri-Jean. 1994. *The History and Power of Writing*. Translated by Lydia G. Cochrane. London: University of Chicago Press.

Schmandt-Besserat, Denise. 1996. *How Writing Came About*. Austin, TX: University of Texas Press.

Bibliography

Berry, Reginald. 1990. *Essay Writing Guide*. Christchurch, New Zealand: University of Canterbury.

Redman, Peter. 2003. *Good Essay Writing: A Social Sciences Guide*. London: Sage.

Sherrat, Norma, David Goldblatt, Maureen Mackintosh, and Kath Woodward. 2000. *DD100 An Introduction to the Social Sciences: Understanding Social Change, Workbook 1*. Milton Keynes, UK: Open University.

CHAPTER TWO

ORATORY: THE POWER OF SPEECH

The purpose of speech is to use words or gestures to communicate with others, and to transfer meaning from one person to another or from one or more people to a group of other people. However, speech can be distinguished from writing although it is quite common for the two modes to overlap; hence speech is produced from writing and writing is produced from speech. By making speech, people use language to articulate thoughts, to clarify, instruct, or demonstrate in the communication of ideas. Speech can be used to convince or influence others and often carries a performative element—it connotes or denotes a set of propositions about ideas, concepts or relations in the world. Speech is one of the fundamental building blocks of civil society, although any one-time speeches may be listened to wholly, partially or not at all.

Most speeches in professional contexts are ordered somewhat like a conventional essay, although the context of speech presentations varies tremendously—for example, from school reporting contexts to boardroom business meetings, or from asking for directions to a valedictory speech given at a graduation. Hence styles of speech presentations fall on a continuum between the conversational and declamatory. As Hjelmquist states, “a ‘speech act’ should be described, among other things, as a constellation of intentions” (1979, 221). Thus speech is multivalent—it affords the possibility of communicating a variety of meanings and it might contain several different scales: one concerns the length of the speech; another, the depth of knowledge evident in it; and the third concerns the style of speech made.

Any aspect of the speaker may also be made apparent in the speech, including delivery, style, intonation and inflection. It is rare for a speech to be emotionless, although in some dramatic contexts speeches can be made to appear emotionless for oratorical effect. Any speech must have a purpose, whether it be specifying the items on a grocery list or delivering a lecture. The Roman politician, lawyer and pre-eminent orator Cicero,

whose dialogues were published in the year 55 BC, suggests that oratory is also deeply linked to human thinking:

A knowledge of a vast number of things is necessary, without which volubility of words is empty and ridiculous; speech itself is to be formed, not merely by choice, but by careful construction of words; and all the emotions of the mind, which nature has given to man, must be intimately known, for all the force and art of speaking must be employed in allaying or exciting the feelings of those who listen. (Cicero 1884, 147)

Other important elements of good oratory include variety and contrast within the wording of the oration. According to Golden (1965, 185), distinguishing characteristics of oratory include highly compelling ideas, clarity, a vivid style and versatility in performance. General and concrete ideas make for good speech content, as well as arguments that are either logically or psychologically appealing to a reading audience. A further element of good oratory is polished or conversational delivery. For Cicero (1884), this could be summed up by deciding on a topic, arranging and organising the speech material, defining the speech style, elaborating the points in a persuasive argument, committing them to print or memory, and delivering the speech with “dignity and grace” (178). The speech is a performative act that carries human intention.

As James points out in his writings on oratory, Cicero divided the speech into six main sections. These are: first, the *exordium* or introduction; second, the *narration* or statement of facts; third, the *partition*—the separation of points agreed and points in dispute; fourth, the *confirmation*—the presentation of arguments; fifth, the *refutation*—the response to opposing arguments; and sixth, the *peroration*—a conclusion and appeal to an audience (James 2007, 91). Cicero (1884, 157) believed that in presentation of speeches, “power and elegance” which accommodate “feelings and understandings” are significant. It is a matter of debate to what extent a good orator needs to have personal involvement in his or her topic. Most good orations involve topics that are timely, fresh and engaging, and that make appeals to basic motives and drives. However, all good speeches need to assimilate materials and provide supporting evidence or proof. As Golden (1965, 188) suggests: “If a speaker’s ethical and logical proof constitute the shaft of the arrow of persuasion, it is ... pathetic appeal which represents the flinty cutting edge that penetrates into the cassock of the listener’s heart.” There is also a need for careful paragraphing, in which, much like the essay writer, the orator engages in solid reasoning which provides cause-to-effect relationships, all of which sequentially support and link to the overall import of the

paragraph. Furthermore, it is essential that all forms of oratory have a solid and convincing ending. Such an ending should be free from “excessive abstractions, empty high-sounding words, histrionics or flamboyant rhetoric” (Golden 1965, 185). The connotation effect of a persuasive speech is one in which the listener may feel moments of empathy in which he or she feels “engaged” with the speaker. At such times the listener may perceive himself or herself as being lost in a “psychological crowd” of absorbed people. In order to achieve this, a good speech needs to be organised. The construction of the speech must contain the various strands of the argument and supporting proof, which carries what the speech denotes in a coherent narration. Thus the basic organising elements of a good speech include a central idea delivered with supporting evidence, organised in a consistent way, expressed in meaningful language, and delivered in an engaging, understandable manner (Gehring 1953, 101).

Giving a speech is one of the central functions of public relations, addressing conference audiences and groups, and providing counsel to others. As Smith suggests:

...in theoretical terms, the speech is doubly encoded. First the writer provides the words that encode the meaning to be shared with the receiver. The speaker, who gives a tone and temper to the text, provides a second encoding. The speaker brings to it a verbal interpretation, an attitude. (2012, 334)

Speeches require a message, an informational content bearing knowledge of what is said, a central topic, and a purpose; second, speeches have an audience—it is a basic principle that the audience is known, and also that the context in which the audience finds itself is known. The structure of address (what is related in the speech to whom) will differ according to whether the speech is a keynote, a summary, or a closing reflection. Speeches also contain both plans and schemas—plans which identify the interests and needs of the stakeholders, and schemas which identify any objectives held. Speeches also need to be informed by relevant research.

Elements of a speech

A good speech will be a fluid composition of different parts. Generally a speech may be composed a little like an essay and have a beginning, a middle section and a conclusion. The introduction of a speech presents the central idea and sets the tone for what follows. It establishes a rapport between the speaker and audience and establishes the speaker’s credibility.

The second feature of a speech is a proposition—a position which is being argued towards. The third element is the argument, the assertion of what is claimed and the reasons for it. The conclusion restates the purpose of the speech and brings it to a close. Thus the introduction, argument and conclusion bear the thesis statement, logical exposition of the argument, and the summation. Smith (2012, 341–3) has ten tips for good speech writing. These are:

- Keep to the topic
- Write for the “ear” and the audience
- Begin well
- Vary the structural elements
- Use quotations sparingly
- Allude to relevant events
- Avoid clichés
- Avoid common errors in logic
- Prepare a clean manuscript
- Maximise impact by being selective and concise

The delivery of a good speech involves effective and engaging presentation. Presentation frequently involves elements of emotional power that bring the speaking tone to a climax, but also employs a conversational mode exhibiting both grace and “ordinariness,” attention and control, specificity and generality, spontaneity, intimacy and foresight, and a directness of address. Other factors of good speech quality include simplicity, measured tones and a sincerity of persuasion (Golden 1965, 191; Gehring 1953, 102). Thus simplicity is the key to poignant speech-making: knowing an audience, knowing a topic, and appealing on the basis of genuine persuasion.

Speech delivery is also an essential part of lecturing. The “stand and deliver” lecture has been criticised and modified on many counts but it remains the academic’s stock-in-trade pedagogical tool. It is also the means of teaching that is of direct benefit to students. As McDaniel (2010, 290) puts it, “listening to someone speak for an hour or so and then being able to remember the salient points is a valuable life skill, regardless of your field.” One criticism that has been made of the standard lecture format is that it encourages a form of passive learning. However, Malik and Janjua (2011, 966) argue that the passive can be converted to the active by modifying the traditional lectures through integration of “active learning strategies.” These can include brief demonstrations, discussions, Socratic question and answer conversations, and ungraded written

exercises (963). Students using this method might develop listening skills, and lectures help them to recognise and understand important facts and provide a narrative pathway through learning (McDaniel 2010, 291).

White argues that the purpose of interactive lecturing is manifold. Lectures allow teachers to show enthusiasm for a topic, to contextualise the content of the lecture within a broader subject area, to help students integrate information, to cover course content, to explain difficult concepts, to form student connections, and to model state-of-the-art thinking. Arguably, interactive lecturing also produces higher-order thinking that synthesises related information, or creates new ways of learning and teaching (White 2011, 231). While interactive lecturing is in one sense an “ancient” art, harking back to the classical Socratic question and answer method, it is also a primary means of engaging an audience, be it through a spoken interlocution or through electronic multimedia.

The lecture speaking mode is neither a conversation nor necessarily a public speech—it is, however, a form of instruction. Heitzmann (2010, 50–54) suggests that there are ten factors that may both characterise and enhance the lecture format. These are:

- Start with an attention-making device
- Teach students skills in interpretation
- Be interactive with the audience
- Make frequent selective references to texts
- Represent the latest thinking and research
- Maintain good humour
- Respect the audience’s intelligence
- Aim for interdisciplinarity—connections between ideas and concepts
- Be motivational, stimulate the audience
- Preview subsequent material (the *pre-mortem*)

Thus the lecture format is not simply like reading an essay with a beginning, middle and conclusion; rather, delivery style is also related to content. Larson and Lovelace (2013, 108) argue that the taxonomy of objectives for the lecturing format are instilling in students the skills of memory, understanding, application, analysis, evaluation and creativity. Thus the pedagogical format is laden with these educational affordances. However, lecturing has a practical focus: it aims to inspire, provide information, stimulate and present concepts to understand. Ardalan argues that the lecture mode of delivery is characterised by applying methods or questions to problems in order to find solutions. It instils in students (or

listeners) a top-down problem-solving, decision-making and choice-making schema which aims to both transfer information to the student and to engage the learner in analytical and creative thinking tasks (2013, 2). Hence lecturing is a bridge between spoken and written words; it is a form of “oral writing.” Arguably, many forms of dramatical speech share many commonalities with lecturing.

References

- Cicero, Marcus. 1884/2009. *Stories of Roman History from Cicero*. Kessinger Publishing.
- Ardalan, Karvous. 2013. “The Philosophical Foundation of the Lecture Method of Instruction and the Case Method of Instruction: Implications for Examinations.” *Contemporary Issues in Education Research* 6 (1): 1–7.
- Gehring, Mary Louise. 1953. “The High School Oration: Fundamentals.” *The Speech Teacher* 2 (2): 101–4.
- Golden, James L. 1965. “Achieving Excellence in the College Oration.” *The Speech Teacher* 14 (3): 184–9.
- Heitzmann, Ray. 2010. “10 Suggestions for Enhancing Lecturing.” *Education Digest* 75 (9): 50–54.
- Hjelmquist, Erland. 1979. “Folia Linguistica.” *Psycholinguistics as Scientific Encounters* 13 (3/4): 215–27.
- James, Neil. 2007. *Writing at Work: How to Write Clearly, Effectively and Professionally*. Crows Nest, NSW: Allen and Unwin.
- Larson, Lincoln R., and Matthew D. Lovelace. 2013. “Evaluating the Efficacy of Questioning Strategies in Lecture-Based Classroom Environments: Are We Asking the Right Questions?” *Journal of Excellence in College Teaching* 24 (1): 105–22.
- Malik, Samina, and Fouzia Janjua. 2011. “Active Lecturing: An Effective Pedagogical Approach.” *International Journal of Academic Research* 3 (2): 963–7.
- McDaniel, Kathryn N. 2010. “Harry Potter and the Ghost Teacher: Resurrecting the Lost Art of Lecturing.” *The History Teacher* 43 (2): 289–95.
- Smith, Ronald D. 2012. *Becoming a Public Relations Writer: A Writing Workbook for Emerging and Established Media*. New York: Routledge.
- White, Geoff. 2011. “Interactive Lecturing.” *The Clinical Teacher* 8: 230–5.

CHAPTER THREE

WRITING FOR THE WEB

The proliferation of Web pages (for example of html code) and increased use of the Internet have resulted in vast changes in the world of writing. One of the differences between code writing and Web writing is that the former has vastly restricted informational input compared to the latter—that is, coding is precise and denotative whereas Web writing itself is open-ended. Where once writing was confined to smaller groups and might or might not have been intended for publication, today anything posted on the *World Wide Web* may be read by an audience of thousands or even millions. The writing lens has become larger: mass media have afforded more and more reading possibilities, such that the range of choices of websites, and thus the range and amount of information that is available, has increased dramatically. Consequently it is increasingly important to make the information that is available on websites count; hence the need for writing skills that enhance the value of the information presented and make information readily and attractively available to readers.

However, form and function are not the only writing characteristics that deserve emphasis in writing for the World Wide Web. The possibilities for communication offered by blogging, chat rooms and email also increase the amount of conversational writing in the virtual medium and hence the amount of opinion, conjecture and argument that is available. Once such opinion probably wouldn't have been recorded in any form: today vast amounts of information are stored in the databases of millions of computers around the world. As a consequence, there is a great range of competencies and writing styles on the Internet, from texters and tweeters to professional public relations writers.

As Bivins suggests, Web writing requires involvement in four kinds of writing process: orientation, information, action, and navigation. An overriding maxim of Web writing is that it needs to be understandable at a glance: the most effective forms of writing involve presenting the least amounts of information to discourse on a particular subject. In this context, as Bivins suggests, excess of information is “a disservice.” Good

Web writing is that which displays correctness, clarity, consideration, organisation, formats, names, addresses, spelling and grammar, appropriate language, tone, concision, coherence, and consideration of the impact on the reader (2008, 280). Thus a website should display what an audience needs to know in an attractive way—no more and no less. It need also give website readers clear entry, exiting and transition options, as well as options for service.

Micro-blogging and Twitter

Bivins writes: “Twitter is a Web 2.0 service that allows users to perform micro-blogging, communicating in messages of no more than 140 characters” (2008, 288). Thus, the purpose of tweet messaging is to keep it short, keep the topic to 140 characters, and make sense. Thus Twitter statements and notes need to be clear, precise and informative. Bivins’ advice for Tweeters is:

- To categorise tweets for added visibility
 - To share pictures
 - To tweet from your phone
 - To pick up a good desktop client
 - To download a mobile client
- (289)

Web content

According to Lipson and Day (2005, 29), good Web content has five qualities. These are:

Dynamic content—the credibility of information is reinforced by its validity and freshness. Frequently Web content is subject to ongoing revision.

Customised content—it is important for audiences to know their content, and to configure information such that it is based on the specific needs and preferences of the environment.

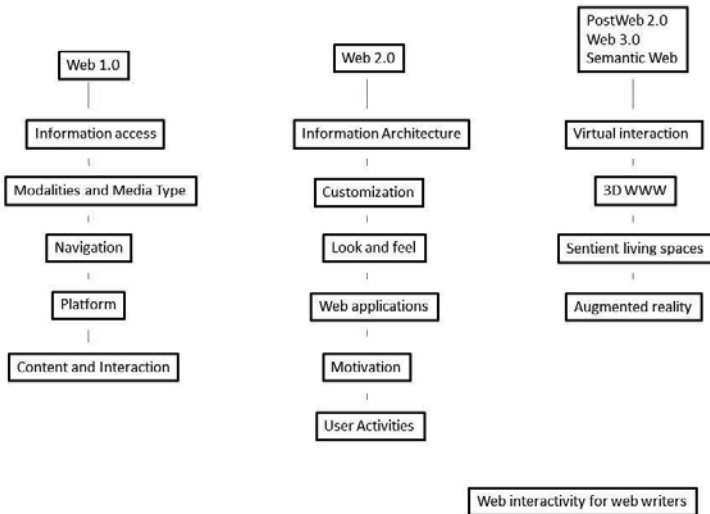
Content relationships—the relationship between one piece of content and another is as valuable as the information itself.

Content granularity—quick, accessible information.

Content interactivity—content and tasks begin to merge at the level of the user interface, so it is important that there are appropriate information hierarchies using buttons and sliders and on-screen displays that provide the support a user is looking for. Differences between levels

of interaction for earlier, present and future Web users are summarised below.

Fig. 3-1: Web interaction for web writers (after Lipson and Day 2005)



Information architecture: digital information design

The purposes of information architecture are to make information understandable. An analogy has been drawn between information designers and architects, both of whom must gather, organise and present information— however, generally speaking architects work in three dimensions and information designers in two. According to Wurman (1996), the definition of an information architect is someone who:

...organizes the patterns inherent in data, making the complex clear, and secondly, a person who creates the structure or map of information which allows others to find their personal paths to knowledge, and thirdly, a person who ... addresses the needs of the age focused on clarity, human understanding, and the science of the organisation of information. (117)

Thus an information architect is a designer who uses information, and who interprets, organises and instructs website creation and use by data manipulation.

The concepts involved in information architecture include the structural design of shared information environments: a combination of organisation, labelling, search and navigation schemes within intranets or websites. It is thus conceived of as being both an art and science of shaping information products and experience to support usability and ease in being found, which produces clarity of information in a digital landscape. Consequently information architects spend a lot of their content creation time organising and simplifying information, designing, integrating and aggregating information spaces with the overall aim of creating ways for people to exchange and manage information (Wei and Xia 2010, 2). This takes place in a context in which the overall need for people to navigate, create and design information both independently and with others, and be able to aggregate and integrate information spaces and platforms for the dissemination and purposes of guidance, is increasingly critical and necessary (3). Thus a website needs to be designed with three parties in mind: the creator, the audience (the viewer), and the “user.”

The range of clients that information architects work with also varies. They might include businesses with a vision and strategy about the website or virtual material in question; researchers and “usability” engineers, who determine goals and objectives; interaction designers to define systems and behaviour; visual designers to create a user experience which converts design concepts into workable product and development; and testing teams to ensure designs are implemented (Wei and Xia 2010, 4). However, while much of the professional writing on the World Wide Web is not necessarily itself ephemeral, Web pages are removed and added at rapid rates. Thus while the World Wide Web is characterised by high levels of interaction and inter-operability, it is also ephemeral nature being dependent on the “signal and noise” of computer software and hardware to perpetuate it.

Different generations of the World Wide Web have led to its inexorable growth. The current iteration, Web 2.0, is seen as a “Web platform” in which software applications communicate via application programming interfaces. A trend of Web 2.0 is social tagging, which allows users to contribute to and categorise content using chosen keywords. While “tags” stand for keywords in classical information systems, folksonomy is a framework for tagging systems which are aggregated over many users (Wei and Xia 2010, 14). Mash-ups are technologies which allow developers to create new applications which

support user tasks by assembling existing program codes and data in an innovative way (16). Web-content creation is enabled by Office applications which allow users to view and edit the same document simultaneously. A device used by content creators is *Rich Internet Applications*—which combine the strengths of desktop applications (rich interaction) and traditional Web-based applications in which users interact while data flows seamlessly in the background browser and server client (16). Features of Rich Internet Applications include:

- Direct manipulation—immediate system feedback/message for error handling/contextual help
- Automatic completion for data entry
- Automatic “save” for information retention
- Improving system response time
- Mouse-over objects to show additional information

Website designers using information architecture techniques may also use interaction design principles. These include:

- Design for colour-blindness
- Design of affordance—whatever can be done with an object
- Design of efficiency—to accomplish task efficiently
- Design for forgiveness—easy reversal of actions, error prevention
- Design for user perceptions—(may not be directly used to inform design)
- Design for user help—technical reliability
- Personalisation and customisation—user familiarity codes

Thus, many aspects of writing for the World Wide Web become conditioned and dictated by the affordances of Web design, of technical possibilities, of designers’ creativity, and of the product of the varied purposes, uses and interactions that people have with the World Wide Web. Web 2.0 content is user-centred, and its features can be summarised as follows:

- User-generated content via wikis and blogs is a leading contributor to Web content and public knowledge bases.
- User-generated metadata provides alternative and supplemental ways for people to search, discover and organise databases. This is known as folksonomy.

- Aggregated user activities become valuable data, which are used as business intelligence to help companies align products and services with user needs and to create branding.
- User-centred innovative design and user-controlled web experiences are common.
- Openness and connectedness—Web 2.0 developers place great emphasis on a development process that involves openness and transparency: open services, open technology and open intellectual property create opportunities for mash-ups.
- Web 2.0 is simple and fast-paced—applications have a simple focus, function well in terms of intended purpose, and are based on the principle of connectivity.
- Web users engage with the Web in a decentralised, widely distributed and participatory way.
- Web 2.0 language and communication is designed to give users more control through such design elements as: the means to organise information (tabs, pages, columns); meaningful organisation of content; personalisation of content; share-alike licences that may leverage content from others and allow others to use content; mash-ups and aggregators that organise, filter and discover information in powerful ways.
- A reliance on the service levels of others, resulting in lower costs and barriers to entry.
- Increasing use of interaction design (ixD), which emphasises the relationship between people and the product they use.

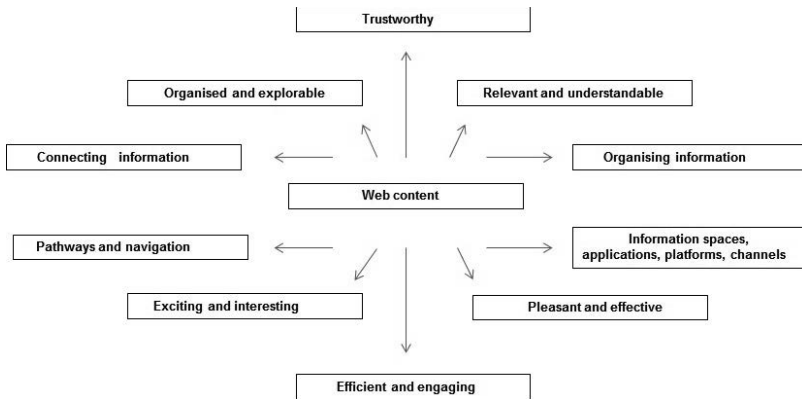
As McAlpine (2008, 8) states, when it comes to Web writing, “Content is the Cinderella and technology is the Prince.” Presumably McAlpine might imply that when the two come together in an appropriate way, a website design will take on a fairy-tale balance of being both interesting and informative. However, websites must also be practical. As she puts it, when people read what Web writers have written, they seek “action, achievement and power, facts and design” (6). Communication is the basis of good Web writing and—given the fact that authors have a range of writing competencies, from lay journalists to professional writers—the writing of people with a range of competencies is found on the Web. Consequently, Web design combines a mixture of information, applications, content and design functionality. However, once these components to a Web page are assembled, there are often several features that clear websites have in common. McAlpine suggests that there are ten

significant characteristics of quality Web and intranet content (7). These have been adapted here:

- A “three-second” test—get the concept of the page in three seconds.
- A “serenity” test—are the web-pages organised, calm and orderly?
- A “tip-top” test—is essential information presented: a headline in each paragraph? Does the paragraph contain a summary and main message?
- The “identity” test—who owns the content? Is the location of the impact statement referenceable?
- The “plain language” test—are all words easily understood? Do the sentences have 20 words or fewer?
- The “so what” test—is the content relevant to the reader? Does the content speak to the reader?
- The “accessibility test”—is the information easily obtainable?
- The “yeah, right!” test—is the information trustworthy and credible? Is the content expert and reliable?
- The “free-standing test”—does the content of the page make sense?

McAlpine’s advice for writers of Web content is based on using plain language online: to write for the reader and not the writer, using simple and familiar vocabulary, and simple grammatical language structures. She suggests Web authors should be concise, structure content in a logical way, write documents that are easily read and understood by the intended readers, use an easy-to-read design, and use grammar, spelling and punctuation accurately (2008, 13). When Web writers create websites, some write as if readers will read every word, figuring out how the pages are ordered and looking at all the options after deciding which link to click. However, as Krug suggests, most readers simply scan the text and click the first link that seems interesting before trying two or three others. Consequently, Krug suggests that people don’t always choose the best option, but will choose the reasonable option given the circumstances—a strategy known as “satisficing” (2005, 1–2). This might be the default position of many Web users: people are governed by their interests and appetites, and simply follow their online thoughts. It is the task of Web writers to open up new creative vistas for the Web reader.

Fig. 3-2: Qualities of effective web content (after McAlpine 2008; Krug 2005)



References

- Bivins, Thomas H. 2008. *Public Relations Writing: The Essentials of Style and Format*. 7th ed. New York: McGraw-Hill.
- Ding, Wei, and Xia Lin. 2010. *Information Architecture: The Design of Digital Information Spaces*. North Carolina, US: Morgan and Claypool.
- Krug, Steve. 2005. *Don't Make Me Think: A Common-Sense Approach to Web Usability*. 2nd ed. Berkeley, CA: New Riders.
- Lipson, Carol, and Michael Day, eds. 2005. *Technical Communication and the World Wide Web*. New Jersey: Lawrence Erlbaum Associates.
- McAlpine, Rachel. 2008. *Write Me a Web Page, Elsie!* Wellington: CC Press.
- Wurman, Richard. 1996. *Information Architects*. Zurich, Switzerland: Graphis Press.

CHAPTER FOUR

A CRITIQUE OF THE DIGITAL HUMANITIES

Taking the form of a philosophical enquiry, this chapter examines central issues that follow from the amalgamation of digital computing architecture with traditional humanities methodologies. Using theoretical and literary analysis, the development of new disciplinary practices proposed by the binary combination of structural (*techne*) and semantic (*poetic*) contexts constituted by the digital humanities is problematised. The article points to ways in which developments in the digital humanities have the potential to revise and transform communicative practice within the discipline, as well as delineating the ethical-political features of disciplinary change.

The methodology employed in this chapter is qualitative and analytical. It is based on inductive and deductive inferences following from interpretative and critical readings of philosophical, communication and digital literatures derived from both print-based and Internet searches. The article highlights and explores central features of the textual landscape (text-scape) and the methodological problematics of the emerging field of the digital humanities. In particular, an examination is made of a dichotomy at the centre of the digital humanities paradigm: the problems posed by the disciplinary integration of computer architecture and software with the traditional analytic and creative methodologies of humanist research.

Humanism was revived from classical origins in the Renaissance. Leonardi Bruni, a humanist scholar who lived from 1370 to 1444, used the term *studia humanitatis* based on neo-classical origins in ancient Rome and Greece. The educational programme of *studia humanitatis* which Bruni devised involved skills of letters, life and moral characters. The Renaissance humanities were intended for the creation of the “good person.” Cicero, who lived from 106 to 43 BC, invented the term *Humanista*. Cicero’s notion of the studies of humanity involved the idea that the arts were held together by affinity. Cicero’s treatise *De Oratore*, a discourse of rhetoric written in 55 BC, involved poets, geometricians, musicians and dialecticians. *Humanitas* was synonymous with *artes*

liberals, which involved the attempt to educate the free person. The *Trivium* involved grammar, rhetoric and logic; and the *Quadrivium*, geometry, arithmetic, music, astronomy. It aimed at educating the free person. During the Renaissance, *Humanitas* denoted specific disciplines of grammar, rhetoric, history, moral philosophy and poetry. While for Cicero the human being was part of a greater whole, and study of the humanities might allow the individual to become harmonious with a higher realm of “human hood,” for Bruni the individual self could become whole. Whilst Cicero’s position located humankind in a network of natural relations, Bruni’s position more characterises that of the later Renaissance and the birth of the modern individual, integrating Leonardo’s ideas of perspective in the study and context of the human self.

Bruni’s Renaissance *studia humanitatis* offered the concept of self-perfection; whereas Cicero’s *artes humanitatis* aimed to turn the soul away from the human towards the divine. In the *studia humanitatis*, the Petrarchan ideal of civic humanism (after Francesco Petrarca, 1304–1374) carried the notion of forming, shaping and moulding one’s inner self through study of human lives. The intentions of civic humanism were thus partially to integrate the examined subjective life into experience formed from intuitions and perceptions of character and human expression, and aimed to examine the idea of personal autonomy especially for the governing group of society. The liberal arts and liberal humanism derived the notion of “breadth and depth” from *liberalis*, which meant “fitted for freedom,” at the same time as loyalty and continuity with the method of the governing group were valued.

If the humanities have traditionally been characterised by the study of the many disciplines of human culture through epistemologies informed by both subjective and objective critiques transmitted through oral and print-based learning, the digital humanities combines these fields of intellectual enquiry more closely with digital computing architecture. The accepted model of technology and cultural change—that new technologies are applied to old uses; that those old uses change and new uses develop, which are then adopted by communication institutions producing new cultural forms and meanings—is problematical because it fails to account for the intellectual issues, debates and resistances that are encoded in paradigmatic change (McQuail 1998, 108). A core question emerges from this Gordian knot—can linear and organic creative realms effectively co-exist; will they inevitably lead to the creation of new ontologies of humanist research as well as differences in epistemological approaches? It seems sensible to reservedly confirm the latter whilst acknowledging

significant differences in the scope, form and methodologies of emerging digital genres.

The digital humanities is concerned with the creation of new knowledge in the manipulation of digital data. As a critical adjunct to digital archives, the digital humanities is interdisciplinary and transdisciplinary in conception. It involves the interaction and syncopation of digital computing architecture with the humanities disciplines, including history, philosophy, linguistics, art, music, anthropology and literature, in fields such as visual art theory, new media arts, archaeological computation, visual anthropology, human geography, and digital recordings of aural texts.

What are the components of the digital humanities? It comprises new media, computer-based technology, digital library collections, open access digital or collaborative scholarship through the Internet and World Wide Web, humanities database silos, digital institutional repositories, online learning, knowledge transfer and curatorial digital preservation techniques. Practice in the digital humanities involves textual analyses utilising software, language learning, linguistic instruction, and computer-based research. It involves data presentation and analysis in the cultural domain; computer applications for the arts, music, architecture, information management, forecasting and modelling; and the presentation and analysis of data in the academic curriculum. Many of the uses of these digital domains have yet to be theorised. Relatedly, issues of funding are dependent on the “soft” financial input from corporations, sometimes independently of universities. This itself leads to the perennial academic concerns of freedom of voice and independence of criticism, in turn raising such questions as whether funding avenues determine the results in “paid for” projects or if there are academic ideals which transcend the project. Are the ethics involved corporate or academic?

The field of the digital humanities can be divided into theory and practice, but like any adjunct of the creative industries it involves the intersection of government, industry and education. Large sums of public and corporate money have been spent creating digital library collections using advances in the technologies of data storage since the mid-1990s. Terabytes of humanities data are selectively available, distributed across the database networks of many institutions: libraries, universities, government departments, and private corporations, some in the form of cloud computing—distributed data storage across scalable and interconnected PCs. Some of the data is publicly available on the Internet (some 70% in English, and not all of what is on the World Wide Web is visible or findable, referred to as the “dark Web”); some of it has variously

restricted access according to the position and affiliation of the researcher. In this digital realm the international transferability of material published on the Internet creates a virtual world in which physical essentialisms of knowledge creation are supplanted by a culture of digital immediacy. However, the problems this presents in relation to issues of authenticity in knowledge creation are only tangential to the present chapter.

These new digital platforms represent excellent opportunities for research and teaching, but are met with disciplinary scepticism from traditional practitioners who either cannot envision their application in existing pedagogical practice, or for whom they represent challenging hybrids of traditional disciplinary technique. There are also issues of economies of scale encountered in such projects, which can seem daunting to the uninitiated.

An example may be found in the potential applications of *KAREN* (The Kiwi Advanced Research and Education Network) to the digital humanities in New Zealand, with the aim and purpose of allowing learning and research to be distributed across a variety of systems and databases, enabling high-speed access to databases and the pedagogical networks of related practitioners through the Access Grid communication facilities. Smaller-scale enterprises include web-based databases.

The *Alliance of Digital Humanities Organization* (ADHO, established 2002–2005) holds that scholarship and insight into the human condition is part of an association that involves the physicality of storage devices and data manipulation. The risks of non-participation in the digital paradigm include jeopardising disciplinary currency and networking benefits, and limiting access to useful information and knowledge creation sources. As with any disciplinary specialisation, adaptation of present humanities practitioners to the digital humanities paradigm will depend on issues of transferability in the marketplace and ease of use. However, immediate areas for application include open and distance teaching and learning, and *eResearch* capabilities.

The formats and sites of these systems of digitised text will change the way people conceive of and practise research and the kinds of terminology employed in their research activities. For example, “data-mining” involves sorting through large amounts of data and retrieving relevant information. “Text-mining” means deriving high-quality information from a text. Yet in themselves these terms delineate only partial processes: synthesis and critical reflection are still required to produce emerging research. These projects sustain interactions of an a-linear but instrumental fashion; they retain an interpretative element. Advantages of data storage, retrieval, manipulation, and presentation and distributed access in the digital

humanities may be contrasted with disadvantages in the application of intuitive and creative technique in textual analysis, which may ultimately lead to revision of the nature and scope of traditional disciplinary practices.

Humanist scholars have traditionally had the capacity to organise large bodies of information gathered from libraries and archives, many of which are currently undergoing transfer to digital information stores. The more digital transferrals and assemblages that are made, the greater is the risk of other databases being created with less stable notions of canonicity. The Internet is growing, yet it is hard to assimilate rhizomal networks within traditional academic structures. This suggests that new disciplinary forms may evolve. Databases are dynamic. Most are being constantly revised and updated; however, archivists, curators and users may have different strategic imperatives determined by funding constraints. New notions of disciplinary canonicity may be formed or recombined. As Katz points out, “Technological constraints produce a specialist knowledge requirement with infrastructure around administration” (2005, 110). Thus gains in efficiency and communication by technological infrastructure may need a corresponding increase in management and administration.

Educators in the humanities need to decide how methods of storing and analysis will enhance study, and what impact they will have on traditional forms of knowledge recording, methods of scholarship, and interpretative practices. Arguably, the digital humanities tends to focus on the curatorial/instrumentalist rather than the creative/generative side of humanities research. There is more emphasis on design, visualisation and presentation than on the traditional forms of aesthetic content, so the medium does, very obviously, have an influence on the message in terms of ability to access it. Physical availability, cost and semantic stringency are all considerations, as well as scholastic concerns about the ease of document modification. Access to digital databases, who will use them, and how they will be used becomes paramount. The issue becomes one of scholarship and authenticity. For example, the study of the digital humanities threatens to skew the kinds, quantities and forms of traditional academic analysis and disciplinary boundaries to an increasingly social science and statistical focus.

Some disciplinary recalcitrance may be explainable. There are those who feel compromised by what they see as the forceful elision of the connection between computer functioning and human thinking. Computer functioning in its serial (left-brain) and parallel (right-brain) forms may be the best and most sophisticated model we currently have to approximate human thinking (and is especially promising in its quantum form), but the methodologies of computer functioning do not wholly map or mimic

human thinking, though they may represent applications of it in binary technology. For example, computers do not possess consciousness and cannot experience existential qualities such as *qualia* and emotion, which are essential for the subjective states of *poesis*.

Similarly, there are no intrinsic politics of computer functioning. The outcome of data gathering is heuristically equal for the computer (which cannot itself meaningfully experience its own functioning); and the data displays of links and hyperlinks in digital libraries are those which are predetermined. Once the program or search has been set to run and the results delivered, it is of course human thinking that imposes patterns of meaning on the research data. Digital humanism is an augmenting of humanism and cannot wholly be separated from pre-existing practices; engagement in the former should not foreclose practical historical knowledge of the latter.

Whilst there is the possibility that a computer program points to associations where they were not seen previously, determining the value of these associations is a human activity (Unsworth 2005). As Sven Birkerts has suggested, the concerns are that academics may become technicians of “auxiliary brains,” mastering not the subtleties of knowledge, but the information gathered from retrieval and referencing (1994, 17). Similarly, instead of relying on memory and cognitive dexterity, people may come to rely on technical functions in place of the perceived wisdom built up over many years (Smith 2005, 4). The implication is that the analysis involved in such practices is regimental and superficial and replaces human manipulation, as opposed to the organic, intuitive, poetic and plastic practices of traditional research.

Philosophical concerns with the parallels between human thinking and computer organisation and functioning aside, integrating software programs into traditional forms of research also has consequences for disciplinary formulation—the way in which disciplines are conceived, structured and defined. The argument advocating the integration of computer analyses with traditional forms of research in the humanities will change the way we understand and define disciplinary boundaries. The risk is exponential. Practitioners, analysts and researchers may be deterred by jargon, or reinvest in knowledge of physical culture informed solely by economic regimes of market forces.

However, if the capacity to manipulate text digitally is a skill that offers the opportunity to revise language freely up to the moment before it is stored or transferred, determining the fit of computer technique with existing disciplinary traditions and aesthetics will be difficult. There may be a generational difference between traditional practitioners who are

sceptical of the methodological benefits of the digital humanities, and those who are more technologically literate and who recognise it as the inevitable harbinger of change.

This is evidenced, for example, in the overlap between data-mining and traditional forms of literary criticism. Frank Kermode's study, *Shakespeare's Language*, includes, as well as traditional literary analysis, analyses expressed in terms of percentages between Shakespeare's use of prose or poetry in a given play (2000). Kermode's text demonstrates the adaptation of social scientific technique to literary analysis. Furthermore, such analyses may be extended to word usage. An example is provided by Unsworth, in which a computer-determined study was made of erotic language in the poetry of Emily Dickinson. The computer program identified key words for erotic terms in Dickinson's poetry that subjective researchers did not (Unsworth 2005, 15). What Unsworth's example shows is that whilst the computer program identifies patterns that may be counter-intuitive, it is the researcher's responsibility to derive meaning from the findings and interpret them. Whilst there is an essential elasticity in human thinking that is unequalled by the semantic indifference of the algorithmic parameters of the computer, computer analysis may enable us to see new interpretations of data that we were predisposed to dismiss as irrelevant.

The production of text-mining software, used in organising, discovering, visualising and exploring significant patterns in large collections of data, may change the context of research; and in subtle and not so subtle ways will change the form of humanities research by expanding the range of acceptable procedures, functions and parameters of the discipline. Whilst this may provide unexpected results, how insightful is it if the computer is responsible for the findings? Computers are all about method: they are epistemological to the core and designed by human beings. Computers are objects as well as instruments of interpretation; they are artefacts of procedural epistemology.

On the negative side, a flattening effect may be discerned in studies in which statistical significances are prioritised over the possibilities for the deepening human engagement and reinforcement of cognitive development that is germane to disciplinary study. If the "goal of data-mining (including text-mining) is to produce new knowledge by exposing similarities or differences, clustering or dispersal, co-occurrence and trends," as Unsworth suggests, then data analysis is aimed at analysing patterns based on words that apply to meaningful correlations or coincidental correlations and meaningful visualisations, and which may instruct users on their use (2005, 7). However, creativity depends on familiarity with design and procedure. Many traditional practitioners may view the time spent in

acquiring operational knowledge of the field as tedious or tangential, or consider that the field is now changing too quickly to be meaningful and the knowledge generated to be too superficial and context dependent.

Is it justified, therefore, to assume that the digital humanities results in the erosion of language abilities, the flattening of historical perspectives, and invasions to the private self, as Birkerts (1994, 12–13) suggests? If analytical strategies that are usually carried out by people are left to computers, will we be turning knowledge creation into information creation, and losing the capacity to humanly perform certain kinds of psychological functions—such as learning, for example? Certainly, the digital humanities may revise people’s understanding and experience of symbolic knowledge manipulation and the somatic experience of virtual proximity, but, on the other hand, if textual analyses germane to the digital humanities are run by software programs, people may lose the capacity to themselves perform such tasks. Literary analysis, for example, is based on qualitative differentiation and language-based intuitive comparisons that are not statistical at base but are intrinsically related through humanistic methodologies to subjective as well as to objective experience.

A further claim from humanities traditionalists is that humanist sources are multifarious, incongruous, and diffuse; they are generally harder to coordinate and manipulate than statistical research data (Katz 2005, 106). At the basis of this line of argument is the distinction between *techné* and *poesis*. Statistics and poetry are different things, though they might both involve expressions of human creativity—the one logical and the other metaphorical, depending on the application of context and intention.

Inevitably this shifts the emphasis from traditional analysis in the humanities, which may encompass notions of style, tradition, enquiry, canonicity, and critique, towards a scientific understanding of research and investigation in which much of the work done is statistical in nature rather than explorative of language, semantic-based phenomena, and even ephemera. Digital and computational methods for the humanities require an infrastructure. The question remains whether the requisite quantitative information involved in the creation of new knowledge through making critical discriminations between ideas and texts in the humanities can be derived from data collections that are distributed and accessed by software and statistical analyses, rather than from subjectively informed interpretations of accepted sources of canonical texts and ideas. The answer is not clear, as the field is in a nascent stage.

Certainly humanities research will continue to be based on the social-scientific model in this paradigm, along with other applied augmentations in computing, engineering, architecture and law, so the kinds of

disciplinary knowledge produced will be of a different nature—to what extent will writers also be required to be designers, and poets, programmers? In this new paradigm the researcher needs to take the computer system, its architecture and software into account, as well as the subject of research. As a consequence, disciplinary boundaries must be broadened to encompass the kind of software performing analyses, as well as the methodology used to obtain a result or an analysis. This re-orientates the researcher to the digital infrastructure in new ways that depart from the accepted paradigm of intuition, critical distinction, synthesis and *poesis*. From the disciplinary perspective, much will depend on how these new insights are presented and the ways in which traditional semantic pursuits may be preserved. Internet- and digital architecture-based technologies will transform the intellectual landscape in much the same way as Diderot's *Encyclopédie* did in the late eighteenth century.

If the digital humanities largely involve a transition from traditional knowledge bases to the digital and virtual spheres, it raises a series of questions about the new forms of relationship engendered between technologists, government and educators, as well as with the structure and organisation of technological change.

One could argue that the virtual environment of the digital humanities is more fluid and democratic than that of the traditional humanities, by virtue of the prolificacy of the virtual medium; and that it may make knowledge more context dependent. Furthermore, virtual spaces may create a realm of knowledge users rather than knowledge seekers, and there is a possibility that the growth of a knowledge democracy will relativise educational discourse. If this results in simultaneously raising standards of literacy (and numeracy), it will be a positive outcome. However, statistical knowledge can be superficial without interpretation and contextualisation. Humanists use sources that are created by the subjects of research—and also initiate and participate in the creation of sources. There is as yet no developed software package that can analyse evidence according to interpretive viewpoints evolving in people's minds: computers cannot yet emulate the experiential states needed for the qualitative interpretations of humanities research.

If the Internet is not in itself social but maintains virtual social worlds, people are not themselves interlinked physically but electronically. Nevertheless, many people would agree that there are some orders of somatic response produced by virtual proximity that are also relevant to cognitive strategies in the workplace. The role that social proximity plays in knowledge generation may be basically qualitative rather than quantitative.

It is likely that the closer the digital field appears to come to emulating literary thinking, the more traditionalists will argue that representation is not experience and such techniques still neglect literary nuance, intuition and an essential component of subjective empathy from the quality of data. For example, traditionally humanities' teachings have sought to engage with the idea of the acquisition of moral capacities. Arguably, being objectified, computers cannot realistically convey such capacities, which follow from recollections of human form and life.

If the world of e-scholarship primarily involves the arranging, accommodating, and formation of digital data, digitisation facilitates the more ready dispersal of the text through ease of replication, ease of transmission, ease of modification and manipulation, equivalence of digital form, comparisons between digital forms, and the capacity for creating new methods of searching digital space. These are all linked together in the exploration of what might be termed the virtual realm of "inner space."

Interactivity in the form of virtual proximity takes on a new range of possibilities in the digital humanities' world. There will be new combinations of communicative possibilities; new amalgamations of computer analysis and human analysis; and new relationships between author and user, including narrative-supplemented results and methodologies. In the dual functions of research and teaching, e-books and traditional texts in digital form can be analysed in new and non-intuitive ways through the application of social-scientific techniques. If this brings the humanities closer to social science, what impact will it have on traditional disciplinary scholarship? The digital humanities may revise the role that intuition, synthesis and *poesis* play in the generation of knowledge. Similarly, what are the consequences for publishing? Is a posting on the Web the same as publishing a book with an academic print-based publisher?

All forms of publishing require that the publisher ensure quality control, which improves the product through professional editing. Online self-publication raises questions of authority, authenticity, quality and longevity, and issues of intellectual property, economic transformation, sale to licensing information, of ownership and rights of use, and of access to information. There is the tremendous potential of global access to web-based information, at the same time that the digital divide creates possibilities for great asymmetries in terms of access between government, industry and education. Access is often predicated on funding models that are directed to increasing privatisation. New methods of policing digital information and assessing the complex interactive multimedia products are needed. Inter-operability or uniformity of standards should not be the only

criteria, but also the traditional values of clarity and ease of use should apply.

At present, during the process of transformation, there is division between traditional and new methods of information control, storage and usage. Katz claims that “The scholarship of most humanists has been little affected by more sophisticated aspects of new technology. They still teach in traditional ways, though they are all too likely to employ ... counterproductive technologies...” (2005, 116). There are arguments on both sides—from traditionalists who believe that their disciplines will be negatively revised and important skills and scholarly interpretative facilities lost by the introduction of digital methods, and from digital industry workers who may believe that old scholarly models cannot impart the skills, information or collaboration needed for knowledge production in the digital era (117). A paradigm shift is under way that involves both information use and changes from analogue to digital information mediums. For example, scholarly work may be affected, in so much as Martha Smith has pointed out: the belief that authors work best with a single authoritative edition of a text is undermined by digital publishing in which information “mash-ups” are possible (2005, 3). Traditional forms of editorial work, including the belief in the definitive edition and means for establishing a primacy of beliefs, are less clear-cut in a digital democracy: this has both advantages and disadvantages. On the one hand, the possibility to manipulate history is seen as liberatory and post-modern: on the other hand, it can be seen as undermining traditional forms of authority, for reasons that are not always apparent. A third possibility also exists, that these pressures and changes have always been at work as technological changes are made.

If science, following the Popperian model, offers a hypothesis that withstands being disproved until contradictory evidence comes along, then different self-correcting mechanisms are present in the digital humanities (Popper 1963, 33–39). Editorial work involves making assumptions that lead to concerns with knowledge: veracity, accuracy and trend, modalities such as aesthetics and stylistic concerns, values, and fit and relevance within the cultural moment become paramount. What people regard as being “true” is often the best fit they have for a scenario within their current thinking, but the reasons people decide this is the case are often as much to do with the reception of an idea as with the idea itself. Arguably, with the plasticity of the virtual world the critical concerns of “rightness” among editors and critics are less likely to become acute (Smith 2005, 4). The amount of time consumed by shoring up correctness may suppress creation and validity of different versions—it may allow “both, neither or

either” to be true. If the Internet provides a less stringent form of publication, it does in most cases at least allow process to become more transparent. The disadvantages are the possibilities of inaccuracy, misinformation, over-interpretation, or cursorily edited scholarship.

Many of the formerly “mentalist” (primarily involving recognitions of thought) literary phenomena which fall under the rubric of the palimpsest or “transtextuality” are given the appearance of new licence by the possibilities for embedded virtual communication. These include “metatextuality” (the way one text may refer to another indirectly), “architextuality” (discursive or enunciative modes or genres that transcend each individual text but which are nevertheless invoked by each text), and “hypertextuality” (text “A” could not exist without text “B” but does not refer to it) (Genette 1982, 13). Julia Kristeva invented the term “intertextuality” in 1986. Intertextuality at first referred to a literary phenomenon in which one text refers to another in a series of referential and potentially self-referential associations between sections of texts, but it now also denotes a device of inter-connecting websites on the Internet through use of a so-called “hypertext” link.

The humanities also of course involve real people thinking, acting, and creating in the real world; the virtual world is a horizontal arcadia representing the expansion and expression of human psychological space that is replicated in virtual representations of physical artefacts. While many of the interdisciplinary spheres can be described and critiqued in the digital domain, they may not be reducible to a page, a database or a book. In researching the humanities, one must always be cognisant of projecting these findings, these imaginings and recreations, onto the validity of the experience of lived lives. New hierarchies of value and relevance are needed to discriminate among the kinds of knowledge produced from digital humanities associations and alliances. Digital encoding itself represents almost entirely a method of data storage expressed fundamentally as a binary relationship. Therefore we need to ask whether the digital humanities, by becoming a discipline in its own right, wrests some control from the academic to the bibliographic spheres, and in so doing subsumes other kinds of critical territory?

As Birkerts has suggested, the digital humanities is potentially “anti-contextual”—that is, through such devices as inter-textuality, the meaning implicit in certain kinds of texts can float free of their original contexts. His critique of the possibilities and potentially semantically negative consequences of the expansion of the digital sphere of academia is worth quoting here in full:

[It] open[s] the field to new widths, constantly expanding relevance and reference, and they equip their user with a powerful grazing tool. One moves at great rates across subject terrains, crossing borders that were once closely guarded. The multimedia approach tends ineluctably to multidisciplinarianism. The positive effect, of course, is the creation of new levels of connection and integration; more and more variables are brought into the equation. But the danger should be obvious: the horizon, the limit that gave definition to the parts of the narrative, will disappear. The equation itself will become nonsensical through the accumulation of variables. The context will widen until it becomes, in effect, everything. On the model of Chaos science, wherein the butterfly flapping its wings in China is seen to affect the weather system over Oklahoma, all data will impinge upon all other data. The technology may be able to handle it, but will the user? Will our narratives—historical, literary, classical—be able to withstand the data explosion? If they cannot, then what will be the new face of understanding? Or will the knowledge of the world become, perforce, a map as large and intricate as the world itself? (1994, 16–17)

On the one hand, the digital humanities promises to open up vast realms of knowledge and encourages the spread of connections and interconnections in scholarship, in which performative hierarchies are lateral rather than vertical; on the other hand, it makes academics subtle representatives of software companies.

The advent of the digital humanities implies that format shifts have come a long way since their origins in the Renaissance. If the digital humanities is perceived as being wholly the future of the humanities discipline, then the medium of this futurity establishes itself in a new relationship with the past. Cyberspace is a virtual digital domain, infinitely more economical of space than is conventional three-dimensional storage. It may be that there is a place for both paper and digital forms, which compete not in terms of efficiency of space but in ease and conventions of use, and in access to hierarchies of cataloguing data.

Academics will be presented with alternative systems, so there will be new alliances between humanities scholars, computation specialists, and librarians, with new tools, new insights. New criteria will be needed for the assessment of knowledge, and new understandings and configurations of the relationships between academic, marketplace, and governance.

In many modern tertiary institutions, decisions about matters related to a given discipline may be made increasingly on commercial and political grounds. What needs to be taken into account is a knowledge strategy that attempts to influence how decisions are made in terms of the kinds of knowledge that will follow from such decision making. For example, knowledge about the natural world; knowledge about the things people

create; knowledge about people themselves; knowledge about how to create knowledge from separate, although inter-related, categories. Aristotle distinguished five states in which truth may be grasped: craft (*techne*), scientific knowledge (*episteme*), practical intelligence (*phronesis*), wisdom (*sophia*), and understanding (*nous*).

Finally, instead of the principle of scientific falsification, for the practical purposes of negotiating one's way in the world in a humanistic sense, the "best fit" schema of knowledge, assuming one set of beliefs until better beliefs come along, is more representative of the way people form and act upon their natural systems of beliefs. If Kuhn (1972) is right that knowledge grows in paradigms, one must be sure that the paradigm of the digital humanities does not become one of *techne* only: that it is not wholly composed of the servicing of computer architecture and format. There has to be a corresponding shift in the efficacy of symbolic knowledge and *poesis* also. Ultimately two-dimensional Web-based knowledge may evolve into fully adaptable interactive semantic-Web-based environments, which involve personalised environmental modifications of information flow. However, there will still be a need for the printed press and libraries; the store-houses of physical knowledge may indeed become rarer and more valuable.

References

- Birkerts, Steve. 1994. *The Gutenberg Elegies: The Fate of Reading in an Electronic Age*. Boston, London: Faber and Faber. Accessed January 12, 2008. <http://archives.obs-us.com/obs/english/books/nn/bdbirk.htm>.
- Genette, Gérard. 1982. *Palimpsests: La littérature au second degré*. Paris: Seuil, Points.
- Katz, Stanley. 2005. "Why Technology Matters: The Humanities in the Twenty-First Century." *Interdisciplinary Science Reviews* 30 (2): 105–18.
- Kermode, Frank. 2000. *Shakespeare's Language*. London: Penguin.
- Kristeva, Julia. 1986. "Word, Dialogue, and the Novel." In *The Kristeva Reader*, edited by T. Moi, 35–61. New York: Columbia University Press.
- Kuhn, Thomas. 1970. *The Structure of Scientific Revolutions*. 2nd ed. Chicago: The University of Chicago Press.
- McQuail, Denis. 1998. *Mass Communication Theory*. 3rd ed. London: Sage.
- Popper, Karl. 1963. *Conjectures and Refutations*. London: Routledge and Keagan Paul.

- Schick, Theodore, ed. 1999. *Readings in the Philosophy of Science*, 9–13. Mountain View, CA: Mayfield Publishing.
- Smith, Martha. 2005. “Democratizing Knowledge.” *Humanities* 26 (5).
- Unsworth, John. 2005. *New Methods for Humanities Research*. Accessed January 12, 2008. <http://www3.isrl.uiuc.edu/~unsworth/lyman.htm>.

CHAPTER FIVE

THE RHETORIC OF LEGAL REASONING

This chapter provides a description of rhetorical argument in legal reasoning. Legal texts are part of the discourse of state-sanctioned authority. As such, legal texts might carry a performative and ceremonial function which makes it one type of Austinian speech act (speech acts are conventions that govern the performance of speech). Law is based on principles of reasonableness and authority, and carries an implicit normative element; it is both a rhetoric of “command” and in some adjudicative contexts also of reward and “punishment;” it may also be a type of formulaic language. However, the basis of legal reasoning is often located in rhetorical argument that carries a narrative in relation to legal codes and acts, a form of coordinated management of meaning (CMM) (Crossman et al. 2011, 235). It is therefore useful to examine the rhetorical principles of the structure of legal arguments.

The basis of a legal act is *negotium*, a Latin term that implies the manifestation of a will implying an intention to create or transform. Martin (1994, 74) states that in traditional societies the juridical act was expressed in solemn form by a symbolic act: “In Mesopotamia, for example, someone who sold a plot of land would transfer a lump of dirt to the buyer or throw a lump of dirt to the ground.” As culture and writing technologies progressed, written contracts bearing the identity of parties evolved. In Roman society, for example, written contracts replaced oral testimony as “proof,” and often contained elaborate conversational clauses or *stipulatio*. Rhetorical legal culture evolved from such customary process, but also from the management of the affairs of state, the executive or legislative edicts of government.

As Kloosterhuis (2008) observes, in contemporary society legal decisions are based on formal and substantive interpretative arguments. The force of formal arguments (their success in prevailing) depends on the authoritativeness of reasoning, which in turn depends on the soundness of the reasoning process. They differ from substantive arguments in so much as the latter are frequently not reinforced by authority but rather call upon auxiliary moral, political, economic and social factors. Thus a legal

argument has to have a context and be internally consistent. As Kloosterhuis points out, formal legal argument often provides complex reasons for excluding some issues and for including others: a complexity exists in so much as formal legal argument sometimes contains elements of substantive reasoning and may also implicitly make value judgments. Consequently, much of the work of court adjudicators, judges and lawyers is to solve issues of interpretation and to state reasons for answers to questions of interpretation (2008, 496). The aim of judgments is to state both necessary and sufficient reasons for a decision, but occasionally the obvious is omitted and the superfluous included. A reader of legal arguments therefore needs to deconstruct and reconstruct the critical reasoning behind these formulations.

Marcilla (2010) states that law is in effect a parenthetical discourse, given that legal reason must itself be bound by laws as a special case of general practical discourse and, if true, this implies that “legislative rationality can be considered a premise of the rationality of law interpretation and adjudication” (93). The interpreter of legal rhetoric must first identify the argumentation used, to ascertain what is the fulcrum or turning point of the legal argument and what purpose this argument fulfils. Secondly, the interpreter needs to examine the inter-relationship of the argument and its standpoint. Third, the interpreter must analyse the argumentation that is to determine the propositions in the texts that are legal standpoints and also presuppositions or explicit arguments. On the whole, more formal arguments provide more justification than substantive arguments (Kloosterhuis 2008, 467–97).

Law is a form of public discourse. It is used in the service of civil freedoms and rights but is expressed with institutionalised sanction, but it is also a feature of legal reasoning that its legitimacy may be questioned (Marcilla 2010, 93). Hence legal reasoning must be justified. The appeal to legitimacy in legal reasoning is a form of special case of literalism, both as a substantive and normative fact. Although this appears tautological, it is not: laws carry the special property of also being formative acts. As Marcilla states, “If the speciality of legal reasoning is a consequence of the requirement of being linked to legal norms, it would seem necessary to call for some form of rationality to the legal norms themselves, given that they represent the inexcusable premise for interpretative or adjudicative rationality” (2010, 94). The rationality of legal norms is that they are justified as constitutional facts, a means by which society legitimates its way of life. However, laws are constrained by formal, procedural or substantive limitations.

Rhetorical arguments used in legal reasoning involve both oppositions and dichotomies, which are structures of argumentation employed as means of ascertaining facts under dispute or getting to the truth when opinions differ, or when there are two or more opposing sides in a critical discussion (Macagno and Walton 2010, 229). In logical reasoning, if opposites contradict, they cannot both be true or both be false; however, sometimes opposites can both be false, as in the case of the double negative. Disputes are won by one party refuting the position of the other but, as Macagno and Walton (230) point out, there is also a weaker sense of opposition in which one party is positive and the other neutral—the second party is thought to be unconvinced or sceptical. In this sense the stronger viewpoint will prevail by default.

Consequently, much of the dialogue in legal reasoning is between parties (a proponent and respondent) who enact a series of moves, asking and replying to questions and putting forward various arguments in doing so; thus oppositions and dichotomies put forward a series of possibilities. The difference between a pragmatic and a semantic type of legal discourse lies in the fact that, in the former, “noun-designating entities can admit only of a particular type of predicate” (Macagno and Walton 2010, 231). However, in some legal disputes involving oppositions, some propositions can be accepted by both parties as being true: dialogic commitments may differ but nevertheless have commonly shared propositions or “*endoxa*.” If semantic propositions are shared, reasoning may be strong and the interpretative aspect of the standpoint on which the *loci extrinseci* are based may be a matter of the establishment of facts according to a sequence of oppositional rhetorical reasoning (232). By considering the veracity of one fact in the light of another, a greater sense of “truth” may be derived from a process of discounting and point-counter-point.

The concept of strategic manoeuvring is used to integrate rhetorical insight into a framework of dialectical analysis: in other words, it aims to balance reasonableness with rhetorical effectiveness. Strategic manoeuvring manifests itself in topic potential available at various stages in discourse, in audience-directed framing, and for the purpose of argument presentations (Kloosterhuis 2008, 498). The purpose is to provide an advantageous starting point for the speaker or writer, with each set of issues accompanied by a given status of reasonable efficacy.

Legal decisions are regarded as being complex and assertive as a higher authoritative level, and assert a particular position with regard to a point of law, which stands for a positive or negative position in respect of a given position (Kloosterhuis 2008, 499). Such standpoints may either be descriptive or normative, such as “the legal rule A has the meaning B.”

Interpretative standpoints, by comparison, are advanced in situations that involve the interpretation of legal norms, in which it is unclear how legal norms might apply. For example, there might be two different interpretations of the meaning of legal rule A: one factual, and one normative or describing what “ought to be.” Such formal arguments may be influenced by substantive issues but do not constitute them in themselves.

Kloosterhuis (2008, 501) also suggests that there are three kinds of rhetorical arguments used in legal reasoning: linguistic arguments, systemic arguments, and teleological/evaluative arguments. In most conversations the first level (the linguistic) is all that is necessary, but if the meaning is unclear progression to the second level (the systemic) is necessary. At the third level (the evaluative), reliance is still had on the best interpretative method. Thus strategic manoeuvring in legal argumentation seeks to restrict the “disagreement space” according to a speaker or writer’s rhetorical viewpoint. Each issue becomes an interpretation problem—that of applying the law to the conflict or issue before the concerned parties.

Manoeuvring can also be used as a form of defence in legal argumentation. Kloosterhuis (2008) identifies three forms of rhetorical defence at the argumentation stage. Firstly, the legal interpreter can restrict himself or herself to formal arguments in which counter-arguments could be taken into account. A formal argument “A” can be chosen for rhetorical reasons. Second, a substantial argument could take a formal argument into account, or itself dismiss it. Third, a linguistic argument can be used to defend a position about a legal norm, with references to linguistic conventions. Linguistic arguments are frequently referential in as much as they are used to arbitrate on certain issues of substantive or lexical meaning; they also have a presumptive status and may provide sufficient authority for an interpretative position, and hence are also used in strategic manoeuvring (503). Strategic manoeuvring is the positioning and repositioning of an argument to convey a set of principles, positions or desired outcomes.

However, there is another form of rhetorical reasoning that lawyers apply in legal arguments addressed to particular audiences. These are narrative stories that can be just as persuasive as formal legal arguments. The basis of narrative storytelling in the legal context is to provide analogies and “vicarious experiences” (Ching 2010, 311). So a lawyer might describe an analogous situation to that presented to her or him by a client, to illustrate possible differences in legal argumentation. Ching states that the purpose of an analogy is to make a comparison between like

situations (without making direct inferences), which is achieved by creating empathy (312). However, the by-product of analogic narrative in legal discourse is ambiguity and the possibility of ambivalence and confusion, as well as illumination. DeSanctis (2012, 150) argues that persuasive, narrative or “storytelling” reasoning and more formal or rational legal arguments may overlap. They do so in explanatory situations in which legal arguments explain how legal rules function in particular cases. Robbins (2008) also asserts that narrative storytelling in legal contexts is the “backbone of the all-important theory of the case, which is the essence of all client-centred lawyering” (3). Telling a story is part of the art of persuasion and also of analogy, a system by which metaphor can be combined with reason.

Aristotle defined three kinds of narrative or rhetorical storytelling devices. These are *pathos* (an appeal to the emotions); *logos* (the assertion of the soundness of argument, proof and evidence); and *ethos* (an appeal to authority and character). Often they are used in combination (quoted in DeSanctis 2012, 155). Aristotle’s identification of these humanistic elements of rhetorical discourse might in part have been to advocate for detached rationality over other forms of discourse. The other element of storytelling is, of course, its reliance on human appeal, the moral virtue or “character” element involved in persuasive argument. DeSanctis argues that storytelling in legal contexts functions so as to activate “deep frames,” or cognitive principles that are a part of the social construction of reality or of shared identity (159). Given that most legal arguments involve examining cases that require synthesising rules from different sources, statutes, legislation and cases, they require synthesis and creative rhetorical study.

A narrative takes a particular set of events or positions and moves it either forwards or backwards in a sequence of conceptual steps. Similarly, as DeSanctis (2012) suggests, “Any discussion of a legal doctrine’s evolution would necessarily rely on some narration—some discussion of what the law was (the past), what the circumstances are that engage that past (the present), and what the outcome should be going forward (the future)” (161). Law proceeds point by point, accruing in judgment case by case; it is, then, likely that both logical and narrative reasoning might be employed, simply because it is rare that the circumstances of each case are exactly alike. Although legal rules may remain fixed, the judgments of each case may not always “be on all fours” or “square with one another” (166). Furthermore, in allegorical reasoning which might refer to both logical arguments and to narrative storytelling, there are frequently multiple meanings to be derived: an overt meaning can also signal a covert

meaning (169). Hence, in narrative and logical arguments there may be a multiplicity of perspectives from any given viewpoint, and a variety of meanings that may have several constituent factors, related or unrelated one to another.

However, there are some meanings or beliefs in legal discourses that can be supported by a warrant that validates them. As Plantinga (1993, 300) states, a warrant implies authoritative conditions under which true beliefs may be confirmed. A warrant becomes a “knowledge-maker” under the following condition: “Warrant is the relation W such that: Necessarily, S knows that P if and only if S believes that P , P is true, and $W(P, S)$ and such that: if S knows that P , then the fact that $W(P, S)$ makes S ’s belief that P in an instance of knowledge.” So a warrant is a condition under which a true belief can become a fact. Consequently, a warrant combines two aspects of truth-confirming characteristic. The first is functional: it states what sort of a role X plays and describes conditions that may characterise it. The second is substantial: it tries to state what X actually is (Bailey 2010, 297). Thus the difference is one of context, defining X by its constituency relative to Y and Z , or defining X by stating what X is or is like.

A further way of conceptualising argumentative practices is to see rhetorical premises as forms of “scripts,” which comprise socially constructed narratives such as “possible sequences, customary experiences,” and as enthymemes (approximate arguments of rhetorical proof) involved in clarification and justificatory tasks that try to establish grounds for plausibility (Olmows and Vega 2011, 415, 419). Enthymemes are defined by six factors: common knowledge; a rhetorical position; an expectation of custom or habit; a conceptual relevance; a reliance on practical reasoning, and a conversational implicature (423). Hence they are language devices that are replete with the conventions of rhetorical persuasion.

Within many of these rhetorical argumentation styles is the metaphor, a common feature of language in which one thing is described as another, yet which nevertheless remains “deviational” from ordinary and especially literal meanings. Metaphor can be regarded as “liberational or enslaving”—it is a multivalent linguistic device (Rideout 2010, 155). As Rideout states, the word metaphor is taken from the Greek verb *metapherin*, which means “to transfer” (159). It is an associative linguistic device in which the meaning of one thing is transferred to or juxtaposed with the meaning of another thing. Each metaphorical meaning needs an antithesis, a normative reality against which the transformative device operates; thus metaphorical functioning occurs in the oscillation of two

normative and transformative states, termed by Lanham (1991, 162) a “bistable illusion.” Literal language use might or might not be proper language use, but by definition deviates from literal meaning. However, metaphor is also a device used for understanding and possibly for the creation of new meanings, given that the metaphorical style involves swapping features of two conceptual meanings, termed “cross-domain mapping.” The “cross-domain mapping” occurs as a cognitive illusion—as a concept, but not at the level of language itself. Metaphors used in language are the surface instances of underlying concepts—the things with different meanings juxtaposed and the “trait” of metaphor that they may be juxtaposed to result in a new meaning. To explain how this works, Lanham uses the metaphor of the light-source as original meaning, juxtaposed by the second referent “blocking body,” producing a third meaning: the penumbra or umbra (165). The “third meaning” is the product of the metaphor, the concept created when one thing is seen “in the light” of the other.

Hence the rhetoric of legal reasoning is both a science and an art. Legal rhetoric is replete with logical arguments, structures and narrative which employ metaphors. Legal reasoning is also convergent on certain kinds of psychological biases that might influence the validity of argument structures. These are discussed in Chapter 6.

References

- Bailey, Andrew M. 2010. “Warrant is Unique.” *Philosophical Studies* 149: 297–304.
- Ching, Bruce. 2010. “Argument, Analogy and Audience: Using Persuasive Comparisons While Avoiding Unintended Effects.” *Journal of the Association of Legal Writing Directors* 7: 311–5.
- Crossman, Joanna, Sarbari Bordia, and Caroline Mills. 2011. *Business Communication for the Global Age*. North Ryde, NSW: McGraw-Hill.
- DeSanctis, Christy H. 2012. “Narrative Reasoning and Analogy: The Untold Story.” *Legal Communication and Rhetoric: JALWD* 9: 149–71.
- Kloosterhuis, Harm. 2008. “The Strategic Use of Formal Argumentation in Legal Decisions.” *Ratio Juris* 21 (4): 496–506.
- Lanham, Richard A. 1991. *A Handlist of Rhetorical Terms 100*. 2nd ed. California: University of California Press.
- Macagno, Fabrizio, and Douglas Walton. 2010. “Dichotomies and Oppositions in Legal Argumentation.” *Ratio Juris* 23 (2): 229–57.

- Marcilla, Gema. 2010. "Balancing As a Guide to Legislative Reasoning." *Legisprudence* 4 (1): 93–104.
- Martin, Henri-Jean. 1994. *The History and Power of Writing*. Translated by Lydia G. Cochrane. Chicago and London: University of Chicago Press.
- Olmows, Paula, and Louis Vega. 2011. "The Use of the Script Concept in Argumentation Theory." *Argumentation* 25: 415–26.
- Plantinga, Alvin. 1993. *Warrant and Proper Function*. Oxford: Oxford University Press.
- Rideout, Chris. 2010. "Penumbral Thinking Revisited: Metaphor in Legal Argumentation." *Journal of the Association of Legal Writing Directors* 7: 155–91.

CHAPTER SIX

REASONING ERRORS IN PROSE WRITING

One of the main strategies of prose writing that strives to be balanced and elegant is that the writer should remain, wherever possible, free from various errors of cognitive bias. That is, the writer should remain focused on the topic, the method of writing, and thinking clearly when considering an audience within the chosen genre. What is a cognitive bias? It is a “hidden process” or “misadventure in thinking” that affects the style, form, clarity and logic of written communication. Such biases that might affect prose writing will be discussed in the following chapter. There are six basic categories of bias that might affect human reasoning and the reflection on thinking processes employed in written formats.

The first of the cognitive biases is so-called “biases of inattention.” Biases of inattention describe consequences of thinking error which stem from an inability, temporary or permanent, to concentrate. The second kind of popular biases are initial perceptions, whereby information considered to be first-hand disproportionately affects future assumptions, calculations and judgements. The third kind of bias is that which arises from group participation. It occurs as the result of common human reasoning errors, made when people think in groups. The fourth kind of bias category concerns biases that arise from the act of human agency. These may be conceived of as arising as a consequence of some fact of human embodiment or agency. A fifth kind of bias category is that of “framing effects.” This is characterised by the way in which different kinds of information may be perceived in the light of other kinds of information with which (like a metaphor or analogy) they may be compared. A sixth category of bias in human cognition and rhetorical argument is that called “biases of reasoning.” This category explores the kinds of fallacy that arise from errors in argumentation logic. While the categories and descriptions of these major biases of human reasoning that may affect prose writing are by no means exhaustive, the following discussion will in some cases provide a form of ethical background to the proposition that human reasoning, rhetoric, writing and argumentation is fundamentally a rational process, and that there are categories of distortion

of human thinking and writing that are commonplace, correctable and unnecessary.

Biases of inattention

The first category of bias is one which is deceptively common. This bias might be applied both in everyday life and also in more formal situations, such as the conditions of scientific experiment. This category is termed “biases of inattention.” There are generally thought to be four kinds. The first of these is “expectancy bias.” “Expectancy bias” is characterised by “seeing what you want to see.” For example, everyone has probably experienced a situation where they thought they saw something—a lamp, a vase of flowers—because of familiar exposure, or because the shape or form or word is on their minds and the existence of the object is recalled, even in its absence. A simpler example is looking up a phone number and substituting an 8 for a 3 because you have just been thinking about units of 8. This may happen infrequently in writing drafts.

The second kind of bias is “selection bias:” the inadvertent non-randomness resulting from an attempt to get a random sample. The selection bias is illustrated by the following example: You have just come from a meeting where you have been talking to a man or woman with black hair. You now need to select a group of five participants from a larger group of ten people for an experiment which requires a sample population selected on a random basis. The first person you see has black hair, and so you select him or her first. A third kind of inattention bias is the “observer biases.” This is evident when the act of observation may have produced a change in results. Another term for this is the “observer-participant” bias. The most obvious example is the rugby referee who gets in the way of the players and the ball; but this kind of result has also been confirmed in quantum physics, in which observation may determine the form of a photon as a particle or a wave function (Penrose 1994). The states of a quantum particle can apparently be affected by the position of the observer. A fourth kind of bias that can be considered to be one of inattention is that of “base-rate neglect.” This kind of bias is probably more likely to affect a person when he or she has just woken up, or, for example, when someone has low blood-sugar and is very tired. It is characterised by a failure to define options, considering only what comes to mind—“what you see is all there is.” Sometimes, though, the “base-rate-neglect” can be useful—in preventing over-complication, for example.

Biases of initial perception

A second category of cognitive bias which affects writing is that which is related to “initial perception.” The first of these is termed “anchoring.” For example, thinking of one number affects the value of the subsequent estimate, even on an unrelated issue. The anchoring effect may be simple (for example, the expected base rate of consumer prices when one visits a supermarket), but it may also be more complex (for example, the disparity in salary rates between shop assistants and professional workers may be in the order of tens of thousands or hundreds of thousands or millions, and each group of workers may have vastly different ideas about the value of each other’s work).

A second example of a cognitive bias of “initial perception” is that of “emerging preferences.” Once a decision is made about one alternative, a person is, on average, more likely to change his or her preferences and view additional information in a way which confirms the earlier decision. An example here may be a decision made on the basis of aesthetics or, perhaps, the support of a friend who has been criticised for a hitherto unrecognised behaviour. Thus, when critics look to criticise they may make critical comment on an issue that has more to do with their own writing agenda than with the work under critique.

A further example of a bias of “initial perception” is termed the “focusing illusion.” This illusion is confirmed by the fact that sometimes nothing in life seems as important as the issue that is within your immediate focus. For critics this is important because it can produce disproportionate framing effects on the fact of the matter under critique. A fourth example is termed the “availability heuristic.” This is characterised as the process of making a judgement about the frequency of an event, based on the simplistic reasoning of the ease with which it comes to mind. This category can be deceptive—some elegant solutions to problems can take a lot of work, but repetition through familiarity can be drudgery. Common examples are when one question is substituted for another: the writer aims to report a category or a frequency of an event but instead reports an impression of the ease with which it comes to mind; for example, the writer is asked to think of an animal, and suggests an elephant because it is the largest of its class (whilst ignoring other factors about its type). A related category of initial perception bias is the “statistical base rate.” When specific information about an example is evident, the facts about a generalised population to which a case belongs are sometimes underweighted or neglected altogether. Sometimes this is a good thing (for example, in overcoming negative stereotypes about

people); sometimes it is less good (for example, a particular writer is favoured because he or she derives from a particular place).

The “halo or horns” effect is a sixth category of initial perception bias that may be made manifest in writing practices. This bias is evident in terms of forming first impressions of people or of the arguments they make. If people see one attribute that predisposes them to favour a person, they are slightly more likely to view that person favourably henceforth. Similarly, if one outcome is chosen as the desired option, people are more likely to interpret subsequent information in a way that supports their conclusion, despite any evidence to the contrary. For example, people may be more predisposed to buy a product of inferior quality if it is in a colour that they prefer.

Biases of group participation

A third category of popular psychological biases is that involving group participation. An example of this category is the “bandwagon bias,” in which collective selection tends to be iterative. For example, one writer is preferred because of a groundswell of peripheral opinion. A second example of biases of group participation is “casual base rates”—generalised statistics may be incorporated as the norms of an individual case and combined with other case-specific information. For example, a writer adopts a critical stance because of a presumption about the writing style which is incorrect. A third kind of fallacy is given the Latin name *argumentum ad populum*. This refers to reasoning that suggests that because many people favour an idea, you, or others, should too. This kind of bias is also related to the “democratic fallacy,” which involves the fact that although the majority has a view, that in itself has no bearing on the truth or falsity of the view. Just because the majority *believe* X is true doesn’t give us any evidence to allow us to conclude that X *is* true. A fifth kind of bias that follows from some forms of group participation is the *consensus ad idem* (for example, the “meeting of minds” that is said to exist when a contract is reached), although this bias is necessary in forming a contract because it affirms an intentionality in doing so.

Anthropomorphic biases: those fallacies which use human agency

The fourth category of biases can be attributed to aspects of simply “being human.” They may be concerned with human embodiment or the way that the human body is conceived within processes of reasoning. The

over-arching category here is that of “anthropomorphism”—attributing human characteristics to inanimate objects. Relatedly, “zoomorphism” is the tendency to attribute animalistic qualities to human or non-human entities. An example of one form of this reasoning is the “straw man fallacy.” This type of argument is characterised by responding to a statement so as to deliberately distort it and weaken it. In rational discourse one should address the argument and not the person behind the argument. Thus the statement, “The reason I don’t like politics is because I don’t like politicians” is a “straw-man” fallacy, as well as being an over-generalisation. The *argumentum ad verecundiam* fallacy, in comparison, is the reliance on a particular belief due to the testimony of a person who is not an authority on it. It would be like a priest preaching about science, perhaps believed to a certain extent but not necessarily entirely so. We commit the “narrative fallacy” if flawed stories about our past shape our views about the world and our future expectations. You may have a schema of “shyness” instilled in you and minimise all contact with others just because you recall the misnomer as a traumatic event. Furthermore, a common anthropomorphic fallacy is over-confidence, whereby the individual tends to discount the quality or quantity of the evidence. Another way of putting this is that the confidence that people have about their beliefs depends more on the quality of what they can see and hence tell themselves, even in frames of reference in which they can see not much at all. The “hindsight” bias occurs when someone tells you that they “knew it all along,” and is usually applied after the fact.

A sub-category of biases of inattention are the biases that may enter into critical writing which stem from inauthentic experiences of self. There are generally thought to be seven kinds of such errors which derive from mis-comprehensions of self. These are: first, “denial”—a refusal to admit that x or y is occurring; second, “rationalisation”—a tendency to ascribe some unpleasant perception to a cause outside the self; third, “confabulation”—a tendency to invent concepts that protect self-image; fourth, “reaction formation”—the tendency to assert the opposite of what you might otherwise know to be true about the self; fifth, “projection”—ascribing deficiencies to another; sixth, “intellectualisation”—transforming an emotionally difficult fact into an intellectual problem; and seventh, “repression”—the tendency to block the retrieval of painful memories (Ramachandran 2011, 270). While there is probably no correlation between any of these biases and distinct personality types, the foibles of the “average person” might make anyone vulnerable to such perceptual distortions in some circumstances.

“Attributional” biases are a further class of errors in perceptual deduction that follow from misaligned causal attributions; usually due to a lack of knowledge of the other, they do sometimes occur in prose writing. “Personality bias” attempts to explain the behaviour of others according to their personality dispositions. In trying to see a situation either from another person’s point of view or in another way, we may see more situational causes that might or might not be attributable to personality dispositions (Trenholm and Jensen 2004, 163). “Self-situational bias” is the over-attribution of our own behaviour to situational factors; usually it occurs in the mitigation of blame in situations where people might have acted but failed to act, or might have acted differently if they had had the opportunity to reflect on their actions further. Group membership also produces biases. *Out-group* members are seen differently than *in-group* members. For *in-group* members, positive behaviour is attributed to personal dispositions and negative behaviour to situational factors; but *out-group* membership is explained in the opposite manner: positive behaviour is often attributed to situational factors and negative behaviour to personal dispositions. Attributional bias is also culturally produced—in individualistic cultures we may have a greater tendency to believe that individuals are responsible for their behaviour, whereas in collectivist cultures people are more aware of situational constraints on people’s thoughts, beliefs and actions and as reflected in their writings (164–65).

Biases of framing effects

A fifth category of bias that affects writing is that of “framing effects:” the order and sequence in which information is presented affects perceptions of the outcomes. This bias can arise from simple matters, such as the pricing of consumables, to the calculation of rates of interest on a loan. Whether an item is described as 90% fat-free or 10% fat invokes different responses, despite the fact that mathematically the proportion is the same. A second kind of “framing effect” is the “availability cascade.” This is similar to a form of mediated “moral panic,” and is described as a self-sustaining chain of events that may escalate from a relatively minor event to a larger-scale event—for example, some bullish (a market hopeful of rising prices) or bearish (falling) stock-market runs may be triggered in such a cascading way. A related technique that shows a proportion between two measures is the “correlation co-efficient,” which varies between 0 and 1 and is a measure of the relative weight of factors the two measures share. Many mathematical probabilities are examples of correlation co-efficients.

The “illusion of validity” suggests that, frequently, general predictions are little better than random guesses but sometimes assume validity beyond their statistical relevance. The “planning fallacy” is also a bias of over-confidence. It suggests that plans and forecasts that are unrealistically close to “best-case” scenario may be demotivating, have over-inflated positivity, and could be improved by consulting statistics of similar cases. One way to ensure the validity of planning forecasts is to use a reference forecasting model. This has three main components. First, an appropriate reference class is identified; second, the relevant statistics of the reference class are obtained and used to generate a baseline prediction; third, specific information about the case in question is used to adjust the baseline prediction (this is similar to the use of Bayesian statistics, in which one measure of probability can be updated by new evidence). The “evaluation framing effect” states that, when viewed against a neutral reference point “adaptation level,” the principle of diminishing sensitivity applies to sensory dimensions and evaluations in changes in wealth and loss aversion; when comparisons are made, losses seem larger than gains. If I view a product purchase in terms of the deficit to my bank account rather than in terms of the good or service it may purchase, I may be less likely to buy it. Two related effects are the “possibility effect” and the “certainty effect.” The possibility effect is that highly unlikely outcomes are given disproportionately more weight than they deserve; and the “certainty effect” is that outcomes are almost certainly given less weight than their probability justifies. A further maxim of over-estimating and over-weighting is that people tend to over-estimate the probability of unlikely events. All of these may affect writing in attributions of value to various concepts, events, happenstances or entities.

Biases of reasoning

A sixth category of writing biases relates to more straightforward categories of “rhetoric, reasoning and argumentation.” The first of these is termed “denying the antecedent” and it is a question of inference. For example, “If A then B” does not necessarily imply “not A therefore not B.” If I turn on the tap so the water runs, it does not necessarily imply that if I don’t turn on the tap, the water will not run. Or the opposite fallacy may be obtained by “affirming the consequent,” stated as “A therefore B” leads to “B therefore A.” That the sun is shining so I can see the objects in my living room doesn’t necessarily mean that because I can see the objects in my living room, the sun must be shining. A related term is “equivocation.” This is a term that means something has more than one

meaning at once, such that no distinct meaning is defined—the phrase “Don’t settle for anything less” comes to mind (what is the anything less that might be settled for?). Furthermore, a fallacy occurs when words with multiple meanings are used for deception in argumentation. An example is M-P; S-M therefore S-P, or, M-P; S-Q therefore S-P. The *reductio ad absurdum* fallacy unfairly attacks an argument by extending it to such extreme lengths it looks ridiculous—for example, the statement “all morality is subjective” is to over-extend the subjectivity of moral decision-making, despite the knowledge that some moral decision-making could be made objectively. Similarly, “two wrongs don’t make a right” is a negative interpretation of the power of the double negative: stating something is “not not possible” is its opposite.

A further maxim of prose writing is that rational arguments should almost never use force. An ideal argument allows people to see the truth on the basis of the available evidence. The only “force” that an honest arguer should need to use is the “force” of reason. Similarly, claims to authority may involve the uses and abuses of expertise. It is legitimate to appeal to the views of experts if what they are experts in is relevant to what is being argued. However, “tradition” in argumentation can be both used and abused. Established ways of doing things are commendable if they stand on their own merits, and tradition can be seen as a series of useful precedents, as is the case with some forms of legal argumentation, for example. However, the fact that things have always been done a certain way is not in itself a compelling reason to keep on doing things that way. It is relevant therefore to always consider more than one source in searching for solutions to a problem, despite the fact that the solution to a problem may be suggested in a previously recognised way. Relatedly, in rhetorical arguments the “either-or fallacy” is a device of reasoning that sets up false alternatives, based on the less-than-compelling principle that if inferior reasoning is rejected, then the other argument must be accepted. By comparison, the “post-hoc” fallacy involves the mistaken assumption that one event is caused by another just because they occur sequentially. The fallacy of “expediency” mistakenly assumes that efficiency alone is sufficient to determine the worth of an action. Another form of reasoning fallacy is that of a failure to reach a conclusion to an argument—human reasoning is purposeful and we usually discuss problems in order to resolve them, but sometimes they cannot be resolved: not resolving an argument is not a resolution in itself—different again from “agreeing to differ.” Similarly, simplistic reasoning is argumentation that relies on an over-simplified solution to a problem. In some circumstances over-

simplification may lead to distortion. For example, the statement that “men are interested in only one thing” tends to limit their options somewhat.

Other forms of fallacious reasoning may involve the undistributed middle term. To make arguments logically coherent, the distributed middle term, which appears in the premise and not in the conclusion, needs to be a universal term and distributed at least once between the premises of the argument in order to have the proper scope to make a connection between the major and minor term. “Begging the question,” in comparison, suggests that the argument lacks real premises. The point that needs to be proved to be true is simply assumed to be true. Relatedly, “making a full assumption” is assuming something is true when it is taken to be true without actually assuming it is. One form of test for this form of reasoning is whether the argument involves contradiction—is it patently absurd? “All people are created equal, therefore all people are treated equally” is one example. While arguments that inter-relate quality with quantity may be problematic, the quantifying of quality is always problematic. An argument can be made that if quality could be perfectly translated into quantity, there would be no need for a distinction between the two terms. There are many aspects of the world that do not translate into quantitative terms: for example, colour perceptions or people’s emotions. Similarly, a “red-herring” argument is one that diverts attention by containing emotionally volatile information that is calculated to agitate a specific audience. For example, calling a writer’s work “solipsistic” diverts attention away from the fact that he or she may have a valid point of view.

Reductionist arguments are a form of over-simplification. While they may seek to reduce something to the “bare essentials,” they may frequently go further and render something less than it might be if it were treated as a whole. “That’s all there is to it” is the common rejoinder that exhibits this tendency. Misclassification is the premise that we might come to know something by associating it with another thing. The grouping of one thing with another does not necessarily imply that the two are meaningfully of the same category. The exception to this is the fact that chimpanzees share 97% of their genetic material with human beings.

Likewise, an inability to disprove an argument—the fact that there is no direct evidence against a position—doesn’t constitute an argument in favour of a position. It is like the agnostic’s belief in God. The fallacy of the “false dilemma” involves a situation involving several possibilities. The speaker attempts to persuade the listener that there are in fact only two. This dilemma is termed false because the actual field of alternatives in the argument is distorted. There is also a related fallacy of causality—in the cause and effect relationship, the cause is also prior to the effect. This

requires that the cause be present before the effect can take place. The Latin term for this fallacy is *post hoc ergo propter hoc*, which translates as “after that, therefore on account of that.” This is an example of “putting the cart before the horse.” A final category of argumentation fallacy is that of “special pleading,” in which information is omitted because it might count against a position that is being promoted. For example, a child presents a jar of sweets to a parent to receive a reward, but neglects to say that they had taken the contents from it before handing it on.

Conclusion

The purpose of this chapter has been to explore, from a qualitative perspective, the many and varied accounts of cognitive bias that are known within popular psychology; to classify psychological concepts of bias, and to make inferences about the kinds of errors in writing logic that they may inspire. Identification of cognitive biases might give us insight into the kinds of fallibility that can enter into our thinking and hence the particular stance a writer or a writing critic may adopt; secondly, recognition of cognitive biases can lead to the correction of unhelpful errors that may enter into our thinking and distort our writing; thirdly, classifying psychological biases may help us to make inferences about the cognitive conditions that lead to biases in writing; fourthly, increasing our awareness of cognitive bias may make us less inclined to erratic thinking which involves writing decisions and styles. Cognisance of these biases that inform thinking improves our self-understanding, understanding of others, our communication, and our sense of self-motivation and understanding of the reliability of writing experiences.

References

- Adler, Ronald B., and George Rodman. 2012. *Understanding Human Communication*. New York: Oxford University Press.
- Kahneman, Daniel. 2011. *Thinking Fast and Slow*. New York: Farrar, Straus and Giroux.
- McInerney, Dennis Q. 2005. *Being Logical*. Random House: New York.
- Penrose, Roger. 1994. *Shadows of the Mind*. New York: Oxford University Press.
- Plantinga, Alvin. 1993. *Warrant and Proper Function*. Oxford: Oxford University Press.
- Ramachandran, Vilayanur S. 2011. *The Tell-Tale Brain*. London: Windmill Books.

Trenholm, Sarah, and Arthur Jensen. 2004. *Interpersonal Communication*.
New York: Oxford University Press.

CHAPTER SEVEN

PERSUASIVE RHETORIC IN LANGUAGE USE

Language can be seen as a bridging device between two psychological and linguistic spaces—that of concepts and ideas, and that of the articulation and communication of those concepts. There are generally understood to be five main branches of rhetorical comprehension in language (Kirby 2007, 2), namely: phonetics, which is the production and perception of sounds or manual gestures; phonology, which is the systematic behaviour of languages' sounds; morphosyntax, which is a system that combines meaningful units of sound into sentences and words; semantics, which is the study of word meanings; and pragmatics, which is a system for relating word meaning to the communicative intention of speaker or writer. The purpose of written communication is first and foremost to relay information to the reader. Secondly, it is to relate that information to the reader in a particular way—to persuade the reader of a particular point of view. The art and science of written persuasion is the provenance of rhetoric, which is both the “how” and “why” of written communication.

Although having its origins in the first millennium of Christian Europe, from an historical perspective the rise of rhetorical composition was coeval with the spread of literacy following the invention of the mechanical printing press. It was fuelled by tensions between Church and State, legal progress and reform, and the expansion of commerce (and records and writing to service it). All these led to conditions under which rhetorical composition and letter-writing were deemed useful and necessary. The waning of papal influence and the growth of secular government, and the spread of forms of commerce such as property ownership conjointly with the rise in literacy, meant that the *ars dictaminis* assumed an important place in the functioning of medieval society (Thomas 2003, 99). The art of composition writing was developed further in medieval universities and became known as the *dictamen prosaicum* or *ars distaminis*, and found practical outlet in everyday affairs of life including the recording of official wills, commendations, contracts, immunities and so forth. The composition of rhetorical writing was

informed by such factors as choice of diction (*elegantia*), sentence skill (composition), and the expression of human dignity (*dignitas, ornatur*). There were three main kinds of *dictamin*—prose or free composition, metrical composition (which is an art and science of measures), and rhythmical composition which follows syllabic equality and rhyme. All of these involved the statement of facts in as clear and simple language as possible, observing qualities of precision, exactitude, and systematic verification and record (Wolff 1979, 5). Thomas states that the *artes dictandi* was informed by five features of letter writing: the *asulation* (salutation), the capturing of goodwill (*catatio Benevolentiae*), the statement of facts (narration), the petition for action (petition), and the conclusion (99). Thomas also notes that rhetorical composition involved tutorage in a style which involved the use of *coloribus* (translated as “colours”), but might also be related to what is called in public relations terms “spin”—or the ability to affect audience perception (100). This led to the development of the belletrist movement, which posited that rhetoric—letter-writing and imaginative literature—could be joined under the heading of “rhetoric and belles lettres” as a distinct form of composition (Carbone 1994, 175). The fact that rhetorical composition has endured as an art over literally more than a millennium attests to its enduring function in civilised society.

In most writing contexts Grice’s principle may be at work: that is, that there is a basic co-operation between writers and readers on the assumption that a text will communicate between them effectively—although there is nevertheless a distinction between what a speaker says and what he or she implicates in so saying. In 1967 Grice coined a neologism—the “implicature”—to name this principle. Thus, although there is a distinction between a central and “direct” speech act and a non-central “indirect” speech act, both acts belong fundamentally to the speaker. Consequently, many of the stylistic features of language—such as irony, tragedy, bathos and parody, for example, belong to the elision that occurs in concepts expressed in conventional implicature, which contain an extra-referential or “timeless” meaning that can be compared with the conversational implicature that is closer to the literal meaning. As Rorty (1989) writes of metaphor:

...after the scales are rubbed off a butterfly’s wing, you have transparency, but not beauty—formal structure without sensuous content. Once the freshness wears off a metaphor, you have plain, literal, transparent language—the sort of language which is ascribed not to any particular person but to “common sense” or “reason” or “intuition,” ideas so clear and distinct you can look right through them. (113)

The transparency or opacity of language is determined by the extent and manner by which language makes meaning visible; it can do so in definitive terms such as legalese, or by metaphor and allusion, with many shades between.

According to Grice, the co-operative principle is a form of guide to clear communication. Grice (1989) states, “Make your contribution such as it is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged” (26). This is an elegant way of saying that conversational implicature involves four maxims, determined by quantity, quality, relation and manner of communication. In most situations, information needs to be given only such as is appropriate to the level of exchange. In the legal context, the lawyer’s responsibility not to mislead (or to be false) is asserted along with the concern to make factual statements without evidence. Relevance is valued, as is clarity of expression or at least the avoidance of obscurity, ambiguity, unnecessary prolixity, and accentuating the orderly. The ambiguity that may be associated with conversational implicature or the ability to say one thing and imply another (humour, bathos, irony etc.) is conditioned by a further four factors. These are: non-detachability (or it appears that the same thing could not be said in a different way to bear the same meaning) (43); cancellability, either explicitly (e.g., x but not x) or contextually (if there is a situation in which the meaning is literal or nonsensical); non-conventionality (two meanings may emanate from the same speech act) (44); calculability (a speech act must be capable of being understood) (31). Conversational implicatures are instantiated in some aspects of everyday social speech—especially the more performative areas in which social relations or human character come into play. They are a strong feature of linguistic humanism, which is conventionally deployed to good effect in rhetorical composition. Writing is fundamentally a creative communicative act, and behind it are the *logos* (discourse, reason or doctrine) of the human. In comparison there are very few, if any, animals which have gained a capacity for representation of ideas beyond those of bodily displays.

Confirming the hypothesis that the style of rhetoric is driven by factors of four, James (2007) argues that the main determinants of rhetorical composition (that towards which the writer argues) are: issues of fact (the dispute or resolution about what is objectively known); issues of definition (what counts one thing rather than another thing); issues of quality (what is the composition of a thing and how does it relate to us as a concept of instrumental or even aesthetic utility); and issues of process (how does a thing do the thing that it does) (1989, 39). Furthermore, most rhetorical

compositions have a quadruple structure determined by the basic topic or problem (the thing towards which or about which the writer writes), the proof that is required to support or refute the position that is being asserted, the refutation of a counter-factual perspective, and a conclusion that poses a solution or response to the topic and issues. It is also common or advised writing practice to make a claim following the posing of a question which contains a topic or problem. This claim will assert the overall position or argument of the composition. The topic, question or claim of the composition is then followed by reasons which support a particular point of view, that are supported by evidence which either affirms or does not contradict the reasons for the claims so made. It is common practice for rhetorical compositions to also make concessions to a particular point of view (sometimes expressed as “arguing around a topic”), or to demonstrate strong or weak positions for the argument asserted in support of the claims. As well as a response or solution to the topic under discussion being provided, warranties are sometimes also given which demonstrate the parameters of validity for the argument (these are conditions under which the argument may be supported, and limits to its efficacy) (James 2007, 40).

The persuasiveness of rhetorical composition may also be judged by five factors. These are: sufficiency (how neatly the topic argument addresses the topic features); representativeness (how well the composition represents the structure and argument of the topic); accuracy (how precise the information provided is and how logical or demonstrative the argument is); relevance (to what extent the topic questions and the argument’s composition strikes resonance with its readers, to what extent the topic is one that appeals to or concerns its readers, and how meaningful the context of the discussion is); and finally, an authoritative rhetorical composition needs to demonstrate mastery of a topic area and a degree of persuasiveness that creates a genuine impression on the reader (James 2007, 41).

Thus elements of persuasive rhetoric in compositional writing share much in common with scientific writing, with business report writing, and indeed with the methodology of auditing. Scientific composition proceeds from hypothesis (the theory or event that the experiment seeks to measure or test), to an outline of the methods employed, to a discussion of findings and results, to conclusions about what is discovered and/or the validity and applicability of the outcome. In business reports there is an identification of the issue, a discussion of the background or context of the study, an explication of the current position and applicability of the report design, followed by an explanation of the method, a discussion of findings and

results, and lastly advice, commentary and recommendations. The audit is by comparison more perfunctory, consisting of an identified issue, the background to the issue, methods of discovery, findings, followed by a conclusion with recommendations. While rhetorical composition shares structural elements in common with these three common varieties of exposition, it nevertheless also contains elements that they may lack: namely, a factor of persuasion facilitated by reasoned argument that may confirm or refute previous findings in the context of the composition, and also an argument which may conform to humanist principles of reasoned advocacy.

The overall aim of the rhetorical composition is to produce a balance between authority and readability. The main unit of the construction in the rhetorical composition is the sentence itself, of which there are generally thought to be four types. The first is the *declarative* sentence, which makes a statement or assertion of a particular fact, set of facts, or point of view. This is often used co-jointly with the second type, the *interrogative* sentence, the purpose of which is to ask a question, or to create a particular seed of doubt or scepticism in the reader. The third type, the *imperative* sentence, issues a command for a particular event or action to be done. The fourth, the *exclamatory* sentence, is used to express emphasis or to articulate surprise (James 2007, 252).

There are also two stylistic practices in sentence writing that may detract from certain forms of writing. These are *parallelism*, which involves the use of related pairs within a sentence, or a series of words and phrases; and *repetition* (which in some circumstances, particularly in oratory, may be used to good effect) that can lead to redundancy of information and the lessening of the reader's interest. In comparison, apposition is a form of emphasis which provides further details on a particular point that comments on or qualifies it in some way. Parenthesis may also be used sparingly and to good effect by breaking up the monotony of standard sentences by the insertion of a middle element which provides further details (James 2007, 245). Parenthesis is a form of punctuation which illustrates the recursive or "nested" function of language.

One of the central motivations, if not compulsions, behind the rhetorical composition is that of the motivation of either humanist or scientific interest, which also bears a tangential responsibility to the concerns of public discourse and truth-telling. As Ebel et al. (2004) state, "Everything measured, detected, invented or arrived at theoretically in the name of science must, as soon as possible, be made public..." Thus the motivations of rhetorical composition are similar to those of science, but

more than this: without the exchange and dissemination of information presented in a logical and reasoned way, science and public discourse could not take place (3).

Consequently, rhetorical composition, like science, is a gradual accretion of discovery, some made independently (but with the same conclusions), and each new piece of information either confirming, refuting (or equivocating) some previous position or asserted belief. Results are derived from laboratory experiments, or theoreticians' thinking, which in turn stimulate further investigations and lead to the overall aggregation of public knowledge.

Communication is central to the scientific enterprise. As Ebel et al. (2004) state, communication involves the mutual access to information, and "from a linguist's perspective 'communication' suggests a direct, substantive exchange (interaction), either oral or written, involving two or more distinct parties" (3). Every writer should write for an audience and as if there is a reader present (however remote this reader is from them in space and time), and even if that reader is only themselves (as in forms of code). The Latin term for information exchange is *communicare*—to have something in common. So central is communication to the scientist's or rhetorician's practice that it is in fact the primary activity in which they are engaged.

A form of writing related to rhetorical composition and which occupies one end of the spectrum of public discourse is public relations. Public relations involves any activity that enhances relationships, which mediates public disputes, or which advocates on behalf of a client or position and which achieves a mutual understanding among parties (Bivins 2008, 2). At the basis of the need for public relations writing is the fact that once information is uncontrolled it might be at the mercy of the media interests (and thereby come under control of others who may or may not share the point of view taken). By comparison, controlled information is the writer's tool—a reader may be influenced by editorial content, style, placement and timing of information (5).

The element that rhetorical composition has in common with public relations writing is persuasion. Some people regard persuasion of any form (because it is inherently biased) as unethical. Because most of us living in liberal democracies have some notion of a public and private state (that is, there are elements of both public and private contexts in most people's lives), there is also a conjoining (but frequently threatened notion) that either the freedom of ideas and discourse (as in the public sphere) or a "marketplace of ideas" (as in the private sphere) will provide enough confirming, disconfirming or "different" information (that is unbiased) for

people to make up their minds over any one issue. Although ostensibly the political system is based on this theory, it may also be based on a notion of reasoned argument amongst differing, reinforcing, or contradictory beliefs. No two points of view will be exactly the same and hence one position may become more persuasive than another (Bivins 2008, 9). For the most part, unethical techniques could be thought to be conditions of coercion or self-interest, or simply (as was believed to be the case in Roman society) of the deliberate use of logical fallacies (or mistake or errors) in reasoned argument (an unintentional logical fallacy would not necessarily be unethical).

Public relations writing, like other forms of rhetorical composition, uses many techniques in creating persuasive arguments. Such techniques can be considered to be more or less ethically acceptable (or at least be on a continuum of tactical use and thus ethical or unethical consideration). Techniques that might be considered unethical are: “personal attack,” which aims to discredit the source of the message regardless of the message itself; the “bandwagon” effect, which aims for popularity; the “plain folks” argument, which appeals to a need to deal with people who are like-minded; “transfer”—a technique that involves the use of positive symbols to transfer meaning to a message that is not necessarily related to the symbol; and inference by association, which is an argument based on false logic, guilt or credit by association. Testimonials are inferences by association—for example, the use of a celebrity to endorse a product (Bivins 2008, 10–11).

A subset of unethical persuasive argument is that of unethical language use. This may involve equivocation (the notion that words are ambiguous and may have more than one meaning); amphiboly (ambiguous sentence structure and grammar use that might mislead the reader); emotive language (the use of impassioned or colourful vocabulary which shifts the response from the argument itself to images invoked by words) (Bivins 2008, 11). Conversely, there are four main concepts to be used in ethical persuasion or communicative practice. These are: honest and accuracy in communications; prompt action to correct erroneous communications for which the practitioner may be responsible; the preservation of and respect for copyright and intellectual property rights; the investigation of the truthfulness and accuracy of information that is presented either on behalf of oneself or on behalf of others (13). When ethical discourse is infringed in a public context it can lead to defamation, which is the word used to describe the status of any communication which holds up another to contempt, hatred, ridicule or scorn. Defamation might or might not involve

legal remedy. As Bivins states, there are five factors which may lead to defamation in any communication (15-16). These are:

- A statement is made that harms the reputation of another
- The message must be communicated or published
- A person defamed must be identified, directly
- The victim so identified must be able to demonstrate harm to reputation
- An act of negligence must be shown on behalf of the communicant

Persuasive writing or speech can move someone to believe or act in a certain way—though this is usually thought of as being in the context of mutual understanding, given that when any information is exchanged there is usually a process of misunderstanding or interpretative difference. In public relations writing, “dissonance theory” is the name given to the general tendency of people to seek messages that are consonant with their existing beliefs or attitudes, and do not seek messages that are different from existing beliefs (Bivins 2008, 48). Within public relations writing there is a perception that public audiences are informed by one of at least four interpretative frameworks. These are: selective exposure—the notion that people seek out information that agrees with existing beliefs; selective attention—people tend not to process communication that goes against existing attitudes and pay attention only to self-confirming information; selective perception—people only interpret information that agrees with their attitudes or points of view, which either leads to misinterpretation or reinterpretation (and distortion of information); fourthly, the “elaboration likelihood model,” which argues that some people are easy to persuade in some circumstances, whereas others resist persuasion, and some will argue about those whose opinions they oppose, determined by point of view and context (Bivins 2008, 49–50).

However, another view holds that receivers and perceivers of messages either cogitate on messages extensively before being persuaded (and thus may amplify or elaborate on a message), or think less or not at all about received information but may instead rely on an auxiliary range of messages to make decisions (Petty et al. 1983)—but this opinion is derived from an understanding primarily of information messaging used in marketing contexts. Some people have an inherent need for message clarity and disambiguation, whereas others may be more comfortable tolerating higher levels of ambiguity. However, generally speaking, personal issues involve a greater amount of cognition, although it is not clear whether this makes autobiographical writing easier or more difficult.

This may be due simply to self-interest, or the difficulty of separating self from relevant issues. In terms of the style of composition, rhetoricians argue for the virtue of such factors as:

- Writing to an absent person as if that person were present
 - Writing in a concise manner without being obscure
 - Avoiding excessive display and practising naturalness and ease in letter writing
 - Avoiding ambiguities
 - Preserving an open personality
 - Preserving clarity, unity and coherence
 - Maintaining an open mind towards adaptation
 - Maintaining courtesy by adjusting to the reader
 - Conveying energy to excite the imagination and arouse feeling
- (Carbone 1994, 179)

However, public relations writing and rhetorical composition writing share, in common with much persuasive writing, the concern that people might be motivated to maintain a position or to change their mind. Three factors that can cause a change of mind are: the extent to which the reader is aware of the issue in general terms; the extent to which the issue is important to the reader personally; and whether the reader believes his or her own opinion will be influential (Bivins 2008, 47). These are three factors which most people consider when confronted by public information that they may form an opinion on.

The strategies employed in either rhetorical composition or public relations may be influenced by a variety of techniques and devices. Above all, it is useful to have a clear understanding of how readers respond, and to convey messages in clear terms with opposing points of view. It is useful to note that in either rhetorical composition or in public relations, a persuasive message is frequently audience-centred and the strategy is based on who your audience is and how the members of the audience react subjectively to a topic. One aspect that is related to personal bias is identification, the tendency for people to relate to an idea or opinion if they can see some direct effect on their own hopes, fears or aspirations (Bivins 2008, 51). Frequently also there is an agency effect of ideas—the tendency for people to endorse a particular point of view only if it also entails a proposed action, especially an expedient action. Trust is also an inherent feature of persuasion—people are likely to accept ideas only from people in whom they are willing to invest cognitive congruency. There

may also be a familiarity effect, by which people will discount information from those to whom they do not attribute trust.

Once ideas are asserted and an argument made for a particular position, compliance strategies may be used that are designed to gain agreement through techniques not based on reasoned argument, but on other methods such as familiarity or authority. Occasionally “sanction strategies” (or arguments) may be used as rewards or punishments that may arise from a particular situation or be controlled by audience members. Appeal strategies may call on an audience to aid a communicator or a party represented by a communicator. Furthermore, command strategies may be used to direct requests but may themselves lack rationale or motivation, although an accompanying explanation may be given for reasons for complying. Argument strategies are designed to oppose a point of view or to persuade others. Sometimes these others might be compelled by reasoned argument—for example, a motivated sequence, a question and answer session, and attitudinal change messages (Bivins 2008, 51).

A strategy that is used in devising rhetorical compositions and in public relations writing is that of engaging with an audience by writing for the audience and imagining the audience response. This can be achieved by the writer asking a series of questions related to the imagined reader. These include such basic questions as asking why the subject is important; how and in what way attitudes need changing; what is the opposing view? Has it been represented fairly? What is the fundamental position that is asserted and how is it supported? An assessment of whether the audience agrees with your point of view can be made and arguments that support this position can be assembled. Techniques used in advertising public relations may also be employed in rhetorical composition writing. These include parity of products, interest, timeliness, and prominence given to some forms of argument (Bivins 2008, 68). As Carbone (1994) suggests, traditionally the rhetorical composition, either in essay or business-letter writing form, conformed to the pattern of the five Cs: clearness, correctness (in terms of veracity), conciseness, courtesy and character (173).

Advocacy writing

Advocacy writing involves objective discussion or argumentation for a particular cause. In most instances, when writing objectively, opinion may be expressed indirectly only. However, advocacy also involves the positioning of an individual or an organisation amongst its stakeholders or publics, to convey an organisation’s point of view and to gain confidence

or support for a prevailing point of view. Behind any advocacy writing is both situational research and a monitoring of the environment in which an individual or an organisation is situated. The term given for the continual attention to how an organisation is affected by economic, social, cultural managerial, legal and professional trends and movements is “issues management” (Smith 2012, 208). Issues management involves two methods of calculation: identification; and anticipation of emerging issues (209). There are seven methods of research involved in issues management. These are:

- Environmental audits, which involve early warning of issues
- Performance perception audits, which focus on the individual, group, or organisation itself and the perceptions within it
- Literature reviews, which look at trends and that cite references from newspaper, magazines, academic journals, government documents and authoritative websites
- Interviews which can be conducted with management, community leaders, media leaders, government officials, customers, stakeholders and employees
- Focus groups, which involve small groups of people representing their publics
- Surveys, the use of which is a formal research technique to gather information from a variety of respondents
- Content analysis, which involves identifying changing trends in visibility, criticism, perceptions and support

The purpose of these research methods is to analyse issues in trends in the individual, group or organisational environment. Fundamental questions which need asking are: What are the causes of the issues? What are the likely effects? What is the potential for harm? What are the courses of action which may remediate the situation? In addition, research methods can examine the issues for those outside the organisation, and probable effects. Concomitant with this aim is a need to define the various levels of publics in a communication programme. A likely consequence or cause of action is the production of a position statement. The position statement is what is considered to be the official position of the organisation; it is aligned with the responsibility the organisation has to its wider publics and ultimately to society in general. A position statement has six constituent parts. First, a position paragraph that addresses a complex issue; second, a position topic that identifies an issue to be addressed; an estimation of the significance and importance of the issue; a

statement of the history or background to the information being addressed; a statement of current status with regard to acting on information; and a statement of a projection—how issues are likely to develop (Smith 2012, 212).

The argumentation structure of a position statement involves a promulgation of the position, an exercise of judgement or opinion, the use of supporting arguments and opposing arguments, a statement of conclusions and recommendations, and citations for references consulted (Smith 2012, 213). Position statements may be accompanied by organisational statements, which are brief proclamations from an organisation's perspective on timely issues; and by contingency statements which are written to prepare an organisation for various potential situations that deal with pending scenarios (218).

The meaning of rhetoric is basically the making of a rational argument. Some arguments can in some contexts be more persuasive than others based on concepts of coherence, vigour, veracity, appeal to an audience, and by virtue of the fact that they create a "sharing of minds" with sympathetic audiences. There are a variety of methods by which rhetorical argumentation can be made persuasive: some of the better known techniques have been explored in this chapter.

References

- Bivins, Thomas H. 2008. *Public Relations Writing: The Essentials of Style and Format*. 7th ed. New York: McGraw-Hill.
- Carbone, Mary T. 1994. "The History and Development of Business Communication Principles: 1776–1916." *The Journal of Business Communication* 31 (3):173–93.
- Grice, H. Paul. 1989. *Studies in the Way of Words*. Harvard: Harvard University Press.
- James, Neil. 2007. *Writing at Work: How to Write Clearly, Effectively and Professionally*. Crows Nest, NSW, Australia: Allen and Unwin.
- Kirby, Simon. 2007. "The Evolution of Language." In *Oxford Handbook of Evolutionary Psychology*, edited by R. Dubar, and L. Barrett, 669–81. Oxford: Oxford University Press.
- Petty, Richard E., John T. Cacioppo, and David Schumann. 1983. "Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement." *Journal of Consumer Research* 10: 135–46.
- Robbins, Ruth A. 2008. "An Introduction to Applied Storytelling and to This Symposium, 14." *Legal Writing* 3 (12).

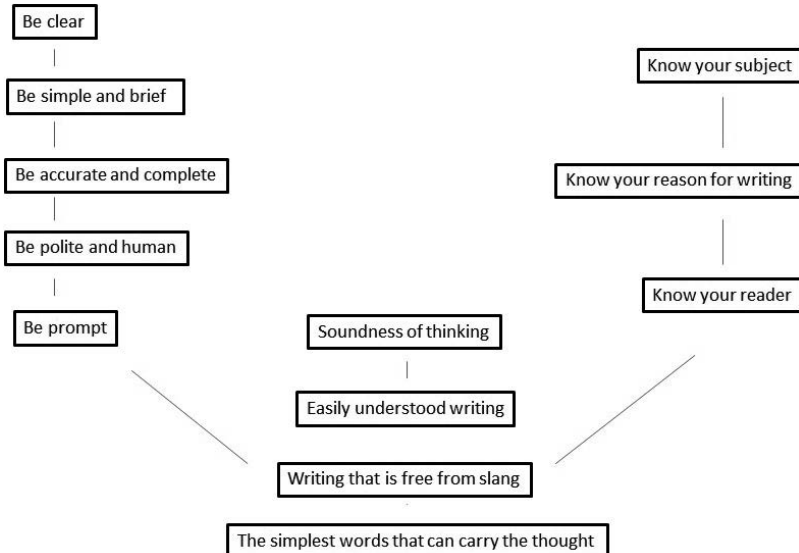
- Rorty, Richard. 1989. *Contingency, Irony and Solidarity*. Cambridge: Cambridge University Press.
- Smith, Ronald D. 2012. *Becoming a Public Relations Writer: A Writing Workbook for Emerging and Established Media*. New York: Routledge.
- Thomas, Martha W. 2003. "Textual Archaeology: Lessons in the History of Business Writing Pedagogy from a Medieval Oxford Scholar." *Business Communication Quarterly* 66 (3): 98–105.
- Wolff, Luella M. 1979. "A Brief History of the Art of Dictamen: Medieval Origins of Business Letter Writing." *The Journal of Business Communication* 16 (2): 3–11.

CHAPTER EIGHT

THE “STRAIGHTFORWARD” PROSE STYLE

The concept of writing style involves an appreciation of lexical contrast, of choice in word and sentence structure, of comparisons between modes and devices of language use, and of the frequency of particular linguistic features in writing. An evaluative essay, for example, might involve critical writing that defines a set of articulated features from a less defined background. Evaluative writing makes a continual series of judgements and commentaries on kinds of language performance—how writing does what it may do. A descriptive writing style, on the other hand, identifies objects, persons, periods or places in a particular fashion—the way writing achieves the denotation and connotation of meanings it describes (Crystal 2006, 317).

Fig. 8-3: The “straightforward” prose style (after Gowers 1954, 20–23)



The art and science of writing involves an ordered and complex coordination of language that comprises the different affordances and constraints of language use. The difference between speech and writing, however, is not clear-cut, because the stylistic ranges within English language use are vast in both oral and written English. In any genre, stylistic conventions may coalesce on congruent points on a scale of variation into identifiable sub-genres that share characteristics of collocation and grammar.

In prose essay writing, for example, it is sometimes difficult to separate rhetoric from fact, and hence it is unusual for a writer not to betray a set of expectations to the reader which in journalistic terms is called an “angle” or in academic writing, an “argument” or “thesis,” even when objectivity is the desirable cognate-writing motivation. Neither is it necessarily the case that mathematicians, for example, adhere any more than linguists to the “correspondence theory of truth” in their medium of communication. As with the figures and computations of mathematics, facts are determined by language use itself; consequently, as Quirk argues, the language of objectivity in prose writing is not only about saying things clearly, but also about being able to empathise with others’ views and being able to maintain sympathy with their version of reality (1962, 224). Thus the task of any writer is similar to the task of any reader or listener: to discern the meanings of words, examine their sensibility, test them for factuality, and identify if there is a viewpoint expressed, all at once, though each might or might not be particular from the other.

Thus writing style is on one level an arrangement of groups of words into sentence structures to produce meaning. However, as Quirk (1962) suggests, language is “serially serial” in nature (177), one expression following after another. Like music or mathematics, language might say one thing or a variety of things, to just one person, or to many, in both written and spoken contexts. Serial language is also multivalent: that is, built layer upon layer, each sentence component in a structural relationship with the next.

Writing is a “particular” activity. All writers must balance the need to articulate with a notion of articulating in a “perfect” way, with communicating efficiently: writing need not be about compromise but does need to convey ideas clearly and satisfactorily. As Gowers (1954) suggests, “Writing is an instrument for conveying ideas from one mind to another; the writer’s job is to make his or her readers apprehend the meaning readily and precisely” (1). Similarly, Crystal (1998) argues that writing is primarily about people communicating with one another, in a sense that there is a “sender” of a message, idea, language-based semantic

construction, and a “receiver” of that communication. Hence writing is about the “transmission of knowledge, however this is defined—as concepts, facts, opinions, emotions, or any other kind of information” (1). Transmission of knowledge is achieved in language by communication from sender to receiver.

In writing in an effective and simple prose style, there is a set of factors which may undermine the composition that are best avoided. Aside from inconsistencies in grammar, punctuation and spelling (the technicalities of writing), these factors are based on how an argument is put together. When communicating in prose style, a primary function of the writer is to scan their work for inconsistencies. These include the following (Smith 2012, 342):

- Avoid over-generalisation in arguments
- Avoid unwarranted conclusions
- Avoid false facts and dishonest information
- Avoid arguing in a tautology and using proof that relies on itself
- Avoid personal criticism or irrelevant argumentation
- Avoid concerted appeals to tradition
- Avoid authority arguments—arguments must stand or fall on their own strength

Above all, the overriding feature of public communication is “straightforwardness” in writing style. That is to say, in many public contexts writing should be legible, clear, businesslike, free from bias and also inoffensive.

References

- Gowers, Ernest. 1954. *The Complete Plain Words*. London: Penguin Books.
- Crystal, David. 2006. *How Language Works*. London: Penguin Books.
- . 1998. *Language Play*. London: Penguin.
- Quirk, Randolph. 1962. *The Use of English*. London: Longmans Green & Co.
- Smith, Ronald D. 2012. *Becoming a Public Relations Writer: A Writing Workbook for Merging and Established Media*. 4th ed. Hoboken, NY: Taylor and Francis.

CHAPTER NINE

PHILOSOPHY OF LANGUAGE

A rarely discussed but nevertheless hotly debated question about language usage (and English language in particular) is the extent to which participation within its lexicon is in and of itself “scientific.” By this is meant that the possessor of even a limited English vocabulary is able to participate in the environment so described by it, according to rational and understandable principles. It stands to reason that people who understand and use a language as they participate in ideas and events are to some extent shaped by the grammatical rules and semantic meanings described by this language. This is separate from the idea that the English language is the most widely used language to communicate scientific truths about the world (Ammon 2012, 333). A residual issue then is whether language describes some natural truths about the world—whether it emerges from the world and the human tongue “naturally,” as it were, according to some evolutionary principle. To put it another way, “regarding the other person as a being with a soul is not the consequence of the ascription of some mental predicates ... it is rather a condition of such ascriptions” (Lueken 2012, 258). Wittgenstein (1921) suggests logic can’t be done without a performer, and the same could be said of language—one cannot do language outside the world in which it is communicated. This is not to confuse the issue of representations—that is, whether or not a language is a thing in the world in the same sense as an object is. Rather, a language is capable of articulating the meaning of things in the world and the relationship of one thing to another. Thus there is a sense in which where language comes from may not be as important as how it is used. As Stainton (2011) puts it, “languages, linguistic expressions, and their purported referents are human mental constructs. They are not objective things, out there in the physical world [but they may be perceived and understood as standing in for objective things]” (481). Thus, both in an everyday sense and in a linguistic sense, there is in fact a science that can study the relationship between the named concept “Exeter” and the place noun Exeter, for example: that is, a relationship between what a word represents, what it connotes or denotes, or what it in fact is.

However, the concept of “ontology” (what type of thing something is), and in particular the concept of human ontology, might complicate this issue further. Words denote and connote things but do not constitute those things in themselves. A problem is that humans (unlike animals and animate objects) speak back—a speaker or articulator of language is human precisely because he or she understands and reciprocates the exchanged meaning in whatever form. However, there is a difference between conceiving the bearer of language as a user of a metaphysical tool for being in the world, and equating language with its subject and object within a semiotic system. As Stainton (2011) suggests, caution is needed in distinguishing between firstly, the equation of the evidence base of a science with its object; and secondly, the *a priori* restriction of evidence based outside its paradigmatic reference. After all, logical truth is a matter of understanding a correspondence between the content of a word (which reflects the ideas that the word means) and objective facts about what constitutes the meaning of that word—this is known as the “correspondence theory of truth” (McInerney 2005, 21).

A public language is a “system of symbols” (Stainton 2011, 483), and symbols are themselves subject to abstract rules that are individuated in relation to people and things. Language is thus a common set of scriptural devices, characters or symbols that people understand and use. Language may be made subject to empirical investigation, and yet this basis of evidence may be separated from the object of investigation: the relationship between words, word usages and word meanings. However, this is complicated by the fact that the evidence base itself might also be the bearer of empirical rules that produce scientific understanding from their use by people in the world. These rules are, of course, difficult to discern from the precision or the babel of everyday conversation (which is one form of language use) as the latter has imprecise boundaries, as Stainton observes. Few naturally occurring complex things such as people, languages, brains or ecosystems have precise boundaries.

However, language seems to arrive naturally (by mutual agreement) to describe things in the world, and is therefore perceived as a human construction (which may differ from the natural objects it sometimes describes). Therefore, the objects that language denotes or connotes also bear intentional elements that are derived from human use which the natural objective world lacks (Stainton 2011, 485). In the common understanding, words are not objects that have properties of their own (outside of representational form), in the same way that subjects or objects do. They are thus characterised as “relational entities.” They are symbolic forms of actual things that are understood within the mind and thus can be

differentiated from the forms themselves. (However, it is debatable to what extent this differentiation occurs in thought.) Therefore it is said that words are not causal entities, the exception being some forms of legal propositions. As El-daly (2010) states, “while it is true that the vibration in the air or the marks on a piece of paper can stimulate the senses, a word, as such, cannot cause knowledge” (unless it stands as a cognitive representation of knowledge) (245). However, in a legal context the writ of *habeus corpus* would command a particular activity before the king. As such, as Timasheff (1937) states, “legal norms actually determine behaviour in society: the triumph of law is the rule, its defeat in a concrete case is an exception” (226). Thus, while neither a study of literalism or of metaphor, law can still be said to be a study of a form of linguistic reality, in so much as legal rules affect human social behaviour.

There is another category of statement which affects things in the world much as law is said to do. These are the Austinian contractual or declaratory performative speech acts, an example being a statement uttered in the course of a marriage ceremony: “I do (take this woman/man to be my lawful wedded wife/husband).” At their basis Austin (1962) describes performative utterances as having two characteristics. First, “they do not ‘describe’ or ‘report’ or constatae anything at all, are not ‘true or false’;” second, “the uttering of the sentence is, or is a part of, the doing of an action, which again would not normally be described as saying something” (5). These characteristics are similar to the anthropologists’ “thick description:” they describe ontological states that have a dramaturgical performance element, which at its basis is located in a “being as belonging” relationship between the subjects and objects that are constituted in and by the performative statements.

Flanagan (2010) distinguishes between semantic meanings that are said to exist inside or outside the head. Literal meaning is defined as “the [meaning of a] proposition you would attribute to it if you referred to just symbols in question and the appropriate community’s conventions of linguistic meaning” (257). This meaning can be distinguished from legal meaning, which relies on a set of constitutional principles that are related to laws that exist in principle and in fact within the social and infrastructural fabric of society, and therefore can be said to exist “outside the head.” This suggests that there is a distinction to be made between literal and legal meanings of propositions that are both relational and ontological. Ioffe (2012) claims that there is, in language, a connection between the conceptual apparatus of an object of culture and the “virtual constructs” associated with these such as “text, memory, and behaviour” (179). However, Ricoeur (1973) argues that the act of speech assumes the

status of actual life in so much that the verbal aesthetic is ontologically inseparable from the living systemic world order. Meaning is then produced by propositional speech acts that include illocutionary force and perlocutionary action, which are codified together in paradigms of linguistic comprehension. Relatedly, Bulgakov (1998) does not distinguish phenomenologically between proper and common nouns (just as the quality of a metal comes before a coin), given that the idea of a predicate's action is the concrete potential of the sign. There is also a form of anthropogenic argument at work here, as the existence of objects in any physical environment is conditional on the existence of people as the source of meaning creation or comprehension in signifying systems. There is thus an ethical difference between perceiving humans as creators of meaning and perceiving people as comprehenders of meaning. A different kind of agentic fallacy is involved: in the former, intentionality is something within human nature; and in the latter, intention is something outside of human nature. These meaning constructs are to be understood in the context of the majority of inanimate objects existing of themselves outside such a space of meaning (Lueken 2012, 258).

In some ways language is like logic, as the "goal of logic is to create sub-categories from large categories (or vice versa) and use these to organise the real world" (Herzberger 2012, 65). For example, a group of people is playing in the sand by the water: you might divide that group from oldest to youngest, first and last to splash in the water, second to build a sandcastle. However, it would be a mistake to suggest that logic so applied is any more "true" than the figures it describes. As Herzberger suggests, "Logic is formal, computational, and provides a scaffolding to the content that breathes from the world" (65). One can make an argument out of sand but it needs other constituent parts such as aggregate, cement and water to make it concrete.

Uses of and description of language

The common-sense view holds that language is for communication (El-daly 2010, 244). Language use is shared between speaker and hearer (what Saussure termed *langue* and *parole*). However, neither position is necessarily prioritised in language use, rather meaning making is provided by the inter-relation of speaker and spoken-to, or listener, and descriptive discourse about objects and relations in the world. Thus words are signs to convey meanings about the world. Depending on the relationship between communicators (for example, speaker and hearer), words can mean more than they actually say, or they can mean different things from their literal

meaning. Thus the Saussurian distinction between language (*langue*) and speaking (*parole*) produces a linguistic meaning by the association of the sound (signifier) and a meaning (signified). However, this does not imply that the communicative functions of language are irrelevant to the study of its structure—as implicitly the grammatical rules that follow from *parole* influence the way in which *langue* is put together. Indeed, a linguistic emphasis on *parole* (performance meaning) can describe the way it relates to *langue* (grammar, competence). Consequently communication can be seen as an information process that occurs between at least two communicators who are contextual agents. The received pattern of communication comprehension is that the speaker has an idea or representation in mind and the hearer forms a similar if not identical idea, meaning being therefore dependent on this shared representation (El-daly 2010, 246). This is termed the *Linear Conduit Model* (Reddy 1979), in which language is considered a tool for transferring a linguistic message from a source (or sender) to a destination (or hearer). This may be compared with the self-regulatory (*autopoiesis* model) in which communicants do not engage in language use to create a message, but to integrate elements from the communicative situation (environment) that contribute to the communicator's self-regulation and self-creation (as this is a self-sustaining cycle it is termed *autopoetic*). Meaning itself may be divided into at least three levels: abstract meaning (the idea or concept); contextual meaning (the idea in context); and the intentional meaning (the agentic property of comprehension of an idea) (247).

References

- Ammon, Ulrich. 2012. "Linguistic Inequality and Its Effects on Participation in Scientific Discourse and on Global Knowledge Accumulation—With a Closer Look at the Problems of the Second-Rank Language Communities." *Applied Linguistics Review* 3 (2): 333–55.
- Austin, John L. 1962. "How to Do Things With Words." The William James Lectures delivered at Harvard University, 1955. Oxford: Clarendon Press.
- Bulgakov, Sergij. 1998. *Filosofia Imeni*. Sankt Petersburg: Nauka.
- El-daly, Hosni M. 2010. "On the Philosophy of Language: Searching for Common Grounds for Pragmatics and Discourse Analysis." *International Journal of Academic Research* 2 (6): 244–62.
- Flanagan, Brian. 2010. "Revisiting the Contribution of Literal Meaning to Legal Meaning." *Oxford Journal of Legal Studies* 30 (2): 255–71.

- Herzberger, Ben. 2012. "Wittgenstein's Tractatus and the Law." *Law and Humanities* 6 (1): 65-83.
- Ioffe, Dennis. 2012. "The Cultural 'Text of Behaviour:' The Moscow-Tartu School and the Religious Philosophy of Language and Culture." *International Journal of Philosophy of Culture and Axiology* 9 (2): 175-94.
- Lueken, Geert-Lueke. 2012. *Wittgenstein-Studien* 3(1): 245-60 [ISSN online: 1868-7458, ISSN print: 1868-7431].
- McInerny, Dennis Q. 2004. *Being Logical: A Guide to Good Thinking*. New York: Random House.
- Reddy, Michael J. 1979. "The Conduit Metaphor—A Case of Frame Conflict in Our Language About Language." In *Metaphor and Thought*, edited by Andrew Ortony, 284-324. Cambridge, MA: Cambridge University Press.
- Ricoeur, Paul. 1973. "The Model of the Text: Meaningful Action Considered as a Text." Special issue: *What is Literature? New Literary History* 5 (1): 91-117.
- Stainton, Robert J. 2011. "In Defence of Public Languages." *Linguistics and Philosophy* 34 (4): 479-88.
- Timasheff, Nicholas S. 1937. "What is 'Sociology of Law'?" *American Journal of Sociology* 43 (2): 225-35.
- Wittgenstein, Ludwig. 1921. *Tractatus Logico-Philosophicus* 6.421. Translated by C. K. Ogden, 1922. Full text available at <http://www.gutenberg.org>.

CHAPTER TEN

LANGUAGE EVOLUTION

Whilst in the twenty-first century there are between 6,000 and 8,000 different languages spoken in the world, the complex issue of language evolution continues to perplex people in communication, linguistics, archaeology, anthropology and cognitive science (Baronchelli et al. 2012, 1). There are several opinions as to the origin of human language. These include that language originated in a gesture basis, in primitive vocalisations, or in song; but most probably a combination of all three contributed to human language development over approximately the last 200,000 years. Language, as much as technology, is the pinnacle of human evolutionary achievement—culture and society would not be possible without language. How is it that novice language learners can acquire a complex knowledge of language without necessarily knowing the grammatical rules and cognitive processes that lie behind it? As Fedurek and Slocome (2011) suggest, “Linguists have been intrigued by this counter-intuitive gap, known as Plato’s problem, between the quality and quantity of available linguistic data and the complexity of linguistic knowledge from which such inputs are created” (271). The nature or nurture debate is perhaps simplistic, but it nevertheless represents in language evolution the convergence of biology with culture. As Jakobson (1970) suggested, the question is whether “the isomorphism of these two different genetic and verbal codes can be explained by a simple convergence stemming from a similarity of needs, or whether the foundations of the manifest linguistic structures, intimately based on molecular communication, are not directly patterned on the structural properties of the latter” (530). Approaches to language acquisition and use have taken one of four paths: language structure and how structure is informed by human biology and physiology; the ability to acquire language among human and possibly some animal species; the functional conditions of language; and the history of the evolution of language (Kirby 2007).

In contemporary times most theoreticians agree that language has arisen because of the interaction of three complex adaptive systems:

biological evolution, human learning, and through the acquisition and sustainment of human culture (Smith et al. 2003, 537). However, biological evolution imposes physiological constraints, as does the human environment. Thus, conversely, it may be a poverty of stimulus which creates the need for a linguistic structure and a genetic and cultural substrate to linguistic development. Language is complex and its multivalency and ubiquity make it a distinctive property of human culture. As Fedurek and Slocome (2011) put it: “Language enables humans to represent and communicate complex abstract information, and it occurs in verbal, gestural, and written forms” (153). Language is also inherently combinatorial, with syntax (sentence structure) leading to semantics (sentence meaning).

From an historical perspective, the monument of the ancient world (around 700 BCE) which inspired conjecture about the origins and spread of language was the fabled Tower of Babel, which is mentioned by the Roman historian Herodotus and also in the Book of Genesis, chapter 11. The real name of the Tower of Babel was “Etemenanki.” It was built as a temple or platform between Earth and Heaven in the sixth to seventh century BC at the height of Babylonian cultural influence. The Tower of Babel was a ziggurat or stepped pyramid, which had seven stages that supported at the zenith a brilliant blue-hued temple dedicated to the most powerful god of the Assyrian pantheon, Marduk (Dunbar 1996, 153). Exactly why the Book of Genesis refers to the Tower of Babel, and how Christian thought came to be linked to a monolith of the ancient world, is not clear other than to acknowledge that literacy, language and human speech are indeed ancient in terms of cultural history, even if Old Testament Christianity itself would disavow (perhaps like the ancient Babylonians) evolutionary progress as the origin of the spread of human language and communication.

And the whole earth was one language, and of one speech. And it came to pass, as they journeyed from the east, that they found a plain in the land of Shinar; and they dwelt there... And they said, Go to, let us build us a city and a tower whose top may reach unto heaven; and let us make a name, lest we be scattered abroad upon the face of the whole earth. And the Lord came down to see the city and the tower, which the children of men builded. And the Lord said, behold, the people is one, and they all have one language; and this they began to do: and now nothing will be restrained from them, which they have imagined to do. Go to, let us go down, and there confound their language, that they may not understand one another's speech. So the Lord scattered them abroad from thence upon the face of all the earth; and they left off to build the city. Therefore is the name of it

called Babel; because the Lord did there confound the language of all the earth. (Genesis, chapter 11, AV)

Even today, while in one sense the whole Earth is joined by language and speech, these take many forms. The most widely used language on Earth, English, is spoken by approximately only one in seven of the world's population. Some have argued that the Eastern civilisations lost their cultural ascendancy because of the Western adoption of the phonetic alphabet. However, Grosswiler (2004) has argued that a “writing effect” unites the Western alphabetic and Eastern non-alphabetic civilisations in a common heritage, with periods of social and cultural advancement on both sides. Thus he questions whether the alphabetic literacy to which some commentators attribute the Western tendency for “abstract thinking, deductive logic, science, mathematics, democracy, codified law, capitalism, and monotheism,” following its introduction in ancient Greece, and the Eastern pictographic scriptable tradition, are separate in as far as the latter may not promote these implicit cognate qualities amongst its readers and writers (1). So stated, the argument has its basis in the rationale that ideogrammatical writing is multi-sensory as opposed to the visual abstraction (and thus tendency of objectification) inherent in alphabetical writing. Even as late as 1964 the communication guru Marshall McLuhan argued that the “inclusive holism” of Chinese ideograms was qualitatively different from the analytic dissociation of alphabetic writing.

The functional conditions of language

In order to explain language acquisition, the linguist Noam Chomsky (1966) proposed that there is a sophisticated genetically encoded propensity for humans to acquire language, which comprises a Universal Grammar (UG) that undergirds language use, and a language acquisition device (LAD) that guides linguistic competence from observed and learned “social” data (Smith et al. 2003, 538). Some twenty years after McLuhan, Robert Logan (1986/2004) asserted that there was an alphabet effect (which tipped the scales in the ancient world). The argument is problematic from a variety of viewpoints, one being that writing might not be the “objective correlative” of speech but rather a way of changing language use. Consequently it could be said that the importance of the alphabetic of ancient Greece became a product of European classical tradition, and thus of wider experience and education and culture (Goody 1986). Furthermore, the differences between logographic, syllabic and alphabetical systems are not entirely clear in as much as they all lead to

phonetic signs (as do some forms of ideogrammatical writing). However, Grosswiler (2004) does point out that pictographic writing is highly stable within cultures, for example, “because Chinese has not been affected by phonetic changes, dialects, or linguistic structures, it has been a means of political unity since the end of the third century BC” (5). This raises the question of whether language always meets the needs of its speakers: can an idea exist if there is no word for it? On the face of it this argument does not contain much sense, in so far as it cannot account for the mental life of people who have greater or lesser vocabularies, or for the use of the imagination and other creative insights to produce new combinations of existing ideas.

As Starke (2006) suggests, “there is no absolute distinction between the evolution of media, language, or that of the human species” (45). We cannot conceive of human society without forms of communication and language. It is also often said that “language does not fossilise,” but the first forms of recorded expression are thought to be those that co-evolved with technological innovation and took place some 20,000–30,000 years ago. Starke also states that there was a progression from logographic and phonetic writing, to forms of syllabic and alphabetic writing (46). What makes language special is that, although the vocabularies of most language users’ vocabularies are limited to 50,000 words or so, those vocabularies are nevertheless constructed in a way that allows for unbounded transmission of messages which, when undergirded by a universal grammar, can result in a high fidelity of communication between language users.

From a bio-linguistic perspective, Berwick and Chomsky (2011) state that:

... we can think of language as, in essence, an “organ of the body,” more or less on a par with visual or digestive or immune systems ... it is a cognitive organ, like the systems of planning, interpretation, reflection... We can think of language as a mental organ, where the term “mental” simply refers to certain aspects of the world, to be studied in the same way as chemical, optical, electrical and other aspects... (20–21)

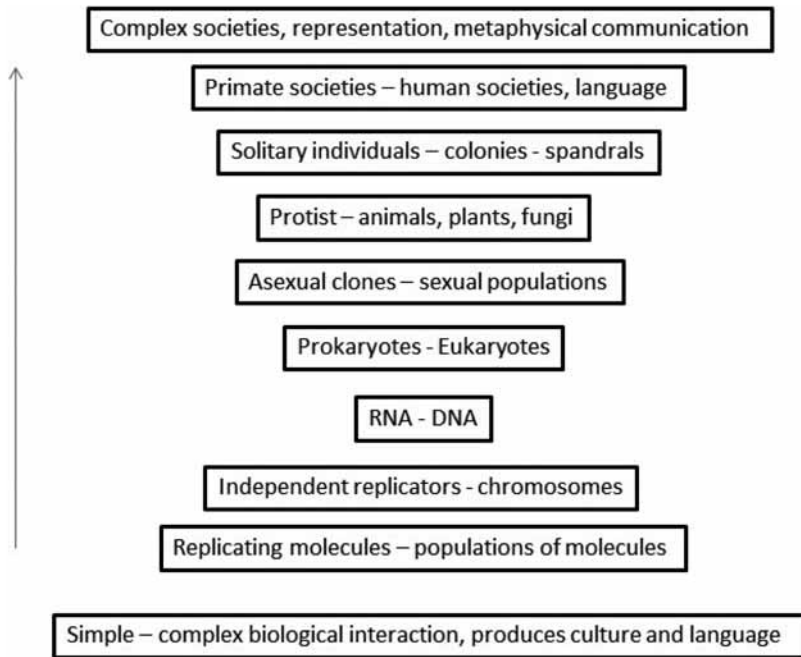
The use of language is predicated in humans on the expression of the FOXP2 and CNTNAP2 genes and the population frequency of two brain growth and development genes, ASPM and Microcephalin (Dediu 2011, 282, 291), but the array of possibilities for language use is limited only by cognitive complexity. However, fortunately the human brain at approximately 1350cc has evolved just for the management of such complexity, and in the human brain the temporal lobe is 23% larger than

other brain regions, and four times larger than that of our closest mammalian relatives, chimpanzees (Schoenemann 2009, 175). Linguists and cognitive neuroscientists have also determined which regions of the human brain are involved in which parts of speech with some degree of precision. For example, the understanding of proper nouns is thought to occur in the anterior and medial areas of the temporal lobe, and that of common nouns on the lateral and inferior temporal lobes (176).

Thus language is enabled and constrained by human biology and physiology. The levels of human physiology that enable language stem from the brain and reach to the organs involved in the production of human speech, as well as those for the processing of the speech of others. At a higher level in language semantics than the functional structural underpinning of universal grammar is the language lexicon, which may vary in arbitrary ways from language to language, allowing language history to be traced by shared lexical commonalities. Language can thus be thought of as a complex adaptive system that comprises a series of interacting agents, each of which responds to local conditions following simple rules (Schoenemann 2009, 163).

While many species on the planet communicate, the cognitive possibilities that spoken and written language affords are thought to be distinctively human. It is unlikely that non-human animals or indeed any other species has syntactical grammar rules as complex as humans. As Fedurek and Slocome (2011) put it: “Humans can convey an infinite amount of messages using a limited number of words because of the powerful system of grammatical rules that govern the structure and form of language, including the ordering of words into meaningful sentences” (166). As such, language allows people to divide the external world in a myriad of ways and to create artificial worlds, such that it is nearly impossible to imagine a social system comprising human beings that is not ordered by language (Leach 1982, 107).

Fig. 10-4: Evolution of life (after Kirby 2007, 2)



The anthropologist Leach (1982) argues that the transmission of culture, in the sense of patterns of learned behaviour, from generation to generation by learning instead of by genetics, is a characteristic of many other species: “Bees and ants have extremely elaborate, highly organized social systems which appear to get along without any concept-forming medium of communication which is even remotely similar to that of human language” (107). Thus it is clear that non-human languages exist, and that language itself is necessary but not sufficient property of human culture or indeed of animal culture.

How language is informed by biology and physiology

Hauser et al. (2002) argue that language as a biological faculty may be divided in a “Faculty of Language in a Broad Sense” (FLB) and a “Faculty of Language in a Narrow Sense” (FLN): the former may be analogous to animal communication and include aspects of language faculty (includes the perceptual-articulatory apparatus); and the latter may be analogous to the human language faculty (and includes the conceptual and intentional

apparatus). Kirby (2007) and Corballis (2009) also assert that recursion is a defining property of human language. Recursion is defined as a procedure in which one of the steps involves invoking the procedure itself, such as that involved in nesting syntax meanings within sentences. However, others hold a view that a reliance on recursion as the main feature of human linguistic difference may oversimplify syntactical aspects of human language, in which communicating propositional structures is an adaptation consisting of many different interacting sub-systems within human consciousness and physiology. Thus, if there are common features between FLB sense and FLN, then the process of complex language use involving recursion, intentionality, empathy and metarepresentation is a gradual one involving intermediate stages that also have evolutionary correlates and limitations. After all, the most distinctive property of language is that it is generative, allowing parts of language syntax to be recombined to make other language structures, which involves the “embedding and concatenation of phrases” (Corballis 2009, 36). Consequently, is language use, like evolutionary behaviour, a process of constant adaptation? Is there a plausible evolutionary trajectory from protolanguage to ways of communicating that have yet to be imagined?

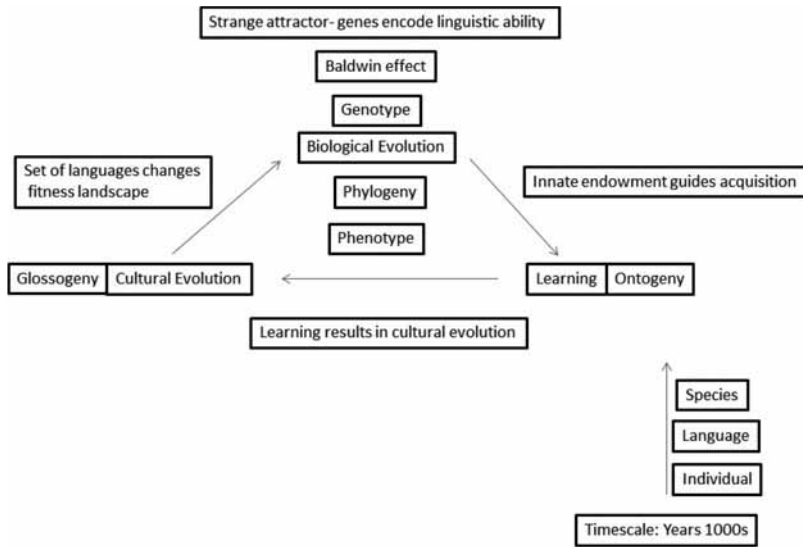
As Richardson and Boyd (2010) suggest, the division of labour between genes and culture is a co-evolutionary process (299). The Baldwin effect argues that language adaptation occurring within an individual’s lifetime may affect linguistic competence: in other words, if language use and linguistic competency gives an advantage, a trait change within an organism’s lifetime as a part of cultural evolution can be assimilated into the epigenetic repertoire. As Richardson and Boyd explain, “so long as a higher capacity cultural communication system was favoured, cognitive modifications to more efficiently acquire explicitly linguistic features like symbolic words and grammar would be favoured as the system passed some threshold of complexity” (290). Thus it is possible that a Baldwinian effect can lead to random selection for linguistic competencies if they provide an adaptive advantage. In one sense, then, biology and social evolution act as a fixed-point attractor for human linguistic competency (Johnson, 2012, 4). However, as Yamauchi and Hashimoto (2010) point out, it is possible that a strong assimilatory process might be available within ten to twenty generations with a selective environment that is dynamically niche-constructed, but a functional redundancy may result on the genetic information of the learned trait. It is possible that the redundant genetic information becomes degraded while no effect is observed on a linguistic level. For example, the gene for birdsong results in natural selection of related adaptive

physiological changes such that a functional redundancy occurs without externally motivated environment changes (284). Arguably, the exciting things about language use and birdsong might happen in just a cycle of gene recession as other genetic factors are selected. For example, syntactic recursion may facilitate more complex language use, that results in a gradual redundancy of selection but an increase in a selection of genes for other language features such as intentionality, with corresponding physiological adaptation in the neural networks.

If language is a form of cultural evolution, it is useful to look at the relationship between its historical progression and changes in human evolutionary physiology. Whilst some observations have been made (such as the descended larynx that enables human speech), it is difficult to isolate any one physiological feature in cognate language use (red deer and lions, for example, also have a descended larynx). More probably, language production is enabled because of the interaction of a number of different musculo-skeletal and neural features of human physiology, some of which are shared by other species. Thus language could evolve from a rudimentary set of culturally transmitted signals, impoverished vocalisations or manual gestures to symbolic words and grammar via selective genetic adaptation, given the relative social utility of such communication. However, people are the product of their genes, gene expression, and also the environment—all three are involved in the evolutionary process. Cultural evolution leads to the adaptation of a universal grammar. We can ask then the fundamental questions: What is the purpose of human language? Why do we not all speak a common language? What is the reason for linguistic diversity?

Richardson and Boyd (2010) suggest that linguistic diversity arises not just because of “cultural containment” by ethnicity or geography, but also for the sociological reason that it limits communication between people who cannot freely trust one another or in which truthful communications lead to maladaptive behaviours (299). However, this is increasingly tested by conditions of globalisation, in which it could be argued that technology precedes the use of language adoption. If global societies and economies are adaptively integrated, then the adoption of one language might be useful. In this way humans are also different from some other animal species in depending on social transmission for adaptive behaviours.

Fig. 10-5: Three-cycle process of language change (after Smith et al. 2003, 541)



The uniqueness of human language

Intentional agency enters into most human communication. Because of the innate complexity of language, individuals may not have enough in common to facilitate open and honest communication all the time. Furthermore, individuals and societies are competitive and consequently many people have mixed motives in communication, including self-interest. If not all communication, speech and language is trustworthy, then some features of language may not have a selected advantage for evolution, depending on the cognitive and social cost of information exchange. This leads to two features of human language use. Firstly, language variation may be adaptive; and secondly, because combinatoric communications systems have rules of interpretation, they may be vulnerable to both misunderstanding “noise” and also to deception. Thus it requires concerted forms of co-operation to enable language evolution. Nevertheless, language diversity may not have a basis in issues of trust. Presumably niche-adaptation is the most likely cause of such diversity, not deviant inventiveness. However, human biological complexity and conscious cognition in language occur on related but different levels of affect.

Coeval with language use, people have the ability to represent different referential locations of time and space through symbolic communication. While the basis of that ability might lie in gene acquisition and physiological capability, the sociality of language is largely separate from biological substrates. Hence we can imagine that language use evolves in an individual's lifetime through acquisition of different linguistic competencies: for example, grammar and lexicon (tens of years). This stage is known as ontogeny, possibly leading to genetic adaptation through the Baldwin effect. However, languages evolve over hundreds of years (think, for example, of the differences between Chaucer, Shakespeare and the modern novel). This stage is known as glossogeny. The ability of species to engage with language abilities (such as a universal grammar) are acquired over thousands of years. That is known as phylogeny. MacWhinney (2005) adds an epigenetic stage (a combination of environmental and genetic interactions), a developmental (ontogenetic) stage, a processing time-frame, a social emergence time-frame, and a diachronic (glossygenetic) period of language change.

However, as Dediu (2011) suggests, "it is becoming increasingly clear that not only are the pathways connecting genes to phenotypes nonlinear and difficult to map, and that gene-gene and gene-environment interactions are the norm in the development of most phenotypic aspects, but also that there is no clear-cut difference between 'genetic' and 'environmental', that 'development' is not a discrete, encapsulated, and teleological phase in the life cycle of an organism, and that 'genes' are essential to all processes at all times" (281). It is difficult to tell from evolutionary archaeology exactly when changes in human phylogeny resulted in the genetic selection for complex language ability amongst humans. Fitch (2005) suggests that it occurred somewhere between 200,000 years ago and the present day (203). In most people the control of language is co-ordinated by the left brain hemisphere—the regions of the brain which activate and integrate motor control of the lips, tongue and vocal cords. It is the claim of many linguists that human beings are born with a knowledge of linguistic structure and the ability to acquire language (known as a Universal Grammar), which is encoded in the genome at least in part by the FOXP2 gene, which is linked to the linguistic features of the brain found in Broca's and Wernicke's areas and the pre-frontal cortex. The proponents of Universal Grammar argue that people are born with linguistic competency which has a genetic substrate. Thus relatively small changes at the phenotypic level can lead to quite large cognitive and behavioural changes. Comparison with other animal species reveals that some animals (such as dolphins and parrots) have quite sophisticated

imitative skills, which may imply a form of language-related empathy; similarly, animals may have “functionally referential” alarm calls capable of bearing external referents. Apes are also capable of audience effects that can bear “conspecific” information. However, as Fitch (2005) suggests, many such calls are not intentionally referential and might not shape calling in ways relevant to the listener’s knowledge (205). This does not necessarily imply that animals cannot individuate at a mental level in their communication, but rather they may not have theories of mind that are capable of attributing more than physiological awareness of others. Thus many animals lack an ability to “shape” their communication in ways that humans do.

According to the argument of language evolution as a gradual adaption in human society from genetic assimilation and culturalisation, the underlying genetic substrate of language enables a Universal Grammar, which is a set of grammatical principles that applies across all human languages. This goes some way to explaining language diversity—each society develops its own adaptation to a different linguistic environment that fits its locality and social identity. However, language might be shaped by physiological limitations that are not entirely dedicated to language. These include perceptuo-motor factors, including physiological features that account for the seriality of vocal structures, and perceptual systems that store sensory information (involving the retina, primary visual cortex, occipital lobe, the dorsal stream and the ventral stream; the vocal tract affected by the tongue, whose muscles are controlled by the hypoglossal nucleus and nucleus ambiguus); and lower jaw (controlled by the trigeminal nucleus; and lips controlled by the facial motor nucleus). Secondly, language might be shaped by cognitive limitations on learning and processing, including memory, and from structures of mental representation and reasoning (involving the cerebellum, lateral hemispheres, Broca’s and Wernicke’s areas, the *arcuate fasciculus*, and pre-frontal cortex) (Schoenemann 2009; Chater and Christiansen 2009, 1135–6). In order to describe the two inter-related issues of language development, Chater and Christiansen have specified the terms “N-induction” and “C-induction.” “N-induction” describes the language challenge of understanding and manipulating representations and relationships in the natural world, and “C-induction” describes how people acquire ability to converse and co-ordinate with each other. They make the point that in N-induction the world imposes an external standard, but in C-induction the standard is social. The difference is that in the latter language conditions people do the same thing but not necessarily the objectively true thing. While both conditions are predicated on learning,

the second does not rely only on the correspondence theory of truth but also on “relational” or performativity aspects of language. Chater and Christiansen make the point that language is mostly acquired by C-induction, given that there is no human-independent true language which people learn (1141). Rather, they learn the language of their developmental environment (although second-language learners may have more than one such environment).

Thus in the languages adaptationists’ model, language is guided by genetic inheritance and the growth of cognitive structures (phylogeny), which are shaped by the environment as the learner acquires the language of their caregivers and culture, allowing for language evolution at the level of glossogeny. Such language acquisition contributes to the reproductive potential of the individual. At the level of individual and group language use, language may be seen as a mapping device between meanings and signals. In this way languages may be composed with a shared signal structure, or be seen as being holistic, whereby such structure may or may not be implicated in a shared meaning space (Smith et al. 2003, 544).

References

- Baronchelli, Andrea, Nick Chater, Romualdo Pastor-Satorras, and Morten H. Christiansen. 2012. “The Biological Origin of Linguistic Diversity.” *Plos One* 7 (10): 1–6.
- Berwick, Robert, and Noam Chomsky. 2011. “The Biolinguistic Program: The Current State of Its Development.” In *The Biolinguistic Enterprise: New Perspectives on the Evolution and Nature of the Human Language Faculty*, edited by A-M. Di Sciullo, and C. Boeck, 19–41. Oxford: Oxford University Press.
- Chater, Nick, and Morten H. Christiansen. 2009. “Language Acquisition Meets Language Evolution.” *Cognitive Science* 34: 1131–57.
- Chomsky, Noam. 1966. *Topics in the Theory of Generative Grammar*. New York: Humanities Press.
- Christiansen, Morten H., and Simon Kirby. 2003. “Language Evolution: Consensus and Controversies.” *Trends in Cognitive Neuroscience* 7 (7): 300–7.
- Corballis, Michael C. 2009. “The Evolution of Language.” *The Year in Cognitive Neuroscience: Annals of the New York Academy of Science* 1156: 19–43.
- Dediu, Dan. 2011. “Are Languages Really Independent From Genes? If Not, What Would a Genetic Bias Affecting Language Diversity Look Like?” *Human Biology* 83 (2): 279–96.

- Dunbar, Robin. 1996. *Grooming, Gossip and the Evolution of Language*. London: Faber and Faber.
- Fedurek, P., and K. E. Slocombe. 2011. "Primate Vocal Communication: A Useful Tool for Understanding Human Speech and Language Evolution?" *Human Biology* 83 (2): 153–73.
- Fitch, W. Tecumseh. 2010. "The Evolution of Language." *New Scientist Instant Expert* 1: viii. http://www.newscientist.com/data/doc/article/dn19554/instant_expert_6_-_the_evolution_of_language.pdf.
- Goody, Jack. 1986. *The Logic of Writing and the Organisation of Society*. Cambridge: Cambridge University Press.
- Grosswiler, Paul. 2004. "Dispelling the Alphabet Effect." *Canadian Journal of Communication* 29 (2): 1–7.
- Hauser, Marc D., Noam Chomsky, and W. Tecumseh Fitch. 2002. "The Faculty of Language: What Is It, Who Has It, and How Did It Evolve?" *Science* 298 (22): 1569–79.
- Jakobson, Roman. 1970. "La Linguistique." In *Tendances principales de la recherche dans les sciences sociales et humaines*. Paris: UNESCO.
- Johnson, Neil. 2012. *Simply Complexity: A Clear Guide To Complexity Theory*. London: One World Publications.
- Illustrated King James Bible (The)*. 2007. Boston: Mobile Reference.com.
- Kirby, Simon. 2007. "The Evolution of Language." In *Oxford Handbook of Evolutionary Psychology*, edited by R. Dunbar, and L. Barrett, 669–81. Oxford: Oxford University Press.
- Leach, Edmund. 1982. *Social Anthropology*. New York: Oxford University.
- Logan, Robert. 2004. *The Alphabet Effect: A Media Ecology Understanding of the Making of Western Civilization*. Cresskill, N. J.: Hampton Press.
- MacAndrew, Alec. 2003. "FOXP2 and the Evolution of Language." http://www.evolutionpages.com/FOXP2_language.htm.
- MacWhinney, Brian. 2005. "The Emergence of Linguistic Form in Time." *Connection Science* 17 (3–4): 191–211.
- McLuhan, Marshall. (1964) 2003. *Understanding Media*. Corte Madera: CA Gingko Press.
- Raczaszek-Leonardi, Joanna. 2010. "Multiple Time-Scales of Language Dynamics: An Example from Psycholinguistics." *Ecological Psychology* 22: 269–85.
- Richardson, Peter J., and Robert Boyd. 2010. "Why Possibly Language Evolved." *Biolinguistics* 4 (2–3): 289–306.
- Robbins, Ruth A. 2008. "An Introduction to Applied Storytelling and to This Symposium." *Legal Writing* 14 (3): 12.

- Rorty, Richard. 1989. *Contingency, Irony, and Solidarity*. Cambridge: Cambridge University Press.
- Schoenemann, Tom P. 2009. "Evolution of Brain and Language." *Language Learning* 59 (1): 162–86.
- Smith, Kenny, Henry Brighton, and Simon Kirby. 2003. "Complex Systems in Language Evolution: The Cultural Emergence of Compositional Structure." *Advances in Complex Systems* 6 (4): 537–58.
- Starte, Lance. 2006. *Echoes and Reflections: On Media Ecology as a Field of Study*. Cresskill, NJ: Hampton Press Communication Series.

CHAPTER ELEVEN

PSYCHOLINGUISTICS

Psycholinguistics is another word for the psychology of language. It is characterised by the study of the psychological, linguistic and neurobiological factors that allow humans to acquire and use language. Within psycholinguistics, linguists are frequently concerned with the study of the psychological factors of language production as they apply to any of five areas. These areas are: phonetics and phonology, which is concerned with the study of speech sounds; morphology, which is the study of word structures; syntax, which is the study of patterns that determine how words combine to form sentences; semantics, which is the study of the meaning of words; and pragmatics, which is the study of the context and the interpretation of meaning.

There are two main theories of language acquisition. Basically, the first theory posits that all language must be learned; the second theory (currently most favoured by linguists) is that language is an abstract system that fundamentally cannot be learned without an innate language faculty, or by learning which is achieved on top of the genetic inheritance of a substrate of universal grammar. Some linguists posit that humans have evolved with an innate propensity for language and that certain syntactical faculties, such as the ability for symbolic recursion, are “hard wired” into the brain and human physiology. The study of meaning in language (semantics) also has a connection to psycholinguistics, given that letters and words, and sentence structures, are forms of symbolic description: “symbols are thus used in models of cognitive processes (internal symbolic representations) and in models of natural language (external symbols linked to internal symbolic representations)” (Raczaszek-Leonardi 2010, 271). The symbol for a banana, for example, may be similar for both monkey and human.

One influential theory of language comprehension is the so-called “garden-path” theory, which argues that there is a modular view of sentence processing that assumes sentence comprehension occurs in stages, with limited interaction between modules. According to this theory, the reader of a sentence takes the “shortest route” to understanding,

recreating the simplest possible structure for comprehension to minimise cognitive demand. However, the interactive theory of sentence processing takes a lexical-constraint interpretative approach and posits that sentence meaning is derived from more complex processing, in which semantics is deduced and any sentence component can be used to determine sentence structure and hence semantic meaning. The garden path theory presumes that parts are joined together to make a whole, as, for example, in the formation of a Byzantine maze from box hedges, lavender and copper beech, whereas the interactive theory presumes that the trembling of a blade of grass or a tree leaf share commonalities.

Arguably, psycholinguistics arose out of the behavioural paradigm. Many studies have been conducted as to how semantic relatedness acts to facilitate word encoding. Non-invasive brain imaging techniques offer the potential for psycholinguists to study the effects of language use and production in the brain in new ways. These include: brain imaging by positron emission tomography (PET); functional magnetic resonance imaging (fMRI); event-related potential (ERPs) in electroencephalography (EEG); magnetoencephalography (MEG); and trans-cranial magnetic stimulation (TMS) (Lenzer et al. 2010, 1004).

However, it is generally recognised that there is no one agreed definition of psycholinguistics. Rubenstein and Aborn (1960), for example, take a basic “behaviourist-computational” model of linguist development. They list four common features to elements of language acquisition (291). These are:

- Exposure to language segments increases the probability of emitting those segments.
- Experience with language, in sending and receiving messages, produces an isomorphic response hierarchy.
- As rank number increases, the similarity of responses at a given probability rank in the hierarchies of the members of a community decrease.
- Effect of stimulus (context prediction) modifies a response hierarchy so that probabilities of producing given responses are reduced, while relative probabilities of other responses remain the same.

There is thus thought to be an inverse relationship between word length and frequency: shorter conjunctive or indefinite words are used more frequently and more precise descriptive words less frequently. As Bryson (2009) relates, Shakespeare’s characters “refer to love 2,259 times

but to hate just 183 times ... that he wrote hath 2,069 times but has just 409 times..." (35). While Zipf (1949) is the leading proponent of this "law of language use" (shorter words appear more frequently), the results were also confirmed by Mandelbrot (the eminent statistician whose name is lent to chaos theory and fractal research). Mandelbrot's (1953) hypothesis was that the word rank-frequency relationship resulted from the space symbol occurring more randomly, such that short chains of letters occur more commonly than long chains; if the chains are longer, the more variety is used in lexicon. Hence fewer short words carry greater probability while variety of long words share smaller probability.

Psycholinguistics is also involved in forensic analysis, because written and spoken information can provide researchers with considerable information based on sociolinguistic deductions. For example, written and oral language can have features which identify the writer's geographical origins, ethnicity or race, age, sex, occupation, level of education, and religious background. It may also reveal properties about their mental state and potentially even their health (Smith and Shuy 2002, 17). Sociolinguistics is thus the term used to describe the study of language variability and the relationships between social characteristics and linguistic elements. In comparison, forensic psycholinguistics is a study of the relationship between linguistic behaviour and the psychological processes of the speaker which underlie such behaviour (18). The forensic study of linguistic patterns might be used for a variety of purposes, including threat assessment, authorship identification, false allegations, workplace violence, and statement analysis (19).

According to Paivio's ([1986) dual code hypothesis, there are essentially two codes that operate when a text is processed. These are the verbal-logical and the concrete-imaginal codes. This dualism is a result of human physiology, whereby the brain is divided into two hemispheres which, although inter-related, each have a different function. In right-handed people, the left hemisphere of the brain usually processes verbal features of text and establishes ties between sentence propositions under a discrete temporal sequence. The right hemisphere acts as a "synthesizing analogous" device that processes information in a non-discrete way (Zasyekin 2010, 225-6). So the left hemisphere is responsible for language conceptualisation and logical thinking and the right for more concrete emotional information, including images.

Osgood (1979) invented the term "semantic differential" to measure the connotative meaning of words, in which a respondent chooses between two "bipolar" adjectives. This can be applied to a significant number of problem areas in attempts to define language meaning. It is related to

Zorzybski's (1933) "structural differential," which is a representation of the constituents of general semantic properties of objects but, unlike Osgood's differential, depicts three-dimensional qualities. A principle of linguistic relativity was suggested by Sapir (1921) and extended by Whorf (1956). The Sapir-Whorf theory holds that the state of a language affects the way in which its speakers conceptualise the world. There are two forms: strong and weak. The strong version is that language determines thought and places cognitive limitations on meaning; the weak version is that linguistic categories influence thought and some kinds of linguistic behaviours, such as alliterative associations, for example.

There are also thought to be many factors that influence language comprehension. When language is difficult to understand, it is more likely to produce ambiguity and hence lead to different interpretations amongst different users. It is generally thought that language readers read text "averagely"—that is, they read to produce interpretative meanings that satisfice (produce interpretations that satisfy their search for meaning rather than the optimal meaning). There are seven factors in language comprehension that are thought to increase cognitive burden. These are (after Lenzer et al. 2010, 1005–9):

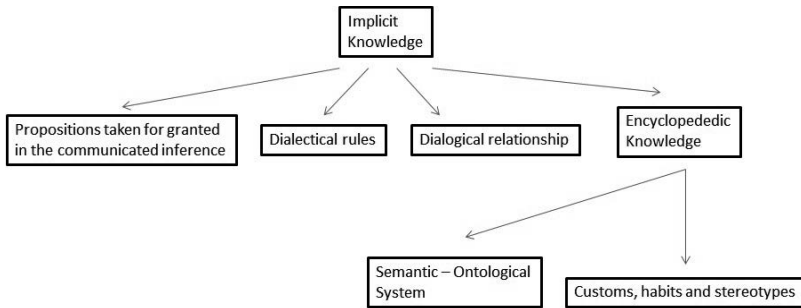
- Low frequency words (LFRWs): words that occur commonly require less processing time. The converse is true of words that occur less commonly—this is known as the "frequency effect." Thus empirical evidence suggests that readers' comprehension is slowed by low frequency words.
- Vague or imprecise terms (VIRT), which are predicates whose meaning is ambiguous, relative or changing rather than fixed or absolute.
- Vague or ambiguous noun-phrases (VANPs), which refer to noun phrases or pronouns that have an unclear or ambiguous referent, or abstract nouns which have few hyponym values, or polysemic forms of words with different sense meanings.
- Complex syntax (CSYN), in which either structures are ambiguous and lead to multiple interpretations, or their complexity leads to cognitive overload. Such complex syntax structures need to be parsed into segments to derive meanings from a process of linguistic categorisation termed the immediacy principle (Just and Carpenter 1980).
- Working memory overload (MEMO) can also overly increase the cognitive burden of readers.

- Low syntactic redundancy (LSYR) applies to the predictability of grammatical structure: the higher the level of redundancy, the easier is it to comprehend. One technique to achieve this is to change passive to active sentences.
- Bridging inferences (BINFFs) might also increase cognitive load on readers. These occur when writers are not explicit and lead the reader to make implicit inferences.

Why this matters is that despite the unknown and relatively uncalculable limits to the functioning of the human brain (posing the question of whether it is indeed possible to create something more complex than the creator), there are various factors which people and language learners can manipulate or distinguish in their environment which might facilitate learning and also language comprehension—allowing an inflationary easing of the cognitive burden. Furthermore, two kinds of cognitive models are thought to be involved in language processing. In the first of these models the brain is thought to employ a processing system whose modules are functionally autonomous. The modularity hypothesis holds that a module computes an output that corresponds to the input, regardless of context. The second cognitive model of language comprehension holds that the brain functions so that processing modules interact and information is shared amongst many areas, each responsible for a particular task of perception, cognition, or transmission. This model allows for higher-processing constraints (cerebral cortex) or lower-level processing (Ahrens 2012, 373). Psycholinguistic experiments have been made which test how sentence-level contextual information can influence lower-level lexical access. Two models arise from this: the context-independent model, which predicts that the preceding context does not influence lexical access; and a multiple-access account, which holds that all meanings of a word can be understood independently of the preceding context.

The context-dependent or direct access model predicts that sentential context provides only such information as is required for an appropriate meaning, so the most obvious meaning is adduced. A third model suggests that both contextual and lexical frequency factors influence lexical access—when context indicates a less frequently occurring meaning, that meaning will be selected (Ahrens 2012, 373–4).

Fig. 11-6: Levels of common knowledge (after Macagno and Walton 2010, 232)



In conclusion, psycholinguistics is a complex field of study involving language use and the manipulation and comprehension of it by the human (and also animal) brain. Significant accomplishments have been made in this field of study, but it is also a field of nascent research which has much to teach us about human functioning, society and communication.

References

- Ahrens, Kathleen. 2012. "Finding What You Expect to See: Theoretical Modelling in Psycholinguistics." *Journal of Social Sciences* 8 (3): 372–80.
- Bryson, Bill. 2009. *Shakespeare: The Illustrated Edition*. London: Harper Collins.
- Carroll, John B., ed. 1956. *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf*. Oxford: Technology Press of MIT.
- Just, Marcel A., and Patricia A. Carpenter. 1980. "A Theory of Reading: From Eye Fixations to Comprehension." *Psychological Review* 87: 329–54.
- Korzybski, Alfred. 1933. *Science and Sanity: An Introduction to Non-Aristotelian Systems and General Semantics*. Englewood, NJ: Institute of General Semantics.
- Lenzer, Timo, Lars Kaczmirek, and Alwine Lenzer. 2010. "Cognitive Burden of Survey Questions and Response Times: A Psycholinguistic Experiment." *Applied Cognitive Psychology* 24: 1003–20.
- Mandelbrot, Benoit B. 1953. "An Information Theory of the Statistical Structure of Language." In *Communication Theory*, edited by W. Jackson, 503–12. New York: Academic Press.
- Osgood, Charles E. 1979. *Focus on Meaning: Explorations in Semantic Space*. The Hague: Mouton Publishers.

- Paivio, Allan. 1986. *Mental Representations: A Dual Coding Approach*. Oxford: Oxford University Press.
- Raczaszek-Leonardi, J. 2010. "Multiple Time-Scales of Language Dynamics: An Example From Psycholinguistics." *Ecological Psychology* 22: 269–85.
- Rubenstein, Herbert, and Murray Aborn. 1960. "Psycholinguistics." *Annual Review of Psychology* 11 (1): 291–322.
- Sapir, Edward. 1921. *Language: An Introduction to the Study of Speech*. New York: Harcourt, Brace.
- Smith, Sharon and Shuy, Roger. 2002. "Forensic Psycholinguistics: Using Language Analysis for Identifying And Assessing Offenders." *FBI Law Enforcement Bulletin* 71 (4): 16-21
- Zasyekin, Serhiy S. 2010. "Translation as a Psycholinguistic Phenomenon." *Journal of Psycholinguistic Research* 39: 225–34.
- Zipf, George K. 1949. *Human Behaviour and the Principle of Least Effort: An Introduction to Human Ecology*. Cambridge, MA: Addison-Wesley.

CHAPTER TWELVE

LANGUAGE DIVERSITY

Language diversity is characterised by the Latin phrase *E pluribus unum* (out of many, one). However, because language is constantly evolving it is thought that language unity is a myth. It is commonly thought that language has been acquired by humans over the last 150,000 years, and that at one time all the original humans in East Africa spoke a single “proto-language.” Over thousands of years humans migrated to Asia and Europe, Australia and America, and the proto-language evolved into a diverse set of different human languages. Darwin speculated that if all language origins were known, including all extinct and changing dialects then, firstly, this arrangement would be the “only possible one,” and secondly, “it might be that some ancient languages had altered very little and had given rise to few new languages, whilst others had altered much owing to the spreading, isolation, and state of civilization of the several co-descended races, and had thus given rise to many new dialects and languages” ([1859] 1964, 392). What the determinants are that make some languages successful and others less so are relatively unstudied. Can language influence human thought and behaviour beyond being a vessel for the articulation of thoughts, feelings, observations, descriptions and actions?

Wendel and Heinrich (2012) argue that there have been two main waves of language diversification loss. The first wave began 11,000 years ago following the Neolithic revolution as agrarian societies established cultures that displaced hunter-gather societies, and the second wave followed comparatively more recently, following the rise of nation-states in the Enlightenment and Romantic eras of the 1700s to 1800s (145). A defining feature of human language is thus “change,” caused by biology or environment—language is in constant flux. There are thus two forces at work in enhancing or reducing a diversity of human languages—processes of divergence and convergence. It is unclear at what point divergent dialects become different languages. This is in part culturally determined: for example, the “Romance” languages are derived from dialects of Latin. However, Baronchelli et al. (2012) argue against a single “promethean”

language in which a single mutation (or a very few) gave rise to a language faculty in our human ancestor, for as the speed of linguistic change increases, the number of language-neutral alleles also increases—as populations split and language diverges, subpopulations are predominantly allele neutral, which undoes an adaptation to an original language. Thus if a uniform special-purpose language system gave rise to a protolanguage, it would be quickly eliminated in favour of general learning strategies (5). Thus language diversity works as a by-product of language evolution, as different ways of organising societies geopolitically result in language ecologies of less powerful communities being disrupted by processes of language shift and attrition (145).

Whether language diversity (the number of different languages) is seen as a positive or negative cultural condition depends on the values one associates with it. An ideology of exclusion and dominance might see language diversity as a negative factor, and consequently evaluate different cultural groups as outsiders and assign a power differential to them. However, an ideology of inclusion and equality may view language diversity positively and see the potential for unparalleled advances in bilingual and multicultural education and progressive language policies. The reason language diversity is seen as so important by many people is that it is inextricably bound with three important cultural factors: firstly, cultural identity (language has the power to affirm or disaffirm identity); secondly, language is inextricably bound up with human knowledge; and, potentially, thirdly, language diversity promotes learning and has cognitive benefits. As Wendel and Heinrich state, language diversity loss refers to the decline of language use through processes of language shift, and to the erosion of knowledge and linguistic devices—language attrition (2012, 146). The reason languages diversify or converge depends on a variety of linguistic, cultural, evolutionary and biological factors.

As Crystal (2008) points out, there are two main ways of classifying languages. These are genetic and typological. The genetic approach is a form of historical classification based on the assumption that languages descend from a common ancestor, and it uses deductive and comparative methods to reconstruct extinct languages. The typological approach is based on similarities between languages and the assignment of structural types on the basis of related categories such as phonology, grammar and vocabulary. There are also four main language types. These are: isolating languages (analytic or root languages), in which all words are invariable, with no endings and with grammatical relationships shown through word order (e.g., Samoan); inflecting languages (synthetic or fusional languages), in which grammatical relationships are expressed by

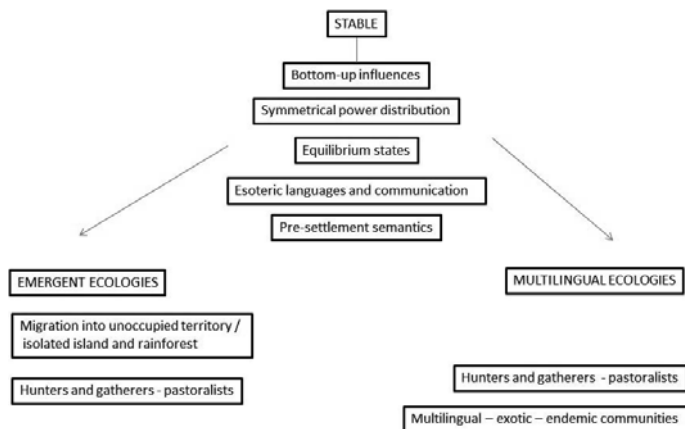
alterations in the internal structure of words and inflectional endings (e.g., Latin); agglutinative languages, which comprise a sequence of units that express a particular grammatical meaning (e.g., Japanese); and finally, polysynthetic languages, which are incorporational and whose vocabularies are often long and complex and may contain a mixture of agglutinating and inflectional features (e.g., Eskimo) (368–9).

Language diversity has its roots in the tri-partite analysis of biology, environment and culture. As Dediu (2011) has asserted, for most phenotypes there is a complex inter-relation of genes, environment and supraontogenetic processes that define language and culture. This tends to confirm the notion that individual variations in different usages of speech and language have a genetic component. These individual genetic biases may affect language use in at least two ways: firstly, by showing that genetic biases may affect the acquisition or processing aspects of language; and secondly, that aspects of speech and language can be accentuated or selected for in population-level intergenerational cultural processes that are realised by fixed universal properties of language or as structural aspects of language diversity (279). This is to acknowledge that a genetic substrate to language capacity, and potentially specific usage which is modified by environment, contributes to language culture.

Stable versus competitive language ecologies

Language diversity in ancient communities can be understood in terms of language ecologies. As Wendel and Heinrich (2012) state, these refer “to a dynamic network of relationships and interdependencies between the sociocultural, economic and environmental contingencies that impact on use, function, structure, and ways of meaning of languages and speakers.” Stable language ecologies in which there are functional relationships between languages that complement each other may be compared with competitive ecologies which are primarily hierarchical and result in language shifts in which dominant languages grow at the expense of minority languages. They also identify two sub-types of stable ecology: emergent (language in newly acquired territories) and multilingual ecologies (high levels of multilingualism and networks of speech varieties) (147–9).

Fig. 12-7: The characteristics of stable language ecologies (after Wendel and Heinrich 2012, 148)



Competitive language ecologies are defined by “punctuation,” events which include such factors as the development of writing systems, the spread of literacy and printing, scientific and technological advances, nation-state building, and the emergence of standardised languages (Wendel and Heinrich 2012, 149).

Fig. 12-8: The characteristics of competitive language ecologies (after Wendel and Heinrich 2012, 148)



Language diversity and language design

Human beings are not born with a specific propensity for any one language, but rather a genetic propensity for language use, which is subsequently modified by environment and culture. One of the central features that enables language diversity is the arbitrariness of the mapping between signal and meaning, with combinations of patterning produced from lower-level units that combine and recombine to produce language meanings. However, the features of language are at least five-fold, from low-level articulatory (or gestural) coordination, to acoustic (or visual) perception, phonology, morpho-syntax, lexicon, and the cultural context of language discourse (Dediu 2011, 280–1).

One source of language variations is the process of “fission.” This describes linguistic divergence as the result of a parent population splitting into two or more “daughter” populations as a result of migration, which occasions reduced levels of contact with the source culture and the potential for increased levels of contact from a new culture. This might result in new dialects or branches of a language family formation—a process of co-dispersal. As new dialects and language branches form due to cultural influences and geographical separation, the resulting correlation between genes and language is arbitrary given that genetic variants (e.g., halogroups, single-nucleotide polymorphism, and repeat alleles) are associated with particular linguistic groups and might result in minor physiological changes. However, this is understood as a largely random process (Dediu 2011, 282). Fehere et al. (2009) have observed this phenomenon in zebra finches, in which young males learn song from adult males. If raised in isolation they develop a divergent type of song but the original species-specific song may be re-acquired over a number of generations (quoted in Dediu 2011, 285). Furthermore, genetic biasing for certain traits influenced by cultural conditions can account for both patterns of diversity and universality shown in language (291). As Wendel and Heinrich (2012) observe, there is a correlation between high levels of biodiversity and high levels of linguistic diversity (147). There is a higher diversity of language found in “coastal regions, at lower latitudes, and in wetter and less seasonal climates,” but lower in “continental interiors, high latitudes, and in dryer seasonal climates” (Nichols 1997, 368).

From a cultural viewpoint, language diversity is a resource, not a problem. It is an asset for communication and trade. It is also a cultural factor which is protected by law. The US, for example, recognises the bilingual Education Act of 1968. In the law case of *Lau v Nichols* (1974) the US Supreme Court acknowledged the connection between native

language differences and equal education opportunity by recognising the right to bi-lingual education. Arguably governments have good reason to preserve and promote language diversity. Five factors may be used in doing so (ORC Worldwide 2009):

- Provide language training
- Use translators
- Educate employees about cultural differences
- Accommodate them
- Use multi-lingualism to develop new products

In New Zealand, ethnic, cultural, social, and linguistic diversity is increasing. New Zealand is thought to be linguistically super-diverse, having over 160 languages in use. Language diversity tolerance is seen as a basic human right (United Nations 1966), and moreover language diversity needs to be culturally recognised, resourced and promoted (United Nations 1992). Diverse ethnicities need languages for reasons of intergenerational communication and security of personal identity. At a governmental level, languages play a role in the development of a variety of different cultural areas, including education, social, economic mobility, public services, identity formation, engagement with globalised trade, and diplomacy (RSNZ 2013, 1). Provision of English language learning for speakers of other languages can be one of the most cost-effective methods of improving outcomes for non English-speaking communities (Prebble 2009). Bilingualism may also reduce the impact of cognitive biases and result in improved decision-making, executive functions, attention and working memory (Keysar et al. 2012). The delayed onset of Alzheimer's has also been reported amongst lifelong bilinguals (Craik et al. 2010). It has been suggested that bilingualism in an educational setting results in improved creative thinking, language and multi-tasking skills in comparison to monolinguals (RSNZ, 2013, 4). Grin (2004) has also recognised the following direct and indirect impacts of multi-lingualism: private monetary effects—increased earnings, or increased cognitive benefits; social monetary effects—creativity, innovation, investment; and non-monetary effects—culture- and identity-building capability, competitiveness, cost reduction.

Diversity is another feature of human languages' systems that makes communication unique. The biological basis for language nevertheless appears uniform across many species, implying that language may have evolved on pre-existing brain systems. Yet there is agreement that the origin of linguistic diversity is attributed to cultural evolution following

human migration (Baronchelli et al. 2012, 1). Consequently linguistic diversity may be attributed to a genetic adaptation for linguistic evolution, which is also shaped by non-linguistic physiology and environmental events that derive from a biological propensity for the perceptual, cognitive and pragmatic abilities that form the substrate for language use.

In bilingual or multilingual societies there is a need for translators to provide semantic equivalence between languages and to overcome language barriers. People who work with spoken language are known as interpreters, and those who work with written language, translators. As Crystal (2008) states, “The term translation is the neutral term used for all tasks where the meaning of expressions in one language (the source language) is turned into the meaning of another (the target language), whether the medium is spoken, written or signed” (417). Translators not only need to have a thorough working knowledge of two or more languages, but also have a knowledge of the field in which their tests are located and the cultural background to them.

References

- Baronchelli, Andrea, Nick Chater, Romualdo Pastor-Satorras, and Morten H. Christiansen. 2012. “The Biological Origin of Linguistic Diversity.” *Plos One* 7 (10): 1–6.
- Craik, Fergus L., Ellen Bialystok, and Morris Freedman. 2010. “Delaying the Onset of Alzheimer Disease: Bilingualism as a Form of Cognitive Reserve.” *Neurology* 75: 1726.
- Crystal, David. 2008. *How Language Works*. London: Penguin.
- Darwin, Charles. (1859) 1964. *On the Origin of Species*. New York: Mentor Books.
- Dediu, Dan. 2011. “Are Languages Really Independent From Genes? If Not, What Would a Genetic Bias Affecting Language Diversity Look Like?” *Human Biology* 83 (2): 279–96.
- Feher, Olga, Wang, Habin, Saar, Sigal, Mitra, Partha, Tchernichovski, O. 2009. “*De novo* establishment of wild-type song culture in the Zebra finch.” *Nature*, 459: 464-459.
- Grin, Francois. 2004. “On the Costs of Cultural Diversity.” In *Linguistic Diversity and Economic Solidarity*, edited by Philippe van Parijs. Brussels, Belgium: de Boeck-Université.
- Keysar, Boaz, Sayuri L. Hayakawa, and Sun Gyu An. 2012. “The Foreign-Language Effect: Thinking in a Foreign Tongue Reduces Decision Biases.” *Psychological Science* 661 (8): 661–8.

- Nichols, Joahanna. 1997. "Modelling Ancient Population Structures and Movement in Linguistics." *Annual Review of Anthropology* 26: 359–84.
- ORC Worldwide. 2009. "Global Equality, Diversity, and Inclusion." <https://www.ord-netsafe.com/knowledgecenter/pdfs/language-diversity.pdf>
- Prebble, John. 2009. "The Victoria Model: The First Four Years. A Cost/Benefit Analysis of the Skilled Migrant Programme: 2005–2008." *Language in the Workplace Occasional Papers* 9.
- Sigurdsson, Halldor A. 2011. "Uniformity and Diversity: A Minimalist Perspective." *Linguistic Variation* 11 (2): 189–222.
- Royal Society of New Zealand. 2013. "Languages in Aotearoa." <http://www.royalsociety.org.nz/media/Languages-in-Aotearoa-New-Zealand.pdf>
- United Nations. 1966. *International Covenant on Civil and Political Rights*. Article 27, Resolution 2200A (XXI), 16 December.
- . 1992. *Declaration of the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities*. Resolution 47/135, 18 December.
- Wendel, John, and Patrick Heinrich. 2012. "A Framework for Language Endangerment Dynamics: The Effects of Contact and Social Change on Language Ecologies and Language Diversity." *International Journal of the Sociology of Language* 218: 145–66.

CHAPTER THIRTEEN

GENRE THEORY

What are genres? They are cultural categories, different from although related to both subjects and subject topics. Genres are the “residue” of topic definitions and define a superset of literary style. They emerge from the grouping of collective cultural types, or “family resemblances” among texts. As Chandler (1977) points out, the word “genre,” although originally Latin, comes from French, meaning a “kind” or “classes.” It is used widely to account for the types of written contexts in rhetoric, media theory, linguistics, and literary theory (1). A genre may range from a category of writing such as comedy or tragedy, to a hybrid form of a previous established category, termed a sub-genre, such as vampire, derived from gothic and fiction writing.

As Caraher (2006) established, Plato’s *Republic* (circa 360 BCE) puts forward one of the earliest known classical theories of narrative and generic distinctions in literature (29). However, in classical times Aristotle was also credited with standardising genre studies. Genre was a powerful essentialising discourse. In classical times (perhaps more than today) writing was assumed to be linked to character; and there was also thought to be a more direct relationship between genre and metrical form (Farrell 2003, 383). Aristotle believed that there were three kinds of speech-related genres: these are deliberative (political speaking), forensic (or legal speaking), and epideictic (speech for formal social occasions such as community or family meetings) (Littlejohn and Foss 2009, 3). As Littlejohn and Foss state, “Genre theory refers to a diverse set of approaches or methods for identifying patterns in, and expectations for, a variety of communicative phenomena. In the broadest sense, a genre refers to a recurrent language-based category that guides or constrains communication” (2). However, more recently genre theorists have begun to take into account those aspects of genre theory that impact on the World Wide Web and the Internet, hence, as Askehave and Nielsen (2005) argue, it is necessary to include the concept of “medium” into genre studies (121). As such, genre, whether it applies to kinds and styles of writing whether in printed form or on the Internet, is defined as a “repertoire of

rhetorical strategies,” a means by which the text accomplishes its aim (122).

As well as being “text” dependent, genre is also culture dependent and may be conditioned by mythemes (a irreducible element of cultural theme) running through culture, and hence by cultural complexity and diversity—in terms of ethnicities, identities, values, customs and practices (Miller 1984). However, as Chandler (1977) points out, there are no non-negotiable “maps” of genres, and there is some ongoing discussion and theoretical debate about the boundary of genres. As Chandler puts it, “one theorist’s genre may be another’s sub-genre or even supra-genre,” and many genres share inter-related themes (1). Hence genres are dynamic and transformative processes of systemisation (3; Neale 1980, 51). The intertextuality of genre is also expounded by Derrida and Ronnell (1980): “The genre has always in all genres been able to play the role of order’s principle: resemblance, analogy, identity and difference, taxonomic classification, organisation and genealogical tree, order of reason, sense of truth, natural light and sense of history” (81). However “order’s principle” can also evolve and change—a feature of genres shifting borders, as Duff (2000) suggests: “In Russian Formalist theory, generic change is seen to involve competition as well as combination, and any one period tends to be ‘dominated’ by a particular genre which affects other genres by, ultimately, transforming them into hybrids of itself” (14). Thus textual history proceeds by mixture of confluence and aggregation between levels of genre interaction.

Definitions of genres are based on the fact that genres represent “textual conventions (themes or settings) and/or styles and forms that they also share with similar texts” (Chandler 1977, 3). Furthermore, there are significant differences within genres, leading to the notion of mixed-genres and sub-genres. Hence some genres may be clearly defined in any given text and some may be more open-ended or hybrid, with looser boundaries, and some texts may exhibit qualities of more than one genre. This is particularly evident in journalistic contexts in that the multivariate nature of journalistic articles leads to the notion of “heterogeneous” texts which may display multiple genre variations (2). Consequently, identifying genre or genres in any given text is problematic as linguistic trace may be unstable. Stam (2000) identifies four problems with generic labels: extension (their breadth and narrowness); normativism (preconceived ideas); monolithic definitions (the possessiveness of single genres); and biologism (a concept that narrative genres may have a life-cycle) (128–9).

Genres may change through media interaction and are hence thought to be historically relative to one another. Marxist critics might see genre as forms of inherent social control within a text which reproduce a particular ideology, and there may be a reciprocal interaction between the text and the socialisation of the genre-related ideology implicit within it. Thus the rhetorical dimension of genre establishes a relationship between the “makers and audiences” of texts, between its producers and interpreters (Chandler 1977, 4). Furthermore, there is an implicit concept of intertextuality between texts of any given genre—the fact that they exist in relation to other texts and may “refer” to each other (6). Each intertextualising text then contains three possible sub-generic meanings—those intended by the author, those inadvertently left as a consequence of the writer’s “authorship,” and thirdly, intertextual meanings that refer symbolically to other texts.

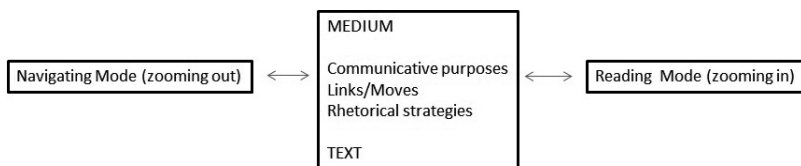
As well as providing a frame of reference which helps readers identify texts, knowledge of genres might also lead to passive consumption by readers within particular genres. Hence knowledge of genres is tacit and acquired gradually by readers, reinforcing a set of expectations producing different reader-text interactions (Chandler 1977, 7). These expectations are both a consequence of a text belonging to a particular genre and also characteristics of the writerly effect produced.

Genre studies is generally thought to be located in the structuralist paradigm—it is a concept used to describe how the elements of storytelling combine into semiotic codes that carry inherent information. An approach to genre studies is to understand it as a branch of “systemic functional linguistics” in which language structure is an integral part of a text’s social context and function, which in turn focuses on the usefulness of genre within pedagogy. Systemic functional linguistics scholars hold that language is organised based on cultural ideologies, and that individuals make linguistic choices based on the ideologies of the systems they inhabit. There is thus a “network of meanings” across a social semiotic of that culture. Texts thus have “situation types” that conform to certain kinds of cultural agenda. Thus, rhetorical genre studies scholars regard genre as a form of typified social action, as a way of acting based on current social situations and motives. Consequently, genres embody communities of knowledge and ways of acting: rhetorical genre scholars, for example, argue that it is not possible to understand a text without understanding its “ceremonial” context. This context is a set of genre repertoires—an aggregate of the available genres within a culture that function within an activity system. In literary studies, for example, genre is associated with five main categories—comedy, epic, novel, short story and

tragedy. However, when examined closely specific examples of texts may defy concrete categorisation in any one genre, or different strands of genre discourse may interact (Littlejohn and Foss 2009, 3). As a result, individual texts participate in rather than belong to specific genres. As Derrida (1980) points out, the very characteristic that signifies genre defies classification.

Jane Feuer (1992) categorises genre into three different groups: the aesthetic, which organises genre according to a set of characteristics; ritual, which uses its own culture to help classify by a taxonomical method; and ideological, which involves the marketing of texts. If genre is considered a rhetorical device, it gives the author and reader more freedom. In this way genres may be generated by authors, readers, publishers and social forces. Consequently, if genres are seen as social forces, they might also resonate with the shifting domains of public mores and reflections of the social zeitgeist. Thus genres may be considered consolidations of textual attributes, which form as a kind of social knowledge, interlinked by mutual consent—an objectified social type. Above all, however, genres are defined based on the action they accomplish: they are paradoxically both a marketing device and, as Spinuzzi (2003) puts it, a mediating tool-in-use, object in the world.

Fig. 13-9: The two-dimensional genre model (after Askehave and Nielsen 2005, 121)



References

- Askehave, Inger, and Anne E. Nielsen. 2005. "Digital Genres: A Challenge to Traditional Genre Theory." *Information Technology and People* 18 (2): 120–41.
- Caraher, Brian G. 2006. "Genre Theory: Cultural and Historical Motives Engendering Literary Genre." In *Genre Matters: Essays in Theory and Criticism*, edited by Garin Dowd, Lesley Stevenson, and Jeremy Strong. Bristol, UK; Portland/Intellect Books.
- Chandler, Daniel. 1977. "An Introduction to Genre Theory." <http://www.aber.ac.uk/media/Documents/intgenre/intgenre.html>.

- Derrida, Jacques, and Avital Ronnell. 1980. "The Law of Genre." *Critical Inquiry* 7 (1): 55–81.
- Duff, David. 2000. *Modern Genre Theory*. Essex, UK: Pearson Education.
- Farrell, Joseph. 2003. "Classical Genre in Theory and Practice." *New Literary History* 34 (3): 383–408.
- Feuer, Jane. 1992. "Genre Study and Television." In *Channels of Discourse, Reassembled: Television and Contemporary Criticism*, edited by Robert C. Allen, 138–59. London: Routledge.
- Littlejohn, Stephen W., and Karen A. Foss. 2009. "Genre Theory." *Encyclopedia of Communication Theory*. Thousand Oaks, CA: Sage.
- Miller, Carolyn R. 1984. "Genre as Social Action." *Quarterly Journal of Speech* 70: 151–67.
- Neale, Steve. 1980. *Genre*. London: British Film Institute.
- Spinuzzi, Clay. 2003. *Tracing Genres Through Organizations*. Cambridge, MA: MIT Press.
- Stam, Robert. 2000. *Film Theory*. Oxford: Blackwell.

CHAPTER FOURTEEN

CREATIVITY

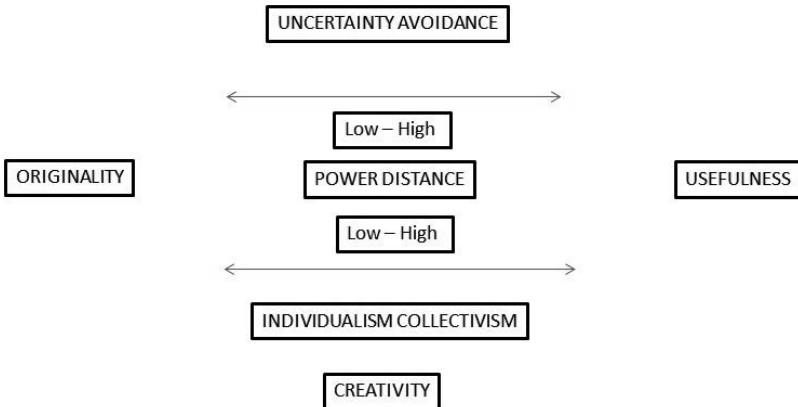
As with the evolution of human language, creativity, which, in the context of linguistic development and usage, is a process of knowledge invention and accumulation that enables complex human cultures to form, is a further psycholinguistic construct that sets human beings apart from many other species. While a gene for creativity or a neural substrate for it has yet to be found (rather it is generally considered a property of a variety of behavioural and psychological traits such as general intelligence, emotional intelligence, sensitivity and motivation), creativity is sometimes seen as a signal of genetic viability and psychological strength. It is certainly a valued quality in workplace behaviour. Creativity may be characterised by convergent and divergent thinking. Many everyday tasks require convergent thinking, which is the ability to bring disparate parts together into a single point. Divergent thinking, by comparison, is a characteristic of creativity. The ancient Greeks attributed “creativity” to the intervention of the muses, and many art theoreticians have traditionally thought of it as a mystical as opposed to a rational process. At the level of behaviour, creativity is thought of as an important component of optimal functioning, involved in problem solving, self-expression and adaptability (Lindell 2011, 481). There is also some debate over whether creativity is a lateralised feature of human neurology. A long-held view is that the left hemisphere is analytic and orders, and the right hemisphere is visual and creative. While there is some evidence for this—creativity involves the neurobiology of both brain hemispheres (479)—Aldous (2006) argues that creative thinking involves the interplay between three processes: an interaction between visual-spatial and analytical-verbal reasoning; listening to the self; and an interaction between conscious and non-conscious reasoning. However, as Csikszentmihalyi (1997) states:

It is easier to enhance creativity by changing conditions in the environment than by trying to make people think more creatively. And a genuinely creative accomplishment is almost never the result of a sudden insight, a light bulb flashing on in the dark, but comes after years of hard work. (1)

Thus in any creative enterprise there may be a tension between individual inspiration and creating the conditions to make creativity possible—creativity may wax and wane in the writer’s imagination like a candle flickering on a window-ledge.

For Bahktin (1984) the differential features of language also make it inherently creative: that is, meanings are produced from a diverse lexicon of grammatically (or structurally) interconnected word associations. Language is heteroglossic (composed of many different styles of discourse) and includes different social languages; it is polyphonic (or capable of carrying many voices); it is dialogic (and addresses particular people or contexts); and it is intertextual (and involves chains of communication). Thus language is both immaterial yet has dimensionality; it has surface features (semiotics) yet has depth (meaning); it has “currency” (it is usable or tradeable) and it is interchangeable with (the sometimes inarticulate) thoughts, ideas and *qualia*—the qualities of experience both internal and external to the speaker/writer/reader.

Fig. 14-10: Cultural values and creational dimensions (after Erez and Nouri 2010)



Arguably, although it may be in part approached by an individual, creativity is a communal activity which engenders a shared reality (Chiu and Kwan 2010, 455). Many different factors are involved in organisational creativity and creating the climate for creativity. Creativity, be it biological, organisational or technological, is a basic but rare and highly valued feature of human life. In order to give definition to creativity within language and life it is necessary to look at a variety of factors. These include the characteristics of a creative person, the creative process, the relationship of the person within an entity or organisation, and the

“climate for creativity” (Lassk and Shepherd 2013, 25). Creativity can be characterised by two kinds. Firstly, “big C” creativity locates a creative enterprise as “a complex set of behaviours and ideas exhibited by an individual,” while second-generation “small C” creativity locates creative enterprise in collaborative processes and products—drivers of a digital economy (McWilliam and Dawson 2008, 633). Gardner (1994) also asserts that judgements concerning creativity are necessarily communal. Thus, creativity can be thought of as a construct that involves new or original ideas which are accepted by experts as being of “scientific, aesthetic, social or technical” value (Klausen 2010, 351).

Creativity thus requires workplace support and involves a three-way interaction between the effects of a pro-active personality, job creativity and employee support—a function of individual and situational factors (Kim et al. 2010, 38). Creativity is thus closely related to task outcomes. A person or an element of language can be considered creative in her, his or its own right (a form of intrinsic creativity), but creativity is most useful when it is involved in generating a certain outcome, or finding a solution to a problem. While the stylistic features of creative language such as metaphor, synonym, antonym are well known, less well known is the way in which creativity can be fostered in people. Just as in language use, certain factors in educational and organisational behaviour may influence, enhance or inhibit creativity. As Lassk and Shepherd (2013) point out, one such factor is “emotional intelligence” (25). The relationship between employee creativity and emotional intelligence is somewhat correlational. The reason for this is that “emotionally intelligent leaders create an environment of trust and respect that encourages workers to feel free to propose unconventional and goal-orientated ideas” (25). Inherent in this concept of organisational creativity is that creativity must be applicable and useful as well as being novel. Lassk and Shepherd identify six “thinking traits” or “cognitive styles” involved with people exhibiting creative behaviours. These are: broad interest, attraction to complexity, intuition, aesthetic sensitivity, toleration of ambiguity, and self-confidence (26). Thus generality, sensitivity and an ability to focus and bring together different concepts and constructs in a new vision are necessary for creative behaviours. Kim et al. (2010) suggest that employee creativity helps organisations to gain advantages through innovation (37). Within an organisational context it refers to the creation of valuable, useful products and services, ideas, and procedures for individuals working in complex systems (37). However, as Klausen (2010) suggests, creativity can involve intangible elements and need not necessarily be verifiable since it may be of an immaterial kind (such as a thought, virtual code or intellectual

property) (351). Creativity also involves the faculties of the imagination, which may or may not be applied to a given context to create new meanings. It might also be combined with memory and reason—which Francis Bacon identified as central tenets to the European Enlightenment.

Intrinsic motivation is also associated with creativity: if the individual is fully engaged and motivated with the work itself, he or she is more likely to stay focused. Thus emotional intelligence is seen as accounting for variance in people’s problem-solving ability and emotional problems (Lassk and Shepherd 2013, 26). Indeed, as Chiu and Kwan (2010) suggest, “existential anxiety could be a powerful driver of extraordinary creativity and path-breaking innovations” (455). This is because anxiety may act as a stimulant for new behaviours, thoughts or adjustments to environmental stimuli. Emotional intelligence itself is defined as a mixture of traits which include “happiness, self-esteem, optimism, and self-management” (Lassk and Shepherd 2013, 26). It differs from IQ in so much as the latter is a measure of cognate abilities (however sceptical one might be of its validity), and by comparison could be thought of as an ability to “get along” with others in a pleasant way while maintaining a good-humoured demeanour. The “four-branch” model involves emotional intelligence as, firstly, accurately perceiving emotion; second, using emotions to facilitate thought; third understanding emotion; and fourth, managing emotion. It applies specifically when emotional intelligence applies to the ability to generate and respond to emotions that provide substance for thought, motivation and action. Inherent in this concept is that, as Damasio (2006/1994) suggests, intelligent decision making includes emotion and emotional regulation in communication exchange.

According to Zhou and George (2003), emotionally intelligent leaders influence creativity through five methods: identification, information gathering, idea generation, evaluation, and modification. Tsai and Cox (2012) go so far as to say that, in an increasingly globalised society and turbulent educational and business environment, “creativity is a *sine qua non* [but for, cause] of organizational survival” (1). A business must constantly evolve, adapt and change in order to survive. The business conditions for creativity include stable competitive markets or an ability to respond to unstable markets in a positive way (Stuhlfaut and Windels 2012, 795). Stuhlfaut and Windels also suggest that in the advertising creative context (other organisational contexts may be included), there is a creative code which involves shared meanings, values, and “rules of thumb” for what is creative (and what isn’t creative) (795). Consequently, in order for conditions of creativity to be made and creative individuals to thrive, expectations and perceptions must be matched within the

workplace with regard to task satisfaction, collaborative achievement, and others' perceptions of creative efficacy (809). Florida (2002) discerned the rise of a creative class whose function is to "create new ideas, new technology, and/or new creative content" (quoted in Tsai and Cox 2012, 1).

On the personality side of creative development, according to Maslow (1971), people also censor creativity out of fear or weakness. Hence Maslow identified necessary characteristics of creative people as possessing courage, stubbornness, independence, self-sufficiency, and strength of character. In order to be creative, defiance of certain kinds of group-thinking is also necessary. According to Amabile (1996), the creativity of individuals requires three elements: domain-relevant skills (knowledge); creativity relevant skills (cognitive and working style); and task motivation (attitude and perception). Hence creativity needs six resources: intelligence, knowledge, thinking styles, personality, motivation, and environment. Whilst creativity might be characterised by open-mindedness, quick thinking, critical thinking, risk taking, encouragement and flexibility (Tsai and Cox 2012, 3), to some extent these are everyday activities involved in day-to-day problem solving. All problem solving exists on a continuum from routine to highly complex.

Haseeb (2011) modifies this formulaic approach to creativity to suggest that it has five different categories of transformation. These are: a first *insight* to define a problem; secondly, a *preparation period* to discern possible approaches to a solution; thirdly, an *incubation stage* where concepts and ideas are gestated; fourthly, a *period of illumination*, which may represent a solution to a problem posed in the creative process; and fifthly, a *period of verification* in which there is demonstration of ideas and a group judgement (269). The way in which creativity itself is perceived is also complex. Creativity, while perceived as a virtue, may in fact in and of itself be immoral. As Mmarevic (2011) suggests, "Most people tend to see ... creativity in a rather simple fashion as something positive, but in a modern, globalized society, this 'angelic' view can represent a misleading picture of the phenomenon" (8). There is no single definition. For example, is it an inherent property or value, or something to which a value is assigned, or indeed a social construct? For most purposes, creativity may be defined as, firstly, the use of the imagination, secondly, the pursuit of a purpose, third, originality, and fourth, the assignment of value. Arguably creativity cannot be understood from any single perspective but is to be comprehended from a variety of viewpoints and perspectives. The economic vision of creativity sees it as being involved in cycles of creation, production and distribution of goods and services, as the result of

a series of knowledge-based activities, and potentially generating comment, exchange or other kinds of intangible or tangible values. Simonton and Ting (2010) define creativity in social utility terms as **C(reativity) = N(ovelty) X U(efulness)** (quoted in De Dreu, 2010, 439).

Fitzhugh (2006, 42-46) argues that, in education, to stimulate creative thinking the following factors are involved:

- Brainstorming for ideas
- Choice in developing solutions
- A deep knowledge base
- Openness to new ideas
- Variety of information sources
- Organising ideas into categories
- Trial and error in procedure
- Assessment of expectations
- Encouragement in the task
- Combining elements to make a new concept or entity

Critical thinking and creative thinking are related. Both involve purposeful thought or action, effective assessment of information, solving problems, making decisions, and finding solutions (Halpern 2010). Creativity is a process that results in novelty accepted as tenable, useful or satisfying (Amabile 1996). For Amabile an event, circumstance, product, process, or language is creative if people say it is creative. De Sousa et al. (2012) view creativity as a form of persuasion: with “persuasive communication” the creator is a source of an original product message; the audience is recipient: the result is a new product or set of circumstances which show exceptional personal influence, involving a process with underlying capacity to shift in roles, develop dialogue in work, anticipate reaction. Creativity is connected to what is perceived as new by someone other than the originator; a creative process puts to use an idea in the domain of production, adoption, implementation, diffusion, commercialisation. For De Sousa et al., every creative act produces an idea or product. However, a social act is required to promote it and that is why even individual acts of creativity need recognition and promulgation by others (29). Creativity usually involves brainstorming—classic steps of objective finding, fact finding, problem finding, solution finding, decision making, and action planning. The four-step method is defined by *action plan—action—problem—objective* (36). The pedagogical principles of creativity are five-fold: they include connectivity with diversity; co-invention or co-creation; leading and following; enhancing constraints and

the removal of inhibitors; less explanation and tolerance of error (McWilliam and Dawson 2008, 639). Csikszentmihalyi (1999) argues that it is the community and not the individual that is the basic unit of creativity, and to which its emergence can be attributed. Elements of team creativity are separation, alignment and cohesion. Furthermore, although certain qualities of creativity (such as behavioural, intelligence, inquisitiveness) may be to some extent inherited, there is no single gene for creativity. As Csikszentmihalyi (1997) explains:

...a new idea or invention is not automatically passed on to the next generation. Instructions for how to use fire, or the wheel, or atomic energy are not built into the nervous system of the children born after such discoveries. Each child has to learn them from the start. The analogy to genes in evolution of culture are memes, or units of information that we must learn if culture is to continue. Languages, numbers, theories, songs, recipes, laws and values are all memes that we pass on to our children so that they will be remembered. It is these memes that a creative person changes, and if enough of the right people see the change as an improvement, it will become part of the culture. (7)

According to Amabile (1996), the major antecedents of creativity are: firstly, domain-relevant skills; secondly, mental processes of breaking perceptual and habitual sets; thirdly, task motivation; and fourthly, context—specific situation and social environment. Thus a writer first discerns a particular context to his or her writing, musters together the necessary thought processes and genre styles to tackle the writing problem, is stimulated by the sequences of ideas that flow from the consideration of an issue, and lastly applies this in prose form to a writing narrative. Although creativity involves divergent thinking, it also has five elements of convergence. These are a conceptual basis (insight, idea, problem, solution or product) that is useful or applicable; that is uncommon, rare, or novel; that is statistically infrequent; that is original; and which provides a solution or “makes sense”. Thus creativity and analytical thinking are on a continuum: to be creative one must be generative, just as to be analytical is to search through a variety of options to find the most plausible causal links or alignment of ideas that create an understanding.

Metaphor is one of the most compelling linguistic features that is aligned with creativity. As Cameron (2011) states, “A ‘conceptual metaphor’ is held to be a structure of thought that does not just connect two disparate ideas but that provides cognitive architecture to link the two together in a way that enables understanding” (70). Forms of textual creativity include word play, experiments with narrative structure and, if in

a spoken context, voice quality or, in a virtual context, the use of emoticons. Contextualised creativity may involve cultural understandings necessary for joking, and critical creativity can involve a conversational narrative which indicates a moral stance, a comic subversion of authority, or the use of poetical language (Swann and Pope 2011, 17). Thus creativity as a linguistic device has a multi-modality: it provides both affordances and constraints to written and verbal expression, and above all has transformative properties. It might be useful, then, to conceptualise creativity as an analogue of critical writing. The two modes are far from distinct and may in fact be interrelated: just as there is a motivational impetus in creativity, it in turn can stimulate the application of reasoned thought to prose writing.

References

- Aldous, Carol. 2006. "Attending to Feeling: Productive Benefit to Novel Mathematics Problem Solving." *International Education Journal* 7 (4): 410–22.
- Amabile, Teresa M. 1996. *Creativity in Context: The Social Psychology of Creativity*. Boulder, CO: Westview Press.
- Bakhtin, Mikhail. M. 1984. *Problems of Dostoevsky's Poetics*, C. Emerson, Trans. Vol. 8, Minneapolis: University of Minnesota Press.
- Baker, Diane F., and Susan J. Baker. 2012. "To 'Catch the Sparkling Glow': A Canvas for Creativity in the Management Classroom." *Academy of Management Learning and Education* 11 (4): 704–21.
- Cameron, Lynne. 2011. "Metaphor in Prosaic and Poetic Creativity." In *Creativity in Language and Literature: The State of the Art*, edited by Joan Swann, Robe Pope, and Ronald Carter, 68–82. New York: Palgrave MacMillan.
- Chiu, Chi-Yue, and Letty Y-Y Kwan. 2010. "Culture and Creativity: A Process Model." *Management and Organization Review* 6 (3): 447–61.
- Csikszentmihalyi, Mihaly. 1997. *Creativity: Flow and the Psychology of Discovery and Invention*. New York: Harper Collins.
- . Mihaly. 1999. "Implications of a Systems Perspective for the Study of Creativity." In *Handbook of Creativity*, edited by R. Sternberg, 313–35. Cambridge: Cambridge University Press.
- Damasio, Antonio. (2006/1994). *Descartes Error: emotion, reason and the human brain*. London: Vintage.
- De Dreu, Carsten K. W. 2010. "Human Creativity: Reflections on the Role of Culture." *Management and Organisational Review* 6 (3): 437–46.

- De Sousa, Fernando C., Rene Pellissier, and Ileana P. Monteiro. 2012. "Creativity, Innovation and Collaborative Organizations." *International Journal of Organizational Innovation* 5 (1): 26–64.
- Erez, Miriam, and Nouri, Rikki. 2010. "Creativity: The Influence of Cultural, Social, and Work Contexts." *Management and Organisation Review* 6 (3): 351–370.
- Fitzhugh, Will. 2006. "Where's the Content?" *Educational Leadership* 64 (2): 42–46.
- Gardner, Howard. 1994. "The Creator's Patterns." In *Dimensions of Creativity*, edited by M. A. Boden, 143–58. Cambridge, MA: MIT Press.
- Halpern, Diane F. 2010. "Creativity in College Classrooms." In *Nurturing Creativity in the Classroom*, edited by R. A. Beghetto and J. C. Kaufman, 380–93. Cambridge: Cambridge University Press.
- Haseeb, Qubad S. 2011. "Creativity in Architecture Definition and Its Effect on Architectural Thought." *European Journal of Scientific Research* 2 (2): 267–72.
- Kim, Tae-Yeol, Alice H. Y. Hon, and Deong-Ro Lee. 2010. "Proactive Personality and Employee Creativity: The Effects of Job Creativity Requirement and Supervisor Support for Creativity." *Creativity Research Journal* 22 (1): 37–45.
- Klausen, Soren H. 2010. "The Notion of Creativity Revisited: A Philosophical Perspective on Creativity Research." *Creativity Research Journal* 22 (4): 347–60.
- Lassk, Felicia G., and David C. Shepherd. 2013. "Exploring the Relationship Between Emotional Intelligence and Salesperson Creativity." *Journal of Personal Selling and Sales Management*. XXXIII (1): 25–37.
- Lindell, Annukka K. 2011. "Lateral Thinkers Are Not So Laterally Minded: Hemispheric Asymmetry, Interaction, and Creativity." *Laterality* 16 (4): 479–98.
- Maslow, Abraham. 1971. *The Farther Reaches of Human Nature*. New York: Viking.
- McWilliam, Erica, and Shane Dawson. 2008. "Teaching for Creativity: Toward Sustainable and Replicable Pedagogical Practice." *Higher Education* 56: 633–43.
- Mrnarevic, Pero. 2011. "Creativity—Vice or Virtue? A Study of Different Visions of Creativity." *Politicka Misao: Croatian Political Science Review* 48 (4): 7–25.

- Simonton, Dean K., and Shing-Shiang Ting. 2010. "Creativity in Eastern and Western Civilizations: The Lessons of Historiometry." *Management and Organization Review* 6 (3): 329–50.
- Swann, Joan, and Robert Pope. 2011. "Introduction: Creativity, Language, Literature." In *Creativity in Language and Literature: The State of the Art*, edited by Joan Swann, Robert Pope and Ronald Carter, 1–22. New York: Palgrave MacMillan.
- Stuhlfaut, Mark W., and Kasey Windels. 2012. "Measuring the Organisational Impact on Creativity: The Creative Code Intensity Scale." *International Journal of Advertising* 31 (4): 795–818.
- Tsai, Kuan C., and Michelle S. Cox. 2012. "Business Students' Beliefs about Creativity." *Journal of Business Studies Quarterly* 4 (2): 1–10.
- Zhou, Jing., and George, Jennifer. M. 2003. "Awakening employee creativity: The role of leader emotional intelligence." *Leadership Quarterly*, 14: 545-568.

CONCLUSION

Writing is an art and a science, a learned behaviour, a controlled response, an articulatory device, a form of instruction and meaning creation. Effective academic prose writing involves the practice of critical reading. It requires learning to examine writing for its authorial viewpoints, identifying limits to meaning, strong points, ideas, concepts and arguments, which are meant to cohere into structures of meaning called narratives. Forming the latter clearly is the purpose of academic writing. Efficient readers are usually also effective writers. In order to be an effective academic prose writer one needs to be open to constant improvement; one needs to write plainly and make good sense; one needs to be aware of how writing differs from (though it might be related to) speech. Effective prose writing also involves a process of re-reading, of editing and proof-reading. Arguably, to be an effective academic writer one needs to speak clearly and to have good interpersonal skills. A well-written document flows in a logical way and uses the technical aspects of writing well, such as spelling, punctuation and grammar.

This book has provided an outline of the basis of effective essay-writing skills; it has examined the classical basis of oration and the lecture format, and has suggested techniques for public speaking. It has also described basic considerations in writing in the virtual medium World Wide Web. It has critically explored the interdisciplinary corpus of digital humanities. It has examined the concepts of “authoritative writing” in a legal context, and outlined the basis of persuasive rhetoric in writing composition. It has introduced and contextualised sources of reasoning bias that may influence critical writing. It has outlined the basis of straightforward prose style. The academic subjects that are concerned with the structure of writing effects—philosophy of language, language evolution, psycholinguistics and language diversity—have been introduced and discussed from the current “state of the science” literature. Genre theory—a cornerstone of academic writing characteristics and styles—has been outlined in basic form; and, finally, the generative concept of “creativity” in writing and critical thought has been discussed. The writer’s intention is that the reader, having read the book, will be better informed about the processes and practices of academic prose writing.

INDEX

- Abstract 4
- Anthropomorphic bias 50, 51
- A Priori 78
- Architextuality 34
- Argument 3, 4, 7, 44, 47, 70
- Attributional biases 52
- Availability heuristic 34
- Baldwin effect 92
- Bandwagon bias 50
- Begging the question 55
- Behavioural paradigm 98
- Biases of inattention 47
- Bistable illusion 45
- Book of Genesis 84
- Broca's area 93
- Bruni 23
- Cicero 10, 23
- C-induction 93
- Cognitive bias 47, 58
- Communication 80
- Compositional writing 59, 60
- Confabulation 51
- Consensus ad idem 51
- Content relationships 16
- Content granularity 16
- Content interactivity 16
- Conversational implicatures 58
- Cooperative principle 58
- Creativity 119, 120, 122, 123
- Cross-domain mapping 45
- Cultural containment 90
- Cultural evolution 90
- Customised content 16
- Declarative sentence 63
- Deductive paragraphs 5
- Dictamin 59, 60
- Diction 59
- Digital computing architecture 23
- Digital humanities 23-36
- Draft essay 6
- Dynamic content 16
- Emotionally intelligent 121
- Enthymemes 44
- Essay plan 3
- E-scholarship 32
- Ethos 43
- Evolutionary archaeology 93
- Expectancy bias 48
- Genes 88
- Genre theory 113-115
- Faculty of Language 90
- Focusing illusion 51
- FOXP2 gene 88
- Framing effects 49
- Habeus corpus 81
- Human agency 49
- Human communication 93
- Hypertextuality 36
- Imperative sentence 65
- Inductive paragraphs 5
- Information architecture 17
- Information and Computer Technology (ICT) 5
- Initial perception 51
- Interactive lecturing 13
- Interrogative sentence 65
- Intrinsic motivation 124
- IQ 124
- Isomorphism 85
- Language ecologies 109, 110
- Language evolution 85
- Law 40
- Layers 3
- Lecture 13
- Legal reasoning 40,41,43
- Linear Conduit Model 83
- Linguistic diversity 92, 107, 108
- Linking paragraphs 5

- Logical reasoning 43
Logos 45
Mandelbrot's hypothesis 101
Memory 3
Metaphorical meaning 44, 45
Metatextuality 36
Micro-blogging 16
Modularity hypothesis 103
Morphosyntax 61
Narration 61
Negotium 41
Chomsky, Noam 87
Note taking 3
Observer-participant bias 50
Ontology 80
Parallelism 65
Pathos 45
Persuasive writing 64, 68
Philosophy of language 79-82
Phonetics 58
Phonology 58
Physiological capability 94
Plato 115
Poesis 30, 32
Post-hoc fallacy 56
Prose writing xi, 75, 76
Primary sources 2
Psycholinguistics 61-65
Public relations writing 43
Qualia 122
Rationalisation 51
Repetition 62
Rhetorical argument 39, 40, 54, 60
Russian formalist theory 114
Sapir-Whorf theory 100
Scaffolding 3
Selection bias 48
Self-situational bias 52
Semantic meanings 78, 97
Semiotics 120
Sentence skill 59
Synopsis 4
Speech 9-14
Stipulatio 39
Straightforward prose style 73-76
Strategic manoeuvring 41
Studia humanitatis 23
Techne 23
Text-mining 26
Tower of Babel 84
Twitter 16
Typological approach 106
Universal Grammar 85
Web pages 15
Wernicke's area 93
World Wide Web 15, 18, 19
Web content 15
Web 2.0 18, 20
Warrant 46
Writing effect 85