

# **Passive be damned: The construction that wouldn't be beaten**

---

A thesis submitted in partial fulfilment of the  
requirements for the Degree  
of Master of Arts in Linguistics  
at the University of Canterbury

by Stu Allan

University of Canterbury

2009

---

In language there are no licensed practitioners, but the woods are full of midwives, herbalists, colonic irrigationists, bonesetters, and general-purpose witch doctors, some abysmally ignorant, others with a rich fund of practical knowledge – whom we shall lump together and call shamans.

–Dwight Bolinger, quoted by Steven Pinker (1994, p. 399)

# Contents

<b>Abstract</b> .....	7
<b>Chapter I: Unstable foundations</b> .....	8
1 Introduction.....	8
2 Foundations of voice.....	9
2.1 Sentence slots.....	10
2.2 Valency, transitivity, and definitional challenges.....	15
2.3 Is voice a property of verbs or clauses?.....	17
3 Understanding passivisation.....	18
3.1 Structural-rule approaches.....	18
3.2 Lexical-rule approaches.....	22
3.3 Functional approaches.....	25
3.4 Conceptual approaches.....	26
4 Conclusion.....	26
<b>Chapter II: The English passive</b> .....	27
1 Introduction.....	27
2 The nature of the English passive.....	28
2.1 Passive auxiliaries.....	28
2.2 Lexical verb marking.....	36
2.3 Noun-phrase rearrangement and the <i>by</i> -phrase.....	39
2.4 Active / passive correspondence.....	46
2.5 A diagnostic tool.....	49
3 Classifying the English passive.....	51
3.1 Actional or stative.....	52
3.2 Agentive or non-agentive.....	55

3.3 Multiple passives.....	57
3.4 Passives in other lexical categories.....	58
4 Conclusion.....	59
<b>Chapter III: Is there a universal passive?.....</b>	<b>61</b>
1 Introduction.....	61
2 Cross-linguistic findings.....	62
2.1 Are passives fossil constructions?.....	62
2.2 The search for a definition of passive.....	63
3 Cross-linguistic theories of passivisation.....	69
3.1 Is passive a promotional or demotional rule?.....	69
3.2 Affectedness and control.....	73
4 Pieces of the typology puzzle.....	75
4.1 Basic or derived voice.....	75
4.2 Personal or impersonal voice.....	79
4.3 Pragmatic voice.....	81
5 Fuzzy edge typology.....	82
5.1 Scales, squishes, clines, gradients, or continuums.....	83
5.2 Conceptual space.....	85
5.3 Mapping voice constructions.....	88
6 Conclusion.....	90
<b>Chapter IV: Passive resistance.....</b>	<b>91</b>
1 Introduction.....	91
2 Hypocritical advice.....	92
2.1 Passive voice should be avoided.....	92
2.2 Frequency of passives.....	93
3 Why passives are damned.....	95
3.1 Passive voice versus passivity.....	97

3.2	Lack of clarity and grace.....	98
3.3	Misuse.....	104
4	Why passives resist.....	107
4.1	Different perspectives of the same event.....	108
4.2	Detransitivisation.....	117
4.3	Topicalisation.....	119
4.4	Impersonalisation.....	126
5	Conclusion.....	133
<b>Chapter V: Reading passives.....</b>		<b>134</b>
1	Introduction.....	134
2	Readability.....	135
2.1	What is readability?.....	135
2.2	Measuring readability.....	137
2.3	The readability of passives.....	144
2.4	Dependencies and efficiencies.....	147
3	Sentence interpretation.....	148
3.1	Collecting information.....	149
3.2	Parsing and interpretation.....	153
3.3	Interpreting passives online.....	163
4	Conclusion.....	170
<b>Chapter VI: Building on the literature.....</b>		<b>172</b>
1	Introduction.....	172
2	Ways of knowing.....	173
2.1	Views of reality.....	173
2.2	Research methods in reading studies.....	173
2.3	From a positivist to an interpretive position.....	175
2.4	Methodology.....	176

2.5	Limitations.....	177
3	Ideas emerging from the literature.....	178
3.1	Defining passive.....	178
3.2	Mapping voice constructions.....	179
3.3	Appropriate use.....	179
4	Case studies.....	179
4.1	Case 1.....	180
4.2	Case 2.....	181
4.3	Case 3.....	182
4.4	Case 4.....	184
4.5	General discussion.....	185
<b>Chapter VII: Conclusions.....</b>		<b>188</b>
1	Findings.....	188
1.1	The roles of passives.....	188
1.2	The readability of passives.....	190
2	Future directions.....	191
2.1	Definitional issues.....	191
2.2	Frequency issues.....	191
2.3	Syntactic issues.....	193
2.4	Readability issues.....	194
<b>References.....</b>		<b>197</b>
<b>Appendices.....</b>		<b>219</b>
A	Case study survey form.....	219
B	Sample case study text.....	223
<b>Acknowledgements.....</b>		<b>231</b>

# Abstract

This thesis brings together two different lines of research, the nature of passive voice, the nature of readability. Commonly, languages have a range of tools for detransitivisation, topicalisation, and impersonalisation, of which passivisation is one (Givón, 1981). Passives have important roles in our language, and prescribing against their use lacks a full understanding of these roles. Much of the concern around passives from writers, editors, and teachers is no more than folklore that has not clearly analysed various writing and reading problems. Many awkward sentences are not awkward because they use passives but because they are wordy, clumsy, or pretentious. Most criticisms have little basis in linguistic theory, and rarely is there more than passing mention of the important role that passives play in communication.

Some uses of passives are inappropriate, being vague, ambiguous, or even deceitful. These inappropriate uses of passive voice give the construction a bad name. They have become ammunition for prescriptive grammarians to fire at all uses of passives, often with weak analysis and minimal reference to linguistic theory. 'Avoid passives' has become a mantra.

I tentatively suggest that there is unlikely to be a cost to processing passives. Given the speed at which the brain processes clauses, any differences in readability (if they exist) must be miniscule. Consequently, I suggest that any differences are unimportant relative to the benefits that appropriately used passives bring to readability. Furthermore, appropriately used passives may actually improve readability, especially when there is greater interest in the passive subject than the active subject, and when the passive serves to connect clauses or sentences.

# Chapter I

## Unstable foundations

Language has grown up like any big city: room by room...house by house, street by street...and all this boxed together, tied together, smeared together.

–Fritz Mauther, quoted by Simon Blackburn, (1984, pp. 7–8)

### 1 Introduction

Voice is an ambiguous term. On one hand, voice is a writer's persona, which is about tone, point of view, and rhetorical stance (Schriver, 1997). On the other hand, voice is a grammatical concept, a property of verbs, along with tense, aspect, mood, number, and person (although I revise this concept in section 2.3). It is voice as a grammatical concept that this thesis studies, particularly passive voice<sup>1</sup>. The Chicago Manual of Style (2003, p. 176) states:

Voice shows whether the subject acts (active voice) or is acted on (passive voice) – that is, whether the subject performs or receives the action of the verb...Compare *the ox pulls the cart* (active voice) with *the cart is pulled by the ox* (passive voice).

This thesis brings together two different lines of research, one attempting to understand passives, the other attempting to understand how readers interpret a sentence. The close cousin of the latter is the field of readability – the ease the reader has in reading a text. By bringing these different lines together in one study, I hope to explain why style guides and

---

<sup>1</sup> Usually in this thesis I use the terms 'passives' and 'actives' to refer to passive voice constructions and active voice constructions. Sometimes grammarians use the terms active and passive sentences, but I usually refer to active and passive clauses, being the grammatical units under consideration. Often these clauses are sentences, but not always. Complex sentences have multiple clauses, and those clauses may vary in their voice type.

teachers commonly call for writers to avoid the passive, and demonstrate that their entreaties are simplistic and even misguided.

'Misguided' is a strong term, but researchers such as Pinker (1994) note that prescriptive grammar assumes that someone somewhere makes the rules, but the rule-makers are a loose body of writers, editors, and teachers who claim authority from past practices. Pinker calls prescriptive grammarians 'language mavens' (after the Yiddish word for expert), and their rules 'folklore that conform neither to logic or tradition...' (p. 373). He argues that we need to replace old-wives' tales with the best scientific knowledge available. I aim to demonstrate as logically as possible that passives have important roles in our language and that prescribing against their use lacks a full understanding of these roles.

As I show in Chapter 2, a passive construction is the sum of various parts. In this chapter, I review these parts and their interrelationships in preparation for determining what a passive is. I then review various approaches that linguists have taken to understanding passivisation. Together, these two reviews provide a basis for examining the English passive (Chapter 2), the universal passive (Chapter 3), and the use of passives in English (Chapter 4).

## **2 Foundations of voice**

Definitions of passives assume a consensus on the foundations or sentence constituents that passives rest on. I will briefly examine these foundations and show that they are difficult concepts to base definitions on, including a definition of the passive which typically involves sentence constituents.

## 2.1 Sentence slots

Aitchison (2003, p. 161) talks of slots in the sentence: subject, direct object, and indirect object slots, not to overlook the verb, which she calls '...the maypole around which a sentence revolves'. These slots are places in the sentence which the foundations of the sentence tend to occupy, and these foundations are generally well understood at a working level. They are actually foundations of clauses, they need not all be present in a clause, and their definitions are so controversial that some linguists avoid the terms.<sup>2</sup> Chomsky (1965, p. 68) emphasises that they are 'functional notions...that are to be sharply distinguished from categorical notions such as Noun Phrase....' Nevertheless, any exploration of voice and definition of passive relies on these foundations to explain different ways of constructing clauses for different purposes.

### 2.1.1 Subjects

Jespersen (1924) details different uses of the term subject, including 'psychological subject', 'logical subject', and 'converted subject' for noun phrases that occur in initial sentence position in passives. However, he prefers to use subject in its grammatical sense, which he sees as the primary words, that is, words that are 'more firmly fixed and resemble rocks rising from the water' (p. 150). Jespersen notes that word order does not always determine the subject in English but it often does and that, in sentences with alternations, some linguists dispute which noun phrase is the subject. He makes two interesting observations: the issue is not very important, and it seems natural to take the proper noun as the subject.

---

<sup>2</sup> Dixon (1979) introduced the symbols A (transitive subject), S (intransitive subject) and O (object), to make comparisons between languages with very different structures, although his focus is on the semantic participants in the clause. Siewierska (1984, p. 20) adopts these terms, substituting, P for O, and refers to them as 'syntactic primes'. Croft (2001) uses the terms 'object-like', 'subject-like', and 'oblique-like'. I use the conventional terms while recognising the difficulties in applying them, especially cross-linguistically.

However, elsewhere, he discusses the concept of given-new information, which could make the order very important, and he does not consider sentences with two proper nouns.

English is characterised as a SVO language (subject-verb-object order being the norm), and Johnson-Laird (1968a) shows that subjects are more important than objects. In fact, Chomsky (1981) argues that every clause must have a subject and it is defined by its structural position in the sentence.<sup>3</sup> Various people, eg Bresnan (1982), stress that this is not so and that semantics also has a role. In fact, subject has been defined in syntactic terms, eg verb agreement and passive; in semantic terms, eg agent; in pragmatic terms, eg topic; and in morphological terms (case).

A common semantic approach characterises subjects as external arguments of the verb (see section 2.2). This approach assumes that the links between subject and verb are less binding than the links between verb and object (an internal argument) although, as Warner (1993) points out, there are differences among languages.

Keenan (1987a) lists 30 possible properties of subjects, including independent existence (the entity referred to exists independently of the action), autonomous reference (who or what the subject refers to is clear before other sentence elements come into play), and indispensability (usually, subjects cannot be eliminated and leave a complete sentence, Tongan being an exception). It is not a large step from such a list to the notion that subjecthood is a matter of degree (Roland, 1994). Davies and Dubinsky (2001) take a different approach, suggesting that there are multiple subject positions and that subject properties are distributed across them, eg subjects in initial position may have distinct

---

<sup>3</sup> However, Chomsky (1965, p. 163) cites Wilson (1926) who argues that in the clause 'glass is elastic', 'if the matter of enquiry was elasticity and the question was what substances possess the property of elasticity.... 'glass' would have to be the predicate....'

properties from subjects in final position. They conclude that it appears that 'no unified notion of subject exists.' (p. 247).

### 2.1.2 Verbs

Most people might expect Aitchison's 'maypole'<sup>4</sup> to be a solid foundation, but consideration of stative verbs raises questions around the exact nature of verbs: the standard definition taught in schools that it is an action word can hardly apply to *believe* or *like* for example. Add to this uncertainty the reanalysis debate where some linguists, eg Bach (1979) and Bresnan (1982) argue that readers reanalyse the verb plus the preposition phrase to form a complex verb (a lexicalised dyad or a pair with special meaning). Radford (1988) points out that such reanalysis is only permitted when the verb and preposition are immediately adjacent, eg:

- (1) a. Everybody **stared at** her.
- b. She was **stared at** by everybody.
- c. Everybody **stared** straight **at** her.
- d. \*She was **stared** straight **at** by everybody.

Postal (1986) illustrates problems with the reanalysis rule (reanalysis may be optional, and in cleft sentences the conjunction may become intertwined with the complex verb). It appears that a verb and a preposition is a complex verb in some situations but not in others. Clearly, a key foundation concept is not fully agreed. However, there is general agreement that the meaning of the verb affects the other constructions in the sentence by specifying the roles

---

<sup>4</sup> Pinker (2007, p. 31) describes the verb '...not just a word that refers to an action or state but the chassis of the sentence. It is a framework with receptacles for the other parts – the subject, the object, and various oblique objects and subordinate clauses – to be bolted on.'

that nouns can play – variously called semantic roles, case roles, semantic relations, thematic relations, or theta roles.

### 2.1.3 Objects

Jespersen (1924) sees the object as the primary that is less special. It is the person or thing on which the verb's action is performed. However, he recognises difficulties with such a definition, eg the action is reversed in a sentence such as *He fears the man*, and he notes that an object can become the subject of a passive construction.

Determining the direct object is controversial with respect to ditransitive verbs, eg *give, buy, sell*, which take double objects – a direct and an indirect object. The issue is especially important when passive definitions focus on object promotion, a debate that I review in Chapter 3, section 3.1. The direct object normally comes straight after the verb (Greenbaum, 1996), that is, it is the noun phrase immediately dominated by the verb phrase (Chomsky, 1965). Consider:

- (2) a. Mary gave **John** a book.
- b. Mary gave the book **to John**.

However, Ziv and Sheintuch (1979) suggest that the noun phrase immediately following the verb phrase may sometimes be an indirect object. Ziv and Sheintuch outline various functional tests of indirect objecthood, including the traditional tests of substitutability by a *to*-phrase and deletability (the object is indirect if a clause remains grammatical after its deletion), and additional tests such as difficulty with tough movement and topicalisation. The tests tend to be problematic and, although they tentatively suggest that a prepositionless object as in (2a) may be an indirect object, they accept that Chomsky's formal word-order

description has some merit. This confusion probably accounts for a tendency to refer to the 'first object' and the 'second object' (Pinker, 2007, p. 57).

English has conflated accusative and dative cases, losing an important window into an understanding of object relationships. In many languages, *John* would bear dative case in (2b), an indicator that the object is indirect. The concept of dative movement indicates that (2a) is the input for passivisation, which is generally accepted to involve rearrangement of the direct object and the subject (see Chapter 2, section 2.3).

It is useful to analyse these constructions in terms of thematic roles. In (2), *John* is a recipient, whereas the typical direct object functions as a patient or a theme. Possibly, a patient or theme role is a factor in determining the direct object, and a recipient or beneficiary role is a factor in determining an indirect object. It does appear that the school favouring *John* as an indirect object in both (2a) and (2b) weight semantic similarity more than syntactic differences. Givón (1990) argues that, in general, there is a patient-only restriction on passivisation in English, unless there is semantic role transparency, that is, no ambiguity will result. The critical issue seems to be whether the prepositional phrase is crucial to the complete description of the activity expressed in the verb (a direct object), as distinct from enriching the meaning by describing when or where the activity took place (an indirect object or oblique). If it is the former, then the clause will passivise.

These arguments suggest that the traditional sentence slot definition is inadequate to gain a full understanding of objects or even, in clauses with double objects, to distinguish between the direct and indirect objects. Similar debate around the nature of subjects and the nature of verbs indicates that the foundations of subject, verb, and direct object on which I will show that passive definitions typically rest, are not entirely stable.

## 2.2 Valency, transitivity, and definition challenges

Subjects and objects are commonly analysed in terms of their relationship to the lexical verb. A specific verb in a specific context determines a specific number of participants (or core arguments) in the event that the clause describes. The number of arguments that a verb takes is called its valency or valence. Levin (1993) talks of 'argument realization', which is in a sense the players that swing around the maypole. Typically, arguments are subcategorised as internal and external, the former being obligatory. The latter are not usually regarded as being true arguments of verbs, which raises the question of where they come from. Kratzer (1996) argues that the answer is an inflectional or functional head that also assigns case. She calls that head Voice, locating it above the verb phrase and therefore making the internal / external argument distinction unnecessary.

Haegeman (1994), using the language of logic, subcategorises verbs according to the number of predicates they require. These are intransitive verbs (a valency of one, which must be the subject by Chomsky's rule that a clause must have a subject) and transitive verbs (a valency of two, occasionally three – a subject, a direct object, and an indirect object). The notions of valency and transitivity then are built on the unstable foundations of subject, verb, object, and indirect object.

Kearns (2000) notes that verbs often appear to take a variable numbers of arguments (variable adicity). Compare:

- (3) a. Marcia sold the car to Clive for \$200.
- b. Marcia sold the car for \$200.
- c. Marcia sold the car to Clive.
- d. Marcia sold the car.

Clearly, (3d) is a grammatical sentence, which raises the question of whether the other two noun phrases in (3a) are missing or just ellipsed in (3d). Ellipsed means that they are understood from the context and are therefore present; if they are missing, they are unknown or deemed by the writer to be irrelevant, semantic arguments. In (3d), the verb *sold* necessarily implies a seller (*Marcia*), something sold (*the car*), and also a buyer and a price. Kearns raises the question of whether missing semantic arguments are actually syntactic arguments at all. This debate is relevant to any discussion on agentless passives as I show in Chapter 4, section 3.3.

Traditionally, transitive verbs are defined as verbs that take direct objects to make a complete idea, and direct objects are defined as objects of transitive verbs. This circularity extends to voice. The canonical transitive clause involves an action transferring from the agent (usually the subject) to the patient (usually the direct object). Kemmer (1994) describes this action as a transmission of force or energy. A difficulty with defining transitivity in terms of direct objects (besides identifying the direct object) is that some so-called intransitive verbs appear to be transitive in some contexts, as in (4). This led to Bolinger (1977) suggesting that some verbs may be transitive when required – a feature of verbs that is not always triggered. More critically, sometimes it is arguable whether the direct object is required to make a complete idea or even whether it is accurate to talk of an action transferring from one participant to another, eg:

(4) Susan left.

(5) I like beer.

In (4), there is one explicit participant only, yet that participant must be leaving somewhere or someone, implying a second semantic argument and therefore a degree of transitivity.

The alternative approach that the clause describes a stative event is unconvincing. (5) on the

other hand is typically regarded as transitive and there are two clearly identifiable arguments, but the transfer of force or energy is nebulous at best, and a stative interpretation is consistent with the usual classification of the verb.

Definitions suggest boundaries and degrees suggest continuums, and it is the latter that Hopper and Thompson's 1980 seminal article promotes. They proposed ten transitivity components of verbs and their clauses, from participant number to the distinctiveness of the object, with high and low transitivity possibilities for each feature. (5) rates low in transitivity when analysed for these ten components, yet its Spanish equivalent (*Me gusta la cerveza*) is usually regarded as intransitive, indicating a degree of arbitrariness.

The continuum concept has been applied to numerous areas of linguistics. Chomsky (1965, p. 10) recognises both acceptability and grammaticalness as 'a matter of degree', and other writers do likewise with agency, animacy, and even lexical categories. I suggest in Chapter 3, section 5, that such an approach is more useful than a strict definitional approach to voice in general and to passives in particular.

### **2.3 Is voice a property of verbs or clauses?**

Stein (1979) states that there are two independent voices in English – active and passive – so that if a construction is not one, then it must be the other. This is a common working level understanding. Typically, voice is described as a property of verbs that shows '...the relationship of the surface subject to the action expressed in the verb....' (Barber, 1975, p. 20). If this is so, what is the relationship?

The relationship is described by Jespersen (1924, p. 167) in these terms: 'We use the active or passive...as we shift our point of view from one to another of the primaries contained in the sentence.' His primaries are the syntactic arguments of the lexical verb – the subject and

direct object. So the relationship has long been described in terms of point of view or perspective and, like transitivity, it can be understood as a global property of the entire clause, not just the verb.

Passive voice is sometimes seen as an operation that suppresses a core argument or rearranges the order of core arguments. Keenan and Timberlake (1987) note that passivisation is a valency-decreasing rule, indicating the integral role that valency plays in voice, whereas, Perlmutter and Postal (1974) argue that passive voice is a means of moving noun phrases in and out of subject position. Some linguists (Klaiman, 1991; Thompson, 1994; Croft, 2001) distinguish between voice systems (active, passive, and antipassive) and direction systems (direct and inverse). Thompson defines voice systems by the degree to which they suppress arguments (after Shibatani, 1985), and direction systems by the degree to which the non-agent is increased in topicality over the normal agent. This is a functional, as distinct from a structural promotion of a non-agent. Some languages mark direct and inverse constructions and do not rearrange the noun phrases.

### **3 Understanding passivisation**

Theories of passivisation recognise different models of grammar. On one hand, derivational models made prominent by Chomsky and others in the 1950s and 60s assume that it is possible to relate actives and passives in terms of changes in their word order, case, and morphology. On the other hand, representational models argue that passives are best understood in terms of the grammatical relations between noun phrases and their verbs.

#### **3.1 Structural-rule approaches**

Although Jespersen recognised the multi-functional nature of the passive in 1924, it was in the period from the late 1950s to the late 1970s that passives received widespread attention

when generative grammar promised insight into the mind. The landmark is usually recognised as Chomsky's 1957 publication *Syntactic Structures* and his hypothesis that humans have a cognitive specialisation for learning language, later known as Universal Grammar. Jackendoff (2002) observes that Universal Grammar appealed to philosophers and psychologists as well as linguists because they anticipated that linguistics could provide 'a key to the nature of thought', or what Sag and Wasow (1999) call 'a window on the structure of the mind'. The study of passives through various forms of what is known as transformational grammar was a common approach to exploring this promise because the passive is often regarded as a prototype of transformational relations (Bach, 1979).

In 1957, Chomsky postulated that sentences have two levels – a deep structure where the core meaning resides, and a superficial structure which we perceive. He argued that various transformations or movements mapped meaning from the deep structure onto the surface structure. In this early Transformation Theory, active and passive sentences were considered to be derived from the same structure, but later were thought to be derived from two independent structures. Despite such shifts of thinking, the passive transformation rule was a persuasive argument for transformational grammar, which developed descriptions of three movements or rules for generating sentences, the others being head-to-head movement and *wh*-movement. The passive transformation was one of noun-phrase movement. The characterisation of the passive-active relationship as a transformational concept was a breakthrough in linguistic understanding. Transformational grammar continued to evolve through various forms and facets, and passives were often a means of exploring the theory. For example, the question of whether there are differences of meaning between active-passive pairs has figured strongly in Transformation Theory, which is an important issue in considering why a writer chooses a particular voice (see Chapter 4, section 4.1). Katz and

Fodor (1964) argue that active and passive voice are identical in meaning. However, Chomsky (1965) argues that the underlying structures of passives and actives differ and are not synonymous, a position that has received considerable support (Ziff, 1966; Johnson-Laird, 1968a; Robson, 1972, George Lakoff, 1974; and Quirk, Greenbaum, Leech, and Svartvik, 1985). Hasegawa (1968) suggests that passivisation is triggered by a structure which is the direct complement of the verb *be*. However, this does not predict whether the *be*-passive or the *get*-passive will occur (see Chapter 2, section 2.1) and he notes that *be*-passives and *get*-passives differ in meaning. Robin Lakoff (1971) attempts to determine those differences. Jackendoff (1969) argues that semantic functions do not change under transformation, and meaning is determined by both deep and surface structures, although he later ponders whether transformations actually 'create new semantic possibilities' (Jackendoff, 1972).

Other linguists use the movement-focused approach to explore other aspects of passives. For example, Langacker and Munro (1975) list three major syntactic properties of prototypical passives: verb stativisation, unspecified active-subject, and object topicalisation. Keenan (1987b) argues passives are intransitive verb phrases derived from transitive verb phrases. His article *Passive is Phrasal (Not Sentential or Lexical)*, builds on the work of many others, eg Thomason, Dowty, Bach, and Keenan and Faltz. Common to all these variants of transformational grammar is the concept of basic and derived clauses: active clauses are consistently regarded as basic, and passives as derived.

In the 1970s and 1980s, Relational Grammar gained support, some linguists arguing that grammatical relations provide the ideal means to state universal language rules. Proponents of Relational Grammar argued that transformations were unable to capture the common kernel of, eg passivisation across languages. Perlmutter (1978) uses the term *chômeur* (the

French word for an unemployed person) as an element of a sentence that has been demoted from the nucleus to the periphery of a clause. In a passive sentence, the agent is a *chômeur*, having been demoted from the nuclear function of subject. Perlmutter and Postal (1983) note that passives involve postponing of the preverbal noun phrase and preposing of the postverbal noun phrase.

By the 1980s, the attraction of transformational grammar to researchers from a range of disciplines was fading as its initial promise to unravel the nature of thought was unfulfilled. Lexical-rule approaches were gaining prominence (see section 3.2) and linguists such as Klaiman (1988) emphasised voice function rather than form and analysed constructions in many languages. In fact, cross-linguistic analysis of passives, eg Shibatini (1985), was painting a more complex picture of passives than the earlier view which often attempted to formulate universal principles from studies of English. In an extensive attempt to define the passive, Siewierska (1984, p. 255) reviews passives cross-linguistically, almost apologetically concluding that ‘...as a group, the whole body of so called passives does not have a single property in common’.

Nevertheless, transformational grammar continued to evolve. In the 1980s, the Government and Binding Theory (GB) or Principles and Parameters (P&P) Framework questioned the passive transformation. Chomsky’s simplified the theory in the 1990s with the Minimalist Program or MP, proposing that the grammar has just one movement rule, focused on an economy of derivation and representation.<sup>5</sup> MP recognises that all the motivations for movement are locality constraints, that is, two items must be near to one another. The focus is now on Phonetic Form and Logical Form, the latter carrying the meaning. The result is Local Configuration, which is defined in terms of features, eg if a specifier-head configuration

---

<sup>5</sup> I discuss the concept of economy in more detail in Chapter 5.

is nominative, it creates a phase-structure system that accounts for the constructions that follow. MP retains a derivational approach, but current versions do not all assume that passives are derived from active counterparts. Rather, either active or passive voice is 'spelt out' as required. I address the issue of which voice is required and why in Chapter 4.

### 3.2 Lexical-rule approaches

Various linguists argue that structural analysis alone is inadequate to explain passives.<sup>6</sup> Freidin (1975) argues that transformational approaches have difficulties with truncated passives and Bresnan (1982) notes transformational grammar's failure to account for unpassives such as *The door was unpainted* (see Chapter 2, section 2.2).

By the 1980s, lexical or monostratal theories which emphasise words more than structures were gaining support. These theories are non-derivational, that is, they do not explain one structure or representation as being derived through transformation from another. Instead, they assume an enriched lexicon – that the properties of the string of words in a sentence (lexicon and functions) drive the syntactic and semantic structure of the sentence (Sag and Wasow, 1999; Carnie, 2007).

Lexical-Functional Grammar, or LFG, (Bresnan, 1982), assumes that grammatical-function changing operations like passivisation are lexical. This means that the active-passive correspondence is a relation between two verbs rather than between two tree structures. Both active and passive verbs are listed in the lexicon and involve alternative mapping of the participants to grammatical functions. Lexical theories weight semantics and tend to give passives equal status to actives, just as current transformational grammar does. This approach assumes a c-structure (roughly equivalent to the S-structure in early

---

<sup>6</sup> See Bresnan (1982, p. 3).

Transformational Theory) and f-structure (the functional structure that represents the grammatical functions).

In Lexical-Functional Grammar, grammatical functions have no intrinsic meaning, instead mapping syntactic structures to the predicate argument structure. Bresnan (1982) argues that there is a linguistic equation implied in a lexeme through its meaning, form, and sentence position, eg:

(6) Cancer is now **thought** to be unlikely to be caused by hot dogs.

In (6), *think* is a subject-to-object raising predicate, and Bresnan talks of a lexical-control equation for *thought*. This approach sees passivisation as a lexical rule restricted to the information available to a single lexical entry. It is the local links (the lexical-control equation) that produce the seemingly non-local grammatical relations of constituents. In other words, 'raising' is a lexical rule and there is no transformation from another configuration of sentence constituents. Bresnan argues that this lexical approach has universal applicability, being independent of any specific language's realisation of syntactic structure and morphological case.

There are a number of other lexical theories, the most well known of which is Head-driven Phrase Structure Grammar (HPSG), which uses features to encapsulate grammar principles, grammar rules, and lexical entries. These features are paired with a value as in LFG – which include syntactic, argument, and semantic classes. Carnie (2007) argues that HPSG is significantly different from LFG by being compositional. Lexical information is not simply listed; rather it is organised in terms of multiple inheritance hierarchies and lexical rules that enable complex properties of words to be formed. This organisation avoids what the theory terms 'horizontal redundancies' such as plurals (*car* and *cars* are not regarded as separate lexical entries) and active / passive verb counterparts. It also differs in the way it treats

subjects and objects, encoding information about them into the one level of information, as distinct from LFG which indicates such concepts in a separate level. Such differences aside, HPSG shares with LFG the analysis of the active / passive relationship as a relationship between two verb forms. Sag and Wasow (1999) argue that this relationship requires a lexical rule, which is well understood by English speakers as evidenced by their ability to passivise novel transitive verbs such as 'email'.

On a broader scale, HPSG differs from P&P Theory in that there is an 'absence...of any notion of transformation' (Pollard and Sag, 1994, p. 2). P&P involves a case filter approach – movement of a noun phrase may be obligatory in order to assign case. HPSG, like most (if not all) representational grammars, involves a relational characterisation of passivisation. It assumes that an immediately postverbal noun phrase can passivise only if it is a direct object. On the other hand, the P&P framework questions whether an independent object exists in some constructions that are accepted as passive – see (7) from Pollard and Sag, who argue that the active counterparts do have direct objects, or primary objects as they call them.

- (7)
- a. The Cadillac was driven away.
  - b. John was spoken to.
  - c. The bed was slept in.
  - d. John was believed to be stupid.
  - e. He was pronounced dead on arrival.

Unease between linguists working in these different frameworks continues today despite the eclectic nature of current versions of the Minimalist Program, and acknowledgment from representational grammar linguists of certain similarities between the frameworks. However, representational linguists emphasise that derivations remain central to MP, and are

sometimes critical of linguists who adopt MP on Chomsky's personal authority or charisma (Lapin, Levine, and Johnson, 2000; Sampson, 2001).

### **3.3 Functional approaches**

Another strand of linguistics focuses on pragmatics or information-structure studies, that is, considerations that are broader than an analysis of words, phrases, or even sentences, eg how passives fit a writer's purpose. This holistic approach differs markedly from grammars that analyse sentences in isolation of their context. Instead, information-structure studies consider both the context of any piece of information and the plans and aims of writers and readers (or speakers and listeners). Role and Reference Grammar (RRG) is such an approach, emphasising as it does the interaction of role (semantics) and referential (pragmatic) factors in a language.

This functional or pragmatic approach has its origins in the Prague School of Linguistics, dating back to the 1920s. A group of Russian and Czech linguists focused on the information that a sentence conveys, distinguishing between the primary thematic information (known or given elements), and the secondary rhematic information (new elements). Many languages, eg Czech, are ordered on this given-to-new principle, and mark their verbs accordingly.

Unlike such languages, English does not mark verbs for pragmatic or information-structure functions. However, it is uncontroversial that voice performs various pragmatic functions in English such as detransitivisation, topicalisation, and impersonalisation. Chapter 4 discusses these pragmatic functions in detail.

### **3.4 Conceptual approaches**

By the 21<sup>st</sup> Century, better understandings of the world's languages and of information-structure led to a shift from definitional approaches. A conceptual approach that maps or plots constructions along two axes, eg Croft (2001, 2003) and Murphy (2005), attempts to avoid the problems of narrow definitions. I outline this thinking in Chapter 3, and suggest further extensions to the approach.

## **4 Conclusion**

An understanding of the passive requires an understanding of the key foundations – subjects, verbs, and objects – and the intrinsic relationship of passives to transitivity and valency. These notions of transitivity and valency provide vantage points from which to view passives, vantage points that will be especially needed when I turn to cross-linguistic passives in Chapter 3. However, transitivity and even valency are not the stable foundations that are often supposed, so they do not provide an entirely clear view.

Varying views of passive are inherent to varying views of grammar. Extensive writings on passive resulted from proponents of generative grammar using the passive / active correspondence to understand sentence production and even the nature of thought. These studies tended to be interested in passives as a vehicle to understand broader matters. In Chapter 4, I focus on passive as a discourse function, a functional or pragmatic approach to passivisation.

# Chapter II

## The English passive

Historically, the passive voice has been one of the most problematic and controversial constructions....

–Julia Stanley (1975, p. 25)

### 1 Introduction

This chapter focuses on the English passive voice construction and Chapter 3 focuses on passives across the world's languages, although I occasionally vary this division to illustrate certain concepts.

I will show that definitions of the passive are often simplistic or, at least, approximate. Slobin (1994) notes that the passive is a difficult and late acquisition in English; Stanley (1975, p. 25) comments that the passive is 'problematic and controversial' and there is not full consensus on its definition in English. This lack of full consensus suggests that a broader scalar approach may be more insightful. I will introduce such an approach in this chapter and explore it in more detail cross-linguistically in Chapter 3.

This discussion of the English passive considers the nature of the English passive. Passive is a subset of voice but its exact nature is not fully agreed, an issue I explore before sketching a diagnostic tool for research purposes. I then review various classifications of passives in preparation for a discussion of the use of the English passive in Chapter 4.

## 2 The nature of the English passive

Typically, so-called definitions of passive in English state that a form of the verb *be* combines with the past participle form of a lexical verb. Together, the two verbs form a new semantic unit – a periphrastic passive. It is distinct from synthetic or morphological passives in many languages, which involve suffixing, prefixing, infixing, or internal vowel change to mark the verb as passive. It is a formal description, not a definition but Granger (1983) claims *be + past participle* has the advantage of being unambiguous, although not all *be + past participle* forms are passive as I will demonstrate.

I explore the literature on *be + past participle* in sections 2.1 and 2.2, and then consider two additional potential elements of passives that have less agreement in sections 2.3 and 2.4. Finally, in section 2.5, I outline a diagnostic tool that encapsulates the varying levels of agreement on what constitutes the English passive.

### 2.1 Passive auxiliaries

It is well known that auxiliaries or helping verbs occur in a set order, the passive auxiliary always being last, eg Warner, 1993; Aarts, 1997; and Kearns, 2000. Kearns notes that the auxiliaries determine the form of the lexical verb that follows them. Aarts provides this sentence with four auxiliaries:

<b><i>Two</i></b>	<b><i>must</i></b>	<b><i>have</i></b>	<b><i>been</i></b>	<b><i>being</i></b>	<b><i>written</i></b>	<b><i>by this</i></b>
<b><i>essays</i></b>						<b><i>student</i></b>
subject	modal auxiliary	perfective aspectual auxiliary	progressive aspectual auxiliary	passive auxiliary	lexical verb	object

The *Chicago Manual of Style* (2003, p. 176) is unusual among style guides in acknowledging that the *be*-auxiliary is not the only passive auxiliary:

The passive voice is always formed by joining an inflected form of *to be* (or, in colloquial usage, *to get*) with the verb's past participle.

The manual also diligently notes that sometimes the auxiliary is implied, eg:

- (1) The advice [that **was**] given by the novelist.

Huddleston and Pullum (2002, p. 1430) argue that passive constructions with implied auxiliaries differ from 'bare passives', which do not express or imply an auxiliary, eg:

- (2) a. He saw Kim mauled by our neighbour's dog.  
b. Their vehicle immobilised by the mud, they had to escape on foot.

These passive constructions are subordinate clauses and the main clause in each case is active, the lexical verbs being *saw* and *to escape* respectively.

Some linguists argue for other passive auxiliaries, including *have* in certain contexts (Poutsma, 1926; Curme, 1935; Jackendoff, 1990<sup>1</sup>); *get* and *become* (Poutsma, 1926; Curme, 1935); *come* (Curme, 1935); and *grow*, *stand*, *feel*, *rest*, *sit*, *appear*, *feel*, *lie*, *look*, *remain*, and *seem* (Svartvik, 1966; Stein, 1979), possibly extrapolating from other languages to English. Interestingly, Curme describes *get*, *become*, and *come*, under the heading 'New Passive Actional Forms', which raises the question of diachronic change. Coetze (1980) provides these examples:

- (3) a. He **became** disturbed by my presence.  
b. He **stands** rebuked by the court.

---

<sup>1</sup> For example, 'The admiral had the ship sunk by the Air Force' (p. 180).

Certainly, (3a) and (3b) meet three criteria for passives (lexical verb morphology, noun-phrase rearrangement, and *by*-phrase). Jespersen (1924) discusses trends in colloquial speech to avoid ambiguity, such as the use of *become* and *get*. He cites a Bernard Shaw play, noting the emphasis that *get* brings to the sentence:

- (4) No man goes to battle to **be** killed. But they do **get** killed.

However, Siewierska (1984) questions whether *grow* and *become*-constructions have corresponding actives with exactly the same meaning, eg:

- (5) a. He grew increasingly frightened.  
b. She became paralyzed by two things.

Generating an active counterpart to (5a) is hindered by a suppressed noun phrase, but any noun phrase that we recover does not require a form of *grew*. Similarly, an active counterpart to (5b) does not require a form of *became*. In both (5a) and (5b), the possible active counterparts do not have exactly the same meaning. In any event, the past participles pass accepted tests for adjectivehood, which I discuss in section 2.2.

Quirk et al. (1985) classify such words such as *grow* and *become* as resulting copulas rather than passive auxiliaries, which suggests that some classification principles are required. Haegeman (1994) tackles this by arguing that auxiliary verbs have special properties that distinguish them from lexical verbs: they behave differently in negative and interrogative patterns, that is, they follow different word-order rules, and they do not assign thematic roles. Stein (1979) argues that passive auxiliaries do not freely alternate, but that each has its own area of application and meaning. Indeed, in some languages, eg Thai and Vietnamese, the choice of auxiliary expresses the good or bad effect on the patient (Davison,

1980). There is debate as to whether this auxiliary specialisation applies in English, as the following discussion of the *get*-passive shows.

### 2.1.1 The *get*-passive

The verb *get*, like the verb *be*, can act either as an auxiliary or as a lexical verb, the two roles often complicating analysis. Furthermore, *get* heads numerous idioms which freeze its use and prevent passivisation, eg *She got her nose out of joint; He didn't get it*. Whether they are passive or active, *get* + *-ed* constructions are infrequent compared to *be* + *-ed* constructions.<sup>2</sup>

Typically, the English *get*-passive is described as colloquial or social dialect, with *be*-passives usually considered more formal than *get*-passives (Siewierska, 1984; Givón and Yang, 1994; *The Chicago Manual of Style*, 2000; Kuiper and Allan, 2004). Givón and Yang cite Herold (1986) who found that, in the US, working-class speakers preferred the *get*-passive to the *be*-passive 40 percent of the time compared to 17 percent of the time by upper-class speakers. For this reason, and possibly other reasons outlined below, *get*-passives are less likely to occur in formal texts.

There are other arguments that broaden the scope of the *get*-passive. Kuiper and Allan (2004, p. 293) note that the *be* or *get* option ‘...looks like a case of free variation in syntax’. However, in 1971, Lakoff placed a stake in the ground on the separate application of different auxiliaries with a famous claim that the *get*-passive is more than a colloquial usage – it often reflects the speaker’s or writer’s involvement in the events described. Compare:

---

<sup>2</sup> In a corpus assembled in 1982 by Francis and Kučera, *be* occurred 39,175 times in one million words of text, compared to *got*, which occurred 1,486 times, a ratio of 26:1 (cited by Pinker, 1999, p. 123). In another corpus, Granger (1983) found the *be* to *get* ratio was 22:1. Neither count distinguished between lexical and auxiliary verbs. However, Harris and Flora (1982) found that children overwhelmingly preferred *get* passives (423:6).

- (6) a. This department is going to hell! Six linguists got arrested for possession of marijuana.
- b. At the University of Throgg this afternoon, six linguists were arrested for possession of marijuana.

Lakoff argues that (6a) may be the words of the department chairperson, whereas (6b) may be the more circumspect statement of a newsreader. The *get*-passive, she claimed, may suggest responsibility on the part of the *six linguists*. Also compare:

- (7) a. How did this window **get** opened?
- b. How **was** this window opened?

In (7a), Lakoff suggests, there is a semantic implication that someone opened the window inappropriately, but this implication is not inherent to (7b). The concept of 'lexical directionality' (Harris and Flora, 1982) is relevant to this argument. Harris and Flora argue that a semantic feature of *get* cues the reader (at least readers who are children) to process the sentence as passive. *Get* links and unifies the auxiliary verb to the subject or patient of the sentence, rather than to the object as is the norm. Lakoff's point in (7) is that, to determine which auxiliary to apply, you need to know the context, that is, the real-world situation that applies and the beliefs of the participants in the discourse. However, it seems to me that certain contexts could bring Lakoff's implication to both (7a) and (7b), eg a detective asking a question at a crime scene while keeping an open mind.

Lakoff's claim is supported by Siewierska (1984) who cites an example from Hatcher (1949). Hatcher found the *get*-passive unacceptable when the subject did not appear to cause the event in any way, eg:

- (8) He got fired by the superintendent.

However, Siewierska finds Hatcher's example acceptable, and whether the time and place of writing (Australia) influences her judgement is conjecture. Setting aside the lack of contextual information around (8), I question whether Hatcher and Lakoff's analysis of the *get*-passive many decades ago in a US context is fully applicable to today, at least in all dialects. Further research is required to determine the current validity of the claim for all uses of the *get*-passive, eg my informal trialling on a small number of people of the clause *He got fired* suggests that some New Zealanders attribute a degree of cause to the employee and some do not. I find an example from Arce-Arenales, Axelrod and Fox (1994) to be more convincing:

(9) She **got** stationed in Germany where my father **was** stationed.

Presumably, in (9) *She* refers to the writer's mother who applied to be stationed in Germany, whereas the father had no say in where he was sent. A similar analysis of *get*-passives is that the role of the agent is subordinated (Arrese, 1999).

Rather than speaker involvement being the defining characterisation of the *get*-passive, many linguists, eg Stein (1979) and Budwig (1990), believe that speaker attitude is more accurate. Budwig cites an example from Banks (1986):

(10) Our project got funded.

Budwig and Banks suggest that the implication in (10) is that the speaker or writer is happy about the result.

Another approach is taken by Quirk et al. (1985) who argue that *get*-passives do not usually take animate agents, eg:

(11) The cat got run over by a **bus**.

There are numerous exceptions though, eg *James got caught by the police*, weakening the efficacy of this approach. Arce-Arenales, Axelrod, and Fox (1994) found that 88 percent of *get*-passives compared to 47 percent of *be*-passives had human subjects, strengthening the argument for some responsibility on the part of the subject. However, some examples from Quirk et al. of *get*-passives do not imply to me that the passive subject has any responsibility for the event, although that depends on the definition of subject, eg:

(12) **This story** eventually got translated into English.

Quirk et al. (1985) do suggest that many uses of *get* are best analysed as resulting copulas and they are not passives at all, eg:

(13) Your argument gets a bit confused here.

They call examples like (13) 'pseudo-passives', along with clauses containing *become*, *grow*, and *seem*, any of which could be substituted for *get* in (13). Quirk et al. note that pseudo-passives emphasise what happens to the subject because of the event and usually suggest an unfavourable attitude towards the action. If they are not auxiliaries, then they must be lexical verbs. In this analysis of (13), *gets* is a lexical verb carrying little semantic content. The inability of (13) to take a *by*-phrase suggests that this is a preferable analysis (see section 2.3). Stein (1979) provides examples that could be classified as either lexical or auxiliary verbs. She calls them 'virtually idiomatic', eg *get acquainted* and *got engaged*, where there appears some degree of volition and control on the part of the subject.

However, some linguists discount them as passive because they do not take *by*-phrases.

Optional *by*-phrases are relevant to an analysis of (14). Many linguists have pointed out that some clauses can be analysed as noun phrase-verb-adjective phrase, or as noun phrase-auxiliary-verb. Compare:

- (14) a. The vase **was** broken.  
b. The vase **got** broken.

(14a) could be analysed such that the lexical verb is *was* or *broken*, depending on whether the writer intends a stative or dynamic meaning. On the other hand, (14b) has a dynamic meaning only, demonstrating that *get*-passives can disambiguate meanings and have a unique role on occasion. If the writer intended (14a) to be stative, a *by*-phrase is not optional. That does not apply to (14b).

Various other motivations for the choice of passive auxiliary have been proposed, eg *get*-passives are used to describe events that have fortunate or unfortunate consequences for the subject,<sup>3</sup> which has parallels with Davidson's point in section 2.1 about auxiliaries in Thai and Vietnamese. Standwell (1981) argues that *get*-passives describe events that do not involve a degree of deliberate planning, as in (11), and Barber (1975) argues that *get*-passives are used when the subject catalyses the action that is performed by a separate agent, as in (14b). Evidently, there is not full consensus on the uses of the *get*-passive other than the informal option, with further motivations appearing to apply in different contexts. It should be no surprise then that Arrese (1999) plots *be* and *get* constructions on a continuum, based on concepts of affectedness and control (see Chapter 3, section 3.2).

### **2.1.2 Auxiliary plus past participle may not be passive**

Keenan and Faltz (1979)<sup>4</sup> found that about 90 percent of the time they could tell if a sentence was passive by looking at its verb phrase.<sup>5</sup> However, various linguists, eg Stein

---

<sup>3</sup> Siewierska (1984, p. 135) cites Hatcher (1949), Shopen (1972), and Chappell (1980).

<sup>4</sup> Cited by Keenan (1987b).

<sup>5</sup> Granger (1983, p. 173), using passive in a limited sense, found that *be* + *-ed* forms were passive in 'more than half' of the instances in the corpus that she studied.

(1979) and Siewierska (1984), point out that the existence of *be* (or auxiliaries commutable with *be*) and a past participle is insufficient to class a clause as passive. Stein's example is:

(15) I was surprised at his getting married at all.

Siewierska's analysis of (15) is that the second clause is active because no agent can be expressed or even implied, making *married* a stative adjective. Presumably, she considers both clauses in the sentence to be adjectival clauses. Interestingly, in a passive reading of (15), the married man in the event is responsible for both the marriage and the surprise which, according to Lakoff's analysis, accounts for the choice of different auxiliaries in each clause.

## 2.2 Lexical verb marking

Verbal marking performs limited roles in English compared to some languages. Pinker (1994) points out that English regular verbs have just four forms, eg *quack, quacks, quacked, quacking*, whereas many languages mix and match affixes to produce as many as two million forms (Turkish). Haspelmath (1990) argues that a passive definition in any language requires verbal marking.

### 2.2.1 Past participle form

The past participle form of a non-finite verb partly defines the English passive. Historically, some linguists accepted present participles as passive in certain circumstances, eg Curme (1935) and, as recently as 2002, it was accepted by Huddleston and Pullum, eg:

(16) This draft needs checking carefully by an editor.

They call (16) a 'concealed passive' and argue that the *by*-phrase is sufficient to establish it as passive.

Nevertheless, there is a strong consensus today that a past participle is obligatory although, technically, it is a passive participle when forming a passive construction. It is usually marked *-ed*<sup>6</sup> or *-n*, sometimes *-t*. Sometimes it is marked through internal morphological change, eg *drank*–[*was*] *drunk*, although there may be no lexical verb marking at all, eg *hit*. Sometimes it uses a combination of these forms, eg *ate*–[*was*] *eaten*. The dual occurrence of an auxiliary and a past participle in that sequence signals to the reader that the subject noun phrase be understood as an action receiver ‘in order to avoid intolerable ambiguity’ (Barber, 1975, p. 17).

However, as suggested in the discussion of (15), the occurrence of a past participle (even when preceded by an auxiliary) does not determine that the construction is passive. Pinker (1999) points out that the *-ed* suffix has four roles: past tense, eg *It opened*; perfect participle, eg *It has opened*; passive participle, eg *It was being opened*; and verbal adjective, eg *A recently opened box*. This raises two questions. First, must a passive involve a past participle, despite the strong consensus noted above? Would it be useful to class other verb forms occurring in certain situations as passive, eg auxiliary plus *-ing*, assuming that there is noun-phrase rearrangement (see section 2.3)? This is fundamental to the question of whether the concept of an impersonal passive could be usefully applied to English. I discuss this in Chapter 3, section 2.2. Second, given that past participles do not necessarily signal passives, how does the reader distinguish between active and passive past participles?

### **2.2.2 Adjectival or verbal?**

Wasow (1977) and others distinguish between passives with adjectival properties and passives with verbal properties. He argues that adjectival passives, or ‘verbal adjectives’ as

---

<sup>6</sup> Some writers, eg Aarts (1997, p. 37), indicate that the passive lexical verb is always *-ed*. That is clearly not the case and, presumably, this is a simplification to minimise confusion.

Haspelmath (1994) calls them, describe a state; verbal passives describe an event. Compare these examples from Givón (1990):

- (17) a. The window was broken.  
b. The window was broken by John.

Givón calls (17a) a lexical or adjectival passive that describes a state, and (17b) a syntactic passive (more commonly known as a verbal passive). On the other hand, Fowler (1996, p. 577) makes no distinction, apparently accepting *be drunken* as passive.

The literature contains numerous discussions of tests for adjectival passives, revolving around the characteristics of adjectives (Stein, 1979; Bresnan, 1982; Levin and Rappaport, 1986; Pinker, 1994; and others). These tests include the capability to attach negative *un-*,<sup>7</sup> eg *unshaven*, which could apply to (17a), and to select adjectival complements, eg *seem*. Most common is to categorise passive participles in prenominal position as adjectival passives (because only adjectives can occur as prenominal modifiers). Pinker applies these tests in criticising a columnist's analysis of (18) as a verbal passive (as well as noting that when *evolved* functions as a verb it is an intransitive verb, which cannot passivise):

- (18) He's very, very intelligent; very, very, sensitive, [he **is**] very **evolved**....

However, Svartvik (1966) unsettles any neat classification system by providing an example, which appears to exhibit both adjectival and verbal properties:

- (19) Gerald was suddenly very annoyed.

(19) passes adjectival tests such as the capability of accepting a modifier (*very*), the adverb (*suddenly*) suggests that an event not a state is being described. The sentence also meets all

---

<sup>7</sup> This test differentiates negative *un-* from reversible *-un-*. A number of verbs, eg *do, tie, wind, button, seat, clothe, and dress* are reversible, that is, *un-* attaches. However, the distinction is fuzzy in some cases, although context will usually clarify whether a state or an event is being described.

four criteria for passive outlined in section 2.5, but that is common with adjectival passives.

Consider these examples adapted from Grimshaw (1990):

- (20) a. Mary was frightened by the situation.  
b. Mary was frightened by the lightning.  
c. Mary was frightened by the lightning strike.

*Frightened* permits a modifier and therefore appears to be adjectival. Grimshaw notes that the psychological verbs *worry*, *concern*, *perturb*, and *preoccupy* are similar. However, there appears to be a gradation in (20) from a state (20a) to an event (20c). Biber et al. (1999) reinforce this gradation idea, suggesting that with many 'stative' verbs it is possible to infer an agent in some situations, eg 'The spell was broken.'

### 2.3 Noun-phrase rearrangement and the *by*-phrase

Formal descriptions of the passive often extend beyond describing the verb to include discussion of noun-phrase rearrangement and a *by*-phrase. The *Chicago Manual of Style* indicates that a clause is in passive voice when the subject is being acted on, which requires the subject to take a different position in the sentence compared to when it is the action instigator. Culicover & Jackendoff (2005) observe that, in the passive construction, the object in the active construction takes on subject characteristics, eg preverbal position, nominative case, and agreement with the verb. Other characterisations use terms such as agent or subject suppression, deletion, or demotion (including Relational Grammar's *chômeur*); and patient or object promotion or advancement (see Chapter 3, section 3.3). All these characterisations require noun-phrase rearrangement or 'the alignment of roles' (Huddleston and Pullum, 2002, p. 307).

Whichever way linguists describe the noun-phrase rearrangement, the passive construction permits a *by*-phrase, usually optional but obligatory in a small class of verbs. Mihailovic (1963; 1966) provides these examples of obligatory *by*-phrases:

- (21) a. On his deathbed he was succeeded by his daughter.  
b. His first insult was followed by an even worse one.  
c. This sonnet was written by Shakespeare.

Alternatively, (21a) and (21b) are active constructions although, intuitively, that analysis seems incorrect, especially for (21a). They meet three criteria for passive proposed in section 2.5, but applying a fourth criterion – that they have a corresponding active voice construction – excludes them from the passive class. The Microsoft grammar check, invoking a standard formula, suggests the active *On his deathbed, his daughter succeeded him*. (21c) is different: the *by*-phrase is obligatory but there is a corresponding active. Interestingly, Fowler (1996) appears to accept 'obligatory passives' as passive, but later requires passives to have corresponding actives.

### 2.3.1 The importance of *by*

Whether the *by*-phrase is obligatory or optional, typically the term passive is restricted to constructions that permit its possibility (Langacker, 1982; Siewierska, 1984 and 2005).

Compare:

- (22) a. I am amused at his antics.  
b. I am amused **by** his antics.

Conventionally, only (22b) is accepted as passive. Jaeggli (1986) suggests that the agent role is typically absorbed by the passive morphology on the verb. When the agent needs to

be expressed overtly, an adjunct preposition phrase is used, that is, a *by*-phrase. In other words, the passive verb can take an optional agentive, preposition phrase headed by *by*.

However, not all linguists require passives to have the capacity to include a *by*-phrase, eg Svartvik (1966) proposes a class of 'quasi-agentive' passives, which may involve prepositions other than *by*, eg:

- (23) In plural societies where we can still mould the future we are deeply committed  
**to promoting the experiment of partnership.**

The inability of (23) to take a *by*-phrase prevents it from meeting the third criterion that I outline in section 2.5. Furthermore, its ability to accept the adverb *deeply* suggests that *committed* is adjectival, making the lexical verb *are* and the construction active. Fowler (1996) supports Svartvik's position, including the prepositions *with* and *about* as 'by-agents' (sic).

### 2.3.2 The *by*-phrase and thematic roles

Langacker (1982) implies that the selection of a preposition is conventionalised, as in (24a), and Coetze (1980) notes exceptions to the use of *by* (24b–d):<sup>8</sup>

- (24) a. I am disgusted **with** your continual nagging.  
b. He is known **to** me.  
c. The room was permeated **with** gas.  
d. He was amazed **at** the news.

However, *by*-phrases can substitute for the phrases in (24) with varying levels of acceptability. I suggest that (24a) and (24b) are marginally more acceptable with a

---

<sup>8</sup> LaPalombara (1976) also accepts *with*-phrases in passive constructions (cited by Warren, 1981, 384).

substituted *by*-phrase than are (24c), and (24d), suggesting that the agentive semantic role is more important to defining passive than the syntactic form of the preposition phrase. This is consistent with Thematic Roles Theory, which proposes that the preposition *by* selects an agentive noun phrase, even when the agency is sometimes 'but dimly thought of'.<sup>9</sup> However, as Jaeggli (1986) points out, the role of the selected noun phrase is whatever it is in the corresponding active, eg:

- (25) a. The professor is feared by all students.  
 b. All students fear the professor.

Jaeggli argues that in both the passive (25a) and the active (25b), *students* has a thematic role of experiencer. Shibatani (1985) agrees that the concept of passive is extended beyond an agent role to an experiencer role in English, eg:

- (26) Mary is loved by John.

In (26), the experiencer is close to an agent in function. Shibatani concludes that, for clauses to passivise, they require an agent or a thematic element similar to an agent to defocus. This agentive-like role widens a working definition of passive. However, the experiencer role is not included in the following thematic hierarchy proposed by Jackendoff (1972).

	Agent	
Location	Source	Goal
	Theme	

---

<sup>9</sup> Poutsma, quoted by Granger (1983, p. 83).

Jackendoff argues that, to be grammatical, the passive *by*-phrase must be higher on the thematic hierarchy than the superficial subject (the Thematic Hierarchy Condition). Compare:

- (27) a. John was touching the bookcase.
- b. The bookcase was being touched by John.
- c. John hit the car with a crash.
- d. The car was hit by John (?with a crash).

Jackendoff notes that the active constructions (27a) and (27c) are ambiguous between agentive and non-agentive readings of *John* (or actional or stative readings of the verbs *touching* and *hit* – see section 3.1). If *John* were only theme, the *by*-phrases would be lower on the thematic hierarchy than the internal arguments that have the roles of location (*the bookcase*) and goal (*the car*). However, if *John* were also agent, the *by*-phrases fit higher on the hierarchy than the internal arguments, acceptable passives are possible as in (27b) and (27d), and a non-agentive or stative reading is eliminated.

Jackendoff (1990) argues that the adjunct preposition phrase gets whatever role the external argument has. Analysing preposition phrases has some difficulties accommodating varying views on thematic roles. However, analysing preposition phrases may be impossible when they are implied only. Often, context enables the reader to infer an agentive *by*-phrase, but this is not always the case. Consider (22) repeated here as (28), along with a truncated form of the sentence:

- (28) a. I am amused at his antics.
- b. I am amused by his antics.
- c. I am amused.

The *by*-phrase criterion (along with the verb criteria) indicates that (28c) is passive because, although it has lost its *chômeur*, it permits one as in (28b). However, if (28c) implies (28a), arguably the criterion contributes to a false result.

Rhodes (1997) notes that some linguists<sup>10</sup> classify passives with instrumental *by*-phrases as truncated passives (because the agent is deleted). Compare:

- (29) a. The wall was painted **by the boys**.  
b. The wall was painted **by a brush**.  
c. The ship was sunk **by an iceberg**.  
d. The ship was sunk **by the airforce**.

(29a) is a sentence with an agentive *by*-phrase, whereas (29b) is a sentence with an instrumental *by*-phrase. Rhodes prefers to retain the truncated class exclusively for passives without any *by*-phrase – a formal and common approach. More important for a definition of passive is whether a construction's capability to take an instrumental *by*-phrase is a sufficient third criterion for passive. Rhodes cites (29b) as an example, but it is an odd example. More common is *with a brush*, or the idiomatic *by brush*. (29c) is more acceptable than (29b) but the *by*-phrase is hardly instrumental. Alternatively, this focus on instrumental *by*-phrases is a distraction, and the issue is simply whether constructions have the capability to take an agentive *by*-phrase, as in (29d).

### 2.3.3 The *by*-phrase as a macro-role

When the agent thematic role is interpreted in the traditional, narrow sense, the agentive *by*-phrase criterion for passive excludes many sentences commonly regarded as passive.

Applying the agentive role more broadly captures those clauses generally regarded as

---

<sup>10</sup> Rhodes (1997, p. 8) cites Danks and Sorce (1973).

passive. There is considerable literature on the concept of broader roles, dating back to Foley and van Valin (1984) who grouped roles into two macro-roles – actor and undergoer. They define actor as ‘...the participant which performs, effects, instigates, or controls the situation...’ (p. 29). Jackendoff (1987, p. 396) defines actor as ‘the character that performs the action’, using the test ‘*What the noun phrase did was...*’. This approach means that the volition element implied in the concept of agent is not required in the concept of actor, and sentences such as (30a–d) meet the passive *by*-phrase criterion.

- (30) a. The roof was damaged by the wind.  
b. The house was struck by lightning.  
c. The programme was aborted by the on-board computer.  
d. Du Plessis [is] hit by [a] three-week ban.<sup>11</sup>

Similarly, patient can be applied broadly as the other entity in a two-participant transitive event. Dowty (1991) develops this broader concept of actor and patient into what he calls thematic proto-roles. He acknowledges Foley and van Valin (1984) but argues for a critical difference. He notes that linguists often assume that there are language-universal thematic roles, but there is no agreement on what they are or how many, eg George Lakoff described 14 subcategories of agent. In seeking a principled way to decide what kind of data motivates a thematic role type, linguists usually base the divisions on other domains such as argument selection. Instead, Dowty argues that role types are not discrete categories but are cluster concepts or prototypical fuzzy notions (the point of difference with Foley and van Valin). Arguments have different degrees of membership in a role type, and argument selection can be described using just two role types, proto-agent and proto-patient, which subsume traditional roles. Proto-agents involve volition plus sentience plus causation plus movement,

---

<sup>11</sup> A headline on the BBC Sport website, July 14, 2008.

or just some or one of them, eg causation in the traditional sense of agent. The thematic role of experiencer is sentience without volition or causation. Similarly, proto-patients have entailments that may not be clearcut.

Most importantly, Dowty (1991) does not assume that his macro-roles apply to every situation – there are exceptions, but they are few in number. I explore such a probabilistic approach as a continuum concept in Chapter 3.

### **2.3.4 *By*-phrases are not restricted to passives**

When a *by*-phrase occurs, it is usually another signal to the reader that the construction is passive and the noun phrase that follows should be interpreted as an agentive subject. Some linguists characterise *by* as case marking of the following noun phrase, even though morphological change of that noun phrase only occurs in pronouns. However, *by*-phrases are not restricted to passives, eg (from Arce-Arenales, Axelrod and Fox, 1994):

(31) I see *by* your outfit that you are a cowboy.

Croft (1986)<sup>12</sup>, notes that *by* can indicate a passive agent, manner, or an instrument.

Using the proto-agent *by*-phrase criterion, manner and instrument *by*-phrases do not indicate passive. Although the preposition *by* may usually signal passive, relying on it in isolation of other criteria could lead to a false result.

## **2.4 Active / passive correspondence**

So far, I have examined formal descriptions of passive constructions that focus on the form of the verb (an auxiliary plus a past participle) and the form of the noun phrases (their positions in the clause, and the possibility of a *by*-phrase). Additionally, some linguists

---

<sup>12</sup> Cited by Dowty (1991, p. 603).

(notably Postal, 1986 and Siewierska, 1984; 2005) require such constructions to have corresponding active constructions before they class them as passive. If a construction meets the verb criteria and the noun-phrase criterion, the final criterion for passive is to consider whether there is an active / passive correspondence.

This active / passive correspondence criterion fits well with Jespersen's perspective concept, which I explore in Chapter 4, section 4.1. It assumes that if we can view an event from a passive perspective, we can also view that event from an active perspective. However, there appears to be an awkward weakness to this criterion – there is a small class of verbs that are 'obligatory passives', eg *rumour*, *reincarnate*, *repute*, *born*, *drown* (when agentless), along with unpassives, eg *was unreported* and *was unpainted*. These verbs do not permit an alternative perspective through an active voice construction. Compare:

- (32) a. It is rumoured that he left town.  
b. \*They rumour that he left town.  
c. I was born in Christchurch.  
d. \*My mother bore me in Christchurch.  
e. The President's blunder was unreported [by the press].<sup>13</sup>  
f. \*The press unreported the President's blunder.

(32b) is unacceptable, (32d) is archaic, and (32f) is nonsense. Postal (1986) argues that constructions such as (32c) are not passive because they cannot take a *by*-phrase.

Some passive forms are obligatory in certain contexts, often being idiomatic or virtually idiomatic, eg:

---

<sup>13</sup> From Siegel (1973), cited by Warren (1981, p. 283), although the idiomatic 'went unreported' is more common (Koenraad Kuiper, personal communication).

- (33) a. Many English words are derived from Latin.  
 b. We were struck by the great enthusiasm of the crowd.  
 c. It is alleged that...  
 d. He is said to be careful.  
 e. He had no desire to be found wanting.  
 f. It was unusual for her to be smitten....

(33a) does not permit a corresponding active, requiring instead a different verb such as *source*. (33b) is idiomatic and, although (33c) permits a corresponding active, the active is very unusual. (33d) is from Quirk (2004), who notes that the corresponding active (*\*They say him to be careful*) is ungrammatical. These examples are frozen expressions. Other idioms may well be progressing towards a frozen state in that they have active alternations but appear to prefer the passive form, eg (33e) and (33f), as well as *be delighted by*, *be overcome by*, and *be inconvenienced by*.<sup>14</sup> This seems to be particularly the case when the subject of the passive is human and the oblique is either inanimate or, at least, non-human, eg:

- (34) a. He was delighted by the jewels.  
 b. \*The jewels delighted him.

Exceptions are problematic in the drafting of a rule; much better is to explain why they occur, building the explanation into a rule. The discussion of (35) goes some way towards doing this, although it needs wider study and a definitive explanation may be elusive.

---

<sup>14</sup> These idioms, along with (33e) and (33f), were provided by Koenraad Kuiper.

## 2.5 A diagnostic tool

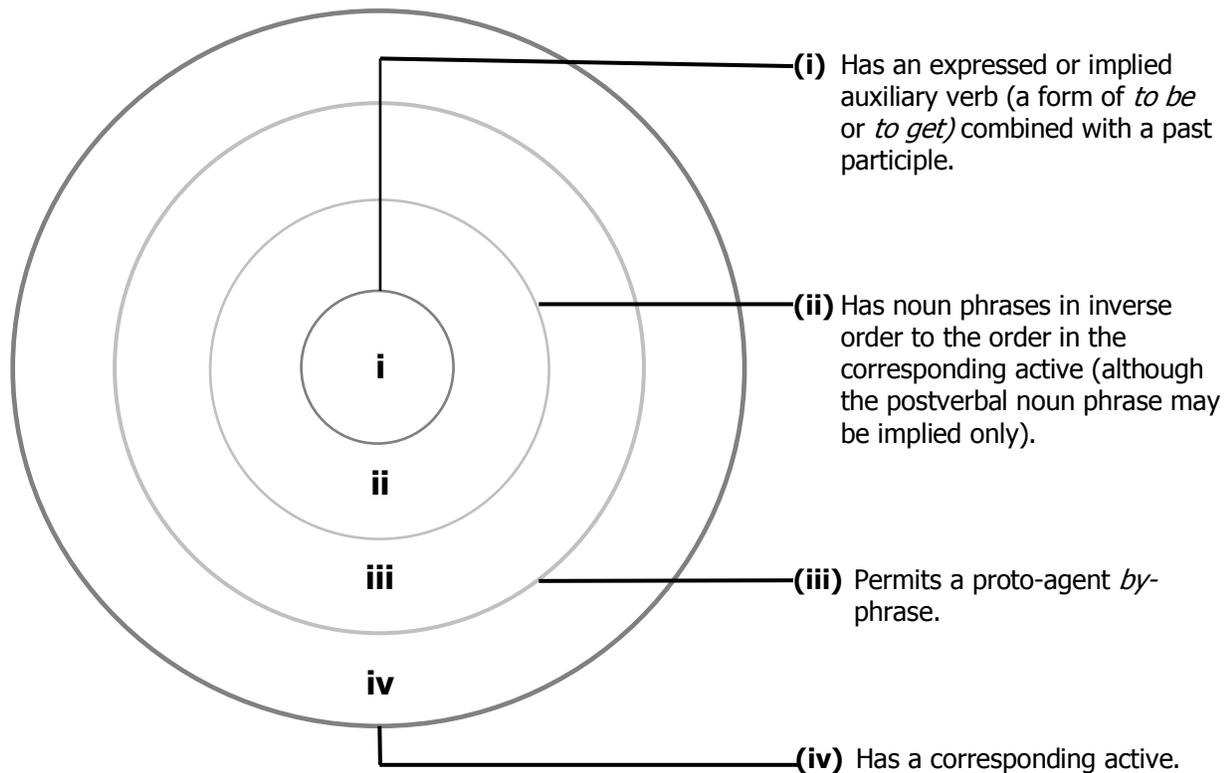
Haspelmath (1990) defines passive by stating criteria (morphology, noun-phrase rearrangement, and occurrence) but calls for the criteria not to be taken too strictly. He agrees with prototype approaches, eg Shibatani (1985), but argues that Shibatani's approach is too vague. The dilemma in describing a diagnostic tool for passive is recognising indeterminacy on one hand, and defining the construction as tightly as possible on the other hand. In other words, what is the most useful level of abstraction? Defining passive as tightly as possible is prerequisite to a rigorous study of the incidence, frequency, and appropriate use of the passive. Such a definition is lacking in the literature. However, the nature of grammatical notions is such that there are unclear boundaries to some criteria (see Chapter 3, section 5).

In summary, the English verbal passive<sup>15</sup> has characteristics that attract varying degrees of consensus among linguists. I have framed these characteristics as a series of criteria to diagnose clauses as active or passive constructions. The criteria are illustrated in the diagram below. The most commonly cited criterion is in the inner circle and the least commonly cited in the outer circle, although criteria (ii), (iii), and (iv) are variations of the same concept.

---

<sup>15</sup> I have confined this diagnostic tool to verbal passives (see section 3.5 for a broader view of passives). Use of the tool assumes that adjectival tests have been conducted and the clause has not been classed as an adjectival passive clause.

## The English verbal passive



The passive is often described as in the first criterion above, although typically only the form of the verb *to be* is included. Sometimes other auxiliaries are noted, but this is uncommon in modern English and I have excluded all but *to get* from this first criterion for passive.

The second criterion involves the position of the noun phrases in the clause. Typically, this is referred to in terms of the underlying or logical subject and object, being the noun phrases that occur in the usual subject and object positions in the corresponding active. Sometimes this is expressed in functional terms, eg action instigator, actor, performer of the action, doer; action receiver, non-actor, recipient of the action; or with standard thematic roles such as agent and patient.

Thematic roles are critical to the third criterion – the *by*-phrase criterion – which is a specific aspect of the noun-phrase-position criterion. The full passive has a proto-agent *by*-phrase,

and a truncated passive is included if it permits a proto-agent *by*-phrase, even though it is not expressed. This criterion of passives is not well covered in the literature.

Sometimes, the literature includes a corresponding active, and I have included it as the fourth criterion of passives. It enables an analysis of voice selection, that is, when there is a corresponding active, the writer has a choice of which voice to use. This means that the so-called 'obligatory passives' are set aside as a special class of passive. The term 'obligatory passive' implies membership of the passive class (although that argument does not apply to unpassives, or even adjectival passives), but their lack of a corresponding active means that they cannot easily be studied in terms of a writer's choice of grammatical voice.

The 'crucial properties' (Kuiper and Allan, p. 306) are (i) and (ii) in the diagram above, to which I add (iii) and (iv). Constructions must meet all four criteria to be passive, with the exception of the small subclass of 'obligatory passives'. Used together, I tentatively suggest that the four criteria provide as rigorous definition of the English passive as is possible.

However, some degree of subjectivity will apply to assigning the macro-role of proto-agent, and to establishing the possibility of corresponding active constructions. This subjectivity is unavoidable if the diagnostic tool is to capture the range of clauses that linguists appear to agree are passive.

### **3 Classifying the English passive**

Definitions of passive are both sketchy and variable in the literature. Unsurprisingly, classification of passives is also variable. Outlined below are common approaches to classifying passives in English.

### 3.1 Actional or stative

Some people define verbs as words that express actions. Of course, this only applies to prototypical verbs, eg *hit*, which are actional or dynamic verbs. There are other verbs that do not describe actions, eg *see*, but instead express states (hence the terms stative or statal verbs). Irrespective of the verb's class, many linguists, eg Langacker and Munro (1975), consider passive constructions to be statal constructions – the event has occurred and therefore is in a completed state.

Hasegawa (1968) distinguishes between statal and dynamic constructions (which he calls 'kinetic') involving the same verb. Compare:

- (35) a. His bills are paid.  
b. His bills are paid regularly every month.

Hasegawa considers (35a) to be statal and not a genuine passive at all. Given that there is no transmission of force or energy in the meaning that there is nothing left to pay, *paid* is intransitive. Certainly, it is not possible to add a *by*-phrase and retain the exact meaning. There is considerable support for this view, eg Kruisinga (1931) applies the term passive only when the verb expresses an action and, presumably, he would agree that (35a) is not a passive, being instead a state of condition. Langacker and Munro (1975) use the term 'stative-existential predicate'. They note that passives and perfectives are often identical in that they assert an existence of a state resulting from an earlier event, which effectively removes the participant from the action.

The expression of perfect or action-complete meaning is possible in the passive and not in the active voice. Comrie (1976) explains the relationship between perfect aspect and passive voice this way:

- The perfect can express a present state as being the result of past action.
- When an action involving an agent and an object occurs, the resulting change of state is usually more apparent in the object, eg *The enemy has destroyed the city.*
- The passive is the construction that predicates such a change of state.
- With intransitives, the change of state occurs with the agent; hence, the active voice is appropriate, eg *John has arrived.*

However, some linguists argue that stative passives do not qualify as passives. For example, the argument that passives must have a corresponding active construction means that (14), repeated here as (36), would be passive in the actional interpretation (36b – a *by*-phrase is optional) and active in the stative interpretation (36a – *was* is a lexical verb, *broken* is adjectival, and no corresponding active is possible).

- (36) a. The vase **was** broken.  
 b. The vase **got** broken.

Siewierska (1984) argues that the lexical verb interpretation of *be* necessarily requires a stative interpretation of the passive clause. However, such a classification is complicated by clauses that can be either actional or stative, where context may be the reader's only means of gaining the exact meaning, eg:

- (37) The crowd was dispersed by the Militia.

In (37), *dispersed* could be a verb or an adjective, depending on the writer's intention. Various linguists (Svartvik, 1966; Bolinger, 1977; Coetze, 1980) prefer the notion of a gradient between actional and stative constructions.

Analysing stativity in terms of transitivity is illuminating. Hale and Keyser (2002) argue that stativity is a concept that is not a feature of the verbs but of the whole predicate. They note that the relationship between the head and the complement is not one of change, eg:

- (38) a. This bull weighs one ton.  
b. The grocer weighs the potatoes.

Passives are not generally formed on transitive verbs whose objects are not patients (Keenan, 1975), and especially if the subject is not an agent and the object is not a patient (Keenan and Olmsted, 1987). This is the situation in (38a), which does not have a corresponding passive, but it is not in (38b), which does have a corresponding passive. It follows that English stative, lexical verbs such as *be*, *have*, *lack*, and *become*, and sometimes *weigh* are not easily passivised, that is, if passive forms of these verbs are grammatically possible, they are usually unacceptable. Stein (1979) argues that only actional verbs passivise but includes *like*, *despise*, *believe*, and *doubt* as actional verbs. Furthermore, some actional verbs do not always passivise, eg:

- (39) a. John left the room.  
b. \*The room was left by John.

The concept of passive as a valency-decreasing rule is variously expressed as detransitivisation, an argument suppression process, or a resultant state effectively removing a participant from the actual action (Siewierska, 1984; Givón, 1990; Thompson, 1994; and others). However, Shibatani (1985) points out that passivisation is not identical to detransitivisation, even though they both undergo a valency decrease. Passivised transitives are detransitivised but passivised ditransitives are not – they must remain transitive to make sense of the clause, eg:

(40) The food was put on the shelf.

In summary, passive constructions use actional verbs to describe stative events, which typically are intransitive clauses. The analysis of why they do not use stative verbs to describe stative events varies – either their inherent stative quality means that change is not possible, or they are too low in transitivity to permit rearrangement of the direct object and the subject. Compare (41a), with its potential corresponding passive (41b):

- (41) a. I like beer.  
b. \*Beer is liked by me.

### 3.2 Agentive or non-agentive

Svartvik (1966) uses the terms agentive, which can be optionally agentful or agentless, and non-agentive. In non-agentive passives, an agent is not possible, at least without some degree of clumsiness or redundancy, as in (15) repeated below as (42).

(42) I was surprised at his getting married at all.

The agentless passive (also referred to as a truncated or short passive) takes no explicit *by*-phrase, but is capable of taking one.

Svartvik was uneasy about such strict classification and suggested a scalar approach which I explore further in Chapter 3, section 5. Mihailovic (1965–6) shows that the choice of suppressed or expressed agent is not always one of personal preference. The verb determines the choice, coupled with constraints imposed by the potential agentive phrase. Some verbs always enable agent deletion, eg *broke*, *signed*, and *faked*; some never permit agent deletion, eg *possessed*, *actuated*, and *succeeded*. Other verbs permit agent deletion only if there is an adverbial expansion in the structure, eg:

- (43) a. They owned the club jointly.  
b. The club was jointly owned.  
c. \*The club was owned.

According to Mihailovic, yet another group of verbs permit agent deletion only when the subjects are animate, eg:

- (44) a. Curse one followed curse two.  
b. Curse two was followed by curse one.  
c. \*Curse two was followed.

There may be a different analysis of this last group that focuses on the verb rather than the subject, especially given another Mihailovic (1965–66) example involving *Red Indians* as inanimate. Mihailovic is on stronger ground pointing out that many constructions must be contextualised to enable agent deletion, eg:

- (45) a. Shakespeare wrote this sonnet.  
b. \*This sonnet was written.

However, (45b) could be grammatical in contexts where the agent is obvious.

There are few studies on agent deletion frequency in English and those that do exist are not well explained as to methodology. Nevertheless, they clearly indicate that agentless passives are the norm, ranging from 61 to 96 percent of all passive constructions (Jespersen, 1924; Svartvik, 1966; Comrie, 1979, cited by Iwashita, 2004; Granger, 1983; and Rodman, cited by Rhodes, 1997). Obviously, the numbers are inexact when there is no consensus on a definition of passive, and variation across genres might be expected as well. The incidence of passives by genre is an area for further research, and such research should indicate the working definition of passive for any useful comparisons to be made (Givón, 1994 and

Rhodes, 1997 provide data from non-fiction and scientific texts respectively but without working definitions of passive).

Stanley (1975) notes that there is often no clear-cut way to determine whether an agent is deleted consciously or not. She questions the motivation for agent deletion, arguing that often it is intellectual laziness. I pursue this argument in Chapter 4, section 3.3 and section 4.4, when I review inappropriate and appropriate use of passives.

### 3.3 Multiple passives

Although traditionally the term 'double passive' was used for a sentence with two passives, eg *no building was allowed to be erected* (Kruisinga, 1931, p. 335), and *It was clear that arms were allowed to be shipped to Iran* (Fowler, 1996, p. 577). However, Postal (1986) notes that sometimes double or tertiary passives alternations are available from one active construction. However, such options are restricted in English to a small class of verbs.

Compare:

- (46)
- a. John gave Mary the bananas.
  - b. The bananas were given to Mary by John.
  - c. Mary was given the bananas by John.
  - d. The bananas were given Mary by John.

Postal calls the passive alternations (46b–d) of the active construction (46a) primary, secondary, and tertiary passives respectively, although (46d) is unlikely to be acceptable in all dialects.

Alternations usually refer to different clauses with the same meaning. Bresnan (1982) invokes another distinction – between direct and indirect passives (Postal, 1986 calls them inner and outer passives). Compare:

- (47) a. No one took advantage of her talents.  
b. Not much advantage was taken of her talents.  
c. Her talents weren't taken advantage of.

Bresnan notes that the external object (*her talents*) can only passivise when the internal noun (*advantage*) has been incorporated with the verb (*took*). (47c) then is an indirect passive.

However, Siewierska (1984) argues that indirect passives are not passive. Compare:

- (48) a. Daniela cut John's hair.  
b. John had his hair cut by Daniela.  
c. John's hair was cut by Daniela.

She argues that (48c) is the corresponding passive of (48a) and that *John* becomes an argument of the verb *have* in (48b), which it is not in (48a) or (48c).

### 3.4 Passives in other lexical categories

Style manual writers invariably focus on verbs when describing passives, yet there are potential passives of other lexical categories, which further complicate attempts to define passive. Jaeggli (1986) cites Chomsky's famous example (49a):

- (49) a. The **destruction** of the city by the enemy.  
b. The city's **destruction** by the enemy.  
c. The enemy's **destruction** of the city.  
d. The city was destroyed by the enemy.  
e. The enemy destroyed the city.

Jaeggli points out that in (49a), the nominal *destruction* functions like the verb that it is derived from, eg it takes arguments and assigns roles to those arguments. (49b) is similar to (49a) and closer in form to a verbal passive. Effectively, (49a) and (49b) are passive alternations of (49c). In addition, there is the standard passive (49d) and its corresponding active (49e). This range of possibilities to express the same event raises the important question of what purpose such choice serves. This is the focus of Chapter 4.

Similarly, gerunds may function like passives, eg:

- (50) a. [My] **Being** elected by my colleagues was heartening.  
b. My colleagues electing me was heartening.

Obviously, (50a) does not meet the first passive criterion outlined in section 2.5 (auxiliary plus past participle), although it meets the other criteria, including having a corresponding active (50b).

Finally, as discussed in section 2.2, adjectives often appear to function as passives, eg:

- (51) He was **exhausted**.

Typically, an implied adjunct preposition phrase to (51) is reflexive, eg *by his exertions*. Such *by*-phrases are a special case, usually excluded from the passive class in English and most other languages. (51) rates low on transitivity components and it is difficult to detect a transmission of force, but the tests for adjectivehood are sufficient to count it out from the class of verbal passives.

## 4 Conclusion

Formal and functional criteria together describe the English passive, although there is not full consensus on the construction's scope, and some variants are controversial. Given that there

is little consensus on the foundations of passive, it should be no surprise that passive voice is a problematic and controversial construction. The diagnostic tool described in section 2.5 uses four criteria that, together, balance a highly definitive approach against a more general approach that reflects the indeterminate character of grammatical concepts.

# Chapter III

## Is there a universal passive?

...many of the most puzzling morphological and semantic facts about the passive are either universal or of very wide occurrence in the languages of the world and...a treatment dealing with them as idiosyncracies of English will not be adequate, if we really want to understand what is going on.

–Robin Lakoff (1971, p. 158)

### 1 Introduction

Traditionally, constructions that did not conform to all structural details of the English passive were excluded from the class called passive. However, as Lakoff suggests in the chapter title quote, a broader approach may be more insightful. In fact, understanding passives cross-linguistically will involve 'widening the passive sphere' (Stein, 1979, p. 31).

The number of world languages is estimated to be as high as 10,000 (Croft, 2003), and many have not been studied. It follows that statements on universal passives are over-generalised – universality claims are often made that have not been tested on all languages. Yet, defining linguistic universals is the main task of linguistic theory according to Chomsky (1965) and that has been a key driver in attempts to define the passive cross-linguistically. In this chapter I suggest a continuum approach rather than a definitional approach, and provide an illustrative example.

## 2 Cross-linguistic findings

There are various claims that specific languages have no passives<sup>1</sup>, particularly in the Austronesian and Amer-Indian language families, and also Hungarian. However, whether a language has a passive depends on the definition used, and in this chapter I review the definitional approaches. Extending the passive concept to other languages beside English is complex, especially when their skeletal frameworks differ from that of English. The subject-verb-object (SVO) order that English favours is common but by no means universal, eg Polynesian and Celtic tend to be verb-subject-object (VSO) languages. Of the six possible word-order possibilities, four are well attested. Interestingly, from a passive voice viewpoint, the two possibilities that may not occur in the world's languages are both object-first languages – object-verb-subject (OVS) and object-subject-verb (OSV). Furthermore, as outlined in Chapter 1, agreement on what characterises the sentence constituents of subject, verb, and object does not fully exist or, possibly, even fully apply to some languages.

### 2.1 Are passives fossil constructions?

Before I review the literature on cross-linguistic passives, I should consider whether passives are fossils in the sense that Jackendoff (2002) uses the term for grammatical remnants of historical constructions.

Fillmore (1968) notes that some linguists assume that passives are a more primitive construction in the evolution of language than the active construction, citing Kurylowicz, Schuchardt, and Uhlenbeck, but he cannot accept the transition or certain cultural shifts that are attributed to it. Pucilowski (2006) notes the unusually high frequency of passives in Māori, concluding that Māori is a split-ergative language and that many so-called passives

---

<sup>1</sup> See Siewierska (1984, p. 23) for a list of languages that do not have passives.

are actually ergative constructions. Hohepa (1969)<sup>2</sup> found that the Tongan ergative system evolved from a nominative-accusative system, losing the active-passive distinction. This ergative drift phenomenon is attested in many languages (Comrie, 1987) and could suggest that passives will evolve out of languages. However, I suggest that a fast-changing language such as English shows no sign of this, although I found no diachronic frequency studies to support this view. It is an area for future research, assuming that researchers can control the many variables.

Siewierska (2005) claims that, of 373 languages in her sample, 44 percent have a passive construction, although she does not claim that the sample is fully representative of the world's languages. On the other hand, Haspelmath (1990) found that 31 of a sample of 80 languages had passives, and he did consider the sample to be representative. He observes that the main function may vary among languages.

Although these counts make it more likely for a language to lack a passive than have one, the widespread occurrence of passives cross-linguistically indicates that they perform an important role. Chapter 4, section 4 considers this role in English.

## **2.2 The search for a definition of passive**

Despite his quest for cross-linguistic universals, Chomsky (1977) states that there might not be a cross-linguistic definition of passives. In fact, he is dubious that there is a single rule of passive in a single language. Many linguists have joined the search and reached similar conclusions (Nerbonne, 1982; Perlmutter and Postal, 1983; Siewierska, 1984; Croft, 2003). Nerbonne observes that because analyses of diverse languages use the terms passive,

---

<sup>2</sup> Cited by Keenan, E. and Comrie, B. (1987, p. 31).

passive voice, and passivisation, linguists assume an underlying reality. However, Nerbonne argues that:

...the widespread use of terms may be attributable to dogma, misanalysis, encrusted scholarly tradition, or – more to the point – the attempt to clarify alien patterns of grammar somewhat metaphorically (p. 87).

Nerbonne discusses the concept of understanding by analogy, arguing that if the passive in Irish is analogous to that in Old Icelandic, which in turn is analogous to the English passive, it does not follow that the Irish and English passives have much in common. He concludes that there is no clear need for a universal rule of passive. Perlmutter and Postal (1983) suggest that a definition may only be found for each word-order language type, which appears to be a fruitful research avenue yet to be pursued in depth.

Malinowski (1998) points out that words with equivalents in other languages are equivalent in a different culture, and therefore have different nuances of meaning. Similarly, constructions that are labelled passive voice may have different nuances of meaning cross-linguistically. This appears to be the situation in Irish. Noonan (1987) shows that Irish has a passive type that, although conforming structurally to the prototype does not conform to the prototype's functional characterisation. Although this construction is commonly translated into English as passive, passive is not the only possible translation and sometimes is not even possible.

Stein (1979, p. 26) summarises the narrow, historical view of passives as follows:

Passive verb phrases are verbal combinations consisting of a verb and an obligatory past participle which function as verbs in a sentence and cannot be replaced by a one-word form in the present and past tense nor by a corresponding coordinated active verb phrase.

This conventional description of the passive involving an auxiliary and a past participle is of little use cross-linguistically as many languages express the passive without an auxiliary.

Indeed, as Croft (2003) points out, in the Niger-Congo language, Bambara, the passive occurs without any overt marking of the verb. Such diversity of constructions led to Stein's call to widen the passive sphere.

However, Siewierska (1984) argues that most definitions are either too broad or too narrow. As noted in Chapter 2, Siewierska could only define passives in terms of constructions that have corresponding actives, an interesting conclusion given that she is well aware of exceptions to that conclusion – obligatory passives such as *be rumoured*. Extending the term beyond Indo-European languages to languages with quite different skeletal structures is sometimes controversial. As discussed in Chapter 1, section 2, it not only depends on the definition of passive, it also assumes that notions of subject, object, and transitivity are universals and that they function universally as foundations for clauses. Siewierska lists 11 ways in which passives differ cross-linguistically,<sup>3</sup> concluding that their differences may well outweigh their similarities.

Various languages provide counterexamples to the strategies that English use to signal passives:

---

<sup>3</sup> Verbal morphology; case marking; word order; the overt presence of a passive agent; the marking of a passive agent; the presence of a surface subject; the requirements made on the passive subject connected with semantic roles; hierarchies of person, definiteness, and specificity; transitivity restrictions; restrictions on tense, aspect, mood, and verbal class; frequency of occurrence; and discourse conditions and pragmatic functions.

Strategies in English	Counterexamples in other languages
Verbal marking	Bahasa Indonesia <sup>4</sup>
Additional verb (an auxiliary)	Lummi, an Amer-Indian language, which uses verbal inflexion alone
Noun-phrase positional change (word order)	Basque, which signals the change by an auxiliary
Noun-phrase nominative-accusative case marking (pronoun case remnants)	Ergative languages, eg Basque, where the subject and direct object are both in absolutive case
<i>By</i> -phrase	Latvian does not permit an optional <i>by</i> -phrase that expresses an agent <sup>5</sup>

In fact, the literature details many aspects of passives in other languages that vary from English passives. For example, certain distinctions of meaning in certain tenses are only possible in the passive in Russian and Irish (Comrie, 1976); in Kinyarwanda (a Bantu language), *has* as a lexical verb can passivise,<sup>6</sup> indicating that there are no universal restrictions on verbs that can passivise (Keenan, 1987b); and Russian has constructions which are functionally passive but morphologically active (Murphy, 2005).

---

<sup>4</sup> Comrie (1987) suggests that situations such as this (and the high frequency of passives in Philippine languages) account for why constructions in some languages are not given classic active-passive terminology. Haspelmath (1990) considers passive morphology to be a prerequisite for passive.

<sup>5</sup> See Robson (1972, p. 80) and Siewierska (1984, p. 35) for lists of languages that do not permit agents.

<sup>6</sup> Although this is not possible in English for the stative *have*, Heidi Quinn pointed out that it is possible for the dynamic *have*, eg *A good time was had by all*. This construction probably meets all four criteria in the diagnostic tool detailed in Chapter 2, section 4.5. Siewierska (1983, p. 561) provides another idiomatic example: *She had been had by all the boys in town*, noting that it describes an activity, not a state.

The literature suggests that a cross-linguistic definition of passive is an elusive concept and translating many constructions into the English passive form is questionable.

### 2.2.1 General regularities

Perlmutter and Postal (1978) argue for a definition of the passive in terms of the changes in grammatical relations – the relationships among subject, direct object, and indirect object. Their definition appears simple: the active subject ceases to bear any grammatical relation to its verb, and the direct object becomes subject. However, Keenan (1987c) suggests that there may be different definitions in different languages, assuming that those languages promote the direct object and demote the subject. Keenan found the following constraints or general regularities in cross-linguistic passives:

- Passives are difficult or impossible to apply if the direct object's reference is not independent of the subject's reference, eg:

- (1) a. Joe smacked himself.  
b. \*Himself was smacked by Joe.  
c. Joe found a wife in Peoria  
d. ?A wife was found in Peoria by Joe.

In (1c), the reader understands that it is Joe's wife who is found but, in (1d), that is possibly unclear, depending on the contextual information that is available.

- A direct object case marked in an unusual way may retain its case marking and not trigger verb agreement when promoted, eg the Latin verb *invidēre* (to envy) is marked as dative and retains that marking when promoted.
- Passive is hard to apply when the subject is not an agent and the direct object is not a patient, eg:

- (2) a. Joe misses the old days.
- b. \*The old days are missed by Joe.
- c. This car needs a new motor.
- d. \*A new motor is needed by this car.

- Passive verbs are usually stative. However, various linguists argue that such constructions are not passive (see Chapter 2, section 3.1), and many languages, eg Icelandic and Swedish, have passives that describe the event rather than the resulting state.

Siewierska (1984) found that periphrastic passives involving auxiliary verbs were common cross-linguistically, although they take various forms, as indicated below.

<b>Forms of:</b>	<b>Language examples</b>
to be	The vast majority, including English and Quechua (an indigenous Andean language)
to become	German, Persian, and Hindi
to go	Italian and Hindi
to receive / get	Welsh and English
to suffer / undergo	Vietnamese
to come	Italian and Kurdish Kashmiri
to eat	Sinhalese (with some lexical verbs only)

Siewierska also found that the choice of auxiliary has different purposes in different languages, eg aspect in Polish and Dutch, a difference between a resultant state and a process in Icelandic, and emphasis in Swedish. Of particular interest to whether the English

*be*-passive and *get*-passive carry distinct roles (see Chapter 2, section 2.1), she notes that Polish, Dutch, Icelandic, German, and Finnish have such a distinction, using auxiliaries that translate to *be* and *become*.

### **3 Cross-linguistic theories of passivisation**

#### **3.1 Is passive a promotional or demotional rule?**

Chomsky (1972) argues that the syntactic principle for forming passives is that we must locate the main verb and the noun phrase that immediately follows the verb and invert the two (and add some modifications). Klaiman (1988) takes a more complex semantic approach, arguing that passive is a process for moving thematic arguments in and out of subject position. In Klaiman (1991, p. 265) she states that ‘...some hierarchically superior nominal status figures in the organization of any voice system.’ The issue is which noun phrase is the more important.

In Relational Grammar, the relationship between a subject and direct object is sometimes expressed in terms of promotion of the direct object, sometimes in terms of demotion of the subject, and sometimes with an equal focus on both operations. This debate has implications for the use of the passive (foregrounding or topicalisation, and backgrounding), which I discuss in Chapter 4, section 4. In this chapter, I review each approach in turn.

##### **3.1.1 Promotional school**

Some linguists contend that all passives can be analysed in terms of promotion or advancement of a direct object, eg Perlmutter and Postal (1978) and Keenan (1987a) assume an obligatory promotion to subject of various non-subject constituents of active sentences. They argue for advancement, using characteristics from Dutch, German, Latin,

and Turkish. Passives on intransitives lack noun phrases and therefore lack an overt argument. This means that for the impersonal passive, a dummy is promoted or at least assumed. Typically, this dummy translates to *it*, *one*, or *there*, although there is no dummy in some languages, eg Welsh (Siewierska, 1984). Postal (1986) is quite specific when he uses the term '2 to 1 advancement', 2 being the direct object and 1 being the subject. However, he contends that without an earlier 1, constructions are not passive, which implies that both promotion and demotion factors are involved.

Thematically, promotion of a direct object is generally regarded as promotion of a patient or, at least, a non-agent. In fact, non-agentivity of the passive subject is usually considered a defining property of passives, or else the construction could not take an agentive *by*-phrase. However, agentivity is not always a feature of active subjects and, therefore, a non-agent subject does not define a passive, eg:

- (3) a. The rock shattered the window.
- b. The window was shattered by the rock.
- c. The window was shattered by the rock that was thrown by the boy.

Using the diagnostic tool outlined in Chapter 2, section 2.5, (3b) and (3c) are passive. (3c) has two passive clauses, with instrumental and agentive *by*-phrases respectively.

### **3.1.2 Demotional school**

Givón (1994) claims that we could expect that pragmatically suppressed arguments (the agent in the passive, and the patient in the antipassive) to be syntactically demoted. This is common cross-linguistically, although Siewierska (2005) notes that many languages use

suppression devices unavailable in English. These include subject omission<sup>7</sup>, eg Autuw (Papua New Guinea); explicit impersonal or indefinite subject, eg German; and use of third-person singular or the plural form of the verb, eg Paamese (Vanuatu). Givón notes that the agent is excluded in passive constructions in most languages, and he found that to be the case in English for 79 to 88 percent of passives. Van Valin (1979) cites Kurylowicz who claims that the agent is never obligatorily expressed, but Kurylowicz was writing in 1946 and there is a vastly better understanding of world languages today.<sup>8</sup>

Shibatani (1988) notes that in many languages the same form is used for reflexive, reciprocal, passive, impersonal, spontaneous (non-read), and honorific constructions. He argues that the passive has as its prototypical function the defocusing of the agent because some languages do not permit the expression of agents in passive constructions, eg Finnish. Other linguists, eg Siewierska (1988), regard the necessary property of the passive to be agent deletion or the movement of the agent to an oblique function. This approach does not require an object or oblique to be subjectivised. It increases the range of potential passive constructions to clauses without overt, thematic subjects, particularly impersonal constructions.

Various linguists (Comrie, 1977; Jain, 1981; Keenan, 1987c; and others) claim that impersonals are evidence that passive must be treated as a demotional rather than a promotional process. Siewierska (1988) is less categorical, arguing that the demotional approach is *preferable* because it applies to the impersonal passive. Jain (1981) analyses a Hindi construction by applying the approach that true passives require underlying subject

---

<sup>7</sup> There are some, limited opportunities for subjectless sentences in English, eg sentences in imperative mood, although the subject is implied.

<sup>8</sup> Siewierska (1984, p. 35) discusses three languages that appear to require agents in passive clauses. In English, a small class of verbs require agents – see Chapter 2, section 2.3.

deletion. Such attempts to categorise constructions in vastly differing languages using concepts developed to explain English are open to criticism. For example, Comrie (1988) revisits the notion of subject by analysing Dyirbal (an Aboriginal language of northern Queensland), which shares subject properties across different noun phrases in the sentence. Croft (2001) goes through a similar exercise using Yuwaalaraay (an Aboriginal language of northern New South Wales). It is unsurprising then that Roland (1994) argues that subjecthood is a matter of degree.

Mithun (1994) notes that different analytical approaches can cast sentences as active or passive. Passive voice, which encodes a patient as syntactic subject, is traditionally considered to occur when the patient of a transitive event is higher in topicality than the agent. However, in Kapampangan (a language of the Philippines), passivisation seems to demote highly topical agents. This confusion is due to assuming that all languages are comparable in terms of clause functions. In English, subjects are seen as the starting point to which new information is attached (see Chapter 4, section 4.3). In Kapampangan, topicality may be spread over two cases, that is, the functions of primary cases differ from English and so voice alternations in the two languages are not isomorphic.

Alexiadou and Anagnostopoulou (1999) take a slightly different position, proposing that subject is universal but the universality element may be satisfied in different ways. This approach is important for a universal definition of passive based on subject demotion because, obviously, such a definition will fail if subjects are not universal. However, it is not important for a definition that is based on the demotion of the agent.

### 3.1.3 Combinatorial approach

Some linguists argue that promotional and demotional approaches are equally appropriate. It is a short step from this position to arguing that each approach is more applicable to a particular set of clause types. It would be an area of further research to clearly define those clause types. It is more appropriate to my purpose though to consider promotional and demotional approaches in terms of what the writer aims to achieve, and I review that in Chapter 4, section 4.

## 3.2 Affectedness and control

I have reviewed theories of passivisation that focus on moving thematic arguments into and out of subject position. However, Klaiman (1991) questions whether thematic roles account for a comprehensive theory of voice because pragmatic salience, which is encoded in inverse and focus systems, may not be entailed in the lexical verb, nor may the subject affectedness be entailed by a lexical middle verb. Klaiman argues that subjects of non-derived sentences (active, middle, and pragmatic) are either affected entity or controller, and that verbal marking indicates the intended status. She defines voice in terms of affectedness and control, seeing each role as a conceptual state rather than a theme.

Foley and van Valin (1984) also question traditional thematic roles, introducing the concepts of actor and undergoer. In English, the core constituents are actor and undergoer for any simple transitive verb, eg:

- (4) **The dog** sensed the earthquake.

In (4), Foley and van Valin classify *The dog* as an actor. However, because it is also an undergoer of the event, Klaiman prefers to classify *The dog* as both an actor (theme) and an affected entity (its conceptual status). Klaiman argues that cross-linguistically, non-actor

arguments sometimes exercise control over the action. Klaiman (1988, p. 46) views the concept of affected entity as a constant in voice systems: ‘...a verbal voice system signals whether the Subject is or is not perceived as the affected entity – the participant to which accrue the principal effects of the action.’ Similarly, Shibatani (1985) suggests that voice systems mark the affectiveness or non-affectiveness of the subject, that is, the relation of the subject to the action.

Klaiman’s control parameter is indicated by marking, verbal derivation, or verb classification. Controllers do not always control with volition. In some languages, eg Korean, inanimates may control actions. In fact, the notion of control does not have a single cross-linguistic sense. Given this variability to the content of control in voice systems, it seems to be a cross-linguistic universal. Klaiman (1991) outlines a grammar of control. She describes basic voice as a control-encoding system closely related to affectedness. The control predicates are action predicates, which may be verbs of action or undergoing. Non-control predicates do not express action, eg bodily process verbs such as *perspire*, inanimate verbs such as *rain*, and neuter verbs such as *melt*, *spread*, *open*, which are undergoing predicates. Compare:

- (5) a. The ice melted.  
b. The sun melted the butter.

In (5a), *melted* is intransitive and an undergoing predicate. However, in (5b) *melted* is transitive and a control predicate.

Like passives, non-control predicates are actional but non-agentive. Klaiman sees three types of languages in terms of actor / controller status: languages in which the actor and controller status are the same, languages in which they correlate partially, and languages in which there is no correlation.

Croft (1994) builds on Klaiman's theory that control and affectedness underlie voice, and argues that they can be delinked from thematic roles, eg:

(6) This material sews easily.

In (6), the patient (*this material*) has a controlling function and hence the delinking of thematic roles. Croft argues that the construal of events is represented three ways: cause-become state, become-state, and state. Passive is the last of these – a state or resultative view of an event where control is minimal.

## 4 Pieces of the typology puzzle

### 4.1 Basic or derived voice

Commonly, the literature distinguishes between basic (or plain) and derived voices, to which Klaiman (1991) adds pragmatic voice as a third class. The underlying assumption is that a language has a normal voice determined by high frequency and lack of marking, and alternations are derived from that norm. Transformation Theory developed this assumption in various ways (see Chapter 1, section 3.1).

Many linguists think in terms of passive being a derived or secondary voice. However, Chomsky (1957, p. 80) reviews whether passive could be the basic construction from which active is derived. He concludes that this brings difficulties of complexity:

When we actually try to set up, for English, the simplest grammar that contains a phrase structure and transformational part, we find that the kernel consists of simple declarative, active sentences...and that all other sentences can be described more simply as transforms.

It may be that Transformation Theory brought an associated disrespect<sup>9</sup> for passives that is commonly found in grammar books – passives are usually seen as secondary to actives in terms of elegance, style, and readability (see Chapters 4 and 5).

This issue of primary and secondary voice is discussed by Klaiman (1991). Klaiman points out that when a language inflects verbs for voice, some verbs may inflect in all voices, some may inflect in two voices, and some may inflect in one voice only. English is in the last category: active voice lacks inflexional marking of the verb, and passive voice carries inflexional marking. This appears to confer basic or primary status on actives and derived or secondary status on passives.

Besides passive, the most often-cited derived voice is passive's mirror image – the antipassive. Whereas the agent is non-topical in the passive, the patient is non-topical in the antipassive. Like the passive, this deletion of one of the actors in the event tends to make the construction intransitive. It is not usually regarded as an English construction, but patient deletion (or an unspecified object clause) does occur in English, eg (from Givón and Siewierska respectively):

- (7) a. Mary ate (in a hurry).
- b. Speed kills.

The main reason that (7a) and (7b) are not classed as antipassive is that they are not marked as such, although zero-marking does not prevent most linguists assigning case to English noun phrases. Besides zero marking, the lack of regularity may be another reason to

---

<sup>9</sup> This is not to argue that grammarians writing before 1957 never denigrated passives, but rather to tentatively suggest that the sentiment against their use increased from that date. While this is speculative, a review of Sweet (1891), Jespersen (1924), Poutsma (1926), Kruisinga (1931), and Curme (1935) revealed no resistance to using passives in appropriate settings. Indeed, Curme (1935, p. 217) notes that 'The passive is a favorite form of expression in English'.

discount constructions like (7) as a discrete class in English. Siewierska (1984) argues that if the term antipassive is extended to (7b), then most languages have the construction. However, it is difficult to accept this as an argument against using the term, as most languages also have passives. Presumably, verbal marking is the test that she is applying. There are other constructions that are categorised as derived in some languages, eg oblique constructions such as causative and applicative voice. Causative voice of an event, increasing the verb's valency by one, eg Japanese; applicative voice may be identical to causative voice or may apply additional roles to the verb, as in instrumental and locative applicatives. A similar process in English is dative shifting. Givón (1990) provides this example (also discussed in Chapter 1, section 2.1 in terms of identifying the direct object):

- (8) a. John gave the book to Mary.  
b. John gave Mary a book.  
c. Mary was given a book by John.

In (8a) and (8c) the direct object is a patient, but in (8b) the direct object is a dative beneficiary, which switches to subject in (8c). In English, the promotion to direct object strips dative-benefactive objects of their case marking (the prepositions *to* and *for*). Semantic ambiguity is avoided by clear verb-argument combinations. In (8), the verb *give* has three arguments, the dative-beneficiary argument usually being human (*Mary* in this example) and the patient usually being non-human (*the book*). The point of (8) is that dative shifting in English relies on word order and verb semantics rather than on voice marking to convey meaning. The result is that we choose not to label it as a voice construction.

Although Stein (1979) argues that there are only two voices in English, traditional grammars commonly recognise a third voice – the middle voice, which displays characteristics of both active and passive. Barber (1975) makes a clear case for middle voice as the basis for

arguing for diachronic shift of voice systems. She includes middle voice along with reflexive, reciprocal, impersonal, and antipassive voices as unmarked 'grammatical voices' in English, as distinct from 'verbal voices' – the active / passive dichotomy which is marked on the passive. Middle voice is marked in Greek to express the involvement of the subject in the action, that is, the subject is affected by the action even though it is performing that action, eg:

- (9) a. Ēgag-omēn gynaika.  
led mid. woman  
b. I married a woman.  
c. I wash myself.

(9b), a translation of (9a), does not exhibit the conventional passive markers and so, typically, is classed as active in English. Presumably, it was useful for the Greeks to differentiate middle from active. In (9c), a reflexive pronoun marks the second noun phrase and conveys the intended meaning, although reflexives and middles are not always the same constructions. In fact, (9c) is usually described as a reflexive rather than middle voice. Barber points out that the function of the Greek middle voice marker and the English reflexive is the same – to show identity with the subject. To show this identity, the subject must be expressed already, which explains why reflexive pronouns are not permitted to occur in subject position.

Sometimes linguists distinguish middles not from actives but from passives. They claim that the agent role is present in passives even in the absence of a *by*-phrase, but it is not in middles, eg:

- (10) The price [has] decreased.

However, it is more common to refer to (10) as unaccusative in that the subject has a non-volitional role, that is, it is not the agent of the action expressed by the verb. Other linguists use the term 'mediopassive' and include pseudo-passives and semi-passives along with middles (for an explanation of these terms, see section 5.1). They argue that the mediopassive voice subsumes the meanings of both the middle voice and the passive voice. Equivalent, unmarked examples in English are:

- (11) a. The book reads well.  
 b. The trousers wash easily.

Given the lack of passive verbal morphology and their inability to take *by*-phrases, the more common analysis of (11a) and (11b) is that they are active or middle constructions.

## 4.2 Personal or impersonal voice

According to Siewierska (1984), the English passive is a personal passive, having an overt subject with semantic content and a corresponding active construction. Cross-linguistically, this is not so simple. Even in English, the corresponding active requirement is not strictly true (see Chapter 2, section 2.5), and in some languages, eg certain Amer-Indian languages, passives cannot have corresponding actives – passive is obligatory when certain personal and animacy hierarchy<sup>10</sup> conditions are met. However, whether all these constructions are actually passive is unclear.

---

<sup>10</sup> Animacy nominals form a continuum from most animate to least animate, although this varies in some languages, eg spiritual nominals may rank highly. Siewierska (1984, p. 221) illustrates the continuum as below:

<i>Human</i>	→	<i>Non-human</i>
1st person → 2nd person → 3rd person	Animate →	Inanimate

Harris (1978) notes that, in actives, the action instigator is more likely to be animate than the action receiver, and in passives the reverse is true.

Passives on intransitives do not have overt subjects, that is, they are impersonal. They exist in Dutch, German, Latin, and many other languages, and sometimes involve the same verbal morphology displayed by personal passives. They typically involve placeholders – empty or dummy subjects that do not refer to any specific group of individuals. Comrie (1990) argues for including the impersonal in the passive domain, describing the construction as a non-promotional passive. Compare:

- (12) a. They found the body on the beach.  
b. The body was found on the beach (by John).

There are two possible interpretations of (12a), depending on the specificity of the agent in subject position. The context will likely disambiguate an unindividuated, generic subject on one hand, and a specific subject functioning as a strong agent on the other hand. Arguably, the former interpretation is impersonal and the latter personal. Comrie's analysis of (12a) is that the agent is absent. Alternatively, I suggest that the agent is present (a pronoun) and the test is whether specific people can be substituted for the pronoun. Cross-linguistically, impersonal passives agents tend to be abstract, but they may be animate (as in Welsh), or a natural force (as in Russian and Lithuanian).

Most linguists also require passive verbal morphology to categorise a construction as an impersonal passive. Fowler (1965) discusses impersonal passives under the dictionary entry: *Passive disturbances*, providing these examples:

- (13) a. It is believed that a large green car was in the vicinity at the time of the accident.  
b. It is understood that the wanted man is wearing a raincoat and a cloth cap.

Postal (1986) provides this example, which he regards as marginally impersonal:

(14) There is believed by some geologists to be oil in Brooklyn.

Given its passive verbal morphology, the agentive *by*-phrase, and the possibility of a corresponding active, it is understandable why Postal includes (14) in the passive class. However, passive verbal morphology does not always occur in English translations of impersonal passives in other languages. Compare the following German sentence with an English translation:

(15) a. Es wurde getanzt.

it was dancing

b. There was dancing.

(15a) is clearly passive because it is marked as such. (15b) is consistently regarded as active because the lexical verb is not marked as passive and it has nominal rather than verbal properties, eg it can be negated and quantified (*There was no / some dancing...*). However, an auxiliary is present and a *by*-phrase is probably possible. A narrow, formalistic approach to passives misses the point that both sentences are describing the same event in the same way. If there was not such strong consensus on the need for passives to involve a past participle, (15b) could be classed as passive.

### 4.3 Pragmatic voice

In pragmatic voice systems, the verbal morphology signals the assignment of inverse status or information-structure salience to the clause's arguments (Klaiman, 1991).

Givón (1994) notes that some languages case mark the more topical clause (agent or patient) as proximate and the less topical as obviate, eg classical Algonquian, whereas other languages use word order to highlight topicality. The more topical non-agent argument is made proximate by placing it in a more fronted position, and post-posing the less topical

agent. The inverse voice is used when the patient is more topical than the agent or if the patient outranks the agent on the relevant hierarchy.

Pragmatic voice is not a marked construction in English. Siewierska (1984) contends that passives are relatively frequent in English because of three factors: there are few alternatives to patient topicalisation and simultaneous agent focusing, there are limited alternative impersonalisation strategies, and passives are often the only impersonalisation means of expressing given-new distribution of information. I will discuss these important issues in Chapter 4, when I consider how and why passives are used in English.

## **5 Fuzzy edge typology**

In the latter half of the 20<sup>th</sup> Century, linguistics focused on constructions and their relationships and later on grammatical constraints. Different syntactic theories have varied the focus but they have all tended towards the classical concepts of definition and categorisation rather than grammatical continuity. Bolinger (2004, p. 313) observes that: '...microlinguistics have not been able to get along without continuous phenomena, so it has taken a small bite out of them, chewed some discontinuity into it, and let the rest go'.

However, not all linguists follow such an approach, eg Bolinger, Firth, Halliday, Svartvik, and Quirk, recognised in the 1960s that various constructions are not all-or-nothing affairs. Ross (2004) discusses the idea of 'category squish', which he first introduced in 1973 to illustrate a continuum between categories of noun phrases. Although this particular concept was later criticised, linguists such as George Lakoff, Watt, Comrie, and Langacker pursued the concept of grammatical continuity through the 1970s and 1980s. By the 1990s, the work of typologists such as Croft was based on the growing body of knowledge of world languages,

resulting in fuzzy edge typology. This 'grammatical indeterminacy'<sup>11</sup> is variously called scales, squishes, clines, gradients, or continuums.

## 5.1 Scales, squishes, clines, gradients, or continuums

Givón (1981, p. 164) notes that '...functional domains in syntax are most commonly clines, upon which a number of more-or-less distinct points may be plotted along a functional continuum.' He goes on to say that functional domains appear to be reasonably universal, but different languages may identify different points along a domain. Givón suggests that functional domains may cross, forming a 'multi-dimensional space'. He plots structures on a continuum based on ease of topic identification. At one end is zero anaphora (easiest topic identification); at the other end is passive, Y-movement (topicalisation), and cleft / focus constructions. Givón notes that the exact position of passive in this continuum is not fully clear and may depend, in part, on the particular passive-type in a language. Passives, he argues, are part of two other domains:

- The detransitivisation domain, shared by reciprocal, reflexive, and stative-middle-voice. The clause becomes semantically less active and less transitive.
- Impersonalisation domain, where the agent's identity is suppressed.

The literature often compares constructions cross-linguistically. Comrie (1987) is a classic example, comparing and contrasting passive and ergative constructions. They are alike, Comrie says, in that they assign at least some subject properties to the patient (although the passive does to a greater extent). English subject properties include nominative case, triggering verb agreement, being trigger or target for conjunction reduction. Patients in passives share these properties. However, in ergative languages, there are considerable

---

<sup>11</sup> Aarts et al. (2004).

differences in the extent to which such properties are shared. It may be only case marking, or it may be more (including all properties). In the extreme (when all properties are shared), then the ergative is very similar to the passive, eg in Dyirbal (an Aboriginal language). On the other hand, passives and ergatives differ in markedness (only the passive marks the verb), and in that the ergative typically integrates the agent phrase into the syntax to a greater extent. He concludes by citing languages with constructions that are borderline between the two categories. It is this borderline or fuzzy boundary concept that I am interested in here.

The concept is also expressed in terms of prototypes, eg Shibatani (1985, p. 822), who suggests that ‘...various constructions exist along a continuum; certain ones are prototypical, others are similar to the prototype to a limited degree, and still others share no similarities with the prototype.’

Rather than using the term continuum, Quirk, Greenbaum, Leech, and Svartvik (1985) propose a passive gradient. They suggest that the following examples illustrate that gradient.

- (16) This violin was made by my father.
- (17) This conclusion is hardly justified by the results.
- (18) Coal has been replaced by oil.
- (19) This difficulty can be avoided in several ways.
- 
- (20) We are encouraged to go on with the project.
- (21) Leonard was interested in linguistics.
- (22) The building is already demolished.

- (23) The modern world is getting (becoming) more highly industrialized and mechanized.

Quirk et al. (1985) state that, if the passive is defined as *be* or *get* + *-ed*, then (16) to (23) are all passives. However, they argue that, after considering function and meaning, only (16) to (19) are central or true passives. (16) and (17) have direct active counterparts – (16) with an animate or personal agent and (17) with an inanimate or impersonal agent. (18) is ambiguous depending on whether the *by*-phrase has an agent or an instrumental interpretation. It could mean either (24a) or (24b).

- (24) a. Oil has replaced coal.  
b. People in many countries have replaced coal with oil.

(19) is the most frequent passive type – agentless. (20) and (21) are ‘mixed passive’ or ‘semi-passive’ in that they have both verbal and adjectival properties, eg the participle could be qualified with an adverb and *be* could be replaced by *feel* or *seem* (*feel rather encouraged* and *seemed very interested*). In addition, they argue, the sentences are stative, which, suggests that they are adjectival. They do not discuss the fact that (20) permits an agentive *by*-phrase. However, prerequisite adjectivehood tests would make redundant use of the *by*-phrase criterion (see the diagnostic tool in Chapter 2, section 4.5). Similarly, (22) and (23) appear passive because they have passive form, but *is* is copula rather than a passive auxiliary and the participles are adjectival. Quirk et al. (1985) call them ‘pseudo-passives’.

## 5.2 Conceptual space

Cross-linguistic studies show that ‘The passive construction...does not stand in isolation, but rather is embedded in an array of inter-related constructions....’ (Langacker, 1982, p. 65). Croft (2001) is disdainful of definitional efforts, eg that of Jain (1981), because he believes

that they are doomed to failure cross-linguistically and they tend to assume a privileged position for the English passive. He believes that structural characteristics of the world's passives are so diverse that there are no universal structural categories. In fact, he argues that there are no universal grammatical categories at all.

Croft prefers to think in terms of multiple paths and conceptual space, possibly drawing on Givón's 'multi-dimensional space' and Langacker's 'array of inter-related constructions' of two decades earlier. Croft's Radical Construction Grammar compares different constructions in a language without necessarily needing to define which are active and which are passive. This enables him to avoid the need to fit constructions in some ergative languages into rigid categories, especially constructions that share properties of English actives and passives.

Croft uses subjective subject-like, object-like, and salience ratings to graph a continuum of constructions and a 'semantic map'. He maps two-participant passive and inverse constructions using subject, object, and oblique scales, subjectively assessing the constructions as being more subject-like, more object-like, more oblique-like, and more salient or absent. He found that constructions labelled active and passive cross-linguistically do not share the same conceptual space. One of Croft's arguments against the universal characterisation of passive was that language-specific passives inhabit different regions of the conceptual space, reflecting different participant-role construction patterns. He did not map middles, inflexives, or antipassives.

Building on Croft's work, Murphy (2005) describes a conceptual space that uses objective salience ratings. Murphy aimed to eliminate Croft's subjectivity by using Myhill's referential topicality and persistence measures, which he combined into a salience rating to map constructions within one language (Russian). He also wanted to be more precise than Thompson (1994) who characterised subjects and objects in terms of increased prominence

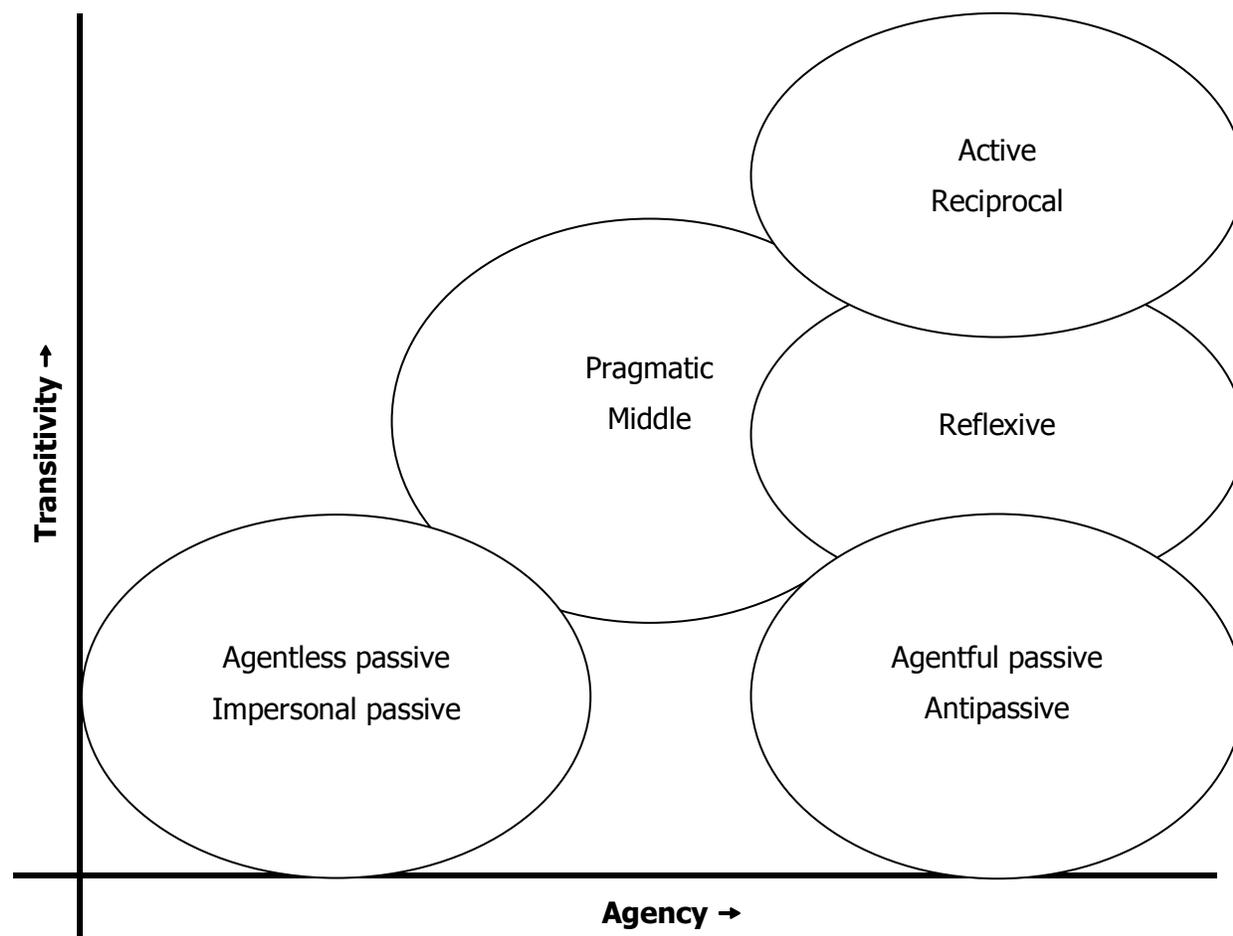
and decreased prominence, and Cooreman who related relative topicality of agent and patient to voice alternations (Murphy, 2005, p. 20). Murphy does not claim that his measures determined the voice alternation in any given situation. Rather, he considers that the relative salience of referents suggests a probability of membership of a class with fuzzy boundaries.

It follows from this work of Croft and Murphy that voice constructions could be mapped using variables such as transitivity, valency, agency, noun-phrase rearrangement, promotional / demotional focus, or affectiveness and control. These could be mapped as two factors (a graph) or as three factors (a chart), and they could be mapped in one language or mapped cross-linguistically.

Alternatively, passive could be described in terms of components, as Hopper and Thompson described transitivity, including rating each component for different subcategories.

### 5.3 Mapping voice constructions

The following indicative example illustrates how voice constructions could be mapped cross-linguistically using transitivity and agency parameters.



A generalisation such as this indicative example is far from free of its own difficulties. For example, active is mapped for high transitivity and high agency, but some English verbs are intransitive and ergative-like, eg:

(25) The window broke.

Because (25) clearly fails to meet the criteria for passive, Stein would categorise it as active (because she claims that constructions must be either active or passive in English). This means that some actives must be mapped as having low transitivity, or I need to

subcategorise further, eg ergative active or, possibly, anticausative. However, if I categorise (25) as middle voice as some linguists do, eg Givón (1990), then it maps relatively easily and quite separately from active voice.

Siewierska's commentary on Hopper and Thompson's transitivity continuum (Siewierska, 1984) demonstrates that although actives vary in their transitivity, this does not affect their ability to passivise. It is a short step to recognising that passives too vary in their degree of transitivity, raising the issue of where to plot it along a transitivity axis. Furthermore, Siewierska questions the universality of transitivity, in particular its applicability to ergative languages, although she does settle (rather uneasily) on transitivity being universal. I have plotted passive low on the chart because it is typically (but not always) intransitive.

When I turn to pragmatic voice, a different challenge appears – it is not an English marked construction and it varies cross-linguistically in terms of degree of agency. I have plotted it then in the midpoint of the agency axis, although further research might suggest a different position, depending on its tendency cross-linguistically or, as Croft (2001) suggests, in different positions for different languages.

Categorisation and mapping are often fraught with definitional problems, fuzzy boundaries, and overlaps. This is where I began – passives are difficult to describe cross-linguistically. Obviously, there are challenges to this mapping or continuum approach. However, arguably such an approach illustrates the nature of different voice constructions and could provide a clearer basis for understanding their functions. It is useful to keep Croft (2001, p. 364) in mind when he notes: 'Contemporary linguistics, even typological research, is only at the stage of the early global explorers in mapping out conceptual space and the syntactic space of constructions that encode it.'

## 6 Conclusion

Passives are common if not universal cross-linguistically. It is difficult to define passives cross-linguistically as Siewierska's extensive review indicates (Siewierska, 1984). Whether various constructions in various languages are passive is often controversial. Such controversy points to a continuum concept, which is well accepted in understanding transitivity and such widely differing notions as lexical categories, animacy, agency, and language types.

Further work could detail this continuum in the way that the transitivity continuum has been detailed by Hopper and Thompson (1980). It could be as simple as Shibatani's indicative effort involving defocused agents, patients in subject position, and transitive verb morphology (Shibatani, 1985). Alternatively, it could provide more detail (and therefore more continuum points) around argument structure or various other elements typically associated with voice constructions.

The fact that passives are common cross-linguistically suggests that passives have specific roles in grammars. It could be useful to better understand why passives do not occur in some languages. The grammatical alternatives available to other languages could support arguments for applying passives in certain situations in English. Similarly, it could be useful to better understand why passives do not occur in every tense in some languages.

# Chapter IV

## Passive resistance

...there is the problem of the *be*-passive and why it is so widespread when it apparently is so useless.

–Robin Lakoff (1971, p. 158)

### 1 Introduction

Fowler (1965) observes that English once had case marking on nouns as well as on pronouns but found it of so little use that it disappeared. Extending this type of argument to passives, various writers suggest that English has retained them because they are useful, (Palmer, 1965; Lakoff, 1971; Stanley, 1975; Rhodes, 1997; and others). Indeed, as I demonstrated in Chapter 2, section 2.4, passives are sometimes obligatory, reinforcing the idea that they are useful. The passive occurs in every tense in English and, despite its poor reputation, this suggests that it plays an important part in English grammar. In addition, I indicated in Chapter 3 that, although passives are not universal, they occur in many languages, which further suggests that their occurrence is purposeful.

Examining purpose requires consideration of a range of factors. Foley and van Valin (1984) explain that functionalists are concerned with the broader language, not just the formal characteristics of sentences. They extend their scope to whole texts and even the socio-cultural context of languages where passives and other grammatical alternations are packaging variants. In this chapter, I review passives as a packaging variant, examining when they are inappropriate in English (section 3), and when they are appropriate (section

4). In both scenarios I provide examples from the literature and from real-world situations, especially from my experience as a technical writer in a variety of workplaces.

## 2 Hypocritical advice

Rhodes (1997, p. 3) observes that there is a ‘...curious gap between theory and practice...’ The *theory* is the standard advice; the *practice* is the frequency that passive occurs. I consider each in turn.

### 2.1 Passive voice should be avoided

Style guides, style manuals, grammar books, and articles on good writing tend to damn the passive voice. At their baldest, they advise writers to avoid passives. Some open the door a little by advising readers to *mostly avoid* passives. Rarely does the guidance mention lexical categories other than verbs (see Chapter 2, section 3.5), and it tends to suggest that voice is a property of verbs only rather than a property of clauses. I will confine my examples to a few of the most renowned authorities.

As a matter of style, passive voice is typically, though not always, inferior to active voice. (*Chicago Manual of Style*, 2003, p. 177).

The active voice is usually more direct and vigorous than the passive. (Strunk and White, 1979, p. 18).

The conversion of an active-verb sentence into a passive-verb one...sometimes leads to bad grammar, false idiom, or dumsiness. (Fowler, 1965, p. 239).<sup>1</sup>

Never use the passive where you can use the active. (Orwell, 1946, p. 10).

This then is the standard advice, usually brief and sometimes qualified. However, I suggest that it has become a mantra where the advice is often repeated but inconsistently followed.

---

<sup>1</sup> The subsequent edition (1996) suggests that this applies only when there are two passives in the same sentence, but it would be speculative to read anything into this change.

Even the writers quoted above sometimes struggle to follow their own advice (although I acknowledge that irony may sometimes be at play), eg:

The verb *to be* has eight forms (*is, are, was, were, been, being, be, and am*)...When joined with a past participle, the verb becomes passive. Often, this type of construction can **be** advantageously **changed** to active voice. (*Chicago Manual of Style*, 2003, p. 182).

(On mental vices) ...the passive voice **is** wherever possible **used** in preference to the active, and noun constructions **are used** instead of gerunds.... (Orwell, 1946, p. 4).

Nielsen (2007), when advising on writing for the internet, captures the hypocrisy succinctly:

Worst: The passive voice should be avoided.

Bad: The passive voice should be avoided by writers.

Better: Writers should avoid using passive voice.

Best: Writers should use active voice.

## 2.2 Frequency of passives

Usually, researchers provide passive frequency counts without providing a definition of passive. Given the variability of passive definitions, it is reasonable to assume some inconsistency in what is counted across studies and, possibly, within a study. Also, frequency counts vary by text type, eg Svartvik (1966) found that there were almost eight times as many passives in science texts compared to advertising texts, and Quirk, Greenbaum, Leech, and Svartvik (1985) note that the frequency of passives varies between text types by as much as a factor of ten.

Such imprecision makes frequency counts of passives somewhat unreliable, but there is a strong consensus that passives occur less frequently than actives in English. Krauthamer (1981) proposes the Polarity Hypothesis, which predicts that the most efficient sentences have agency, animacy, and givenness at the beginning (frontal properties), and patiency, inanimacy, and newness at the end. She argues that passives occur less frequently because

frontal properties do not occur as often in passives as they do in actives. The Polarity Hypothesis measures the ordering of these properties, eg:

- (1) a. A car hit the boy.
- b. The boy was hit by a car.

In (1a), the first noun phrase (*A car*) scores positively for agency, but not for animacy or givenness. In (1b), the first noun phrase (*The boy*) scores positively for animacy and givenness. Scoring the second noun phrase for these properties and subtracting the score from the first noun-phrase score produces a higher value for (1b) than for (1a). Krauthamer argues that this polarity result indicates that, in this case, the passive form is a more efficient sentence than the active form. Presumably, this means that the sentence is more readable. Given the 16 possible situations for the distribution of animacy and givenness between agent and patient, Krauthamer calculates that passives should form 18.75 percent of constructions in texts where all situations are equally represented.

However, Walpole (1979) observes that counting passives understates the number of times that passives are chosen because many verbs are obligatory actives. Consequently, she feels that, when writers have the opportunity to choose voice, they choose passives about 25 percent of the time. This intuitive view is supported by Givón (1979), who found that 18 percent of main clauses in English non-fiction were passive, and various studies of scientific texts found that passives comprised from nine to 33 percent of verbs.<sup>2</sup> None of these studies appears to use a rigorous working definition of passive or, if it does, it does not describe it in full. Rhodes (1997, p. 55) devotes a paragraph to her definition, excluding adjectival

---

<sup>2</sup> Svartvik (1966); Krauthamer (1981); Rhodes (1997), who also cites Barber (1962), Huddleston, (1971), and Riley (1991); Isakson and Spyridakis (1999); and Biber et al. (1999). The finding of Isakson and Spyridakis is an outlier and, if it is set aside for that reason, the range is 15–33 percent.

passives and various verbs for reasons which are unclear.<sup>3</sup> She does not consider whether a construction's ability to take an agentive *by*-phrase is a factor in her definition. Interestingly, Isakson & Spyridakis (2003, p. 546) account for their finding of a relatively low frequency of passives (nine percent) as being partly due to their selection of 'well-written articles'. Biber et al. (1999) discuss the frequency of particular lexical verbs with the passive.<sup>4</sup>

However, although actives appear to predominate in English non-fiction, more relevant to my thesis is why passives occur as frequently as they do, because the literature suggests that they occur less frequently in other Indo-European languages (Siewierska, 1984).<sup>5</sup>

### 3 Why passives are damned

There are various factors that appear to contribute to the poor reputation of passives, some based in linguistic theory, some with little basis at all. I will discuss factors that are sometimes cited, evaluating their validity from a theoretical rather than a research basis. In fact, the research underpinnings for damning passives are weak. Chapter 5 outlines some of the difficulties in studying readability, particularly the difficulty in isolating a particular variable, in this case voice. Yet, writers on writing appear to believe that the mantra on avoiding passives is research-based when, in fact, research surveys indicate that the findings

---

<sup>3</sup> Rhodes requires words to function as verbs to be categorised as verbs, but her method of determining the category of verb ('...only verbs paired with subjects...') and some of her excluded examples are arguable, eg 'The theory **proposed** by Jones was ....'

<sup>4</sup> See Biber et al. (1999), pp. 478–479 for a list showing passive verb frequencies in conversation, fiction, news, and academic writing.

<sup>5</sup> In some non-Indo-European languages, passives may be frequent, but whether they are always true passives depends on the definition and analysis used, eg Pucilowski (2006) argues that the apparently high frequency of passives in Māori is better explained by analysing the language as split-ergative and assigning ergative status to many so-called passive constructions. This frequency issue may account for why Siewierska (2005) requires the construction to be pragmatically restricted relative to actives in order to be a member of the passive class. Alternatively, Krauthamer's calculation (section 2.2) may be the motivation for Siewierska's requirement.

are mixed and there is little research on voice that avoids confounding variables (Rhodes, 1997;<sup>6</sup> Spyridakis, 2000;<sup>7</sup> Isakson and Spyridakis, 2003;<sup>8</sup> and Connatser, 2004<sup>9</sup>).

These mixed findings need closer examination than they are often given. For example, Nielsen (2007) claims in a very influential column on writing for the internet that actives are usually better than passives because 'readers don't have to jump through as many cognitive hoops when trying to understand what's going on'. However, Nielsen is guilty of not thoroughly reviewing the literature on the readability of passives. Certainly, studies in the 1960s and early 1970s support Nielsen's claim.<sup>10</sup> This was a period when transformational grammar attracted widespread interest, including the interest of cognitive psychologists, of whom Nielsen is one. Passives were researched as a means of unravelling the transformation process but, as Rhodes clearly argues, voice was not always isolated from other sentence variables. Subsequent research cited by Rhodes, eg Charrow and Charrow (1979), found that passives were not necessarily harder to comprehend. However, the earlier findings seem to have taken on an unquestioned status in many quarters.

As Rhodes (1997, p. 89) points out, the passive is an easy target, even if it is not always the 'easily identifiable linguistic form' that she claims. She comments:<sup>11</sup>

---

<sup>6</sup> 'Past research on voice has amply demonstrated that voice frequently interacts with other variables, producing either no difference across voice or an advantage for active voice in some contexts, passive voice in others.' (p. 43).

<sup>7</sup> 'Many believe that active voice is more effective than passive voice; however, the research literature to support this folklore shows inconsistent results.' (p. 369).

<sup>8</sup> '...the two studies that have reliably examined active and passive voice constructions in paragraphs show that recall of meaning is equivalent for both active and passive sentence structures.' (p. 367).

<sup>9</sup> 'Research on passive versus active is difficult to find, and...the results are contradictory or inconclusive.' (p. 271).

<sup>10</sup> Coleman (1964), Wright (1969), and Trabasso (1972), cited by Rhodes (1997, pp. 46–47).

<sup>11</sup> Personal communication, March 6, 2007.

I've never found any problem with the passive voice and see its poor reputation as the result of improper usage. I'd rather teach people how to use the passive voice effectively than tell them it's a problem, because that's simply not true.

### 3.1 Passive voice versus passivity

Passive voice is an unfortunate term. The traditional view of the passive is that it expresses suffering (the Latin *passivum* is derived from *pati*, which means 'suffer'). Jespersen (1924, p. 165) observes that the confusion around the meaning of active and passive voice starts from '...the erroneous conception that the distinction between active and passive in the linguistic sense is congruent with the distinction between bodily and mental activity and passivity....' The activity versus passivity distinction is made in many different industries, one being road and ski area avalanche control. Active control in the avalanche industry involves human intervention (such as the use of explosives), and passive control involves natural forces only (humans isolate the hazard but do not eliminate it). Closer to home, it is common to read statements such as 'TV is a passive medium.'<sup>12</sup> In other words, 'passive' has different meanings in different contexts. Passive voice is not necessarily passive at all in the sense of lacking liveliness. Typically, the terms 'passivity' or 'passive language' are used to mean writing that involves stylistic elements such as nominalisations, stative verbs, weak imagery, and sentence complexity such as embedded clauses. If passive voice is also present, it will likely be the style that critics target and the two concepts may be mixed, eg:

The passive voice in the second sentence is not incidental. A sense of uncertain passivity pervades his political thinking (Engler, 2007).

Have you used active language and verbs, rather than passive language and nouns? (A government department Style Guide, 2007).

---

<sup>12</sup> Jakob Nielsen's Alertbox, June 9, 2008.

I prefer live words to dead words, which is why I prefer active voice. (A speaker at the 2006 New Zealand Plain English Conference).

Williams (1994) provides (2) below as an example of an active voice sentence that feels passive because it is highly nominalised:

- (2) The termination of the project was a consequence of an inability to achieve success in cost control monitoring.

Often passive voice shares this confusion with the thematic role of patient. A noun phrase with the thematic role of patient may not be patient in the lay sense, nor will it necessarily exhibit passivity when used in a passive construction, eg:

- (3) **The attacker** was bitten by the dog.

So, if passive voice is not describing passivity, I need to outline what it is describing. This is the purpose of section 4, but first I will review other criticisms of passive voice.

### 3.2 Lack of clarity and grace

Critics sometimes associate passives with 'bureaucratese' or 'officialese' – wordiness, clumsiness, and pretentiousness, eg participants on a writing course<sup>13</sup> were asked to '...bring a document that was a struggle...The ideal material would be dense, passive, jargon-laden, full of misagreements, and potentially confusing or boring to readers.' At a writing conference<sup>14</sup>, a professional writing instructor went further by stating '...the active voice is shorter, more direct, more natural, more elegant, and easier to read and understand.' In this section, I outline the arguments against using passives and argue that such criticism is over-generalised.

---

<sup>13</sup> Technical Communicators Association of New Zealand email of February 21, 2007, notifying members of an impending plain English workshop.

<sup>14</sup> Plain English Conference, Wellington 2006.

The plain-language movement promotes simple language that informs, using the term 'bureaucratese' to describe complicated language that confuses. Complicated language includes numerous concepts such as nominalisations, jargon, embedded clauses, double negatives, and vagueness. The plain-language movement criticises passive voice when it is used inappropriately, especially when it contributes to vagueness (see section 3.3), but there is no inherent relationship between passives and the elements of bureaucratese.

### 3.2.1 Wordiness

Rhodes (1997, p. 89) takes issue with the characterisation of passives as wordy. She refers to Warren (1981) who analysed 64 style guides, finding that 19 characterised passive voice as wordy.<sup>15</sup> Rhodes argues that the style guides are wrong, and illustrates her argument with this active-passive sentence pair:

- (4) a. We analyzed the samples.
- b. The samples were analyzed.

I suggest that Rhodes confuses the argument by choosing a truncated passive example (4b) which does not have all the information conveyed by the active example (4a). An exact correspondence of active and passive sentences will introduce additional words in the passive version – an auxiliary and a preposition – unless the reader can unambiguously infer them from the context as, presumably, Rhodes would argue is the case in (4b).

Similarly, a New Zealand writing company provided these examples:

---

<sup>15</sup> Bates (1978) claims that actives makes sentences 20–30 percent shorter – cited by Warren (1981, p. 374).

- (5) a. A Complaints Officer is available to be contacted by the public in the first instance.
- b. The public can contact a Complaints Officer.

In this example, (5a) is a full passive but (5b) has understandably omitted two concepts that are included in (5a) – that the Complaints Officer *is available* and that he or she should be contacted *in the first instance*. The corresponding passive to (5b) is *A Complaints Officer can be contacted by the public*, a sentence that may well be appropriate, depending on the context. The example then mixes passive voice and wordiness.

On sounder ground is the claim that the additional words in a passive construction (the auxiliary and a preposition) hardly clutter a sentence any more than the inclusion of the word *do* in questions and negations (Walpole, 1979). Arguing against the fact that additional words usually occur in full passives will not justify the use of passives. More accurate would be to state that passives usually make a minimal contribution to wordiness, or no contribution when they delete the agent. In fact, it is a wordy agent that can be the worse offender, as Williams (1994) illustrates:

- (6) a. Once this design was developed for our project, it was quickly applied to others.
- b. Once **those who worked on the design** developed it for our project, others could quickly apply it to theirs.

Deleting the agent as in the passive (6a) makes for a more economical statement.

### 3.2.2 Clumsiness

Another argument that passives lack clarity and grace suggests that passives are clumsy, particularly when the action receiver is expressed as a lengthy noun phrase, when the

sentence contains pronouns, when the agent is deleted and, possibly, when the construction is reversible. I review each of these arguments in turn.

First, the issue of a lengthy noun phrase. Consider:

- (7)
- a. John kissed Mary.
  - b. Mary was kissed by John.
  - c. The complications arising from our recent decision to close our storage facility in Maryland and transfer its operations to Pennsylvania **were** discussed.
  - d. We discussed **the** complications arising from our recent decision to close our storage facility in Maryland and transfer its operations to Pennsylvania.
  - e. Rushed in as a late replacement for the inaugural Air New Zealand Cup competition when Charlie McAlister quit in June, Rennie has won over **some** new admirers.<sup>16</sup>

Examples of corresponding active-passive pairs usually rearrange one-word noun phrases, as in (7a) and (7b). However, as in (7c), passive constructions occasionally express a lengthy noun phrase in the new subject position (Williams, 1994). (7c) violates Hawkins' efficiency principles – see Chapter 5, section 2.4. To parse the sentence, the reader must read 21 words (as far as *were*), compared to three words in (7d) (as far as *the*). Biber et al. (1999, p. 898) refer to sentences such as (7d) as distributing elements using the 'principle of end-weight.' Writing guides are unlikely to analyse the difference in these terms, simply classing (7c) as clumsy. While this is true, it is not an argument against all passives, nor is it an argument for using active constructions with such a clumsy structure, eg (7e), which requires the reader to read 25 words (as far as *some*) to parse the sentence.

---

<sup>16</sup> New Zealand Press Association, September 4, 2006.

Second, the issue of clumsy pronouns. Textbooks, warning that passives are clumsy, will sometimes illustrate their case by using extreme examples such as (8a) and (8c) (Walpole, 1979):

- (8) a. First prize was won by her.
- b. She won first prize.
- c. First prize was given to her by them.
- d. They gave her first prize.

Clearly, the active options (8b) and (8d) are short, simple, and preferable. Walpole provides no analysis of why (8a) and (8c) are clumsy, but her point that such examples should not damn all passives is inarguable.

Third, the issue of clumsiness caused by agent deletion. Compare this sentence pair from a New Zealand writing service:

- (9) a. The ten-year plan was developed after consultation with the board of trustees.
- b. The long-range planning committee developed the ten-year plan after consulting with the board of trustees.

The tip to students was that (9a) creates an illogical statement that *the ten-year plan* consulted the board, and (9b) is more logical. While that is true, it is not due to (9a) using passive voice, but instead due to (9a) deleting the agent.

Fourth, the issue of reversibility, which is when ‘...the actor and action receiver can change positions without the production of an anomalous sentence’ (Rhodes (1997, p. iii). Findings that passives are more difficult to read than actives have not always controlled for factors such as noun-phrase reversibility (see Chapter 5, section 3.3.4). However, reversibility can

apply equally well to actives, eg *The boy chased the girl / The girl chased the boy*, so once again the issue is broader than passives alone.

### 3.2.3 Pretentiousness

Yet another criticism of passives is that they are pretentious or stuffy. This can mean that a writer uses passives to pretend that he or she is objective (see section 3.3). More commonly, this criticism confuses passive with a formal and vague term such as *one* (which may create social distance), or with bureaucratese. Such confusion may account for the few examples of pretentious passives provided in the literature. Compare:

- (10) a. The proxies solicited hereby for the Heartland Meeting may be revoked, subject to the procedures described herein, at any time up to and including the date of the Heartland Meeting.
- b. You may revoke your proxy and reclaim your right to vote up to and including the day of the meeting by following the directions on page 10.

(10a) and (10b) are before and after examples from the US Securities and Exchange Commission's *Plain English Handbook* (1998, p. 26). The handbook primarily uses the examples to demonstrate the value of active voice, but the changes in (10b) are broader than simply voice changes. Not only does (10b) recover the agent (an argument against truncated passives but not full passives), it adds useful information, and deletes pretentious words such as *solicited*, *hereby*, and *herein*. The handbook acknowledges this issue of word choice using the terms 'abstract words' in (10a) and 'concrete, everyday words' in (10b). However, it bundles the multi-problems of (10a) under the heading *Active and passive voices*, implying in the process that passives are pretentious.

Similarly, Rhodes (1997) analyses the use of passives in an extract from a scientific article<sup>17</sup> (11a). She concludes that there are a mix of problems and revises the extract as (11b).

Compare:

- (11) a. The ultimate stuff or empirical phenomena which the social scientist can observe, record, or interpret, and arrange in many ways may **be thought** of under two heads: (a) action or interaction, i.e., the overt behaviour of concrete human individuals, and (b) situation.
- b. Human activity may **be classified** in two ways, as actions and situations.

Rhodes describes (11a) as 'abstract, pretentious, and propositionally dense'. When she asked undergraduates to rate the extract in terms of general difficulty, concreteness, and concision, they tended to rate it unfavourably. Her revision (11b) is concrete (the choice of verb), unpretentious, and simple. Of most significance to this argument is that (11b) retains passive voice.

### 3.3 Misuse

Stanley (1975) makes a strong case against the misuse of passives, particularly agentless passives which, she argues, are often a breach of trust between the writer and the reader. The writer is shielding others and removing him or herself from responsibility. Van Lennen (1978) theorises that passives occur when the writer fears personification.<sup>18</sup> Stanley regards such motivation as deceptive, arguing that real agents make decisions and give orders, and that agentless passives protect them. A famous example is:

- (12) Mistakes have been made.

---

<sup>17</sup> Bales (1953). In Cartwright and Zander (1953), cited by Rhodes (1997, p. 26).

<sup>18</sup> Cited by Warren (1981, p. 388).

When President Reagan made this statement following media exposure of an illegal armaments trade, he avoided stating whether the country, the government, the military, or Reagan himself made the mistakes. I assume that his suppression of the agent was conscious and purposeful. It has been called a 'nonconfession' and 'an evasion of responsibility' (Pinker, 1994, p. 57), and even 'a cliché for evasion by a public figure' (Pinker, 2007, p. 71). Rosa Brooks (2008) picks up on this in describing Hillary Clinton's back-down from her support of the Iraq war as '...a mealy-mouthed "mistakes have been made" non-apology'. Many people would regard Reagan's statement as deceitful and unethical, and a passive construction was the tool that he used to deceive. Similar ethical concerns apply to company product-recall advertisements that avoid naming the agent in order to protect the company's name.

My experience of writing in New Zealand government departments has some similarities, although of much less importance. Commonly, I have found it difficult to recover the agent from truncated passives in draft material because I did not know whether Cabinet or the government department had made a particular policy decision, eg:

(13) It has been decided that this policy will apply to large providers only.

Sometimes I found that the writer of the draft material did not know either, but often the agent suppression was deliberate for extra-linguistic reasons. It appeared that in situations such as (13), by naming Cabinet as the maker of an unpopular decision, the government employee was uneasy about her responsibility. She understood grammatical voice, having been trained as a teacher of English as a foreign language, but felt that a strong focus on the agent might imply that the department was avoiding its responsibility for implementing the policy. Such passives are often used to disguise a definite subject as an indefinite

subject, according to Granger (1983, citing Calhoun, 1976). It gives the reader the impression that the omitted agent has no real substance when it actually has.

However, Stanley (1975) argues that omitting the agent is often intellectual laziness – an appeal to some unspecified authority (*it is known / understood / thought*). She distinguishes between a suppressed agent and a deleted agent but observes that there is no clear-cut way to determine whether a writer omits an agent consciously or not. In the suppressed agent situation, the source is deliberately not cited in order to strengthen the argument, that is, the agent is known to the writer but is not communicated to the reader for unethical reasons.

Sometimes though, an omitted agent is simply vague thinking. I found, when reviewing the readability of safety manuals in a large outdoor adventure organisation, that sentences with omitted agents sometimes hindered efforts to improve safety, eg:

- (14) a. The Accident Register is reviewed six monthly to look for trends.
- b. The previous copy is destroyed.

I suggested in my report that the likelihood of the actions noted in (14a) and (14b) actually occurring was reduced significantly by not naming the person responsible (the agent). Nor could I infer who was meant to do the actions, given that safety responsibilities were shared among various people and committees. Similarly, columnist Chris Trotter (2008, 12 March) notes the Prince of Wales' famous response to the grinding poverty of the Welsh colliers:

- (15) ...something must be done.

The agentless, passive construction in (14) and (15) is imprecise and enabled the writers to not 'assign responsibility' (Williams, 1994, p. 72), but not all passives should be judged by such examples.

Subconscious deletion of the agent is often related to objectivity, eg Rhodes (1997)<sup>19</sup>, that is, the deletion of a subjective human agent. This is particularly the case in scientific reports, although I suggest that that is pretence<sup>20</sup> because the empirical work is complete and the words describing that work should not change the nature of the work. Stanley (1975) argues that use of the agentless passive indicates a view of the world where the viewer is detached and not responsible for their observations. She argues that we choose the voice on our philosophical orientation: the active when we accept responsibility and the passive when we wish to place responsibility for the validity of our assertions on some unspecified person who cannot be held responsible. Passives with deleted agents appeal to a universal source of validation, which the reader may not have access to. This is, of course, far too sweeping, and section 4 considers other arguments for choosing passive.

## 4 Why passives resist

Despite the objections raised by Stanley (1975), she acknowledges that the passive is a useful tool but that we need to better understand the motivation for using it. Stanley suggests that a useful approach is an analysis of the uses of the passive, the context in which it occurs, the real-world situations in which we need it, and the criteria we use for judging what she calls 'acceptable agent-deletion'. Essentially, Stanley is calling for an information-structure or information-packaging approach, which deals with both formal and

---

<sup>19</sup> 'Scientists try to preserve objectivity when conducting research and to convey that objectivity when reporting results. Passive verbs help them do this by enabling them to place the action receiver in the subject slot.' (p. 93).

<sup>20</sup> Pruitt (1968) claims that 'Passive voice makes essentially subjective statements sound objective' and Jacobi (1976) calls it a 'false sense of objectivity' – quoted by Warren (1981, pp. 282 & 378). Fowler (1996, p. 577) states that 'In scientific work they are the main constituent', but he does not explain why. Asimov, cited by Tufte (2006, p. 84), claims that 'Very few scientists are brave enough to dare to write, "I once showed that–."'

communicative aspects of language. The central idea is that formal properties of sentences cannot be understood without looking at their linguistic and extra-linguistic contexts.

Lambrecht (1994) explains that information packaging has to do with the sender's tailoring of a message to meet the needs of the intended receiver. The study of information structure is concerned with how the message is transmitted, and passive constructions are one means of transmission. In many languages, antipassives, dative shift, topicalisation, left-dislocation, and clefts are other packaging options. Compared to other languages, the English passive is important because there is a paucity of topicality devices (see section 4.3).

Active and passive voice differ in various formal properties (see Chapter 2, section 2), of which noun-phrase arrangement is one. Noun-phrase arrangement is often discussed in terms of subject demotion or object promotion, and there are two schools of thought as to which one is more important to the passivisation process (see Chapter 3, section 3.1).

Haspelmath (1990) takes another approach, arguing that the basic function of the passive is to modify the event described by the verb by expressing inactivisation. However, he acknowledges that the main function may vary among languages. With the promotion-demotion debate in mind, I will review the general function of passives, and the specific functions that Givón (1981) proposes – detransitivisation, impersonalisation, and topicalisation – although these functions overlap considerably. I will also analyse some real-world situations and demonstrate that 'in many cases, the passive is, in fact, the better choice.' (Williams, 1994, p. 71).

#### **4.1 Different perspectives of the same event**

The answer to why passives resist the mantra to avoid them lies in the linguistic tools that languages evolve to communicate nuances of information. Commonly, languages have a

range of tools for detransitivisation, impersonalisation, and topicalisation, of which passivisation is one (Givón, 1981). However, the relatively small number of alternative tools in English gives passivisation an especially important role as a rhetorical device.

Integral to the role of passivisation is the relative importance of subject and object. Johnson-Laird (1968b) observes that this subject-object relationship was considered by Frege in 1879 ('what we want the hearer to attend to specially') and Jespersen in 1924 ('the centre of interest'). Sweet (1891) argued that passive is a tool for bringing the object into prominence, eg:

(16) **This magnificent painting** was painted by an unknown French artist.

Jespersen (1924, p. 168) compares corresponding active and passive verbs to paired words such as *under* and *over*, *before* and *after*, *more* and *less*, *younger* and *older*, in that the one you choose depends on your point of view. He argues that voice (or 'turn' as he prefers to call it) provides different perspectives of the same event: '...the passive turn is preferred if one takes naturally greater interest in the passive than in the active subject....' Recently, Croft (2003) reinforces this view by stating that voice characterises the perspective taken of the event; Iwashita (2004), discussing Japanese, states that the primary function of passives is to portray an event from the point of view of an affected entity; and Tufte (2006) argues that the most basic reason for choosing the passive is to shift the emphasis.

A writer's empathy with a particular view may affect word choice, eg 'executed', 'assassinated', or 'murdered' (Brown and Yule, 1983). Pinker (2007) couches this argument in terms of language providing a means to frame events in different ways, eg 'liberating Iraq' compared to 'invading Iraq', or 'ending a pregnancy' compared to 'killing an unborn child'.

Following many writers<sup>21</sup>, he explores this concept by analysing the alternation of content-locative and container-locative constructions, eg:

- (17) a. ...spraying paint on the wall.  
b. ...spraying the wall with paint.  
c. Farmer Jim loaded hay onto the wagon.  
d. Farmer Jim loaded the wagon with hay.

Whereas (17a) is concerned with causing the paint to go, (17b) is concerned with causing the wall to change. Similarly, (17c) is about the hay; (17d) is about the wagon. Dowty (1991) assumes that the different subcategorisations for each verb relate to different meanings that have independent lexical entries, possibly connected by lexical rules. Pinker (2007, p. 72) argues that such alternations 'reflect cognitive gestalt shifts'. The shifts give the constructions subtly different meanings. They are two different construals of the same event, which Pinker compares to the gestalt shift in face-vase illustrations, where either a face or a vase is seen depending on your perspective (figure-ground shifts in our consciousness). These are shifts in our interpretation of what the event is about. Pinker extends this analysis to voice, particularly when agentless passives are chosen. Because passives can hide the identity of a responsible party, they share with intransitives the capability of framing the event in a different manner, enabling the writer to make a choice.

Jespersen (1924) lists five reasons for choosing passive voice:

- (i). The active subject is unknown or cannot be stated, eg *He was killed in the Boer war.*  
(ii). The active subject is self-evident from the context, eg *His memory of these events was lost beyond recovery.*

---

<sup>21</sup> See Dowty (1991, p. 587) for a list of writers on the spray / load alternates.

- (iii). There may be a special reason (tact or delicacy) for not mentioning the active subject, eg *Enough has been said here of...* avoids using a personal pronoun.
- (iv). There is a greater interest in the passive than the active subject, eg *The house was struck by lightning.*
- (v). It may facilitate the connection of one part of a sentence with another, eg *He rose to speak and was listened to with enthusiasm by the great crowd present.*

Shibatani (1985) summarises Jespersen's reasons by stating that passives may delete the agent for contextual reasons (first three reasons) – bring topical non-agents into subject position (fourth reason), or create a syntactic pivot for reasons such as co-referential deletion (fifth reason).

#### **4.1.1 Perspective, emphasis, and meaning**

Jespersen's argument that voice provides different perspectives of the same event is well supported in the literature as I demonstrate below. A characterisation of voice as perspective requires some consideration of meaning and emphasis in active-passive alternations.

Haspelmath (1990) cites Bybee's 'relevance principle' (the more relevant a meaning element is to another element, the more likely that it will be manifested inflectionally or lexically). The principle predicts that stem affixes are the most frequent passive form. Haspelmath argues that the passive *-ed* expresses the inactivisation of the situation denoted by the verb, and that voice is a greater change of meaning than other verb properties such as aspect and tense. Shibatani (1985, p. 831) quotes Okutsu:

But isn't it uneconomical to have two sentence patterns [active and passive] that express the same meaning? ...it has to do with the difference of whether the speaker imposes his own viewpoint on the agent or on the patient. There lies the meaning of the existence of the passive.

If the speaker looks at the event from the agent's point of view, an active sentence is obtained; and if he looks at it from the patient's point of view, a passive sentence is chosen.

However, analysing point of view through voice selection does not explain all sentences. In fact, a wide range of syntactic forms exists to convey the same propositional content. Brown and Yule (1983) provide the following examples of the expression of the same event, noting that they are not exhaustive, and they each reflect the context in which they appear:

- (18) a. John kissed Mary.  
b. Mary was kissed by John.  
c. It was John who kissed Mary.  
d. It was Mary who was kissed by John.  
e. What John did was kiss Mary.  
f. Who John kissed was Mary.  
g. Mary, John kissed her.

I will elaborate the notion of point of view by considering two corresponding active sentences from Jackendoff (2002):

- (19) a. China resembles Vietnam.  
b. Vietnam resembles China.

The difference between (19a) and (19b) revolves around which country is taken as the standard against which the other is measured. The two arguments required by the verb are arranged according to which is the topic and which is the focus. In (19a), *Vietnam* is the standard: *China* is likely to be the topic and *Vietnam* the new information focus. The converse is true in (19b). The two statements are not synonymous. It follows that the argument of Davison (1980, p. 42) should be no surprise:

Certain sentences constitute a major embarrassment to the position that active and passive sentences are synonymous, because the passives convey a somewhat different meaning from the active versions.

It is interesting to note that Davison states that *passives convey a somewhat different meaning*, that is, actives are the neutral base from which passives take their reference. It could be that such thinking is based in early transformational grammar, but the higher frequency of actives and the fact that they are unmarked supports the view that actives are the default voice construction in English.

The differences may be different conditions for use in discourse, or they are associated with extra assumptions on the part of the speaker, or they mean something slightly different.

Davison argues that actives and passives can be related to the same underlying propositional structure, that is, they describe the same event. Siewierska (1988) states that they are synonymous with regard to truth conditions, but they vary in other ways, eg passives are often stative, have scope and modal differences, and have differences of conversational implicature. Chierchia and McConnell-Ginet (2000, p. 44) state that they are 'content synonymous' and 'share the same informational significance'. In fact, the literature often claims that active-passive pairs are equivalent and synonymous, but Ziff (1966) argues that this is a misconception, failing to recognise differences between questions of reference and questions of meaning. Ziff points out that corresponding active and passive sentences are equivalent, that is, one is true if and only if the other is true, eg:

- (20) a. The tiger ate the man.  
b. The man was eaten by the tiger.

However, equivalence is not synonymy: what is said of *the tiger* in (20a) is not the same as what is said of the man in (20b). These examples vary on what the sentence is about, (20a) being about the tiger and (20b) being about the man.

Sinha (1974, p. 633) suggests that such sentences vary in their assertions and implications and 'a writer has got to choose the one or the other depending on what he wants to assert or apply.' Cooray (1966) suggests that voice produces different nuances of meaning. Ziff (1966) goes further, arguing that some active-passive pairs differ significantly in meaning. Compare:

- (21) a. Everyone pleases his wife.  
b. His wife is pleased by everyone.  
c. Just a few people attended each wedding.  
d. Each wedding was attended by just a few people.

The actives (21a) and (21c) are ambiguous; the passives (21b) and (21d) are unambiguous. This issue of meaning difference in quantification is discussed by Chomsky (1957, p. 101), who uses the following example to explain that 'not even the weakest semantic relation (factual equivalence) holds in general between active and passive.'

- (22) a. Everyone in the room knows at least two languages.  
b. At least two languages are known by everyone in the room.

If, for example, one person knows only French and German, and another only Spanish and Italian, (22a) may be true but (22b) may be false. (22a) means that every person is at least bilingual and, probably, there are numerous languages known by the people in the room. For most readers, it is ambiguous. (22b) can mean either the same as (22a) or, more probably, everyone knows the same two languages. For most readers, it is unambiguous.

Quirk, Greenbaum, Leech, and Svartvik (1985) analyse examples such as (21) and (22) as a difference of scope as well as emphasis. In subject position, a generic phrase tends to be interpreted universally, but this is not the case when it is in object position, eg:

- (23) a. Beavers build dams.  
b. Dams are built by beavers.

Examples (22) and (23) indicate that actives and passives emphasise different things. After extensive discussion of whether transformations preserve meaning, Jackendoff (1972) concludes that actives and passives refer to different states of affairs. This is also Ziff's argument, that Pinker (1994) reiterates using the famous (23) as an example. Pinker notes that (23a) is about beavers in general and (23b) is saying something about dams in general. It does appear then that actives and passives can mean different things, just as Chomsky suggested in 1957, although he has been criticised for his presumed stance that transformations preserve meaning (George Lakoff, 1974).

Meaning difference is explored by Johnson-Laird (1968a, 1968b) who focuses on the importance of subjects, hypothesising that passives emphasise the importance of subject referents more than actives do. The passive is chosen when the internal argument (the subject of the passive) refers to a more dominant entity than the external argument does. The active is chosen when the external argument (the subject of the active) dominates, or when there is no difference in the importance of the entities referred to by its subject and object. Johnson-Laird conducted an experiment in which participants illustrated active and passive sentences by diagramming the relative importance of subject and object. It showed that subjects are more important than objects, and subjects of passives are more important than subjects of actives. He concluded that passives do not necessarily refer to the same

thing as their corresponding actives, that voices differ in emphasis, and that differences in meaning may result depending on how we interpret a difference in emphasis.<sup>22</sup>

Some linguists express the difference in emphasis between active and passive pairs as their inability to always paraphrase each other. Robson (1972) observes that this inability applies more widely than to just sentences with quantification, and includes many sentences with negation, modals, and question. Compare:

- (24) a. Not many of the arrows hit their target.
- b. The target wasn't hit by many of the arrows.<sup>23</sup>
- c. The priest must baptize the baby.
- d. The baby must be baptized by the priest.
- e. Why wouldn't George meet the old maid?
- f. Why wouldn't the old maid be met by George?

Robson's (24a) is not an exact correspondence to (24b), the corresponding sentence being *Many of the arrows didn't hit their target*. Nevertheless, his observation remains true. In (24a) and (24b), the subject is of critical importance to meaning, but in (24c) and (24d), it is the modal *must* that affects meaning through conferring an obligation on either the priest in (24c) or, through implication, the baby's parents in (24d). (24e) and (24f) attribute volition to different parties, and therefore quite different meanings to the sentences. These, admittedly, unusual examples suggest that 'The passive group is used when the meaning distinctly requires it.' (Kruisinga, 1931, p. 327).

---

<sup>22</sup> Rhodes (1997, pp. 14–18) cites numerous studies that support the idea that a change of voice indicates a change of emphasis (Tannenbaum and Williams, 1968; Hornby, 1972; Olson and Filby, 1972; Trabasso, 1972; Wearing, 1972).

<sup>23</sup> Jackendoff, quoted by Robson (1972, p. 73). Interpretations of these examples varies considerably, including interpretations of the famous (22) pair. An informal test of (24a) and (24b) resulted in one response that (24b) 'implies that the target wasn't hit by many arrows, but it was hit by a lot of spears, battle axes, and frogs falling out of the sky'.

## 4.2 Detransitivisation

Various linguists, eg Givón (1981, 1990) and Siewierska (1984), observe that passives are part of the detransitivisation domain, which is shared by reciprocals, reflexives, and stative-middle-voice. Through passivisation, the clause becomes less transitive and semantically more stative. In this detransitivisation process, the most obvious factor is agent deletion. agent deletion is made possible through subject demotion, and many linguists claim that this is the basic function of the passive, with direct-object promotion being an optional feature (see Chapter 3, section 3.1). Linguists taking an information-structure approach talk of backgrounding the agent in the reader's consciousness. Givón (1990) expands Jespersen's three reasons for not mentioning the active subject, or at least making it indefinite, as in the example (vi) below.<sup>24</sup> The agent may be:

- (i) Unknown or irrecoverable, eg *He was killed in the Boer war...*
- (ii) Anaphorically predictable, that is, there is a reference to an earlier statement, eg *The soldiers invaded the village; soon the entire place was burned down.*
- (iii) Cataphorically given, that is, when a linguistic unit such as a pronoun refers ahead to another unit, eg *There was no telling what might have happened if he had not been interrupted. The dog had been whimpering and whining...*
- (iv) Generically-predictable or stereotypical, eg *The plane was brought down safely.*
- (v) Universal, eg *As everyone knows, dogs were psychic...Now, it was well known that these were actually fifth-dimensional objects...*

---

<sup>24</sup> Some of Givón's examples are not passives if the diagnostic tool in Chapter 2, section 2.5 is applied, but Givón takes a broader view of passives: '...in most languages one cannot talk about the passive construction. Rather, one must talk about a – potentially large – family of de-transitive constructions' (p. 618).

- (vi) Coded by impersonal-subject constructions, eg *They don't make them like they used to.*
- (vii) Predictable as the author, eg *Enough has been said here of a subject which will be treated more fully in a subsequent chapter....*
- (viii) Unimportant (even when overt), as in: *Her nude body was found on the beach last night,* or *The house was struck by lightning.*
- (ix) Excluded for personal or social reasons, eg *It broke.*

Givón argues that when stative de-transitives have extreme patient focus, they cannot mention the agent, eg:

- (25) a. Mary was plainly visible.
- b. The book was eminently readable.

In (25a) and (25b), not only are the agents assumed, they are of little importance compared to the patients and there is good reason to suppress them. Furthermore, as Walpole (1979) observes, other constructions, including nominalisations and adjectival constructions, eg past participles such as *The **written** message*, usually escape criticism when they delete the agent. Compare these examples adapted from Walpole:

- (26) a. Food is necessary for survival.
- b. Food is a necessity for survival.
- c. Food is needed for survival.

Walpole calls constructions such as (26a) 'crypto-passives' or 'hidden passives'. They are acting like passives but they do not have passive verb morphology. Similarly, (26b) is an agentless nominalisation. If I criticise (26a) and (26b) as clumsy, should I recommend that the preferred option is (26c), or should I recommend a rearranged sentence with a

recovered agent in the clause-initial position? As Walpole notes, that depends on factors such as the writer's purpose. Assuming a transitive verb, if the topic is an agent, then the verb will be in active voice; if the topic is a non-agent, then the verb will be passive. Walpole argues that confusion around topic and focus accounts for some clumsy passive constructions, 'not some congenital debility in the passive voice itself' (p. 253).

Givón (1990) observes too that even when a participant intentionally initiates an action, there are degrees to which an agent is semantically active, eg:

- (27) a. Mary was seen (by John).  
b. John got accepted into the program.

Givón argues that (27b) is more semantically active – the patient-subject of the *get*-passive contrasts with the promoted patient of the canonical passive in regard to intentfulness (see Chapter 2, section 2.1 for a discussion of the *get*-passive). However, in both (27a) and (27b), as well as in (26c), the truncated passives detransitivise the event to serve specific, rhetorical purposes of the writers.

### 4.3 Topicalisation

The promotion school (see Chapter 3, section 3.1) focuses on object-to-subject promotion, demotion of the initial subject simply being a consequence of direct-object promotion.

However, Sinha (1978) and Foley and van Valin (1985) prefer to use the term

'foregrounding' because some languages permit foregrounding independently of promotion.

Foley and van Valin propose that the noun phrase around which a construction is built is the 'pivot'. It is similar to topic in that both are what the utterance is about, but they are structurally distinct: for Foley and van Valin, pivots are clause-internal and topics are clause-external. The actor in a passive is a peripheral noun phrase and the non-actor argument is

the pivot of the clause. Foley and van Valin claim that these are two separate phenomena because some languages permit one without the other. Therefore, there are two general types of passives cross-linguistically: foregrounding passives, which present non-actor arguments as pivots and enable the linking of clauses, and backgrounding passives which remove the actor from the core. In English, foregrounding passives promote a non-actor to pivot status and also remove the actor from the core.

Jackendoff (2002) observes that agent-first and focus-last are default principles of English language, and that passivisation varies these principles or, at least, the agent-first principle. Passives draw our attention to an element which is not normally topicalised in the active construction (Keenan, 1987c). Therefore, passives are similar to other constructions that topicalise a noun phrase. Compare:

- (28) a. Beans I like.  
b. As for the President, congressmen don't respect him anymore.  
c. Mary was kissed by John.

(28a) is a topicalisation, (28b) a left dislocation, and (28c) a canonical passive. All three sentences are about their initial noun phrase, which is in subject position.

#### **4.3.1 Theme and rheme**

Subject position relates to the Prague School of Linguistics' notions of theme and rheme. Theme is what is talked about – the starting point of the sentence containing old information. Rheme carries the communicative force. It is what is said about the theme. Usually, theme is given or known information, and rheme is new information. Moore (2006) argues that when subject and theme coincide, readability is increased because this is the pattern that readers expect to find. Other theories refer to the given-new concept as topic

and focus. Most languages (although far from all) place the subject and topic in the clause-initial position. In English, passivisation is a means of doing this, that is, it is a topicalising or fronting strategy. Tufte (2006, p. 82) calls the passive 'a syntactic juggler'. Various studies indicate that the passive is primarily a device to distribute given-new information and that such a distribution is more easily understood.<sup>25</sup> Warburton (1975, p. 563) claims that passives are common in English to accommodate 'functional sentence perspectives'. In the agentless passive, the patient is in the topic position, eg:

- (29) a. **Such execrable behaviour** cannot be forgotten or forgiven.  
b. **We / one** cannot forget or forgive such execrable behaviour.

Siewierska (1984) argues that the idea loses its communicative force when written in the active, indefinite subject form (29b).

Although the concepts of given and new information can be identified within the clause, it is their use across clauses that develops text coherence. When new information is subsequently woven back into the text as given information, the reader can more easily follow the development of the ideas. The reliance that English places on word order for meaning explains a key motivation for using passive as well as active constructions. By alternating voice, the writer can bring to the reader's attention a particular element and thereby develop a particular theme throughout a text. Language commonly favours animate themes but, in instructional writing, the theme is usually inanimate. To develop ideas in the most readable manner, the writer will often have good reason to start a sentence with given information before moving on to new information. Passives may facilitate the process.

---

<sup>25</sup> Halliday (1968), Chafe (1970), Hutchins (1975), Hinds (1975), and Dik (1978), cited by Siewierska (1984, p. 222). Also Huston (1975), cited by Warren (1981, p. 277).

This given-new motivation for choosing passives needs care around assuming what information is already shared with the reader. This is especially important when the reader is not a native-English speaker, which Moore (2006) contends is the situation for most instructional texts. Compare:

- (30) a. Port cards **are intended** to carry out the interfacing actions that **are needed** in order to connect a PC to other devices.
- b. When a PC connects to other devices, it must carry out interfacing actions. These actions can **be performed** through a parallel or serial port card.

Both (30a) and (30b) use passives to develop the idea (*are needed; be performed*). However, (30a) uses another passive (*are intended*) which is part of a wider problem – the writer has assumed shared knowledge of *Port cards*. In (30b), the writer makes no such assumption, choosing a theme that is more likely to be information shared with the reader. As a result, the paragraph is more cohesive.

#### 4.3.2 Facilitating the flow

Bush (2007), writing a column for technical writers, advises:

Actually, we should learn to write our sentences in chains, in which the end of one sentence attaches smoothly into the beginning of the next, without causing the reader to hunt for the grammatical subject. This type of helpfulness sometimes calls for a passive beginning for a sentence, especially when the topic is technically difficult.

The meaning that Bush attaches to *chains* is the same as that intended by Erteschik-Shir (2007) who uses the term 'topic chaining'. It refers to a thematic progression where the topic is maintained from the first clause or sentence to the second. This is the same as Jespersen's fifth reason for using passives – 'facilitate the connection of one part of the sentence with another'. Not only can a passive facilitate the flow within a sentence, it can facilitate the flow

between sentences. Writing guides tend to call this process 'linking', usually suggesting connectors such as quotes, paraphrases, and transition words, eg *after*, *above*, *because*, *however*, and *likewise*. Alternating between active and passive constructions is another means of linking clauses or sentences together and making it easier for the reader to connect developing ideas. Jespersen's example is repeated below as (31a):

- (31) a. He rose to speak and [he] was listened to with enthusiasm by the great crowd present.
- b. He rose to speak and the great crowd present listened to him with enthusiasm.

In (31a), *He* is the theme or given information. The writer retains the sentence structure of theme-rheme in the second clause to facilitate readability (although the theme is ellipsed because it is self-evident). The writer makes a choice depending on his or her rhetorical purpose, and passive is one tool that the writer can choose if linking serves this purpose. Interestingly, (31a) switches voice within the sentence – a common practice to enhance flow, despite textbook advice to the contrary.<sup>26</sup> Microsoft's readability tool suggests changing the sentence structure to (31b) in order to make both clauses active. In effect, Microsoft is advising that passives are poor style whatever the motivation or context.

Motivation and context are evident in the following extract from a Tongan tourism brochure. (I have added two implied words, boldfaced all verbs, and italicised the passive verbs).

'Eua **has** a population of 5000 in about 800 households [which **are** **divided** between 13 villages.

---

<sup>26</sup> Textbooks often argue that switching voice within a sentence can confuse the reader, eg Pickett & Laster (1972), Rothwell (1974), Bishop (1978), and Bell Laboratories (1979), cited by Warren (1981, pp. 380–387). Sinha (1974) argues that switching voice is not an issue as long as each clause is about the same theme or topic. He talks of 'topic chains', a term which he attributes to Dixon (1972).

The capital of 'Ohonua, which **has** the wharf, the shops, the government offices and most of the accommodation, **has** a population of 1250.

The population **is made up** of three groups:

- The original 'Euaans who **are** closely **related** to the peoples of Tongatapu,
- The peoples of the remote island of 'Ata who **were moved** to 'Eua in 1860 **to protect** them from the Peruvian slave traders, and
- The people of the northern island of Nuiifo'ou who **were evacuated** to 'Eua in 1946 following a volcanic eruption on their home island.

'Eua **is** an extremely fertile island and it **has** some of the best farming land in all of Tonga. Crops **include** yam, taro, squash and they **find** a ready market in Nuku-alofa and overseas.

I suggest that the writer has made good voice decisions throughout, that is, the voice decisions enhance readability. The second and sixth verbs (*are divided* and *are related*) have passive marking, but fail to meet all passive criteria in that they do not permit the possibility of an acceptable *by*-phrase (see Chapter 2, section 2.5), unless I assume a supernatural agent. There are strong arguments for these past participles to be adjectival, especially *related*. The fifth verb (*is made up*) is similar, and the fact that it is idiomatic does not change that. The two passives maintain topic consistency and enhance the flow of ideas. The fact that they are in relative clauses should be no surprise because relative clauses require linguistic tools to link them to the main clause, almost by definition. Those tools are pronouns and passivisation. Also, the writer has decided (either consciously or subconsciously) that the agents are self-evident or unimportant. However, my mind drifted from the writer's purpose and I wondered who moved *the peoples of 'Ata*, because the implication is that it was not their decision. This point does not weaken the validity of choosing the passive; it simply questions whether an agentful passive is preferable to an agentless passive in such situations.

Similarly, Crystal (2003, p. 373) cites Jenkins (1992) who analysed Chapter 4 of Stephen Hawking's *A Brief History of Time*. Readers had said that the book was clear, blaming their own shortcomings for any deficits of understanding. Jenkins found that 17 percent of the verb phrases are passive. Most importantly, she found that they enable a smooth flow of ideas and are important in enabling patients to receive prominence.

Sinha (1974) goes further, noting that passives may avoid repetition. Compare:

- (32) a. The victims were walking to their car when they were attacked. They were knocked down, pummelled, gouged, stomped and beaten with belts and bottles by a man who had apparently been drinking.
- b. The victims were walking to their car when a man who had apparently been drinking attacked them. He knocked them down, pummelled them, gouged them, stomped them and beat them with belts and bottles.

Although (32a) has only two words fewer than (32b), the choice of passives in the second sentence of (32a) enables the writer to refer to both the agent and the patient just once and thus facilitate the flow. It is such an example that led Sinha to claim that sometimes the passive is the only choice.

### **4.3.3 Headings**

Some situations are quite specialised in terms of voice decisions. Nielsen (2007) advises using passives in website headings, subheads, summaries, captions, hypertext links, and bulleted lists, eg:

- (33) Passive voice is redeemed for web headlines.

Nielsen's eye-tracking research found that readers tend to see just the first two words when they are scanning, and therefore it is important to get the first two words right. Given this,

he advises that 'you might want to succumb to passive voice if it lets you pull key terms into the lead'. Effectively, this is topicalisation.

## 4.4 Impersonalisation

In Chapter 3, section 4.2, I discuss the impersonal passive and note that the consensus is that it does not exist as such in English. If a construction is common in many languages but does not present in English, it should be no surprise to find alternative tools to perform the same task. Such tools do exist and I discuss them below.

### 4.4.1 Impersonalisation strategies

Although English does not have impersonal passives in the usual sense of marked constructions with impersonal subjects, it certainly has impersonalisation strategies. These strategies include truncated passives, the use of an indefinite subject such as *someone*, *people*, *westerners*, and *editors* in active constructions, and the impersonal use of the pronouns *one*, *we*, *you*, and *they*, eg:

- (34) a. A house is being built.  
b. **Someone** is building a house.  
c. **People / they** say that time heals all pain.  
d. **You** find this species in South America.

Granger (1983) observes that in English there is a lack of a suitable personal pronoun when there is no need to say who is doing something, which leads to choosing the passive, as in a general preference for (34a) rather than (34b).

Often such truncated passives have recoverable agents (see Chapter 5, section 3.3.4 for further discussion). Stanley and Robbins (1977) observe that the reader may identify

unspecified agents in one of three ways, illustrated in (35)–(37). In (35), referential conditions enable the reader to infer the agent from the possessive construction at the end of the sentence.

(35) I lay flat, the sheet [was] pulled up [by me] to **my chin**.

However, the clue for the reader may not be in the sentence at all, but instead exist in the preceding discourse (or context), eg during an argument with her husband, a woman says:

(36) I feel as if I'm being hammered flat [by you].

Finally, readers regularly draw on their real-world knowledge to recover the agent, eg:

(37) Children need to be spanked [by their parents].

In all these truncated passive examples (35)–(37), there are sound reasons for omitting the agent, that is, the use of the passive construction is appropriate. In Relational Grammar terms, the agents are clearly *chômeurs*, that is, they are unemployed. In addition, Sinha (1974) notes an active sentence may tell the reader more than is required, and it may be appropriate to use the passive because mentioning the agent would be embarrassing or impolite.<sup>27</sup>

#### 4.4.2 Politeness Theory

Williams (1994) invokes the real-world knowledge concept, observing that specifying who is responsible for an action is unnecessary when readers would not wonder who is responsible (Jespersen's second reason for choosing passive), eg:

---

<sup>27</sup> Of course this may be a matter of individual judgement, assuming a continuum from deceitfulness to politeness. Reagan could have argued that he avoided embarrassing someone when he told the US people that *Mistakes have been made*, although most people would consider that he was being far too polite.

- (38) a. Valuable records should always be kept in a fireproof safe.
- b. We suggest that you keep valuable records in a fireproof safe.<sup>28</sup>
- c. Keep valuable records in a fireproof safe.
- d. You should always keep valuable records in a fireproof safe.

My experience in instructional writing is that (38a) is often preferred. (38c) and especially (38d), are sometimes perceived as too directive or impolite (Jespersen's third reason for choosing passive). Politeness or diplomacy seemed to be the motivation behind a directive in a government agency reform project that I worked on. The project leader (a woman) instructed writers to use passive voice consistently in letters notifying service providers of the success of their proposals. I assumed that this was due to the tradition of teaching students to avoid personal pronouns in their writing for spurious reasons such as informality being a poor style. Alternatively, some writers such as Robin Lakoff<sup>29</sup> argue that women are more polite than men, but research testing has largely not substantiated this. I suggest that objections to sentences such as (38d) are only vaguely understood by the objectors but relate to a sense that instructions are more acceptable if the reader is not being forcibly told what to do.

Indeed, Brown and Levinson (1987) suggest that impersonalisation serves basic politeness ends and the passive exists partially to meet those ends. They synthesise elements of anthropology, psychology, sociology, and linguistics to develop a theory of politeness that revolves around saving face in speech. Their work with speech seems equally applicable to written text. The central idea is that some acts require softening because they are intrinsically threatening to face. This is most easily seen in the association of honorifics and

---

<sup>28</sup> Adapted from Kimble (1996–1997, p. 13) who adds: 'Notice the use of personal pronouns and the active voice. People who write for the public should have learned those lessons a long time ago.'

<sup>29</sup> Cited by Brown and Levinson (1987, p. 30).

requests in many languages but, on the broadest scale, entire vocabularies may reflect social factors, eg the 'mother-in-law languages' of Australia where one vocabulary is used when certain relatives are present, and another is used when they are not. Common statements in English that fit this theory are:

- (39) a. Smoking is not permitted.
- b. The lawn has got to be mowed.

(39a) and (39b) avoid imperatives which would challenge status and autonomy by implying an entitlement to order someone about. Similarly, making a request puts someone in a position where they may have to refuse, and telling someone a fact implies that they were ignorant of the fact in the first place. Brown and Levinson (1987) refer to business letters that use expressions such as *It would be appreciated [by me]...* and *It seems [to me]...* They argue that the social motivation is to avoid a face-threatening act and the stylistic motivation is to defocus the agent. Politeness maintains the hearer's face by providing a sense that he or she is not being coerced. Brown and Levinson talk of not impinging on the addressee's 'freedom of action' and 'self-determination'. Politeness is characterised by self-effacement, formality, and restraint. The truncated passive is the best example in English. Sometimes, the truncated passive may also delete reference to the reader – a sentence with a dative verb may avoid making explicit two of its three arguments, eg:

- (40) a. Further details should have been sent.
- b. A stick was used.

(40a) and (40b) involve oblique noun-phrase promotion to subject position. Although these are somewhat unusual passives in English, the construction is quite common cross-linguistically, eg in Polynesian languages. These languages mark the construction (known as a circumstantial passive). The fact that some languages have both a passive (patient

promotion) and circumstantial voice (oblique promotion) indicates that circumstantial voice has a specific motivation. Possibly, this motivation may be based on the degree of politeness required.

Politeness Theory leads to a hierarchy of formality. Following Ross's 'nouniness' concept, the more 'nouny' an expression, the more removed the actor is from doing, feeling, or being something. As far as face-threatening acts are concerned, removing the actor makes the expression less dangerous, so we get an active-passive-nominalisation hierarchy of formality such as:

- (41) a. We regret that we cannot....
- b. It is regretted that we cannot....
- c. It is our regret that we cannot....

Nouniness increases with social distance and social discomfort. I suggest that the trend in our society towards informality since this theory was developed may explain why nominalisations such as (41c) are discouraged, making the passive alternation such as (41b) the default, formal option.

Brown and Levinson (1987) favour the demotion approach to passivisation in that politeness typically requires defocusing of the agent. Often these constructions impersonalise the communication, indicating that the speaker may not be the agent or not the agent alone, and the addressee may not be the reader, or the reader may not be the addressee alone. The results are constructions that avoid the pronouns *I* and *you*.

This was certainly the situation with a booklet that I wrote for schools, which intended to persuade school principals to adopt certain practices. Two members of the project steering committee changed active constructions to passives, although a subjectless active was

another option preferred to passives, eg (38c). By not making the agent explicit, it seems that readers perceive truncated passives and subjectless actives to be less forceful and more acceptable. Siewierska (1984) contends that the use of *you* risks alienating the reader because the writer assumes the reader to be a potential agent whether they want to be or not. This contention has intuitive appeal, and it is supported by Brown and Levinson's Politeness Theory. However, various writers dating back to the 1960s have suggested that the use of personal pronouns is increasing.<sup>30</sup> Whether this is correct and, if so, why it is so, is an area for further research.

Possibly, the passive in English has an especially important role because English has lost the respectful pronoun *thou*. This is a further area for future research, comparing the frequency and choice of passives in English to their frequency and choice in languages that have retained the respectful second person pronoun, eg French and Spanish, or comparing the use of passives in English to their use in a language that has little deferential language, eg Israeli.

#### **4.4.3 Inclusiveness**

Indefinite subjects may not serve the same purpose as a passive in that they may be ambiguous around whether the writer (and reader) is implicated in the event that is described. Siewierska (1984) contends that the writer has not included him or herself in (34c) and (34d) but when the subject is *one*, it is less certain who is included. (42a) is comparable to agentless passive sentences, but it has a stronger sense of involvement. It might substitute for the passive in positive settings, but not negative settings (where the writer wants to be excluded). Compare:

---

<sup>30</sup> For example, Holscher (1965), cited by Warren (1981, p. 377).

- (42) a. **One** can concoct mock academic theories about 'Casablanca'.
- b. A doctoral thesis might **be written** on the astonishing consumption of alcohol and cigarettes in 'Casablanca'.

Siewierska argues that in (42a) the writer is comfortable to be included (along with the reader) in the group who like to play intellectual games because they are valued, and hence the use of *one*. However, in (42b), through using the passive, the writer implies that not only is the topic generally regarded as ridiculous for a doctoral thesis, the writer thinks so too.

However, inclusiveness or otherwise is not always signalled in such a straightforward manner. The writer's inclusion in an indefinite subject may be unclear, sometimes deliberately so. Compare:

- (43) a. It may be argued that...
- b. The unwanted, the unusually brilliant or retarded and the physically handicapped children are often abused.

The writer is probably (but not necessarily) included in (43a) and certainly excluded in (43b). Accounting for this difference between (43a) and (43b) involves more than an analysis of formal features – it presumably involves semantic and pragmatic factors too.

#### **4.4.4 Weakening certainty**

Finally, passives appear to weaken certainty, eg:

- (44) a. You can purchase them from Bennetts Bookshop or view them free of charge at [www.legislation.govt.nz](http://www.legislation.govt.nz).
- b. These can be purchased from Bennetts Bookshop or viewed free of charge at [www.legislation.govt.nz](http://www.legislation.govt.nz).

(44a) is a sentence which I drafted and a government employee changed to (44b). She preferred (44b) because she was uncertain of the information and she felt that (44b) conveyed less certainty. I am unclear how it does that, other than speculating that the lack of an agent, especially a human agent, implies uncertainty. Effectively, this is impersonalisation. It is an area for future research.

## 5 Conclusion

Many awkward sentences are not awkward because they use passives but because they are wordy, clumsy, or pretentious. Some passives are questionable – they are vague, ambiguous, or even deceitful. These questionable uses of passive give the construction a bad name. However, others passives are chosen for legitimate rhetorical purposes, persisting in our grammar (and many world grammars) despite teachers and style guide writers' efforts to persuade writers that they are useless. These efforts have little basis in linguistic theory, and rarely is there more than passing mention of the important role that passives play in communication. In fact, the passive is widespread because it is a useful 'stylistic variable'.<sup>31</sup> Passives play an important role when they fulfil functions such as avoiding naming the agent, emphasising the action receiver, softening the transfer of information, and facilitating the development of ideas. When these functions are performed positively, passives enable writers to effectively communicate different perspectives. Slobin (1994, p. 341) concludes that:

As soon as one turns from isolated sentences to connected discourse, it is evident that passives serve well-described functions of information packaging and information flow, and that they exist as alternatives among collections of options provided by any particular language.

---

<sup>31</sup> Granger (1983, p. 326).

# Chapter V

## Reading passives

We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way – an agreement that holds through our speech community and is codified in the patterns of our language.

–Benjamin Lee Whorf (1956, pp. 213–214)

### 1 Introduction

In Chapter 4, I demonstrated that passives fulfil certain communicative roles. It may be that they fulfil those roles at a cost to the reader – an increased cognitive load due to reduced readability. If that were true, critics of passives might argue that the benefit from choosing a passive construction should outweigh the cost, that is, there should be an especially good reason for choosing the passive to counter its inherent disadvantage. In this chapter, I review the literature on readability and sentence interpretation, with a view to determining whether passive does have an inherent disadvantage that indicates it is a problem pattern of our language. I will present this review in two parts: readability and sentence interpretation. There is some artificiality to this distinction, but the terms relate to different research traditions using different methods. Readability research has a practical education perspective and, recently, a consumer-communication perspective. The sentence-interpretation tradition involves empirical testing by cognitive psychologists and psycholinguists, and usually explores the nature of the brain as much as the nature of reading. Together, these two lines of research bring a vast literature to the reading process, although there remain many gaps – a full understanding of the reading of passives being one.

## 2 Readability

The roots of readability research are in educationalists' efforts to help children learn to read. However, while this is still an important driver, the readability field's reach is now considerably wider, as I will outline in this section.

### 2.1 What is readability?

Readability is the '...ease of understanding or comprehension due to the style of writing' (Klare, 1963, p. 1). Other characterisations of readability emphasise reading speed, information retrieval, and, sometimes, the interest of a text. Consideration of the interest of a text factors in the reader, with all the variables that the reader brings to the reading task, eg motivation and prior knowledge. I will discuss this further when I consider readability formulas.

Readability, in this sense, is not legibility. As Derham and Campbell (2005, p. 5) observe, 'Legibility refers to how quickly individual letters are recognised', an issue which is particularly relevant to signage. Letter recognition focuses on variables such as font, letter spacing, line length and line spacing, justification, upper or lower case, text and background colour, and use of bolding and italics (Bix, 2002). However, readability and legibility are often confused, at least in the language used to describe them. For example, Kantner, Shroyer, and Rosenbaum (2002) list four legibility factors in a category they call 'Readability and aesthetics', and Hart (2008, p. 30), after clearly defining legibility, goes on to discuss legibility's effect on 'reading efficiency', and legibility aspects that make texts 'readable'. Such discussions, although logical enough, indicate the inherent difficulty of the term 'readability'.

### 2.1.1 From students to consumers

Readability studies began in the late 19<sup>th</sup> century when educators sought to provide students with texts that matched their reading skills. Often, these efforts were based on vocabulary lists only. In the early 20<sup>th</sup> century, the US military began testing adults' reading skills, initially to better assign their recruits to positions and, by the 1950s, to exclude illiterate people from entering the military. By this time, the US military was investing heavily in studying reading skills, a commitment that continues today (DuBay, 2007).

Civilian readability studies began in the 1920s. By the 1940s, the work of Rudolf Flesch, Robert Gunning<sup>1</sup>, and others led to publishers improving the readability of newspapers and magazines as they sought to widen their market. Huge technical advances in society followed in the 1950s and 60s and, with them, a requirement for higher workplace reading skills coupled with texts that were more readable. However, it was the even broader base of consumerism that led to the plain language movement in the 1970s, initially in the UK and the US. Advocates of plain language argue that 'The golden rule is that plain English should be used in any information the public rely on when they make decisions' (Plain English Campaign, 2008). Such thinking resulted in the US Securities and Exchange Commission producing a plain English handbook for companies to better inform readers of investment decisions. In addition, various statutes and court judgments hang over companies' communications with their customers. Numerous countries legally require plain language documents, including some that require new laws to be in plain language (Shriver, 1997). New Zealand developments began in the mid-1980s with *Consumer* magazine's gobbledegook articles and awards (Harrison and McLaren, 1999) and by 2005 the *Write Group* had established the *WriteMark Plain English Awards* (WriteMark, 2008).

---

<sup>1</sup> The developer of the Fog Index, a popular readability formula.

## 2.2 Measuring readability

The concept of measuring readability assumes a standard definition of readability, which in turn assumes a standard reader. However, readers not only vary within a culture, but also across cultures. Our cultural backgrounds affect our writing and our reading, complicating the concept of readability enormously. Obviously, if researchers are unclear on what readability is, they will not measure it clearly. Furthermore, if they define it as 'ease of understanding', they need to be able to validate their findings with comprehension tests, a process that introduces additional complexities as I discuss below. If they introduce the concept of reader interest<sup>2</sup> into their definition, then they enter the complex world of reader variability and its huge challenges to measurement.

With Microsoft incorporating a slightly amended Flesch Reading Ease readability formula into Word, its word-processing program, the readability formula concept has become widely known although not widely understood. In fact, I suggest that Microsoft especially<sup>3</sup> has perpetuated a readability myth, and included passives in that myth.

### 2.2.1 Support for readability formulas

Over 200 readability formulas have been developed since the 1920s, and DuBay (2007, p. 5) claims 'Over a thousand studies attested to their strong theoretical and statistical validity'. Early readability formulas focused on vocabulary, often exclusively. On one level this was admirable, and probably went some way to serving its purpose of matching appropriate texts with learner readers. However, readers bring varying vocabularies to the reading task,

---

<sup>2</sup> For example, Dale and Chall in 1949, and McLaughlin in 1969, as cited by DuBay (2007, p. 6).

<sup>3</sup> Microsoft is the largest influence but by no means is the only influence as it is now common for word-processing programs to incorporate a readability formula, eg *Corel Word Perfect* incorporates *Reference Software*. Other programs are designed as add-ons to word-processing programs, eg *Grammatik IV*, *StyleWriter*, or *Style Checker*.

making general vocabulary measures less sound than they may first appear. Nevertheless, words familiar to an individual reader and word frequency tend to be related, making vocabulary an undeniable element of readability. Weir and Ritchie (2006) recognised this in developing the Strathclyde Readability Measure, which includes 'word commonality' based on a frequency count. However, analysing text solely at the level of individual words ignores phrasal expressions such as idioms, eg 'kick the bucket', fixed expressions, eg 'by and large', phrasal proper nouns, eg 'The Big Apple', collocations, eg 'white wine', compounds, eg 'eye dropper', and phrasal verbs, eg 'to look up'. Such expressions could affect the readability of a text considerably, depending on the reader's cultural background and knowledge of the language.

Similarly, many other variables may contribute more than word frequency. For example, Klare (1963) conducts an extensive review of readability, noting elements of good writing style such as knowing the reader and writing for the reader, use of Anglo-Saxon rather than Norman, Greek, or Latin words, use of non-technical and concrete words, minimising the use of prepositional phrases and compound words, and the inclusion of 'personal' words. He cites Gray and Leary (1935)<sup>4</sup> who identified 82 elements of style that contributed to reader success, although only 64 elements could be counted reliably, and only 44 occurred often enough to be useful for analysis. This practical approach of counting what can be counted, led to readability formulas focusing on superficial textual features, particularly word length and sentence length.

Supporters of readability formulas, such as William DuBay, accept that readability is more complex than a mechanistic count of surface features, but claim that the formulas accurately predict text difficulty. Bush (2004) notes that academics have argued convincingly that you

---

<sup>4</sup> Klare (1963, p. 125).

cannot write to a formula yet many academics have devised formulas. Possibly, the influence of readability formulas on journalism in 1950s is a high point in their history (although their influence on less-skilful writers' sentence length may be underrated).<sup>5</sup> More recently, courts have held US and European organisations responsible for faulty documentation, and increasingly use readability formulas to measure fault (DuBay, 2007; Marnell, 2008a). Marnell argues that this legal development suggests a need for a more rigorous analysis of the validity of readability formulas.

### **2.2.2 Criticism of readability formulas**

In the 1970s, reading researchers began questioning the value of readability formulas to predict the comprehensibility of texts, and that questioning continues today (Shriver, 1997; Harrison and McLaren, 1999; Marnell, 2008b, 2008b). Discrepancies among results from different formulas weaken their credibility, despite justifications ranging from variable counting methods to variable criterion scores (the required comprehension level that indicates reading success). Harrison and McLaren (1999, p. 23) observe that:

Because of their ease of use and their apparently desirable objectivity, computer-generated readability measures tend to give writers a false sense of security. In fact, these programs turn writers away from what should be the real focus of their writing: the target reader.

By the turn of the century, various researchers, eg Redish (2000) and Shriver (2000), were arguing that usability testing<sup>6</sup> provides a more accurate result than readability formulas,

---

<sup>5</sup> The research findings on the importance of sentence length on readability are mixed. Future research, building on studies by Bormuth in the 1960s, segmenting writers into more-skilful and less-skilful writers, may produce more consistent results. One possibility is that more-skilful writers consistently write readable texts whatever their average sentence length, but less-skilful writers produce more readable text when they use short sentences. As Marnell (2008b) implies, such studies would need to factor in a minimum sentence length or texts would be choppy and lacking in cohesion.

<sup>6</sup> '...the process that involves live feedback from actual users performing real tasks' (Barnum, 2002, p. 9).

particularly for technical documentation instructing users of technology on how to perform tasks. One of Redish's concerns is that readability formulas have their roots in assessing children's texts, and their application to adults' reading is questionable.<sup>7</sup> Using children's texts affects vocabulary lists, but formulas that factor passives into their scores pre-date or ignore research findings that passives are a late acquisition for children, eg Slobin (1994). Hargis (2000), a senior software engineer at IBM, argues that reading formulas are unable to meet modern concerns such as interest level and translatability for global markets. She also observes that, compared to native English speakers, twice as many people use English as a second or foreign language, primarily for business purposes, making it necessary to reconsider readability criteria. For example, in the context of international business, minimising the use of ambiguous words, avoiding colloquialisms, and simplifying the vocabulary is likely to be more critical than sentence length. Nevertheless, Hargis acknowledges the pressure on technical writers to keep sentences short, suggesting that this can lead them to omit short words such as 'parts of verbs'. Presumably, she means that passive auxiliaries are sometimes implied only, the source of many classic garden path sentences where, at an ambiguity, the reader misanalyses the syntax of the sentence.

Recently, the statistical claims for readability formulas have been re-examined, highlighting difficulties in the two measures used by the Flesch formula. First, if short sentences are better, two or three-word sentences should produce maximum readability. Second, polysyllabic words are easily readable if they are familiar to the reader (Marnell, 2008a, and others), eg 'organisation' and 'psychology'. Marnell (2008b) reviews the Flesch reading-ease formula from the viewpoint of validity, a measure of whether a tool is 'fit for purpose', that is, whether it measures what it claims it measures. Validity testing of a readability formula

---

<sup>7</sup> DuBay (2007, p. 64) refutes this.

requires a comparison with other comprehension measures such as free recall, multiple-choice questions (including both explicit and implicit items in a text), sentence verification, cloze procedure, event sequencing, causal relations, importance rating, text evaluation, and strength of relationships between key words and phrases (Anderson, Wang, and Gaffney, 2006). The comparison is measured by a statistical correlation, a number between -1 and +1 called the correlation coefficient, where +1 indicates a perfect correlation. Flesch reported a correlation coefficient of 0.70 between his formula and comprehension and cloze test results,<sup>8</sup> a match that DuBay (2007, p. 57) finds acceptable. However, Marnell (2008b) disputes the acceptability of a correlation coefficient of 0.70, pointing to researchers such as Jeanne Chall who raised concerns in 1958, and providing examples of high readability scores and low comprehensibility. To assess the usefulness of a correlation coefficient of 0.70, Marnell applies another statistical tool, directional volatility<sup>9</sup>, which measures the accuracy of predicting that two matching variables will both change in the same direction. Marnell analysed three sets of 10 texts, finding a directional volatility of 16, 29, and 44 percent respectively, that is, when the Flesch readability scores increased, up to 44 percent of the scores did not relate to improved comprehension. Marnell (2008, p. 19) also notes that Flesch's reported correlation coefficient is high compared to other studies of the formula, one researcher reporting a correlation coefficient of just 0.13, which he concludes is '...close to indicating that there is no correlation at all'. Furthermore, Marnell argues that correlation coefficients are skewed by sampling biases. The texts chosen for analysis are not chosen randomly, but are texts that are fully comprehensible to the researchers. This inflates correlation coefficients, further weakening the validity of readability formulas.

---

<sup>8</sup> Cited by Marnell (2008b, p. 20).

<sup>9</sup> Also called the 'nominalised Kendall tau distance'.

Supporters of readability formulas do tend to acknowledge their limitations. For example, Weir and Ritchie (2006) conclude an outline of their Strathclyde Readability Measure (SRM) by noting that:

...there is still a marked variation between the ranking of the readers and of the SRM. This is likely to result from factors sensible to the readers but invisible to the readability measure, eg writing style and subject matter.

Formulas do not consider organisation, word order, format, imagery, dramatic effectiveness, or mood. For example, organisational factors are excluded because they are hard to measure but, arguably, these are the most important factors in readability.<sup>10</sup> The organisational or structural signals of a text, eg heading levels and topic chaining (including the use of passives – see Chapter 4, section 4.3.2) may be more important than the surface features that readability formulas rely on. More importantly, as Marnell demonstrates, the impact of organisational factors on readability may not be predicted by readability formulas.

### **2.2.3 Readability formulas and the myth of passives**

Different readability formulas include many text variables, including the percentage of passives. However, the more commonly used formulas tend to focus on word and sentence length, often exclusively. This is the case with the Flesch readability formula, which has been popularised by Microsoft. If the readability statistics tool in Word is activated, the grammar check or spell check is followed by a pop-up dialog box, eg:

---

<sup>10</sup> For example, Klare (1963, p. 125) cites a 1949 study of two versions of a news story, which found that organisational issues accounted for readability differences, whereas Flesch accounted for the difference in terms of reading ease (measured in terms of sentence and word length) and human interest. Of course, the organisational factors are not culture-free, and so their impact on readability will vary from reader to reader.

Readability Statistics	
<b>Counts</b>	
Words	3749
Characters	21802
Paragraphs	168
Sentences	252
<b>Averages</b>	
Sentences per Paragraph	3.2
Words per Sentence	12.7
Characters per Word	5.4
<b>Readability</b>	
Passive Sentences	3%
Flesch Reading Ease	25.9
Flesch-Kincaid Grade Level	12.0

The dialog box presents three sets of information: *Counts*, *Averages*, and *Readability*.

Obviously, the averages are calculated from the counts, and it is reasonable to assume that the readability information is calculated from the averages. This is not exactly the situation.

The *Flesch Reading Ease* score is a function of word length (actually the average number of syllables in each word) and sentence length, but passives play no part in the score. The *Passive Sentences* score is simply a count of auxiliary and past participle combinations,<sup>11</sup> and a calculation of their percentage of all verbs that the program has identified. Clearly, the information on passives belongs with the first set of information (*Counts*), yet the implication is that it is built into the readability score, and that it is a measure of low readability.

The meaningless of the information listed under the heading *Readability* is illustrated by these examples:

- (1) a. John kissed Mary.
- b. Mary was kissed by John.

---

<sup>11</sup> It fails to identify passives with implied auxiliaries, eg 'The advice [that **was**] given by the novelist.'

(1a) has a zero-percent, passive-sentence count and a *Flesch Reading Ease* score of 90.1 (100 being very easy to read). (1b) has a 100-percent, passive-sentence count and a *Flesch Reading Ease* score of 100. Although (1b) is a longer sentence than (1a), its shorter average word length (measured in syllables) produces a 'better' readability result, despite being passive.

Microsoft is not the only offender in perpetuating the myth that passives contribute to low readability. For example, an add-on program, *Style Checker*, counts three 'stylistic problems': the overuse of acronyms and abbreviations, abstract nouns, and passives – 'three defects that I believe are the real root causes of bad style' (Cohen, 2004). Cohen claims that a study determined that the best writers avoid these stylistic problems, but he does not reference the study. Harrison and McLaren (1999) cast further doubt on readability programs by using three different programs to count passives in the same text, getting scores from seven to 86 percent. The mantra 'Avoid passives' will receive little challenge when computer programs such as these perpetuate a misunderstanding of the research findings.

### **2.3 The readability of passives**

In Chapter 4, section 3, I outlined why passives often have a poor reputation. Judging by the examples that critics provide, I demonstrated that voice is often confused with wordiness, clumsiness, and pretentiousness. Presumably, these confusions arose from research into sentence transformations. Considerable research in the 1960s and 70s assumed that a sentence's complexity could be measured by the number of grammatical rules used in its derivation – the Derivational Theory of Complexity (DTC). Much of the DTC assumed that all sentences belonging to a common sentence family have the same base tree, and the simple active declarative sentence is the least transformationally elaborated form. The prediction

was that sentences with more transformations (passives, head-to-head movement, and *wh*-movement) would be more difficult to process.

This body of research that involved passives was evaluated by Rhodes (1997, pp. 39–44). Although there is a sense in the writing community that researchers found passives contributed to low readability, Rhodes concluded that ‘...few of these findings are relevant for understanding how voice affects either reading speed or reading comprehension’ (p. 39). Her reasons for this conclusion were that voice was not isolated from other sentence variables, eg reversibility (see section 3.3.4); sentences were studied out of context; and a distinction was not usually made between truncated and full passives.

Support for Rhodes’ conclusion comes from Fodor, Bever, and Garrett (1974). They argue that passivisation adds a transformation step to the sentence but also produces a sentence that departs from the standard English sentence form where the agent is in the initial noun-phrase position. The issue may be that any increased complexity in a passive sentence is not due to additional grammatical operations, but to the sentence not being in the canonical form for semantic interpretation. This could be a frequency effect, that is, active sentences are more frequent and the reader is more accustomed to decoding them. However, when the subject and the object in a passive construction are ‘redundantly marked’, that is, when both syntactic and semantic signals exist, the added difficulty of the passive disappears. Fodor, Bever, and Garrett cite Tannenbaum and Williams (1968) who studied response latency when the topic variously referred to the subject, the object, or neither (neutral).

Tannenbaum and Williams found that actives produced shorter latencies when the topic was the active subject, but when the topic was the active object, the passive response latency is minimal.

Klare (1963, p. 141) cites a study<sup>12</sup> of military training material where subjects consistently preferred low human interest or impersonal style, presumably because technical information is usually presented in an impersonal style. Passives were most likely a tool in this impersonal style because they enable deletion of the human agent.

DuBay (2007, p. 77) cites Armbruster<sup>13</sup> who found that textual coherence is key to comprehension, both at global and local levels. Local-level coherence uses pronouns, resumptive modifiers (replacements for previously used noun phrases, eg 'These results suggest that...'), conjunctions, and connectives to link ideas both within and between sentences. Connectives serving this role will often be associated with passive voice, although Armbruster did not appear to test that. Davison and Lutz (1985) developed this idea further. They argue that a passive may connect to prior context in that elements matching the focus of attention in the passive may have already appeared. This is especially important given findings that sentence comprehension and retention is impaired if definite noun phrases cannot be integrated with prior information. They conclude that context will often favour a particular voice form.

These studies support the use of passive voice when it serves the purposes of agent deletion, focus, or flow, which corresponds to Jespersen's reasons for using passive – see Chapter 4, section 4.1. The studies point to the conclusion that passives do not impede readability but may actually improve readability when used for the reasons that Jespersen describes. Substantiating this conclusion would require a carefully controlled study that isolated voice from other sentence variables.

---

<sup>12</sup> Klare, G., Mabry, J., & Gustafson, L. (1954).

<sup>13</sup> Armbruster, B. (1984).

## 2.4 Dependencies and efficiency

Pinker (1994, p. 201) notes that ‘...short-term memory is the primary bottleneck for human information processing.’ Only a few items can be kept in memory at once (seven plus or minus two).<sup>14</sup> Once processed, each item is immediately subject to fading or being overwritten. If the sentence requires the reader to keep a dangling phrase in memory for too long, the sentence is hard to parse. These sentences are ‘top-heavy’ and heavy phrases are generally better positioned at the end if possible. Pinker discusses this concept in terms of dependencies. One principle of good writing is minimising the time that a reader must hold dependencies in short-term memory. Pinker argues that passives sometimes do this well, eg:

- (2) a. Reverse the clamp that the stainless steel hex-head bolt extending upward from the seatpost yoke holds **in** place.
- b. Reverse the clamp that is held in place **by** the stainless steel hex-bolt extending upward from the seatpost yoke.

In (2a), the relationship of the dependencies is not understood until the reader encounters the word *in*, whereas in (2b) the relationship is clear when the reader encounters the word *by*.

When there is a series of facts, the reader needs a framework to fit each fact into. The given-new framework does that and passives can function as a tool for that framework, eg:

- (3) a. Some astonishing questions about the nature of the universe have been raised by scientists studying the nature of black holes in space. The collapse of a dead star into a point perhaps no larger than a marble **creates** a black hole.
- b. Some astonishing questions about the nature of the universe have been raised

---

<sup>14</sup> This was first proposed in 1956 by George Miller.

by scientists studying the nature of black holes in space. A black hole **is created** by the collapse of a dead star into a point perhaps no larger than a marble.

Writers on writing tend to stress cohesion, often through the given-new framework. In (3b), use of passive enables the writer to closely associate the noun phrases *black hole/s*, making the ideas coherent and, presumably, making it easier for the reader to interpret the text.

Hawkins (2004) describes his Performance-Grammar Correspondence Hypothesis in which he argues for a strong correspondence between performance and grammar, in contrast to Chomsky's innate grammar theory. Hawkins details three processes that affect language efficiency: minimise domains (minimise each string of building blocks), minimise forms that are to be processed (minimise each building block), and maximise online processing (communicate meaning as early as possible). He argues that grammars have been highly shaped by language processing, including highly abstract properties of syntax. The greater the efficiency of one structure over another, the more frequently it occurs. This hypothesis leads to the idea that passives exist because they have a role. It also raises the question of why they do not occur 50 percent of the time, which Krauthamer's Polarity Hypothesis addresses (see Chapter 4, section 2.2).

### 3 Sentence interpretation

Whereas readability research began by meeting practical educational needs (a focus on texts), the sentence-interpretation field<sup>15</sup> developed through cognitive psychologists' search to understand the nature of the mind (a focus on readers, speakers, and listeners).

---

<sup>15</sup> Alternatively referred to as 'sentence processing', 'sentence construal', or 'parsing' (although 'parsing' usually refers to one part of the field only – see section 3.2.1).

Sometimes, these two traditions are indistinguishable or, at least, overlap considerably, eg George Klare (Emeritus Professor of Psychology at Ohio University) was a key figure in readability research. The psychologists brought strict, empirical-research training to their study of language (which became the field of psycholinguistics), and many of their findings on how people read are important to an understanding of the readability of texts.

### **3.1 Collecting information**

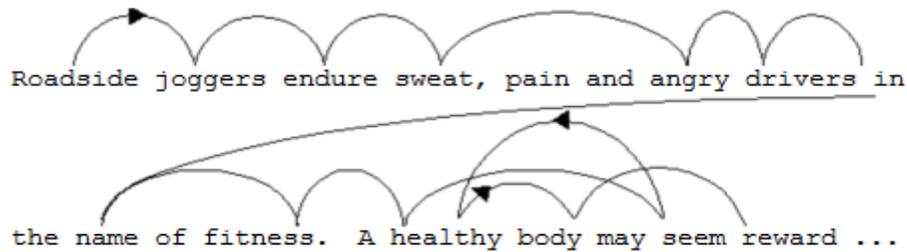
Psycholinguists developed tools and processes to study readers' cognitive functioning when they read, of which eye-movement tracking technology is the most often cited, and the most controversial. It enables researchers to study where readers gaze and for how long, providing insight into readability as well as the reading process. However, the human brain operates so quickly that the interpretation of test results is difficult and often inconsistent. I review some of the findings below and consider their application to the reading of passives.

#### **3.1.1 Eye movements**

Although eye-movement research occurred as far back as 1879,<sup>16</sup> it was in the mid-1970s that improvements in visual-display and data-collection technology advanced the understanding of sentence interpretation. The basic elements in this research are saccades, fixations, and perceptual span. Saccades are eye movements. Between saccades are fixations, where the eyes remain relatively still for 200–300 milliseconds, although the range is 50 to over 500 milliseconds. Saccades and fixations are illustrated in the following diagram from Larson (2004):

---

<sup>16</sup> Rayner (1998, p. 372), citing Huey (1908).



Just and Carpenter (1980) found that almost all content words are fixated, but short function words – the ‘scaffolding for the sentence’<sup>17</sup> – are not always fixated.<sup>18</sup> Presumably, this includes most passive auxiliaries: *is, are, was, be, am, get,* and *got* are words of two or three letters, and only *were, been, being,* and *gotten* are longer. Other studies suggest that familiar words and high-frequency words are skipped, suggesting that all passive auxiliaries may be skipped. Skipping words does not necessarily mean that they are not processed, as Fisher and Shebilske (1985)<sup>19</sup> found when they monitored two groups reading similar texts. After detecting words that the first group skipped, they deleted those words from the text presented to the second group. The second group had difficulty understanding the amended text, indicating that there is a ‘preview benefit’ from the edge of a fixation. Fisher and Shebilske’s findings on word skipping could indicate that the addition of two small words in the passive alternation (an auxiliary and a preposition) make no difference to reading time, just as Walpole (1979) suggested (see Chapter 4, section 3.2.1). However, this needs to be verified experimentally, especially given some evidence that there are higher fixation

---

<sup>17</sup> Pinker (1994, p. 118).

<sup>18</sup> Rayner (1998, p. 375), citing Rayner and McConkie (1976), note that words of two and three letters are fixated about 25 percent of the time; Rayner and Sereno (1994, p. 60), citing Carpenter and Just (1983), note that function words are fixated 38 percent of the time; Field (2003) notes that function words are fixated about 40 percent of the time.

<sup>19</sup> Cited by Rayner (1998, p. 377).

durations before skipping.<sup>20</sup> Alternatively, a periphrastic verb may be read as one unit, or the auxiliary is previewed and skipped to the past participle with the knowledge already processed that it may be passive. Rayner and Sereno<sup>21</sup> suggest that if a short function word is previewed before the saccade is executed, the saccade may be re-programmed and the word skipped. However, there are confounding variables in the form of higher-order processes such as integrating sentences into the discourse.

Saccades tend to be seven to nine letter spaces long, although they range from one to 15 letter spaces. Readers of alphabetical orthographies such as English have a perceptual span of three to four letters to the left of the fixation and 14–15 letters to the right. Poor readers have a shorter span, and difficult text results in a smaller span for all readers. However, the word identification span is smaller than the perceptual span, typically being seven to eight letters to the right. This raises the question of whether readers identify passives before they fixate on the passive verb. However, it appears that readers are collecting letter information, not word information, on the periphery of their perceptual span and, presumably, that is insufficient to identify passive verbs. Relevant to this question are the findings on informational density (morphological structure) and fixations, although the results are inconsistent. Research into Finnish<sup>22</sup> found that, if a word could only be identified from its end, a short fixation at the beginning and a longer fixation on the end of the word was typical. Another study found no effect of verb complexity on fixation times.<sup>23</sup> Given that Keenan and Faltz (1979) found that about 90 percent of the time they could tell if a sentence was passive by looking at its verb phrase, identifying a passive verb early in the sentence-

---

<sup>20</sup> Rayner (1998, p. 381) citing Hogaboam (1983), and Pollatsek, Rayner, and Balota (1986).

<sup>21</sup> Citing Morrison (1984).

<sup>22</sup> Rayner (1998, p. 386) citing Hyönä, Niemi, and Underwood (1989).

<sup>23</sup> Rayner (1998, p. 392) citing Rayner and Duffy (1986).

interpretation process could aid comprehension. Sometimes however, passive verbs are split across two lines, the auxiliary at the end of one line and the lexical verb at the beginning of the next line. It appears that readers do not usually gather information from the line below the word they are fixated on, possibly making early identification of passives unlikely in these situations.

About 10–15 percent of all fixations are regressions. Often their causes are unclear, but some regressions are clearly due to readers incorrectly assigning active voice to a passive verb. Invariably, these cases involve implied auxiliaries, and provide some of the classic garden path sentences in the literature, eg Bever's sentences from 1970:

- (4) a. The horse raced past the barn fell.
- b. The doctor sent for the patient arrived.

Although eye-movement tracking research has provided insight into the reading process, it has its difficulties, particularly its intrusion into a reader's natural reading process. For example, people read at only about 50 percent of their normal reading rate when they are being monitored. The research is also criticised because it uses several fixation measures, eg with or without return gazes; because processing between saccades is usually omitted; and because multi-word viewing, peripheral preview, and spillover effects are not usually taken into account. As Pollatsek and Rayner (1990, p. 159) note '...the eye movement record needs to be interpreted with great caution.' The research also tends to assume a homogeneous group of readers, although there is considerable variability in reading skills (van der Leij, 1990). It follows that the ideas I suggest above on the reading of passives are highly speculative and would be challenging to confirm.

## 3.2 Parsing and interpretation

The reading process involves various stages from word encoding to relating information to previous knowledge, but there is little consensus on how many stages there are. In particular, theories differ on whether parsing and interpretation occur simultaneously or sequentially. Reading researchers are split between those who believe that processes at different levels operate independently, and those who believe that they are interactive (Haberlandt, 1994). This means that discussion of parsing theories cannot be fully separated from discussion of interpretation theories.

### 3.2.1 Parsing

*Parsing* comes from the Latin *pars orationis* – part of speech (Karttunen and Zwicky, 1985). Parsing is the first step in understanding a sentence as we subconsciously specify how a particular constituent relates to other constituents, that is, the relationship among words or the dependency relationships (Just and Carpenter, 1980; Taraban and McClelland, 1990; Clifton and DeVincenzi, 1990; Mitchell, Cuetos, and Zagar, 1990; Pinker, 1994). Parsing is obligatory in sentence processing (D’Arcais, 1990).

Research into parsing has been controversial. Early parsing theories tended to be top-down or context-driven theories where comprehension is thought to result from applying knowledge to search for cues to the information (as distinct from bottom-up or feature-driven theories that assume readers must master the code first). Jerry Fodor suggested that we look up a mental grammar and a mental dictionary but not a mental encyclopaedia. He was saying there is not the time to access encyclopaedic information because the reader has to make decisions on the fly. Mitchell (1990) distinguishes between information that selects

the initial interpretation and information that monitors the selection. However, Pinker (1994) concedes that some world knowledge influences parsing decisions, eg:

- (5) a. The defendant examined by the lawyer turned out to be unreliable.
- b. The evidence examined by the lawyer turned out to be unreliable.

Both sentences are potentially garden path sentences in that they could take different syntactic directions at the word *examined*. However, tests show that (5b) is read faster than (5a) because *evidence* cannot examine and so meaning disambiguates. In other words, (5b) is recognised as passive more quickly than is (5a). Presumably, the reader initially parses (5a) as active and then, when encountering the word *by*, reanalyses the voice of the verb. In (5b), the reader brings knowledge of the subject to bear when parsing *examined*, opting for the passive form immediately.

Top-down theories resulted in simple, structurally based principles. Frazier (1987) argues that the words of a sentence are assigned to phrasal constituents online, whereas researchers such as Perfetti (1990) assume that some constituents are left unattached. The Garden Path Theory assumes that a reader initially makes a single analysis, revising it later if need be. Frazier's key principles are Minimal Attachment and Late Closure. Minimal Attachment suggests that readers prefer to attach each incoming lexical item to the existing structure, adding the smallest possible number of new nodes in a syntactic tree. Late Closure suggests that readers attach lexical items, when grammatically permissible, into the phrase currently being processed (although Frazier subsequently proposed that certain relevant factors could override this principle – Frazier, 1990). Both principles assume that grammatical information such as lexical category and phrase-structure rules associated with that lexical category are required to fit each word into the unfolding sentence structure. Frazier (1999) observes that, despite readers having limited immediate memory capacity,

they must parse an entire sentence. Even though they cannot delay analysis until all the information is available, they choose among lexical categories and attachment sites for every phrase in the sentence. Steedman (2000) describes the process as the principle of parsimony<sup>24</sup> – a criterion for selecting among analyses. The analysis whose interpretation carries fewest unsatisfied but accommodatable presuppositions or consistent entailments will be preferred. Consider (4a), repeated as (6):

(6) The horse raced past the barn fell.

Steedman explains the reader's options in (6) as being either a simple noun phrase (*The horse*) or a complex noun phrase (*The horse [that was] raced past the barn*) – one horse or multiple horses. The context may already support one option and eliminate the ambiguity. If there is an 'empty context', that is, no horses and no racing have been mentioned previously, the simple noun-phrase option will be chosen because it carries fewer unsatisfied presuppositions. The principle of parsimony predicts a garden path in the empty context.

Researchers disagree though on whether other grammatical information, eg argument structure or thematic role is required for parsing decisions. Since 1987, numerous theories have been proposed, which Frazier and Clifton (1996) characterise using two parameters as summarised on the following page.

---

<sup>24</sup> The concept was first proposed by Crain and Steedman in 1985.

<b>Parameter</b>	<b>Theories</b>	<b>Problems</b>
A. The relations among the various analyses	1. The reader computes all possibilities in parallel and chooses one  There are also constrained-parallel theories, which assume that alternative information, eg frequency, modifies a selection	This could exceed short-term working memory capacity
	2. The reader computes a single analysis and works with it until it is proved incorrect (serial processing)	This would be disruptive if the choice proves to be incorrect
	3. The reader delays making a decision at the point of ambiguity, making a decision only when information enables the ambiguity to be resolved	This could exceed short-term working memory capacity  It is unclear how the reader would recognise disambiguating material
B. The information used to resolve ambiguities in building an initial analysis	4. The reader uses all information immediately, including discourse and real-world knowledge	This would involve a cost that would usually be unnecessary
	5. The reader uses restricted information, eg grammatical information, to make an initial analysis	This would often be inadequate, including bringing conflicting principles to the task

The position taken on the first parameter affects the position taken on the second parameter, but all relevant information must be used eventually to disambiguate. If we

assume a parallel-processing theory<sup>25</sup>, then we are likely to assume that all information is used online.

The advantage of a single-analysis model is that the reader gets on with the task of determining the semantic interpretation, which then is checked for plausibility and discourse coherence. Frazier and Clifton (1996) assume that the single-analysis model uses limited information, that is, grammatical information, to make an initial analysis. However, a grammatical ambiguity requires either some principles of grammatical ordering or extra-grammatical information to make a choice. The Garden Path Theory claims that the reader makes a single and immediate analysis of ambiguous information, and uses general, structural parsing principles only. The underlying principle is: 'choose the first available analysis' (Frazier, 1987). This principle builds on the fact that immediate memory holds structured information more easily than unstructured material. Readers do not arrive at conclusions that violate grammar – within grammatical constraints they choose the most plausible and contextually appropriate meaning.

### **3.2.2 Interpretation**

The distinction between parsing and interpretation is unclear. In fact, Altmann (1990) argues that there might not be a distinction. One view is that parsing involves assigning grammatical categories and structural relations to the sentence constituents, whereas interpretation involves integrating the above into an internal representation of the sentence. Balota et al. (1990) note that there is no unequivocal evidence that word recognition occurs without meaning. There is clear evidence that some interpretive processes (mental representations) are formed before the parsing of a sentence is complete (Karttunen and Zwicky, 1985; Just

---

<sup>25</sup> See Taraban and McClelland (1990) for a discussion of multiple-constraint theories that assume parallel processing.

and Carpenter, 1987). However, it is not clear where syntactic and semantic analyses each begin and finish relative to one another, or whether a third higher-level process co-ordinates the information. As Garnham (1994) notes, it is difficult to distinguish fast reanalysis from initial analysis. The broad issue is what the time course of sentence comprehension is. The specific issue is: when is 'meaning' derived?

It has been known since the 1970s that alternative meanings of ambiguous words are activated, what Frazier (1999, p.6) terms 'pervasive temporary ambiguity'. Consider these examples from Swinney:<sup>26</sup>

- (7) a. He swam across to the far side of the river and scrambled up the **bank** before running off.
- b. He swam across to the far side of the river and held up the **bank** before running off.

At the point in the sentence that *bank* appears, Swinney showed that both meanings of *bank* (river and money) were primed. However, at a point along from *bank*, one meaning had been suppressed. Similarly, Simpson (1994) found that both meanings are facilitated but the appropriate meaning is facilitated to a greater degree.<sup>27</sup> Tanenhaus<sup>28</sup> found that an alternative lexical category was also activated even when it was inappropriate in the sentence slot, eg *John began to **watch** the game*, possibly indicating that lexical categories are not listed in the lexicon. This raises the question of whether both voices are activated at a point of ambiguity. Altmann (1997) provides this example:

---

<sup>26</sup> Cited by Altmann (1997, p. 80).

<sup>27</sup> Other studies found that only the contextually-appropriate word was activated, but they have been criticised for contaminating the results through the frequency effect.

<sup>28</sup> Cited by Altmann (1997, p. 91).

- (8) If someone **read** this sentence thought it was ungrammatical because it missed an 'and' between 'sentence' and 'thought' they would be wrong.

The active voice meaning of *read* assumes that the 'someone' is doing the reading, which leads to problems. The passive reading – [who was] *read* – is grammatically correct but is not the usual first interpretation. When it is unclear which grammatical convention is being signalled, perhaps the resolution of ambiguity is based on the simplest interpretation, or perhaps it is based on the most frequent usage, eg *read* as an active verb. Neither possibility assumes that meaning is a factor.

Frazier (1987) argues that the thematic processor works by accessing thematic frames associated with verbs and other heads of phrases through their lexical entries. The selection of thematic roles uses discourse and real-world knowledge to choose the most plausible possibilities. At some stage, the reader activates possible case roles (thematic roles), and combines that information with prior semantic and syntactic information. The context can prime a certain case role, eg:

- (9) a. John was interrogated by the....  
b. John was interrogated by the window.

In (9a), there are semantic cues (*interrogate* implies an interrogator) and syntactic cues (*interrogate* is a two-argument verb requiring someone who interrogates and someone who is interrogated). Furthermore, *was interrogated* most likely implies a noun phrase in object position, and *by* most likely is introducing an agent. However, (9b) is a garden path sentence. Disambiguation could only occur before *window* if an agent or the possibility of an agent was indicated in prior text. Just and Carpenter (1987) argue that the prepositions preceding a noun phrase often indicate the semantic role of the object. The reader's knowledge of the referent of the noun phrase results in a choice of possible case-role

assignments for the participant. This suggests that interpreting passives is more difficult if the reader's expectations are not met, including the expectation that a *by*-phrase contains a proto-agent.

'Exposure-based' strategies, where past experiences such as comparable circumstances and frequency influence initial decisions, reinforce this idea (Mitchell, 1994). This is linguistic experience. Possibly, frequent use of passives in academic texts may be an example of reader expectations being at least more open to either voice form in an ambiguous sentence. The idea that frequently occurring words take less time to access than infrequently occurring words goes back to Morton (1969) and is well attested, eg Jurafsky (2002). However, the influence of word frequency is highly controversial (Balota, 1994). It may be supported by other processes before and after the word-recognition moment, and by sophisticated guessing. Klare (1963) notes that frequency may be measured objectively, but it only relates to the particular corpus used for the measurement. It may differ considerably from the individual reader's experience of words, and Carpenter (1992) argues that initial parsing choices are affected by many influences. Therefore, good readers may have more resources available, eg discourse, priming, word association, and semantic information, to make better decisions than poor readers who might be restricted to local, syntactic considerations. The former may even be able to postpone a choice and continue two readings in parallel. This could be an argument for some genres being better suited to passives because they attract better readers. While there has been some research into frequency counts by genre (see Chapter 4, section 2.2), and there is some speculation on which genres are better suited to use of passives, there does not appear to be any research directly on this proposition.

Rayner, Carlson, and Frazier (1983) propose that the use of semantic information is delayed either because of the autonomy of the syntactic processing, or because it takes time to

process, or that simpler strategies produce sufficient correct results to schedule them first. They argue that the first pass is purely structural and, if it proves wrong, another pass uses a thematic processor (the thematic selection hypothesis). However, Taraban and McClelland (1988), by testing the Minimal Attachment thesis, showed that thematic information is used on the first pass. They found that in some instances, non-Minimal Attachment is preferred, and suggested that thematic expectations associated with certain verbs were critical.

Tanehaus, Carlson, and Trueswell (1990) provide additional evidence, eg:

- (10) a. The man recognized by the spy took off.
- b. The van recognized by the spy took off.

According to the Minimal Attachment strategy, *The man* should be the subject of the lexical verb *recognized*. This means that (10a) garden paths at *by*. However, in (10b), there should be no ambiguity because there is no experiencer role possible for an inanimate noun (*The van*). Testing verified this. Although this showed that syntax was not the only factor in processing, and that lexically derived information can override syntactic information, it did not clarify whether the additional information was lexical or thematic. Rayner, Carlson, and Frazier (1983) found that pragmatic information enabling non-minimal attachment parsing did not override syntactic ambiguity but it did enable faster disambiguation on reanalysis. Other studies have challenged this finding, eg Altmann and Steedman (1988).

The construal hypothesis of Frazier and Clifton (1996) argues that the reader distinguishes between primary and non-primary relations. The primary decisions are immediate (favouring Minimal Attachment and Late Closure); the non-primary decisions involve thematic information. They argue that, although the traditional syntactic process applies to most syntactic constructions, another process (Construal) applies to another set of constructions – relative clauses and adjunct predications. This assumes that certain phrases are not

disambiguated immediately, that is, Late Closure is overridden by other factors such as the nature of the preposition. It appears unlikely that construal would apply to the reading of passives. Steedman and Altmann (1990, p. 106) argue that the concept of thematic processing online is consistent with their Incremental-Interactive Theory which argues that information is processed 'more or less word for word.'

Finally, Mitchell, Cuetos, and Zagar (1990, p. 286) remind us that this discussion is largely about the English language, noting that '...it is by no means self-evident that the mechanisms for decoding this information will be precisely the same from language to language.'

### **3.2.3 Brain wiring and artificial neural networks**

The human brain has approximately 10 billion nerve cells or neurons, each connecting to up to 100,000 others. These connections are constantly changing, which is how we learn. There are three principles underlying neural transmission: neurons send impulses to other neurons, impulses may activate or inhibit other neurons, and neural connections can change in response to the surrounding neural activity (Altmann, 1997).

Artificial neural networks use these principles and provide some insights into the working of the brain. Altman (1997) cites Jeffrey Elman who developed a neural network that, like the brain, acted as if it had an information queue and could predict what the next input would be. His network learnt to predict (at a low level of accuracy) what the next word would be. It also learnt to distinguish between nouns and verbs, between transitive and intransitive verbs, and between animate and inanimate nouns. The only resource it had was an activation pattern for each word – what had come before that word previously and what had come after, eg in the input sentences, verbs were preceded by nouns, nouns were

sometimes preceded by nouns, but nouns were never preceded by nouns. So, the best predictor of the next word was the preceding word, eg 'cake' will more likely follow a verb like 'eat' than one like 'chase'. There is a strong link then between meaning and consequent prediction.

The dominant predictive factor may be a particular syntactic sequence, or some other factor may be more predictive. Balota (1994) argues that there appears to be multiple mechanisms involved, including spreading activation, priming, and backward checking. Balota concludes that word recognition is so complex that it may require physiological evidence from cognitive neuroscience to differentiate between competing models. However, even cognitive neuroscience may be inconclusive, eg Pinker (1999) reports on four studies that found words and rules are activated in different parts of the brain, a difficulty being that they varied on which parts of the brain displayed the different activities. What is known is that we activate the possibilities and then determine which of these possibilities is correct. This process involves deactivating mismatches or, more accurately, reducing activation, because subsequent information can reactivate 'mismatches'.

The work of Plaut, McClelland, Seidenberg, and Patterson (1996) on connectionist or parallel-distributed processing-networks suggests that artificial networks can compute interactively, that is, different interpreting operations can compare information online and produce an interpretation influenced by all the information available. They suggest that this is the appropriate model for human cognitive functioning.

### **3.3 Interpreting passives online**

Just and Carpenter (1987, p. 16) argue that '...readers don't wait and see unless they have to' (the Immediacy Assumption), although Pollatsek and Rayner (1990) refute this

assumption, arguing that the relationship between fixations and cognitive processes is more complex, given preview and spillover effects, as well as eye refixations. Chomsky (1957) demonstrates that word-chain devices are the wrong way to think of language production because there is a plan for a sentence, not just an adjective-noun-verb string.<sup>29</sup> We make decisions on meeting each word in the sentence, but those decisions call on contextual and extra-linguistic information. In the following section, I review some of that information, and speculate on what it might mean for interpreting passives.

### **3.3.1 The first noun phrase**

Just and Carpenter (1987) suggest that, although the verb is important in determining meaning, reliance on it can be overstated. They argue that it is likely that readers use other sources of information to tentatively assign roles to participants, eg the first noun phrase.

The first noun phrase usually occurs before the verb in English and is assigned a subject role and a topic role. A passive construction may connect to prior context in that elements matching the focus of attention in the passive may have already appeared (Davison and Lutz, 1985). Given that definite noun phrases are often integrated with prior information (a given-new pattern), the semantic content of the noun phrase may signal that a passive construction is a higher possibility than normal. In other words, context will often favour a particular voice, and that voice property may be tentatively signalled in the first noun phrase (see Steedman's analysis of Bever's example in section 3.2.1).

Additionally, there may be semantic cues for identifying the action instigator and, possibly, the voice. These include irreversible passives, and real-world knowledge of certain entities' roles, eg bathers and lifeguards, buses and dogs, arrows and targets (Johnson-Laird, 1983).

---

<sup>29</sup> Chomsky's classic example is 'Colorless green ideas sleep furiously'.

Possibly too, there are any contextual clues to the choice of voice, eg a pattern of given-new, a pattern of passive-verb use, or even a discourse topic. The discourse topic, combined with the writer's style, eg the frequency of passives and the linking pattern might support the probabilistic choice theory of sentence interpretation. This is a variation of the Garden Path Theory, which assumes an online decision based on the most likely possibility.

Patterns may lie behind young children sometimes misinterpreting passives because they appear to use the sequence animate noun-verb-noun for agent-action-object roles (Bellugi and Brown, 1963).<sup>30</sup> Presumably, adult readers who assign an agentive role to the first noun phrase and then encounter a passive verb, reanalyse the role assignment they first made, but Bellugi and Brown's findings possibly suggest that this may not apply to less-skilful readers.

### **3.3.2 The auxiliary**

In most instances, the reader will not decide on the voice of the clause when reading the initial noun phrase. However, when encountering a form of the verbs *to be* or *to get*, there will be a choice between interpreting it as an auxiliary or a lexical verb. Syntactically, it is ambiguous. This ambiguity appears to be resolved in many instances on probability, that is, the reader assumes what Jackendoff (2002) calls the 'basic order in English', making the first noun phrase both the subject and the action instigator, and the verb a lexical verb. Relevant to this assumption is the question of how much information is associated with each lexeme, eg do we store the fact that a form of *to be* or *to get* can be either a lexical verb, a general auxiliary, or a passive auxiliary?<sup>31</sup> If the reader assumes that it is a passive auxiliary, it would

---

<sup>30</sup> Cited by Just and Carpenter (1980).

<sup>31</sup> See Seidenberg (1990) for a discussion on lexical-access models.

appear to be reasonable to assume that the prediction findings from artificial neural network research then apply, that is, the reader predicts that the next word is a passive participle. I found no studies that specifically considered this.

Hawkins (1990) proposes the Early Immediate Constituents ordering principle (EICs), which assumes that readers prefer word orders that enable them to recognise immediate constituents of a mother node as rapidly as possible. This suggests that the reader would often interpret a form of *to be* or *to get* as a lexical verb in the first instance. Hawkins (1994) offers a theory of syntactic complexity which reduces various parsing preferences to a single principle: 'choose the least complex structure when the parser has a choice and all else is equal.' As I have shown earlier, there is sometimes particular ambiguity with implied auxiliaries that leads to reanalysis later in the sentence and, presumably, a longer reading time.

The findings on skipping of short words suggest that the auxiliary may be previewed during a fixation on the preceding noun phrase and then skipped. That process would appear to not add reading time to a text, but it is unclear if a longer fixation would then occur on the past participle. It is also unclear if the meaning of the skipped word is interpreted.

Finally, following the approach of Hawkins, the fact that English does not have case copying on auxiliaries might suggest that the role of auxiliaries is clear enough and readability is generally unaffected whether they are passive, modal, or aspectual auxiliaries.

### **3.3.3 The lexical verb**

Experiments tend to show that because the less-frequent, past-tense forms of regular verbs are retrieved at the same speed as more frequent forms, they are assembled online (Pinker, 1999). However, this is not a comparison of the processing speed of irregular verbs, which

are the verbs that vary by voice. These verbs typically have an additional syllable in the passive form. They are derived words, eg *The gang flew the flag* compared to *The flag was flown...* (Carlisle and Stone, 2003), and Pinker's words and rules theory suggests that there is a mental load to formulating such derivations and, potentially, a time cost. The extreme examples have more than one change to the verb, eg *was eaten*. However, typically the lexical verb is the same morphologically in both voices, whether it is regular or not, eg *kicked* and *hit*.

The verb carries information about the sentence structure and the relations of constituents (base-generated dependencies), and receives greater attention than other constituents (Bresnan, 1978; Davison and Lutz, 1985; Steedman and Altmann, 1990). Once the lexical verb is processed, the reader has a 90 percent chance of knowing the relationship of the noun phrases in the sentence (Faltz and Keenan, 1990). (5b), repeated as (11), illustrates this:

(11) The evidence examined by the lawyer turned out to be unreliable.

Unless additional information from the initial noun phrase helps to determine the issue, as in (11), there remains a possibility that the past participle is part of an active construction, raising the question of whether the reader makes an immediate decision or opts to 'wait-and-see'. As Steedman (2000) notes, semantic filtering needs to occur very close to each ambiguity or else there will be exponential growth of possibilities. However, there is not full consensus on the Immediacy Assumption in general terms, and certainly not for the reading of passives. If immediate decisions are made when the periphrastic verb is encountered, it follows from the finding of Keenan and Faltz (1979) that, in approximately 10 percent of instances, the reader must reanalyse when more information becomes available. Presumably, such reanalysis increases processing time.

When a transitive verb is processed, the reader will predict that a direct object construction follows, ruling out complex structures (Mitchell, 1990). A passive verb will not only signal that a direct object follows, but also that this object is a proto-agent.

### 3.3.4 The *by*-phrase

The preposition in manner and instrument *by*-phrases does not signal a passive construction. However, the reader, when encountering *by* in a passive sentence, has already gained information from preceding sentence constituents. In this situation, *by* is the final piece in the voice jigsaw, confirming the passive voice perspective.

The *by*-preposition, along with the passive auxiliary, adds slightly to the sentence length, a factor that some studies do not appear to have controlled for. However, Mauener, Tanehaus, and Carlson (1995) showed that a truncated passive acts as if the *by*-phrase is present. In other words, without the *by*-phrase, readers are checking other information to recover the unexpressed agent. Mauener, Tanehaus, and Carlson found that encoding an implicit agent took no longer than encoding an explicit agent, but it is unclear whether they controlled for variability around how easily an implied agent is recovered and to what degree of specificity. These variables may well add more to the processing time than is added by the reading of two additional words. Rayner and Sereno (1994) observe that sometimes a definite noun phrase is self-explanatory, eg *the sky* is identifiable from an extralinguistic context. This is readers' implicit knowledge, which they fill in. Similarly, some unexpressed agents are self-evident, while others may be irrecoverable. Compare these previously cited examples from Jespersen and Reagan:

- (12) a. His memory of these events was lost beyond recovery.
- b. Mistakes have been made.

I suggest that unexpressed agents lie along a continuum, and where they exist on that continuum could well affect the processing time of the sentence. If that is the case, (12a) and (12b) may take a similar time to process, depending on the context of (12b). Presumably, the reader spends little time recovering the ellipsed agent in (12a). In (12b) however, the reader could spend considerable time weighing up the agent options, possibly backtracking to see if the context will yield the unexpressed agent, and even wondering whether the omission of the agent is deliberate. Unimportant agents though may be exceptions, eg:

(13) He was killed in the Boer war.

For (13), I suggest that testing might show that the reader quickly decides the agent was a soldier and moves on, knowing that further analysis is both unnecessary and futile.

However, even with full passives there are confounding variables such as reversibility and imagery level. Rhodes (1997, p. 10) discusses a study of readers' processing times for reversible and irreversible sentences, finding that 'the difficulty in understanding passive sentences is partly attributable to the problem of keeping track of which noun is the actor.'<sup>32</sup>

Compare:

- (14) a. **The girl** was chased by **the boy**.  
b. **The boy** was chased by **the girl**.  
c. **The cheese** was eaten by **the mouse**.  
d. \***The mouse** was eaten by **the cheese**.

In (14a) and (14b) the action instigator and the action receiver are semantically reversible; in (14c) they are irreversible. Examples such as (14c) were understood as quickly as the

---

<sup>32</sup> Citing Slobin (1966).

active (*The mouse ate the cheese*). Spyridakis and Wenger (1992) discuss this effect in terms of the reader's pragmatic expectations.<sup>33</sup> They conclude that, when readers have pragmatic expectations of the subject, verb, and object, there is no difference in readability between active and passive voice. However, if the reader has no pragmatic expectations as in (14a) and (14b), then active voice may facilitate readability.

Rhodes (1997, p. 12)<sup>34</sup> discusses a study, which looked at the effects of sentence imagery on sentence recall, varying the role played by the *by*-phrase, eg:

- (15) a. The grades were issued by the professor.  
b. The grades were issued by letter.

High-imagery sentences such as (15a) were more easily recalled than low-imagery sentences such as (15b). Recall is not necessarily readability, but this finding further illustrates the complexity involved in studying reading, and the difficulty in making general statements about all the variants in the passive construction.

## 4 Conclusion

In this chapter, I have considered two different reading research traditions – readability and sentence interpretation. In doing so, I have raised various questions, which reflect the current understanding of the fields. Future research may answer these questions. It may well find that passives are harder to read than actives, or it could find little or no difference. It appears that there could be different findings for different passives, considering variables such as reversibility, and whether the passive is truncated or full. Given the speed at which the brain processes clauses, any differences (if they exist) must be miniscule. Consequently,

---

<sup>33</sup> Citing Herriot (1969).

<sup>34</sup> Citing Danks and Sorce (1973).

I suggest that any differences are unimportant relative to the benefits that appropriately used passives bring to readability. As I indicated in Chapter 4, passives fulfil an important communicative role and, as one of many 'codified...patterns of our language', they fulfil that role irrespective of any possible readability or interpretation cost. However, I tentatively suggest that future research will find that appropriately used passives provide a readability or interpretation benefit, and only inappropriately used passives carry a cost to the reader.

# Chapter VI

## Building on the literature

...context-independence seems impossible in the study of social affairs.

–Bent Flyvberg (2001, p. 46)

### 1 Introduction

Through my work as a writer, editor, and readability advisor, I continually reflect on readability. I was especially interested in one study of documents prepared for low-literacy new mothers (Floreak, 1989), which found that loosening certain prescriptive grammar rules enhanced comprehension by the target readers. This sparked my thinking that mixed findings on the readability of grammatical voice may relate to an over-emphasis of text factors and a lack of emphasis on factors that the reader brings to the text.

While that spark led to a review of the literature on passive voice, the literature itself led me in another direction – determining the appropriate and inappropriate uses of passive voice by writers. The common understanding of teachers and writers that the use of passives make for poor style is quite different from the common understanding of linguists. Having followed this path meant that I arrived at my current position without strong bias. I did assume that passive had a definite place, but I was seeking to determine that place as determined by the reader, not the writer. This study, involving the literature and four case studies, explored writers' choices of active or passive voice and why they might choose one construction over another.

## **2 Ways of knowing**

### **2.1 Views of reality**

What researchers expect to find depends in part on their world view. As Davis and Sumara (2005) observe, Euclidean geometry pervades much of our thinking with its focus on describing a single reality. Its influence is evident in terms such as 'straight thinking', 'straight talk', 'righteous', and 'orthodox', all of which are derived from straight-line notions. It assumes that reality has a developmental structure, and there is a master plan which becomes clearer as researchers study it. Fractal geometry, with its focus on images and analogies, supports alternative conceptions of knowledge. In fractal geometry, a phenomenon does not get simpler as you zoom in; it does not break down into simpler and simpler truths. Davis and Sumara suggest that phenomena are better studied at the levels of their emergence. Rather than proceed in a straight line, researchers may continually revise their thinking (and even what they are studying) according to emerging interpretive preferences. In other words, rather than begin with a set idea of the reality being studied, researchers working this way will discover emerging truths, which they will attempt to describe and explain. Krauss (2005, p. 7) explains it this way: '...the investigator is expected not to have an a priori, well-delineated conceptualization of the phenomenon; rather, this conceptualization is to emerge from the interaction between participants and investigator.' This approach assumes multiple realities.

### **2.2 Research methods in reading studies**

Reading studies have different research traditions, depending on the particular field. Eye-movement tracking is the domain of cognitive psychologists. They are trained in empirical

testing, and seek to determine how the brain works by measuring aspects of the reading process. Readability researchers, on the other hand, tend to quantify texts by counting features they believe indicate how difficult those texts are to read, that is, they quantify what is written in order to evaluate what is read. Often they validate their measurements by using statistical correlations with other methods of measuring readability, methods that tend to be highly subjective. Studies of passives also vary in their approach. However, they are usually interpretive, involving critical argument and induction, that is, the process of observing facts to generate theories. It is interesting to note that, whichever research methods have been used, there is considerable debate on the findings. This is unsurprising for the interpretive studies, given their subjective nature. However, the strength of the debates, one area of which has been described as 'the linguistic wars'<sup>1</sup>, is surprising. The interpretive process is open to criticism.

This might suggest that empirical testing is a better means of determining the reality of the reading process. Since 1975, cognitive psychologists have had increasingly sophisticated technology for tracking eye-movements. They have collected an immense amount of data on where readers gaze and for how long. However, from that information, they have not developed just one accepted theory of how the brain processes the written word, but 20 to 30 theories. Theories on reading are theories about a very fast process, based on measurements as short as a few milliseconds. Improving technology will undoubtedly capture information on shorter intervals still, and many researchers hope that it will settle various contentious issues. However, it is researchers' interpretation of the data that is especially contentious, and better technology may possibly lead only to yet more varied interpretations.

---

<sup>1</sup> Harris, R. (1993).

### 2.3 From a positivist to an interpretive position

I began this project with positivist leanings in assuming I could determine whether the readability of passives depended on the reading skills of the reader. The limited research findings on this topic provided strong warning signals regarding the complexity of the task. Obviously, categorising reader skills is difficult but, given the variables involved, I realised that it may not be possible in a meaningful way. Although primary-school teachers in particular make pragmatic decisions on individual students' reading skills, consideration of the relationship between an individual reader and a specific text makes categorisation problematic. A reader's interest in the text topic influences readability, as does prior knowledge of the topic.<sup>2</sup> Determining a reader's interest and prior knowledge accurately would be challenging.

Reading the literature was effectively 'pattern searching' and a 'discovery process' (Ragin, 1994). It led to a change of focus to one where I considered the appropriate and inappropriate use of passives. Initially, I did not change my philosophy or approach. Jespersen's reasons for using passives suggested a reality that can be determined and measured. However, such an approach began to meet problems when I defined passives. Although I did define passives quite rigorously in Chapter 2, there remains a degree of fuzziness inherent in the concept of proto-agents. However, specifying this element more definitively excludes various clauses commonly accepted as passive. My case studies further challenged the idea of a fixed reality when participants sometimes opted for multiple reasons or, more specifically, partly one reason and partly another. In other words, they were not always clearcut as to their reason, yet they tended to be comfortable with their choices of passive voice. This finding was consistent with phenomenological theory, which considers

---

<sup>2</sup> See DuBay (2007, p. 68) for a discussion of studies relating prior knowledge to comprehension.

situations from the viewpoint of the experiencing person (Liamputtong and Ezzy, 2005). This study has reached some clear findings but has also found a degree of indeterminacy.

## **2.4 Methodology**

The methodology focused strongly on reviewing the literature, relating findings to examples from various sources, particularly my professional technical writing experience, and analysing patterns of use. I conducted three different literature reviews: passive voice, readability, and eye-movement tracking. During this reading, I developed a different hypothesis from my initial hypothesis, and I built on various findings in the literature (see section 3).

Following the literature reviews, I conducted four studies with technical writers, with the aim of validating my findings, or otherwise, in the technical writing field. This was an interpretive approach, being 'the most accessible type of research to technical communicators' (Sullivan and Spilka, 1992, p. 37). Initially, I attempted to conduct a study remotely with a writer in another city, an effort that broke down around that writer's grammatical understandings. I then turned to conducting a combination of remote and face-to-face interviews with four local professional writers (three women and one man), all from the same workplace. The process was as follows. After requesting sample texts from each writer, I highlighted the first 30 or so passives in each text and copied the passives into a table (the range across the four participants was 28 to 34 passives). I then returned the sample texts, along with the table and five possible reasons for using the passive (see Appendix I). I also ensured that other possible reasons were allowed for. A few days later, I arranged informal, semi-structured, face-to-face interviews in the writers' workplace. In these interviews, the participants provided their reasons for choosing each passive, which I recorded as a number and also jotted notes as appropriate.

The writers voluntarily chose to be involved and their employer allowed them to work with me in their work time. A fifth writer declined to be involved. Taking employees from their work brought some pressure to complete the interviews quickly. Given the interview planning (the listing of the passives and the provision of possible reasons for their choice), I indicated that the interviews might take approximately 30 minutes each. This estimate was close for three interviews, although the interviews were a little rushed. The other participant was quite deliberate in deciding the reasons for each choice of passive and the interview extended to 50 minutes. The participants were assured that the specific results of each interview would be kept confidential, including the storage of the samples. The sample text, printed as Appendix II, is printed with the owner's permission.

## **2.5 Limitations**

First, there is no established process for bringing together findings from different bodies of literature. The three fields – passive voice, readability, and eye-movement tracking – tend to have different aims. Many studies of passives (although not all) were intent on understanding the nature of the mind, just as most of the eye-movement tracking studies were. The readability studies however, tended to focus on communication. Distilling these studies to seek findings on a different matter is vulnerable to intuitive leaps of logic that are not generally accepted.

Second, although I used the definition of passive elaborated in Chapter 2, and that definition is more rigorous than any I found in the literature, it may not be fully agreed by the linguistic or technical writing communities. The result will be a subjective list of passives identified in a text, a list that may vary from linguist to linguist. However, comparing the passives I identified with those that the Flesch readability test identified, there were only one or two

differences in each list of approximately 30 passives, and there was no disagreement with the participants.

Third, my case studies are few in number and, as such, do not support broad generalisations. Effectively, they are a pilot for an in-depth study, or an indicator of the direction that a more in-depth study might take.

Fourth, I have used the term 'justify' in a positive sense, but there could be some defensive justification of writing choices that most of us are inclined to do as writers, especially professional writers. It is not easy to avoid this when our writing reflects our ability to perform our professional roles.

Fifth, I was not totally removed from the participants. I knew one participant well, two a little, and one not at all. I may have prompted them on occasion, and I cannot guarantee that I asked the questions in the same way, without emotion, and with distance between the interviewer and the participant.

### **3 Ideas emerging from the literature**

Although as long ago as 1924, Jespersen proposed reasons to use passive, he did not have well-developed foundations to relate the reasons to. I attempted to do this, relating justifications and examples to various theories. Furthermore, concepts emerged from the literature that I developed further, and many more emerged that might be developed in future (see Chapter 7, section 2).

#### **3.1 Defining passive**

The first development was defining the passive in a rigorous way (see Chapter 2, section 2.5). My hope was to develop a definition that would enable studies of passive voice usage,

particularly comparative studies, to be more precise. What emerged from this effort was the challenge of precisely determining the nature of an agent in a passive clause while, at the same time, accepting some degree of indeterminacy. Rather than undo my definitional efforts, this challenge reflected the fuzzy nature of grammar, and has provided a diagnostic tool for future researchers.

### **3.2 Mapping voice constructions**

In reviewing voice cross-linguistically, I realised that indeterminacy could be illustrated by plotting constructions graphically in what Croft (2001) calls 'conceptual space'. I plotted voice constructions using transitivity and agency parameters, and suggested various parameters that might be chosen to illustrate relationships among voice constructions (see Chapter 3, section 5.1).

### **3.3 Appropriate use**

In Chapter 4, I explored Jespersen's notion of appropriate use. By examining passives through the linguistic concepts of detransitivisation, topicalisation, and impersonalisation, and illustrating these concepts with examples primarily from technical writing, I was able to ground Jespersen's observations and relate them to my profession. In addition, I was able to demonstrate that various criticisms of passives were ill-founded, confusing passive voice with other information design elements.

## **4 Case studies**

From the literature reviews, I formed a view that passives played important roles in writing. This was a theoretical view formed through consideration of the nature of passive voice, along with analysis of written examples of passive voice and linguists' discussion of those

examples. It was not a view formed through considering actual writers' stated reasons for choosing particular passives. Consequently, the case studies were an attempt to validate or otherwise this theoretical view, to indicate a way forward for more extensive research into the role of passives, and to '... participate in the mind of another human being... to acquire social knowledge' (Lofland and Lofland, 1995, p. 16).

#### **4.1 Case 1**

The participant noted that they had inherited the text we analysed and had revised it. It was "waffly" with many redundancies. The participant called it "school inspector speak", but felt that the audience would be used to a particular style and would have expectations of consistency that would include considerable use of passive voice. It is interesting to observe that the participant did not accept redundancy but did accept passives, at least in this section of the text being analysed. This section was policy information, whereas the participant observed that information on procedures should primarily use active constructions. Significantly, for about half the passives, the participant noted that they contributed to a formal or authoritarian style that is suitable for policy information, eg 'All students are treated with care, courtesy, and appropriate language'. This reason differs from the five possible reasons of Jespersen's that I provided.

For the remaining choices of passive, the most common reason nominated was that there was a greater interest in the passive subject than in the active subject, eg regarding the clause 'Students are tested between the ages of six and six and a half....', the participant noted that the agent (the school) was deleted because "The school is less important."

An additional reason was that the audience was broad and, as a result, some degree of vagueness met their needs, eg 'Parents may be invited to observe their child working at

various stages of the programme'). This response may be connected to the idea that passives weaken certainty as I discussed in Chapter 4, section 4.4.4.

## 4.2 Case 2

The participant noted that this text was "different because it's a training document." Presumably, for the participant, this explained the perceived high number of passives because the participant noted that they "Normally write user instructions – 'Do this, do that' – it just works. They're shorter, concise, and direct." Such statements are generally framed in active voice, but they also tend to be in imperative mood<sup>3</sup>, and these two properties of verbs are not always distinguished.

The document details a scenario-based, training programme. It trains operators to enter and collect data from a computer programme, which led to the participant nominating one particular reason for using passives approximately half the time. This reason was that the agent is unknown or cannot be stated. Sometimes, the agent probably could have been described but the participant felt that "When the agent is inanimate, eg a hand-held computer device, a computer, or a screen, it is less important to define it." This relates to the 'alternation principle' proposed by Cornelius<sup>4</sup> in which she proposes using active voice to describe user actions, eg 'Press the enter key', and passive voice to describe computer actions, eg 'The page is assigned the same header'. On other occasions, the participant did not know who the agent was because several people would complete an operation, eg '...check that all the steps have been completed.'

---

<sup>3</sup> For example, Microsoft (2004, p. 164) states: 'Always use second person, imperative mood, in procedural steps'.

<sup>4</sup> Cited by Connatser (2004, p. 271).

Sometimes the participant felt that, as well as the agent being unimportant, a passive construction was a less clumsy option, eg 'What type of notes were recorded against the outlet you looked at?' This is ironic when style guides often state that passives are clumsy (see Chapter 4, section 3.3.2). Common usage appears to play a role in such decisions, especially with idioms, eg for the sentence 'Checking Out is performed by the Driver and the Checker', the participant felt that "The active doesn't sound right because 'checking out' sounds wrong at the end of the sentence." Presumably, relevant to this point was that this was the first sentence after the heading – *The Checking Out Process*. Similarly, the passive 'signed off' was preferred to 'sign off' ('Once the load is correct, it will be signed off...by both the Driver and the Checker...'), although a further stated reason was that "The verb was more important and so was written first". Presumably, the participant meant that the main message was about the load being correct and this was reinforced by placing it first in the sentence, although the second clause noting the sign-off could still be cast in active voice if an agent was recovered.

About one third of the participant's responses involved more than one reason, eg "Partly [reason] one and partly [reason] four." To some extent, this type of response came from all four participants, and was unexpected. I discuss it in section 4.5.

### **4.3 Case 3**

The participant noted "I try to avoid passives but old habits creep back", and "There are probably more [passives] than I thought there would be". The 'old habits' referred to academic training (the participant has a Masters of Science degree). The participant also noted that "Language rather than the logical structure is not a big focus. If you get that right [the logical structure], the odd passive is not critical." While these comments might suggest an aversion to using passives, other comments indicated an understanding and acceptance

of the roles they can play, eg "I'm usually aware of passives. I don't avoid them like the plague but keep them down. I avoid unnecessary ones." More ambiguous was the comment that "There is some association or prejudice with passives, indicating that the writer is better educated or refined." This equivocation around the use of passives could be interpreted as a tension between the 'rules' and the participant's expert understanding of what works best.

Like the previous participant, this participant noted that the text section being analysed influenced the choice of a passive or active construction. This section was an introductory overview, in contrast to subsequent sections which "...get more into instructions with fewer passives, that is, 'do this, do that' ". Furthermore, the subject or target reader was not always clear ("It could be a different person on different days"), making passives a useful tool for this section. The participant wanted to keep the instructions "...direct and short", favouring actives to do this. Given that the participant was surprised at the number of passives in the section under consideration, it is possible that the instruction sections also have more passives than expected, but the participant's analysis appears credible.

Over three quarters of the participant's reasons for choosing passive were because the agent is unknown or cannot be stated. The participant noted that there was some vagueness around who performed certain actions (often it was "The system"). Furthermore, this uncertainty around the agent produced a pattern of using passives that the writer tended to continue even when the agent was clear. Also, being an introduction, detail was avoided because it was unnecessary. That detail was often the agent.

The participant noted that "Passives are less confrontational", suggesting that Politeness Theory (Brown and Levinson, 1987) explained some decisions, even though most likely the notion was understood only vaguely, and certainly not as a fully developed theory. The participant noted that moderate use of *you* was acceptable but "...not lots of them." On one

occasion, the participant regretted using a passive but rationalised the choice by noting that, at least, "It does cut down on the use of *you*."

#### 4.4 Case 4

This participant is a very experienced technical writer with a high level of grammatical understanding. The most common reason the participant provided for choosing passives was that the agent is unknown or cannot be stated (about two thirds of instances). The text was a medical document describing policies that various clinicians, senior staff, or nurses might implement. On the other hand, the participant acknowledged that when the agent was known, the agent should be specified. On one occasion this prompted the participant to check the information; on three other occasions it led the participant to comment that there was "no good reason" for the choice and it would be changed. Three changes is still a small number compared to the 31 passives the participant was happy to retain.

For three other instances, the participant noted that a particular sentence would be "...clumsy in active form." In one of these instances ('...policies and procedures with respect to Patient Safety are detailed...'), the participant considered the active alternative to be "...almost not possible". That analysis is debateable. Given the participant's grammatical knowledge, it suggests that passives are the norm in some situations, to the extent that the active alternative is so unusual that it is not part of the writer's decision making.

Another instance read, '...it is important to familiarise yourself with current applicable... policies and procedures. These are detailed in the...Manual Volume 2 – Legal and Quality....' The participant noted that "The active doesn't sound elegant." The concept of elegance applied here seems to account for the more technical concepts of cohesion and agent

unimportance that this participant would understand, especially given the stated reasons on the survey form.

## **4.5 General discussion**

A common theme was that the participants did not normally analyse their documents at the level of detail we were working to. They write in a commercial environment and need to produce functional documents as quickly as possible. Nevertheless, they were able to justify their choice of voice in most instances, there being no more than one to three passive constructions that each writer would have changed on reflection. It was interesting to note that some cleft sentences were well constructed using a passive to connect the clauses, yet that reason was not always provided by the participants.

I have registered events as they unfolded (Lofland and Lofland, 1995). This includes the observation that document sections on policy are better suited to passives than sections on procedures. This comment mirrors findings that passives are more prevalent in Method and Results sections of scientific articles (Rhodes, 1997). Rhodes' argument is that 'In these two sections, the passive maintains the focus of the discourse on the thing being described' (p. 60). Presumably, the participants who made this observation on the distinction between policy and procedures sections had the same type of argument in mind.

The most unexpected finding was that participants did not always neatly justify their choice of a passive using just one of Jespersen's reasons. I assumed that Jespersen's reasons were discrete explanations of reality, but that appears not to be so. It appears that analysing a person's motives from a purely theoretical basis makes assumptions that may vary from actual practice. First, the explanation of a phenomenon such as voice decisions may not be a black and white, categorical matter. Second, the methodology used enabled the participants

to revise their understanding of voice before the interview. They may well have had a good understanding of voice before I highlighted the passives in their texts, or they may not have. Finally, the idea that they would provide one reason why they chose each passive assumes a degree of rationality that may or may not have existed. This 'partly this and partly that' reasoning was 'an emerging truth', consistent with the fractal geometry concept that a phenomenon does not get simpler as you zoom in.

In fact, expecting professional writers to analyse why they made decisions may not produce accurate information. The Dreyfus and Dreyfus skill-acquisition model describes learners and experts as involving distinct processes in their decision making (Dreyfus, 1996). Novices, advanced beginners, and competent performers rely on applying theoretical, rule-based concepts for directing decisions, and proficient performers see issues intuitively but still check the 'rules' analytically. Experts, however, use practical-based experience as the basis of behaviour that has become a routine. They act intuitively, unhindered by analysis. In most fields, only a small number of people reach this expert status. However, this is not the case in the use of language. Only rarely would native-language speakers check the 'rules' when they are speaking and writing. Usually, they are not even able to articulate the rules – they intuitively know what is acceptable.

Consequently, this study of writing is complex because the writers tend to be making various decisions subconsciously, including voice decisions. In my experience as an editor, most writers are guided by what sounds right. It is too easy to devalue this approach to grammar as leading to incorrectness or sloppiness. In practice, it is a non-analytical way of communicating effectively with readers who share understandings of what is appropriate and what is inappropriate in word strings. Explaining those strings in linguistic terms is unusual in a technical writing workplace, where writers tend to have varied backgrounds. The 'sounds

right test' though may contribute to a group culture, eg academics tend to use a high percentage of passives and therefore they are used to encountering them and they sound right to them. It means that there is some risk of over-generalising from a study of a specialised group of professional writers.

Conducting the study with another group of participants who were not supplied possible reasons might well produce quite different results. Alternatively, participants might invoke mixed reasoning, irrespective of whether possibilities were supplied. That is consistent with the concept of grammatical indeterminacy. It assumes that the notion of categorising grammar with clear boundaries does not best describe and explain the real world.

Interpretive research will usually go further, based as it is on the idea of subjective reality. The participants in my study provided their subjective views of the reality of voice decisions, and it was more complex than Jespersen's reality as stated in his writing.

More convincing than my pilot study would be a larger study with greater control of text type, including text section. This study indicates some ways forward for such a study to research the role of passives in technical writing. Nevertheless, at an initial level, the studies tentatively validated my hypothesis that there are appropriate and inappropriate uses of passives. As Flyvberg (2001) observes, context is critical in any study of social affairs. A writer's choice of active or passive voice is part of such social affairs.

# Chapter VII

## Conclusions

Nobody...could believe that so little research had been done on voice when all the style manuals were saying that it's a bad idea to use the passive voice. But then people have always written style manuals based just on their opinions about what is good and what is bad.

–Susan Rhodes (2007)<sup>1</sup>

### 1 Findings

#### 1.1 The roles of passives

My literature review indicated that there are appropriate and inappropriate uses of passive voice. The appropriate uses are:

1. The agent is unknown or cannot be stated, eg *He was killed in the Boer war [by....]*
2. The active subject is self-evident from the context, eg *His memory of these events was lost [by him] beyond recovery.*
3. There may be a special reason (tact or delicacy) for not mentioning the agent, eg *The lawn has got to be mowed [by....]*
4. There is a greater interest in the passive subject than the active subject, eg *The house was struck by lightning.*

---

<sup>1</sup> Personal communication, March 6, 2007.

5. It may facilitate the connection of one part of a sentence with another part, or one sentence with another sentence, eg *He rose to speak and was listened to with enthusiasm by the great crowd present.*

I validated this finding through four case studies. The professional writers I interviewed used passives appropriately most of the time and they could justify their choices, at least when possible reasons were provided. However, I found that sometimes their justifications involved more than one reason. Participants' responses were not always easily categorised, but were consistent with fuzzy grammar notions of indeterminacy and subjective reality, and with the Dreyfus model of decision making. In addition, the participants in the case studies indicated two other reasons to use passives:

6. To contribute to a formal or authoritarian style, eg *All students are treated with care, courtesy, and appropriate language.*
7. To make an assertion vague, eg *Parents may be invited to observe their child working at various stages of the programme.*

In Chapter 4, through analysis and examples, I demonstrated that passives have important roles in our language, and that prescribing against their use lacks a full understanding of these roles. Much of the concern around passives from writers, editors, and teachers is no more than folklore that has not clearly analysed various writing and reading problems. Many awkward sentences are not awkward because they use passives but because they are wordy, clumsy, or pretentious. Most criticisms have little basis in linguistic theory, and rarely is there more than passing mention of the important role that passives play in communication.

I did acknowledge that some uses of passives are inappropriately vague or ambiguous, or even deceitful. These inappropriate uses of passive give the construction a bad name. They have become ammunition for prescriptive grammarians to fire at all uses of passives, often

with weak analysis and minimal reference to linguistic theory. 'Avoid passives' has become a mantra.

## **1.2 The readability of passives**

In Chapter 5, I reviewed two different lines of reading research, finding considerable debate around the reading process and little research directly on the readability of passives. All readability research methods interrupt the reading process and are unnatural to some extent, eg the eye-tracking method involves a fixed-head position and an unnatural presentation of text. Furthermore, although passives have been studied intensively, most studies used passives as a vehicle to understand transformational relations. More confusing, most studies have not isolated voice from other sentence variables, nor have they considered other factors affecting the readability of passives, eg agent availability, reversibility, and context. Consequently, it is somewhat surprising that passives are generally regarded so poorly when there is so little research to support such a position. Contributing to the low status of passives is Microsoft's readability statistics, which imply that a high passive count affects readability, despite not including the passive count in the actual readability scores.

The lack of research, coupled with the challenges involved in establishing exactly what is occurring in the reading process, means that it is not possible to be categorical around the readability of passives at this time. However, I have tentatively suggested that it is unlikely there is a cost to processing passives. Given the speed at which the brain processes clauses, any differences in readability (if they exist) must be miniscule. Consequently, I suggest that any differences are unimportant relative to the benefits that appropriately used passives bring to readability. Furthermore, appropriately used passives may actually improve readability, especially when there is greater interest in the passive subject than the active subject, and when the passive serves to connect clauses or sentences.

## **2 Future directions**

A study such as this one raises more questions than answers. I have indicated possible areas for future lines of enquiry throughout the thesis. Below I group those possibilities under definitional, frequency, syntactic, and readability headings.

### **2.1 Definitional issues**

In Chapter 2, I defined the English passive using four criteria. In Chapter 3, after consideration of the passive cross-linguistically, I suggested that better understandings of voice constructions may be achieved through mapping variables such as transitivity, valency, agency, noun-phrase rearrangement, promotional / demotional focus, or affectiveness and control. These could be mapped as two factors (a graph) or as three factors (a chart), and they could be mapped in one language or mapped cross-linguistically. I also suggested that passives could be described in terms of components, as Hopper and Thompson (1980) describe transitivity, including rating each component for different subcategories. These mapping and features approaches do not appear to have been undertaken to any extent. They could be undertaken in one language, for each word-order language type, or universally as a means of further clarifying the nature of passives.

### **2.2 Frequency issues**

Frequency counts of words and constructions often bring insights or, at least, spark lines of enquiry, eg Pucilowski (2006) re-examined the notion that Māori is a nominative-accusative language following the observation that passive frequency counts were unusually high, concluding that many so-called passives were actually ergative verbs. The Polarity Hypothesis (Krauthamer, 1981) argues that passives occur less frequently because frontal

properties do not occur as often in passives as they do in actives. Krauthamer's calculation that passives should form about 20 percent of constructions in texts where all situations are equally represented could be an anchor or starting point to compare actual incidence of passives. Such an approach would seek to explain higher or lower frequency of passives, and consider whether this was due to inappropriate use, variation among genre or section types, or other factors.

In fact, our understanding of the incidence of passives by genre could be considerably clearer. Although there is a sprinkling of studies in the literature on passive frequency variation by genre, most findings are unsatisfactory. First, a rigorous definition of passive is usually lacking, bringing a degree of unreliability to the counts. Second, semantic clues such as reversibility and context, and syntactic factors such as agent availability, are invariably ignored. It will be challenging to control for such confounding variables, but reliable frequency counts need to accept this challenge. Third, genre categories are probably too broad to gain real insight to the frequency of passives. The work of Rhodes (1997) on scientific articles, and the idea from my case studies of varying voice for different sections of texts, suggests that future research into the frequency of passives should be more precise around text type.

Diachronic frequency counts could lead to better understandings of the ergative drift phenomenon attested in many languages (Comrie, 1987). Diachronic counts could indicate that passives will evolve out of languages, although that seems unlikely in languages such as English that lack alternative tools for the roles that passives perform. I found no diachronic frequency studies of passives in the literature. It is an area for future research that could produce insights into changes in our language. Similarly, studies of diachronic frequency of personal pronouns and their relationship to voice could be instructive. Siewierska (1984)

contends that the use of *you* risks alienating the reader because the writer assumes the reader to be a potential agent whether they want to be or not. This contention has intuitive appeal, and it is supported by Brown and Levinson's Politeness Theory. However, various writers dating back to the 1960s have suggested that the use of personal pronouns is increasing. Whether this is correct in relation to voice and, if so, why it is so, is an area for further research.

Diachronic studies of the *get*-passive may also clarify its purpose. The array of views outlined in Chapter 2 on its role may prove to be largely historic. Frequency counts of modern written usage of the *get*-passive, combined with an analysis of that use, may provide a more consistent picture than the one that exists in the literature. It is possible that the construction is undergoing a change of use.

Finally, it might be useful to compare the frequency and choice of passives cross-linguistically from various angles. Possibilities include studying passives in languages that have retained the respectful second person pronoun, eg French and Spanish, or comparing the use of passives in English to their use in a language that has little deferential language, eg Israeli. There is a general understanding of why passives do not occur in some languages, but a study bringing together the various linguistic tools that perform the role of passives in English might better clarify this role of passives, as might a study into why passives do not occur in every tense in some languages.

### **2.3 Syntactic issues**

In Chapter 3, I noted that some linguists argue that promotional and demotional approaches to passivisation are equally appropriate. I then observed that it is a short step from this position to arguing that each approach is more applicable to a particular set of clause types.

It would be an area of further research to clearly define those clause types, eg do passives tend to perform certain roles in main clauses rather than subordinate clauses?

In Chapter 4, I suggested from a professional workplace experience that passives appear to weaken certainty. I speculated that this applied to truncated passives enabling impersonalisation due to the lack of an agent, especially a human agent. Most studies of passives use agentful passives as a part of understanding transformational grammar. I found no studies that considered the writer's intention to strengthen or weaken a point through use of voice. This would require a focus on agentless passives, which receive little attention in the literature.

In Chapter 5, I discuss textual coherence as a key to comprehension, both at global and local levels. Local-level coherence uses pronouns, resumptive modifiers, conjunctions, and connectives to link ideas both within and between sentences. I noted that connectives serving this role will often be associated with passive voice (Jespersen, 1924; Davison and Lutz, 1985). Davison and Lutz conclude that context will often favour a particular voice form. While this observation appears accurate, it could be investigated more rigorously as a study of connectives or as a study of passives in context. It was interesting that the participants in my case studies sometimes did not identify instances where they had subconsciously used passives as a tool to build cohesion. A study of passives used in this role could be a foundation for better practical understandings of the writing and reading process.

## **2.4 Readability issues**

I noted above that appropriately used passives may actually contribute to readability rather than hinder the reading process. However, that possibility does not seem to have been studied. Given the uncertainty around many reading studies, it would be presumptuous to

assume that such a study would be as simple as it might appear. First, there would be some subjectivity around categorising passives as appropriate and inappropriate, especially given the less than categorical responses from the participants in my case studies. Second, as I outlined in Chapter 5, defining readability is an exercise fraught with difficulties. There is no doubt that 'The goal of experimental science to isolate variables...is particularly difficult when texts are involved' (Haberlandt, 1994, p. 5).

There is some discussion in the literature regarding studies of passives not controlling for sentence length, eg Rhodes, 1997. In agentful passives, a variation in length from the corresponding active comes through the addition of an auxiliary and a preposition. Although Walpole (1979) argues that the additional words in a passive construction hardly clutter a sentence any more than the inclusion of the word *do* in questions and negations, her argument is based on the fact that they are short words requiring minimal reading time. This may be more pertinent than Walpole realised. Rayner (1998) suggests that word skipping could indicate that the addition of two small words in the passive alternation make no difference to reading time because the words are processed without being fixated. However, this needs to be verified experimentally, especially given some evidence that there are higher fixation durations before skipping. Furthermore, if the reader assumes that a word is a passive auxiliary, it would appear to be reasonable to assume that the findings from artificial neural network research on prediction apply, that is, the reader predicts that the next word is a passive participle. I found no studies that specifically considered this.

Agentless passives are shorter than their corresponding actives, although the question of readability is complicated by a study of agentless passives that found reading time was increased, probably because the reader attempted to recover the agent (Maurer, Tanehaus, and Carlson, 1995). I suggested in Chapter 5 that, in terms of recoverability, unexpressed

agents lie along a continuum. Some unexpressed agents are self-evident, while others may be irrecoverable. I suggested that where they exist on that continuum could well affect the processing time of the sentence. A study of this concept would go to the heart of the readability of agentless passives. It might find that agentless passives with self-evident agents are highly readable, and agentless passives with agents suppressed for deceitful purposes require considerable processing by the reader.

Although I have focused on the writer in this thesis, focusing on readers may offer many insights. Various debates around good and poor writing practices may become clearer when readers are segmented by reading ability. There could even be an argument for some genres being better suited to passives because they attract better readers, eg academic articles. Just as research into the frequency of passives needs a clear understanding of what is being counted, research into the relationship of genre and passives would require a clear understanding of genre type and section.

## References

- 'Eua: naturally beautiful* [Brochure]. (n.d.). (N.p). Tongan Visitors Bureau.
- Aarts, B. (1997). *English syntax and argumentation*. New York: St Martins Press.
- Aarts, B., Denison, D., Keizer, E., & Popova, G. (Eds.). (2004). *Fuzzy grammar*. New York: Oxford University Press.
- Aitchison, J. (2003). *Words in the mind – an introduction to the mental lexicon* (3rd ed.). Oxford, UK: Blackwell Publishing.
- Alexiadou, A., & Anagnostopoulou, E. (1999). EPP without Spec, IP. In D. Adger, S. Pintzuk, B. Plunket, & G. Tsoulas (Eds.), *Specifiers: Minimalist approaches* (pp. 93–109). Oxford, UK: Oxford University Press.
- Altmann, G. (1997). *The ascent of Babel: An exploration of language, mind, and understanding*. New York: Oxford University Press.
- Anderson, R., Wang, Q., & Gaffney, J. (2006). Comprehension research over the past three decades. In K. Dougherty Stahl & M. McKenna (Eds.), *Reading research at work* (pp. 275–283). New York: Guilford Press.
- Arce-Arenales, M., Axelrod, M., & Fox, B. (1994). Active voice and middle diathesis. In B. Fox & P. Hopper (Eds.), *Voice: Form and function* (pp. 1–21). Amsterdam: John Benjamins.

- Arrese, M. (1999). Conceptualization of events, semantic relations between constructions and typology: a catastrophe theoretic study of *get* and *be*. *Journal of English studies*, *1*, 97–117.
- Bach, E. (1979). In defense of passive. *Linguistics and Philosophy*, *3*, 297–341.
- Balota, D. (1990). The role of meaning in word recognition. In D. Balota, G. Flores d'Arcais, & K. Rayner (Eds.), *Comprehension processes in reading* (pp. 9–32). Hillsdale, NJ: Erlbaum.
- Balota, D. (1994). Visual word recognition: The journey from features to meaning. In M. Gernsbacher (Ed.), *Handbook of psycholinguistics* (pp. 303–358). San Diego, CA: Academic Press.
- Barber, E. (1975). Voice – beyond the passive. *Berkeley Linguistics Society*, *1*, 16–24.
- Barnum, C. (2002). *Usability testing and research*. New York: Longman.
- Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (1999). *Longman grammar of spoken and written English*. Harlow, UK: Pearson Education.
- Bix, L. (2002). The elements of text and message design and their impact on message legibility: A literature review. *Digital Library and Archives*. Retrieved October 4, 2008, from <http://scholar.lib.vt.edu/ejournals?JDC?Spring-2002/bix.html>
- Blackburn, S. (1984). *Spreading the word: Groundings in the philosophy of language*. Oxford, UK: Clarendon Press.
- Bolinger, D. (1977). Transitivity and spatiality: The passive of prepositional verbs. In A. Makkai, V. Makkai, & L. Hailman, (Eds.), *Linguistics at the crossroads* (pp. 57–78). Lake Bluff, IL: Jupiter Press.

- Bolinger, D. (2004). Gradience. In B. Aarts, D. Denison, E. Keizer, & G. Popova (Eds.), *Fuzzy grammar* (pp. 311–319). New York: Oxford University Press.
- Bresnan, J. (1982). The passive in lexical theory. In J. Bresnan (Ed.), *The mental representation of grammatical relations* (pp. 3–86). Cambridge, MA: MIT Press.
- Brooks, R. (2008, June 7). It was Iraq, stupid. *The Press*, p. B6. Syndicated from *The Los Angeles Times*.
- Brown, G., & Yule, G. (1983). *Discourse analysis*. Cambridge: Cambridge University Press.
- Brown, P., & Levinson, S. (1978/1987). *Politeness: Some universals in language usage*. Cambridge, UK: Cambridge University Press.
- Budwig, N. (1990). The linguistic marking of nonprototypical agency: An exploration into children's use of passives. *Linguistics*, 28, 1221–1252.
- Bush, D. (2004). The diversity in rules. *Intercom*, 51(8), 40–41.
- Bush, D. (2007). Correcting the correction. *Intercom*, 54(8), 40–41.
- Carlisle, J., & Stone, C. (2003). The effects of morphological structure on children's reading of derived words in English. In D. Assinck & D. Sandra (Eds.), *Reading complex words: Cross-language studies* (pp. 27–52). New York: Kluwer Academic Publishers.
- Carnie, A. (2007). *Syntax: A generative introduction* (2nd ed.). Oxford, UK: Blackwell Publishing.
- Chicago manual of style* (15th ed.). (2003). Chicago, IL: University of Chicago Press.
- Chierchia, G., & McConnell-Ginet, S. (2000). *Meaning and grammar* (2nd ed.). Cambridge, MA: MIT Press.
- Chomsky, N. (1957). *Syntactic structures*. Berlin, Germany: Walter de Gruyter.

- Chomsky, N. (1965). *Aspects of the theory of syntax*. Cambridge, MA: MIT Press.
- Chomsky, N. (1972). On interpreting the world. In N. Chomsky, *Problems of knowledge and freedom*. London: William Collins Sons & Co.
- Chomsky, N. (1977). *Language and responsibility*. New York: Pantheon Books.
- Chomsky, N. (1981). *Lectures on government and binding*. Dordrecht, Netherlands: Foris Publications.
- Clifton, C., & DeVincenzi, M. (1990). Comprehending sentences with empty elements. In D. Balota, G. Flores d'Arcais, & K. Rayner (Eds.), *Comprehension processes in reading* (pp. 265–283). Hillsdale, NJ: Erlbaum.
- Coetze, J. (1980). The rhetoric of the passive in English. *Linguistics*, 18, 199–221.
- Cohen, G. (2004). *The need for a writing style checker*. Retrieved November 25, 2008, from <http://www.horton.com/portfolio/cohen/WritingStyleChecker.pdf>
- Comrie, B. (1976). *An introduction to the study of verbal aspect and related problems*. Cambridge, MA: Cambridge University Press.
- Comrie, B. (1977). In defense of spontaneous demotion: the impersonal passive. In P. Cole & J. Sadock, (Eds.), *Grammatical relations (syntax and semantics 8)*, 47–58. New York: Academic Press.
- Comrie, B. (1988). Passive and voice. In M. Shibatani (Ed.), *Passive and voice* (pp. 9–23). Amsterdam, Netherlands: John Benjamins.
- Connatser, B. (2004). Reconsidering some prescriptive rules of grammar and composition. *Technical Communication*, 51(2), 264–275.

- Cooray, M. (1966). *English language teaching*, 21, 203–210. Oxford, UK: Oxford University Press.
- Croft, W. (1994). Voice: Beyond control and affectedness. In B. Fox & P. Hopper (Eds.), *Voice: Form and function* (pp. 89–118). Amsterdam, Netherlands: John Benjamins.
- Croft, W. (2001). *Radical construction grammar*. Oxford, UK: Oxford University Press.
- Croft, W. (2003). *Typology and universals* (2nd ed.). Cambridge, UK: Cambridge University Press.
- Crystal, D. (2003). *The Cambridge encyclopedia of language* (2nd ed.). Cambridge, UK: Cambridge University Press.
- Culicover, P., & Jackendoff, R. (2005). *Simpler syntax*. Oxford, UK: Oxford University Press.
- Curme, G. (1935). *A grammar of the English language, vol. II*. Boston, MA: DC Heath and Co.
- Davies, W., & Dubinsky, S. (2001). Remarks on grammatical functions in transformational syntax. In W. Davies & S. Dubinsky (Eds.), *Objects and other subjects* (pp. 1–19). Dordrecht, Netherlands: Kluwer Academic Publishers.
- Davis, B., & Sumara, D. (2005). Challenging images of knowing: Complexity science and educational research. *International Journal of Qualitative Studies in Education*, 18(3), 305–321.
- Davison, A. (1980). Peculiar passives. *Language*, 56(1), 42–66.
- Davison, A., & Lutz, R. (1985). Measuring syntactic complexity relative to discourse context. In D. Dowty, L. Karttunen, & A. Zwicky (Eds.), *Natural language parsing: Psychological,*

- computational, and theoretical perspectives* (pp. 26–66). Cambridge, UK: Cambridge University Press.
- Derham, H., & Campbell, J. (2005). Readability and legibility. *Southern Communicator*, 3, 5–7.
- Dixon, R. (1979). Ergativity. *Language*, 55(1), 59–138.
- Dowty, D. (1991). Thematic proto-roles and argument selection. *Language*, 67(3), 547–619.
- Dreyfus, H. (1997). Intuitive, deliberative, and calculative models of expert performance. In C. Zsombok, & A. Klein (Eds.), *Naturalistic decision making* (pp. 17–28). Mahwah, NJ: Erlbaum.
- DuBay, W. (2007). *Smart language: Readers, readability, and the grading of text*. Costa Mesa, CA: Impact Information.
- Engler, M. (2007). Globalization's mad scientist: On Joseph Stiglitz. Retrieved August 10, 2007, from <http://dissentmagazine.org/article>
- Erteschik-Shir, N. (2007). *Information structure: The syntax-discourse interface*. New York: Oxford University Press.
- Fillmore, C. (1968). The case for case. In E. Bach & R. Harms (Eds.), *Universals in linguistic theory* (pp. 1–88). New York: Holt, Rinehart and Winston.
- Floreak, M. (1989). Designing for the real world: Using research to turn a 'target audience' into real people. *Technical Communication*, 36(4), 373–381.
- Flyvberg, B. (2001). *Making social science matter*. Cambridge, UK: University of Cambridge.
- Fodor, J., Bever, T., & Garrett, M. (1974). *The psychology of language*. New York: McGraw-Hill.

- Foley, W., & Van Valin, R. (1984). *Functional syntax and universal grammar*. Cambridge, UK: Cambridge University Press.
- Foley, W., & Van Valin, R. (1985). Information packaging in the clause. In T. Shopen (Ed.), *Language typology and syntactic description. Vol. 1: Clause structure*. (pp. 282–364). Cambridge, UK: Cambridge University Press.
- Fowler, H. (Ed.). (1965). *A dictionary of modern English usage* (2nd ed.). Revised by Sir Ernest Gowers. Oxford, UK: Oxford University Press.
- Fowler, H. (Ed.). (1996). *The new Fowler's modern English usage* (3rd ed.). Revised by R. Burchfield. Oxford, UK: Oxford University Press.
- Frazier, L. (1987). Sentence processing: A tutorial review. In M. Coltheart (Ed.), *The psychology of reading* (pp. 559–586). Hove, UK: Erlbaum.
- Frazier, L. (1990). Parsing modifiers: Special purpose routines in the human sentence processing mechanism? In D. Balota, G. Flores d'Arcais, & K. Rayner (Eds.), *Comprehension processes in reading* (pp. 303–330). Hillsdale, NJ: Erlbaum.
- Frazier, L. (1999). *On sentence interpretation*. Dordrecht, Netherlands: Kluwer Academic Publishers.
- Frazier, L., & Clifton, C. (1996). *Construal*. Cambridge, MA: MIT Press.
- Freidin, R. (1975). The analysis of passives, *Language*, 51, 384–405.
- Givón, T. (1981). Typology and functional domains. *Studies in Language*, 5, 163–193.
- Givón, T. (1990). Syntax. *A functional typological introduction*, II. Philadelphia, PA: John Benjamins.

- Givón, T. (1994). The pragmatics of de-transitive voice: Functional and typological aspects of inversion. In T. Givón (Ed.), *Voice and inversion* (pp. 3–44). Philadelphia, PA: John Benjamins.
- Givón, T., & Yang, L. (1994). The rise of the English GET-passive. In B. Fox & P. Hopper (Eds.), *Voice: Form and function* (pp. 119–149). Amsterdam, Netherlands: John Benjamins.
- Granger, S. (1983). *The be + past participle construction in spoken English*. Amsterdam, Netherlands: Elsevier Science Publishers.
- Greenbaum, S. (1996). *Oxford English grammar*. Oxford, UK: Oxford University Press.
- Grimshaw, J. (1990). *Argument structure*. Cambridge, MA: MIT Press.
- Haberlandt, K. (1994). Methods in reading research. In M. Gernsbacher (Ed.), *Handbook of psycholinguistics* (pp. 1–31). San Diego, CA: Academic Press.
- Haegeman, L. (1994). *Introduction to government and binding theory* (2nd ed.). Oxford, UK: Blackwell.
- Hale, K., & Keyser, J. (2002). *Prolegomenon to a theory of argument structure*. Cambridge, MA: MIT Press.
- Hargis, G. (2000). Readability and computer documentation. *ACM Journal of Computer Documentation*, 24(3), 122–131.
- Harris, F., & Flora, J. (1982). Children's use of get passives. *Journal of Psycholinguistic Research*, 11(4), 297–311.
- Harris, M. (1978). Noun animacy and the passive voice: A developmental approach. *Quarterly Journal of Experimental Psychology*, 30, 495–504.

- Harris, R. (1993). *The linguistic wars*. New York, NY: Oxford University Press.
- Harrison, J., & McLaren, M. (1999). A plain language study: Do New Zealand citizens get a 'fair go' with regard to accessible consumer legislation? *Issues in Writing, 9*(2). Retrieved July 31, 2008, from <http://www.write.co.nz/mainsite/PlainEnglish.html>
- Hart, G. (2008). Typology 101A: The role of white space in making lines of text readable. *Intercom, 55*(7), 30–31.
- Hasegawa, K. (1968). The passive construction in English. *Language, 44*, 230–243.
- Haspelmath, M. (1990). The grammaticalization of passive morphology. *Studies in Language, 14*(1), 25–72.
- Haspelmath, M. (1994). Passive participles across languages. In B. Fox & P. Hopper (Eds.), *Voice: Form and function* (pp. 151–177). Amsterdam, Netherlands: John Benjamins.
- Hawkins, J. (1990). A parsing theory of word order universals. *Linguistic Inquiry, 21*(2), 223–262.
- Hawkins, J. (1994). *A performance theory of order and constituency*. Cambridge, UK: Cambridge University Press.
- Hawkins, J. (2004). *Efficiency and complexity in grammars*. Oxford, UK: Oxford University Press.
- Hopper, P., & Thompson, S. (1980). Transitivity in grammar and discourse. *Language, 56*(1), 251–299.
- Huddleston, R., & Pullum, G. (2002). *The Cambridge grammar of the English language*. Cambridge, UK: Cambridge University Press.

- Isakson, C., & Spyridakis, J. (2003). The influence of semantics and syntax on what readers remember. *Technical Communication*, 50(4), 538–553.
- Iwashita (2004). Being affected: The meanings and functions of Japanese passive constructions. Doctoral thesis, University of Sydney, Sydney, Australia. Retrieved May 18, 2008, from <http://ses.library.usyd.edu.au/handle/2123/677>
- Jackendoff, R. (1972). *Semantic interpretation in generative grammar*. Cambridge, MA: MIT Press.
- Jackendoff, R. (1987). The status of thematic relations in linguistic theory. *Linguistic Inquiry*, 18(3), 369–411.
- Jackendoff, R. (1990). *Semantic structures*. Cambridge, MA: MIT Press.
- Jackendoff, R. (2002). *Foundations of language*. New York: Oxford University Press.
- Jaeggli, O. (1986). Passive. *Linguistic Inquiry*, 17, 587–622.
- Jain, J. (1981). The Hindi passive. *International Journal of Human Communication*, 14(2), 217–232.
- Jespersen, O. (1924). *The philosophy of grammar*. London: George Allen and Unwin.
- Johnson-Laird, P. (1968a). The interpretation of the passive. *The Quarterly Journal of Experimental Psychology*, 19, 69–73.
- Johnson-Laird, P. (1968b). The choice of the passive voice in a communicative task. *The British Journal of Psychology*, 59, 7–15.
- Johnson-Laird, P. (1983). *Mental models: Towards a cognitive science of language, inference, and consciousness*. Cambridge, MA: Harvard University Press.

- Jurafsky, D. (2003). Probabilistic modeling in psycholinguistics: linguistic comprehension and production. In R. Bod, J. Hay, & S. Jannedy (Eds.), *Probabilistic linguistics*. Cambridge, MA: MIT Press.
- Just, M., & Carpenter, P. (1980). A theory of reading: From eye fixations to comprehension. *Psychological Review*, *87*, 329–354.
- Just, M., & Carpenter, P. (1987). *The psychology of reading and language comprehension*. Newton, MA: Allyn and Bacon.
- Kantner, L., Shroyer, R., & Rosenbaum, S. (2002). Structured heuristic evaluation of online documentation. *IPCC 2002 Proceedings*. Retrieved September 4, 2008, from [http://teced.com/PDFs/kantner\\_HE\\_of\\_online\\_doc.pdf](http://teced.com/PDFs/kantner_HE_of_online_doc.pdf)
- Karttunen, L., & Zwicky, A. (1985). *Natural language parsing*. Introduction. Cambridge, UK: Cambridge University Press.
- Katz, J., & Fodor, J. (1964). The structure of a semantic theory. In J. Fodor & J. Katz (Eds.), *The structure of language* (pp. 479–518). Englewood Cliffs, NJ: Prentice-Hall.
- Kearns, K. (2000). *Semantics*. New York: St Martins Press.
- Keenan, E. (1985). Passive in the world's languages. In T. Shopen, (Ed.), *Language typology and syntactic description, vol. 1: Clause structure* (pp. 243–281). Cambridge, UK: Cambridge University Press.
- Keenan, E. (1987a). Towards a universal definition of 'subject of'. In E. Keenan (Ed.), *Universal grammar* (pp. 89–120). Washington, DC: Georgetown University Press.
- Keenan, E. (1987b). Passive is phrasal (not sentential or lexical). In E. Keenan (Ed.), *Universal grammar* (pp. 214–244). Washington, DC: Georgetown University Press.

- Keenan, E. (1987c). Some universals of passive in relational grammar. In E. Keenan (Ed.), *Universal grammar* (pp. 197–213). Washington, DC: Georgetown University Press.
- Keenan, E., & Comrie, B. (1987). Noun phrase accessibility and universal grammar. In E. Keenan (Ed.), *Universal grammar* (pp. 3–45). Washington, DC: Georgetown University Press.
- Keenan, E., & Olmsted, J. (1987). On collapsing grammatical relations in universal grammar. In E. Keenan (Ed.), *Universal grammar* (pp. 121–165). Washington, DC: Georgetown University Press.
- Keenan, E., & Timberlake, A. (1987). Predicate formation rules in universal grammar. In E. Keenan (Ed.), *Universal grammar* (pp. 316–334). Washington, DC: Georgetown University Press.
- Kemmer, S. (1994). Middle voice, transitivity, and the elaboration of events. In B. Fox & P. Hopper (Eds.), *Voice: Form and function* (pp. 179–230). Amsterdam, Netherlands: John Benjamins.
- Kimball, J. (1973). Seven principles of surface structure parsing in natural language. *Cognition*, 2, 15–47.
- Kimble, J. (1996–1997). Writing for dollars, writing to please. *The Scribes Journal of Legal Writing*, 6, 1–38.
- Klaiman, M. (1988). Affectedness and control: A typology of voice systems. In M. Shibatani, (Ed.), *Passive and voice* (pp. 25–84). Amsterdam, Netherlands: John Benjamins.
- Klaiman, M. (1991). *Grammatical voice*. Cambridge, UK: University of Cambridge.
- Klare, G. (1963). *The measurement of readability*. Ames, IO: Iowa State University Press.

- Kratzer, A. (1996). Severing the external argument from its verb. In J. Rooryck & L. Zaring (Eds.), *Phrase structure and the lexicon* (pp. 109–137). Dordrecht, Netherlands: Kluwer Academic Publishers.
- Krauss, S. (2005). Research paradigms and meaning making: A primer. *The Qualitative Report*, 10(4), 758–770.
- Krauthamer, H. (1981). The prediction of passive occurrence. *Linguistics*, 19, 307–324.
- Kruisinga, E. (1931). *A handbook of every-day English II: English accident and syntax* (5th ed.). Groningen, Netherlands: P. Noordhoff.
- Kuiper, K. (2002). *An introduction to x bar theory and the theory of constituent movement*. Course Reader, Department of Linguistics, University of Canterbury, Christchurch, New Zealand.
- Kuiper, K., & Allan, W. (2004). *An introduction to English language: Word, sound, and sentence*. (2nd ed.). Houndsmill, UK: Macmillan Palgrave.
- Lakoff, G. (1974). Interview in H. Parret (Ed.), *Discussing language*, pp. 178–179. The Hague, Netherlands: Mouton.
- Lakoff, R. (1971). Passive resistance. *Chicago Linguistics Society*, 7, 149–162.
- Lambrecht, K. (1994). *Information structure and sentence form*. Cambridge, UK: Cambridge University Press.
- Langacker, R. (1982). Space, grammar, analysability, and the English passive. *Language*, 58, 59–80.
- Langacker, R., & Munro, P. (1975). Passives and their meaning, *Language*, 51, 789–830.

- Lapin, S., Levine, R., & Johnson, D. (2000). Topic....comment. *Natural Language and Linguistic Theory*, 18, 665–671.
- Larson, K. (2004). *The science of word recognition*. Retrieved October 4, 2008, from <http://www.microsoft.com/typography/ctfonts/WordRecognition.aspx>
- Levin, B. (1993). *English verb classes and alternations*. Chicago, IL: University of Chicago Press.
- Levin, B., & Rappaport, M. (1986). The formation of adjectival passives. *Linguistic Inquiry*, 17, 623–661.
- Liamputtong, P., & Ezzy, D. (2005). *Qualitative research methods* (2nd ed.). Melbourne, Vic: Oxford University Press.
- Lofland, J., & Lofland, L. (1995). *Analyzing social settings: A guide to qualitative observation and analysis*. Belmont, CA: Wadsworth.
- Malinowski, B. (1998). The translation of untranslatable words. In Nye, A. (Ed.), *Philosophy of language: The big questions* (pp. 254–258). Malden, MA: Blackwell Publishers.
- Marnell, G. (2008a). Measuring readability, part I: The spirit is willing but the Flesch is weak. *Southern Communicator*, 14, 12–16.
- Marnell, G. (2008b). Measuring readability, part 2: Validation and its pitfalls. *Southern Communicator*, 15, 17–21.
- Maurer, G., Tenenhaus, M., & Carlson, G. (1995). Implicit arguments in sentence processing. *Journal of Memory and Language*, 34(3), 357–382.
- Microsoft (2004). *Manual of style for technical publications*. Redmond, WA: Microsoft Press.

- Mihailovic, L. (1963). Some observations on the use of the passive voice. *English Language Teaching, 17*, 77–81.
- Mihailovic, L. (1965–6). The agent in the passive construction. *English Language Teaching, 20*, 123–126.
- Mitchell, D. (1989). Verb guidance and other lexical effects in parsing. In G. Altmann (Ed.), *Language and cognitive processes* (Vol. 4, pp. 123–154). London: Erlbaum.
- Mitchell, D. (1994). Sentence parsing. In M. Gernsbacher (Ed.), *Handbook of psycholinguistics* (pp. 375–409). San Diego, CA: Academic Press.
- Mitchell, D., Cuetos, F., & Zagar, D. (1990). Reading in different languages: Is there a universal mechanism for parsing sentences? In D. Balota, G. Flores d'Arcais, & K. Rayner (Eds.), *Comprehension processes in reading* (pp. 285–302). Hillsdale, NJ: Erlbaum.
- Mithun, M. (1994). The implications of ergativity for a Philippine voice system. In B. Fox & P. Hopper (Eds.), *Voice: Form and function* (pp. 247–277). Amsterdam, Netherlands: John Benjamins.
- Moore, N. (2006). Aligning theme and information structure to improve the readability of technical writing. *Journal of Technical Writing and Communication, 36*(1), 43–55.
- Murphy, P. (2005). The conceptual space of verbs: Evidence from Russian. Retrieved September 5, 2007, from [www.unc.edu/~murphy/research.html](http://www.unc.edu/~murphy/research.html)
- Nerbonne, J. (1982). Some passives not characterized by universal rules: Subjectless impersonals. In B. Joseph (Ed.), *Grammatical relations and relational grammar* (pp. 59–92). Columbus, OH: Ohio State University.
- Nielsen, J. (2007, October 22). Passive voice is redeemed for web headings. Retrieved October 23, 2007, from [www.useit.com/alertbox/reading\\_pattern.html](http://www.useit.com/alertbox/reading_pattern.html)

- Noonan, M. (1994). A tale of two passives in Irish. In B. Fox & P. Hopper (Eds.), *Voice: Form and function* (pp. 279–311). Amsterdam, Netherlands: John Benjamins.
- Orwell, G. (1946). Politics and the English language. Retrieved November 30, 2007, from [www.mtholyoke.edu/acad/intrel/orwell46.htm](http://www.mtholyoke.edu/acad/intrel/orwell46.htm)
- Palmer, F. (1965). *A linguistic study of the English verb*. London: Longman, Green & Co.
- Perfetti, C. (1990). The cooperative language processors: Semantic influences in an autonomous syntax. In D. Balota, G. Flores d'Arcais, & K. Rayner (Eds.), *Comprehension processes in reading* (pp. 205–230). Hillsdale, NJ: Erlbaum.
- Perlmutter, D. (1978). Impersonal passives and the unaccusative hypothesis. *Proceedings of the Berkeley Linguistics Society*, 4, 157–189.
- Perlmutter, D., & Postal, P. (1983). Toward a universal characterization of passivization. In *Studies in relational grammar 1*. Chicago, IL: University of Chicago Press.
- Pinker, S. (1994). *The language instinct*. New York: William Morrow and Company.
- Pinker, S. (1999). *Words and rules*. New York: Basic Books.
- Pinker, S. (2007). *The stuff of thought*. Camberwell, Australia: Penguin Group.
- Plain English Campaign. *Where should plain English be used?* Retrieved November 24, 2008, from <http://www.plainenglish.co.uk/faqs.html>
- Plaut, D., McClelland, J., Seidenberg, M., & Patterson, K. (1996). Understanding normal and impaired word reading: Computational principles in quasi-regular domains. *Psychological Review*, 103, 56–115.
- Pollard, C., & Sag, I. (1994). *Head-driven phrase structure grammar*. Chicago, IL: University of Chicago Press.

- Pollatsek, A., & Rayner, K. (1990). Eye movements and lexical access in reading. In D. Balota, G. Flores d'Arcais, & K. Rayner (Eds.), *Comprehension processes in reading* (pp. 143–163). Hillsdale, NJ: Erlbaum.
- Postal, P. (1986). *Studies of passive clauses*. Albany, NY: State University of New York Press.
- Poutsma, H. (1926). *A grammar of late modern English, part III*. Groningen, Netherlands: P. Noordhoff.
- Pucilowski, A. (2006). *Split-ergativity in Māori*. Unpublished master's thesis, University of Canterbury, Christchurch, New Zealand.
- Quirk, R. (2004). Descriptive statement and serial relationship. In B. Aarts, D. Denison, E. Keizer, & G. Popova (Eds.), *Fuzzy grammar* (pp. 327–339). New York: Oxford University Press.
- Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive grammar of the English language*. New York: Longman.
- Radford, A. (1988). *Transformational grammar*. Cambridge, UK: Cambridge University Press.
- Ragin, C. (1994). *Constructing social research*. Thousand Oaks, CA: Pine Forge Press.
- Rayner, H. (1998). Eye movements in reading and information processing: 20 years of research. *Psychological Bulletin*, *124*(3), 372–422.
- Rayner, K., Carlson, M., & Frazier, L. (1983). The interaction of syntax and semantics during sentence processing: Eye movements in the analysis of semantically biased sentences. *Journal of Verbal Learning and Verbal Behavior*, *22*, 358–374.
- Redish, J. (2000). Readability formulas have even more limitations than Klare discusses. *ACM Journal of Computer Documentation*, *24*(3), 132–137.

- Rhodes, S. (1997). *The active and passive voices are equally comprehensible in scientific writing*. Unpublished doctoral thesis, University of Washington, Seattle, USA.
- Robson, R. (1972). *On the generation of passive constructions in English*. Unpublished doctoral thesis, University of Texas, Austin, USA.
- Roland, K. (1994). The pragmatics of Modern Greek voice: Active, inverse and passive. In T. Givón (Ed.), *Voice and inversion* (pp. 233–260). Philadelphia, PA: John Benjamins.
- Ross, J. (2004). Nouniness. In B. Aarts, D. Denison, E. Keizer, & G. Popova (Eds.), *Fuzzy grammar* (pp. 351–422). New York: Oxford University Press.
- Sag, I., & Wasow, T. (1999). *Syntactic theory. A formal introduction*. Stanford, CA: CSLI Publications.
- Sampson, G. (2001). *Empirical linguistics*. London: Continuum.
- Schriver, K. (1997). *Dynamics in document design*. New York: John Wiley & Sons.
- Schriver, K. (2000). Readability formulas in a new millennium. What's the use? *ACM Journal of Computer Documentation*, 24(3), 138–140.
- Shibatani, M. (1985). Passives and related constructions: A prototype analysis. *Language*, 61, 821–848.
- Shibatani, M. (1988). Introduction. In M. Shibatani (Ed.), *Passive and voice* (pp. 1–8). Amsterdam: John Benjamins.
- Siedenberg, M. (1990). Lexical access: Another theoretical soupstone. In D. Balota, G. Flores d'Arcais, & K. Rayner (Eds.), *Comprehension processes in reading* (pp. 33–71). Hillsdale, NJ: Erlbaum.

- Siewierska, A. (1983). Another theory of the passive which doesn't work. *Linguistics*, 21(4), 557–571.
- Siewierska, A. (1984). *The passive: A comparative linguistic analysis*. London: Croom Helm.
- Siewierska, A. (1988). The passive in Slavic languages. In M. Shibatani (Ed.), *Passive and voice* (pp. 243–289). Amsterdam, Netherlands: John Benjamins.
- Siewierska, A. (2005). Passive constructions. In M. Haspelmath, M. Dryer, D. Gil, & B. Comrie (Eds.), *World atlas of language structure* (pp. 434–437). Oxford, UK: Oxford University Press.
- Simpson, G. (1994). Context and the processing of ambiguous words. In M. Gernsbacher (Ed.), *Handbook of psycholinguistics* (pp. 359–374). San Diego, CA: Academic Press.
- Sinha, A. (1974). How passive are passives? *Chicago Linguistics Society*, 10, 631–642.
- Sinha, A. (1978). Another look at the universal characterization of the passive voice. *Chicago Linguistics Society*, 14, 445–57.
- Slobin, D. (1994). Passives and alternatives in children's narratives in English, Spanish, German, and Turkish. In B. Fox & P. Hopper (Eds.), *Voice: Form and function* (pp. 341–364). Amsterdam, Netherlands: John Benjamins.
- Spyridakis, J. (2000). Guidelines for authoring comprehensible web pages and evaluating their success. *Technical Communication*, 47(3), 359–382.
- Spyridakis, J., & Wenger, M. (1992). Writing for human performance: Relating reading research to document design. *Technical Communication*, 39(2), 202–215.
- Stanley, J. (1975). Passive motivation. *Foundations of Language*, 13, 25–39.

- Stanley, J., & Robbins, S. (1977). Forced interference: Uses and abuses of the passive. *Papers in Linguistics*, 10(3–4), 299–311.
- Stanovich, K. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21, 360–407.
- Steedman, M. (2000). *The syntactic process*. Cambridge, MA: MIT Press.
- Steedman, M., & Altmann, G. (1989). Ambiguity in context: A reply. In G. Altmann (Ed.), *Language and cognitive processes* (Vol. 4, pp. 105–122). London: Erlbaum.
- Stein, G. (1979). *Studies in the function of the passive*. Tübingen, Germany: Gunter Narr Verlag.
- Strunk W., & White E. (1979). *The elements of style* (3rd ed.). New York: MacMillan Publishing Co.
- Sullivan, P., & Spilka, R. (1992). Qualitative research in technical communication: Issues of value, identity, and use. *Technical Communication*, 4, 592–606.
- Svartvik, J. (1966). *On voice in the English verb*. The Hague, Netherlands: Mouton.
- Sweet, H. (1891). *A new English grammar, logical and historical, Part I*. London: Oxford University Press.
- Tanehaus, M., Carlson, G., & Trueswell, J. (1990). The role of thematic structures in interpretation and parsing. In G. Altmann (Ed.), *Language and cognitive processes* (Vol. 4, pp. 211–234). London: Erlbaum.
- Taraban, R., & McClelland, J. (1990). Parsing and comprehension: A multiple constraint view. In D. Balota, G. Flores d'Arcais, & K. Rayner (Eds.), *Comprehension processes in reading* (pp. 231–263). Hillsdale, NJ: Erlbaum.

- Thompson, C. (1994). Passives and inverse constructions. In T. Givón (Ed.), *Voice and inversion* (pp. 47–63). Philadelphia, PA: John Benjamins.
- Trotter, C. (2008, March 12). Riding the populist tiger is a risky business. *The Independent Financial Review*, p. 3.
- Tufte, V. (2006). *Artful sentences: Syntax as style*. Cheshire, CO: Graphic Bell LLC.
- US Securities and Exchange Commission (1998). *A plain English handbook: How to create clear SEC disclosure documents*. Washington, DC: US Securities and Exchange Commission.
- Van der Leij, A. (1990). Comprehension failures. In D. Balota, G. Flores d'Arcais, & K. Rayner (Eds.), *Comprehension processes in reading* (pp. 621–629). Hillsdale, NJ: Erlbaum.
- Walpole, J. (1979). Why must the passive be damned? *College Composition and Communication*, 30(3), 251–254. Retrieved April 20, 2008, from [www.jstor.org/stable/356387](http://www.jstor.org/stable/356387)
- Warburton, I. (1975). The passive in English and Greek. *Foundations of Language*, 13, 563–578.
- Warner, A. (1993). *English auxiliaries: Structure and history*. Cambridge, UK: Cambridge University Press.
- Warren, T. (1981). The passive voice verb: A selected annotated bibliography. *Journal of Technical Writing and Communication*, 11(4), 373–389.
- Wasow, T. (1977). Transformations and the lexicon. In P. Culicover, T. Wasow, & A. Akmajian (Eds.), *Formal syntax* (pp. 327–360). New York: Academic Press.

Weir, G., & Ritchie, C. (2006). *Estimating readability with the Strathclyde Readability Measure*. Retrieved September 5, 2008, from [http://www.cis.strath.ac.uk/cis/research/publications/papers/strath\\_cis\\_publication\\_1538.pdf](http://www.cis.strath.ac.uk/cis/research/publications/papers/strath_cis_publication_1538.pdf)

Whorf, B. (1956). *Language, thought and reality: Selected writings*. (J. Carroll, Ed.). Cambridge, MA: MIT Press.

Williams, J. (1994). *Style: Ten lessons in clarity and grace* (4th ed.). New York: HarperCollins College Publishers.

WriteMark (2008). *The story of WriteMark*. Retrieved November 25, 2008, from <http://www.writemark.co.nz>

Ziff, P. (1966). The nonsynonymy of active and passive sentences. *The Philosophical Review*, 75, 226–232.

Ziv, Y., & Sheintuch, G. (1979). Indirect objects reconsidered. *Chicago Linguistics Society*, 15, 390–403.

**Appendix A**  
**Case study survey form**

# Case study

*John kissed Mary.* (Active voice)  
*Mary was kissed by John.* (Passive voice)

## Introduction

This case study is part of my MA thesis supervised by Professor Kon Kuiper and Dr Heidi Quinn at the Department of Linguistics, University of Canterbury. It aims to survey the judgements that writers make when choosing grammatical voice, and relate those findings to literature surveys of voice and readability. The linguistic literature indicates that passive voice plays an important role in communication, but grammar books and style guides tend to indicate that passive voice contributes to poor writing. This study explores the use of passive voice in instructional writing. It's not about the writers but rather about the writers' reasons for choosing passive voice.

This brief survey considers one aspect of plain language. The study is supported by *Streamliners*, and links to the company's efforts to promote plain language. Your support will contribute to these efforts, and we appreciate that support.

Stu Allan

73a Hackthorne Rd, Christchurch 8022  
03 337 0159 / 021 209 3984  
[stu@activevoice.co.nz](mailto:stu@activevoice.co.nz)

## Agreement to participate

I have read the section above concerning this study and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:

1. My participation in the study is voluntary.
2. I am free to withdraw at any time without any disadvantage.
3. I will be sent a copy of the analysis of the study if I want one.
4. The results of the study will contribute to a Masters thesis and may be published. My anonymity will be preserved.
5. The study will be retained in secure storage for seven years, after which time it will be destroyed. Only the case study co-ordinator, the researcher, the academic supervisors, and the examiners will have access to the study.

I agree to take part in this study on the conditions stated above:

..... I'm the writer of the text   
..... I'm the co-writer of the text .....  
*Participant* *Please choose one* *Date*

I would like a copy of the analysis. Send to.....  
*Participant's email address*

## Survey

In the accompanying text, I have highlighted the verbs that the writer has chosen to write in passive voice, and entered them into the table below. The passive may have been chosen for one of these reasons (the passives are highlighted; the bracketed words are implied):

1. The agent or 'doer' is unknown or cannot be stated, eg *He **was killed** in the Boer war [by....]*
2. The active subject is self-evident from the context, eg *His memory of these events **was lost** [by him] beyond recovery.*
3. There may be a special reason (tact or delicacy) for not mentioning the agent or 'doer', eg *The lawn has got to **be mowed** [by....]*
4. There is a greater interest in the passive subject than the active subject, eg *The house **was struck** by lightning.*
5. It may facilitate the connection of one part of a sentence with another part, or one sentence with another sentence, eg *He rose to speak and **was listened to** with enthusiasm by the great crowd present.*
6. Other.

Could you please consider each passive and indicate which of the reasons above you think lie behind the writer's choice. If you indicate reason 6, please note the reason.

## Text

Passive verb	Reason for the choice – 1 to 6 above	Notes
are treated		
be considered		
is prohibited		
is...followed		
is discussed		
is...closed off		
be restrained		
is attacked		
is...carried out		
is informed		

[that is] offered		
are tested		
are identified		
are selected		
is started		
is taught		
is identified		
are...informed		
[are] encouraged		
be invited		
is recorded		
be referred		
be withdrawn		
[may be] established		
are informed		
are identified		
are extended		
are supported		
are...promoted		

**Appendix B**  
**Sample case study text**

## Care and Management of Children

- All students **are treated** with care, courtesy, and appropriate language.
- Teachers avoid physical contact with students which could **be considered** intimate, threatening, sexual, or violent.
- Corporal punishment **is prohibited**.
- If a child leaves the school without permission or goes missing during the school day, the missing student protocol **is** immediately **followed**.
- Teachers take particular care with students who express themselves freely and seek close physical contact. When this is a problem, it **is** always **discussed** with the child's parents.
- When staff are counselling or teaching a student one to one, they ensure that the space **is** not **closed off** from other people.
- If a student cannot **be restrained** in any other way, the adult physically restrains the student as appropriately as possible, and seeks other adult support.
- If a teacher **is attacked** by a student, they protect themselves without causing injury to the student involved, and immediately report this incident to the principal.
- Staff have a professional responsibility to report any allegations of indecency, abuse, or other professional misconduct to the principal, or deputy principal or NZEI networks
- Toileting of special needs students **is** only **carried out** by an appropriate teacher or a trained support staff member, and another staff member **is informed**.

# Reading Recovery

Reading Recovery is a special early education programme **offered** to children who are falling behind their peers in literacy learning after one year of schooling.

The goal of the programme is to enable the student to work in class at the average text reading level of their peer group, and to become an independent reader. Reading recovery reduces the need for specialist intervention when the student is older, and enables the class teacher to make effective use of their time.

Students **are tested** between the ages of six and six and a half if they **are identified** as falling behind, and **are selected** for a place on the programme (see "Selection" on page 225) according to certain criteria. The programme **is started** as close to the student's sixth birthday as possible so that there is time for remedial work before the decision is made about Year 3 promotion, and so that there is little time for the student to develop bad habits or lose confidence.

The programme **is taught** by a trained reading recovery teacher and consists of daily one-on-one sessions for approximately twelve weeks, until the student reaches their goal of working at the level of their peers, or **is identified** as needing alternative assistance. The sessions follow a standardised lesson format and consist of both writing and reading activities. These activities may include reviewing words, reading books, letter identification and story writing.

Parents **are kept informed** of their child's progress, and **encouraged** to support it by:

- ensuring their daily attendance at school
- reading familiar books with them
- giving encouragement and praise.

Parents may **be invited** to observe their child working at various stages of the programme.

## Selection

If a student is reading at Reading Recovery level 3, 4, or 5 when they are six, their test **is recorded** on the 6 year net register. Selection for the programme is based on their reading level, with consideration of other factors, including the student's overall development in language, the result of a standard diagnostic survey, and their classroom teacher's input.

Students can **be referred** by their class teacher, the principal or deputy, a reading recovery teacher, or by their parent.

Students who move to the school with a reading recovery programme partially completed will have priority entry into the school's programme.

## Leaving the Programme

A student "graduates" from the programme when they are able to work independently in the classroom and have reached the average text reading level of their peers.

If a student's progress is poor, they may **be withdrawn** from the programme and an alternative programme **established** to increase their literacy. If progress is below average after twenty weeks, the reading recovery teacher and senior management may decide to consult the psychological service about a referral for the student.

The reading recovery teacher, or class teacher, monitors the student's progress for three years after they complete the programme, and may offer further individual help if progress is

slow. Monitoring consists of running records, initially fortnightly by the reading recovery teacher, gradually decreasing to one running record each term. Parents are informed of their child's completion of the programme.

# Gifted and Talented Students

Teachers plan programmes which meet the needs of all the students in their class. Sometimes students emerge with abilities far beyond the normal range of a class. School provides support for these students and their teachers to ensure that they meet their potential.

Gifted and talented students **are identified** in a number of ways, including:

- information from parents
- cumulative records
- teacher completed checklists
- norm referenced assessments.

Once identified, gifted and talented students **are extended** through careful programming within the class. This may include an ongoing and monitored individual education plan (IEP).

Gifted underachievers **are supported** with the same strategies, and an IEP which focuses on their wider range of needs.

Students **are** only **promoted** to an older year group following careful consideration and with the clear support of the IEP

# Career Guidance

As part of the Ministry of Education National Administration Guidelines, Year 7 and 8 students from School participate in career guidance opportunities.

Our careers information and guidance programme **is organised** to meet the needs of year 7 and 8 students. It typically involves all senior students and is general in nature. Activities **are aimed** at increasing students' awareness of the career options open to them, and motivating and focusing students to think about their options for the future.

Aspects of careers education **are integrated** into topics or themed as appropriate, but can also stand alone.

The resources used by the school include:

- computer based information resources, for example, Web Quests
- Kiwi Careers website ([www.kiwicareers.co.nz](http://www.kiwicareers.co.nz))
- audio visual media
- written material
- personnel, for example:
  - liaison personnel from secondary and tertiary institutions
  - parents/past students
  - community role models
  - local business or industry
  - High School careers advisors and guidance counsellors.

## The Appraisal Process

1. Within the first two weeks of the school year, each member of staff **is allocated** an appraiser. Appraisals **are made** for teaching staff, non-teaching staff, and the principal.
2. Within the first six weeks of the school year, each appraisee and appraiser agree on development objectives to **be met** during the appraisal period. These arise from the job description, and reflect matters raised in the previous year's appraisal report, and school and departmental goals established for the year.
3. For each development objective identified, the parties discuss the assistance or support needed to meet it.
4. During the year, the appraisal process involves:
  - checks by the appraiser, including observation
  - self appraisal, against the appraisee's agreed objectives.
5. Before meeting with their appraiser in the final term of the year, the appraisee gives their completed Self Appraisal report to their appraiser.
6. Both parties meet and discuss how the objectives set at the start of the year have **been met**.

7. The appraiser writes an appraisal report, taking into account the self-appraisal form. The report recognises areas worthy of commendation, and professional development needs for the following year.
8. The appraisal report **is signed** by both parties and a copy **is given** to the principal and put in the appraisee's personal file. The copies of the appraisal are confidential to the parties mentioned.

The Education Review Office has the legal right, under the Education Act, to access appraisal reports to ensure that the procedures outlined in this policy are **being followed**. To this end, a separate folder, containing only copies of appraisal and attestation reports, **is kept** within each staff member's personal file.

9. Provided that the attestation process has **been** satisfactorily **completed**, the principal may attest any staff member who becomes eligible for a salary increment within the next calendar year.

A staff member who believes that the appraisal process has not **been** correctly **followed** and/or that the conclusions of their performance appraisal are inaccurate, can lodge an appeal with the principal. The principal, or their nominee, will conduct a review.

## Manage a Beginning Teacher

Beginning teachers receive staffing support from the Ministry of Education during their first two years. The Beginning Teacher support component is 0.2 FTTE in the first year and 0.1 FTTE in the second year for each position. This is time that **is used** in a variety of ways for the support and guidance of the beginning teacher.

- Tutor teachers may be current staff members, or experienced teachers appointed to a fixed term position specifically for this role from outside the school.
- Tutor teachers are eligible for an MOE funded allowance on top of their salary (see the Collective Employment Agreement at [www.nzei.org.nz](http://www.nzei.org.nz)).
- Tutor teachers **are appointed** as soon as practicable after a beginning teacher has **been appointed**.
- Tutor teachers work with the beginning teacher to develop a personalised programme of advice and guidance. This programme **is submitted** to the principal.
- The beginning teacher may use the release time for planning and assessment, professional development, attendance at relevant courses, observations in other classes within and outside the school, and other professional tasks **approved** by the tutor.
- The tutor teacher may use the release time for observation and guidance, professional support of the beginning teacher, appraisal processes, and other professional tasks related to support of the beginning teacher.
- Beginning teachers **are encouraged** to suggest areas for future support to the tutor teacher.
- The tutor and beginning teacher discuss the personalised advice and guidance programme, record of observation, and feedback reports. A copy **is filed** by the principal as evidence for full registration.
-

## Acknowledgements

I want to thank Dr Kate Kearns and Professor Kon Kuiper for taking a risk on me. From the time I made a tentative approach with a half-baked idea, I was well received. Since then, every member of the Linguistics Department has freely given of their time and expertise: Dr Kate Kearns was my first contact and later guided me on how to unravel a definitional challenge I faced; Professor Jen Hay pointed me at some introductory reading; and Dr Alex D'Arcy and Professor Andrew Carstairs-McCarthy gave me valuable feedback on a presentation I made.

Most of all, I want to thank my two supervisors, Professor Kon Kuiper and Dr Heidi Quinn who accepted my knight's move into the field of linguistics and guided my path through it. Without their guidance, I would have arrived at a different place.

I am also grateful to *Streamliners* whose writers offered their writing for analysis, my partner Ali Ward who read and commented on my word strings, my offspring who tolerated my silly games with garden-path sentences, and my friend Jo Straker who regularly advised on research methods.