The Semantics of Colour

Human societies name and classify colours in various ways. Knowing this, is it possible to retrieve colour systems from the past? This book presents the basic principles of modern colour semantics, including the recognition of basic vocabulary, sub-sets, specialized terms, and the significance of non-colour features. Each point is illustrated by case studies drawn from modern and historical languages from around the world. These include discussions of Icelandic horses, Peruvian guinea-pigs, medieval roses, the colour yellow in Stuart England, and Polynesian children’s colour terms. Major techniques used in colour research are presented and discussed, such as the evolutionary sequence, Natural Semantic Metalanguage, and vantage theory. The book also addresses whether we can understand the colour systems of the past, including prehistory, by combining various semantic techniques currently used in both modern and historical colour research with archaeological and environmental information.

C. P. Biggam is Honorary Senior Research Fellow, English Language in the School of Critical Studies at the University of Glasgow.
The Semantics of Colour

A Historical Approach

C. P. Biggam

University of Glasgow
I have received the greatest help, sound advice and inspiration over many years from Professor Christian J. Kay, of the University of Glasgow, to whom this book is humbly dedicated.
Contents

List of tables  page x
Preface  xi
List of abbreviations  xiii

1 What is colour? 1
1.1 Introduction 1
1.2 Hue 3
1.3 Saturation 3
1.4 Tone 4
1.5 Brightness 4
1.6 Other aspects of appearance 5
1.7 Non-appearance aspects 6
1.8 Explanation 6
1.9 Summary 7

2 What is colour semantics? 9
2.1 Introduction 9
2.2 Dictionaries and their uses 9
2.3 William Gladstone, Hugo Magnus and hue blindness 11
2.4 Grant Allen and colour perception versus naming 13
2.5 William Rivers and partial insensitivity to hues 15
2.6 Edward Sapir, Benjamin Whorf and linguistic relativity 17
2.7 Brent Berlin, Paul Kay and linguistic universality 19

3 Basic colour terms 21
3.1 Introduction 21
3.2 Basicness 21
3.3 Non-predictable (‘monolexemic’) character 23
3.4 Hyponymy 24
3.5 Contextual restriction 25
3.6 Elicited lists 26
3.7 Consensus 27
3.8 Consistency 28
3.9 Idiolectal evidence 29
3.10 Derivational morphology 29
3.11 Homonymy 31
3.12 Recent loan words 31
## Contents

3.13 Morphological complexity 32  
3.14 Expression length 33  
3.15 Frequency of occurrence in texts 34  
3.16 Frequency of occurrence in speech 35  
3.17 Response time 36  
3.18 Type modification 37  
3.19 Domains of expressive culture 38  
3.20 Embedded expressions 39  
3.21 Cultural–historical significance 40  
3.22 Discussion 41

4 Non-basic and non-standard colour expressions 44  
4.1 Introduction 44  
4.2 Sub-sets and models 44  
4.3 Metaphor and metonymy 48  
4.4 Specialized colour terms 51  
4.5 Significant non-colour features 52  
4.6 Contact languages 55

5 Basic colour categories 58  
5.1 Introduction 58  
5.2 The significance of basic colour categories 58  
5.3 The basic level of categorization 59  
5.4 The structure of a basic colour category 60  
5.5 Macro-categories 61  
5.6 Micro-categories 62  
5.7 Intra-language variation 63

6 The evolutionary sequence 70  
6.1 Introduction 70  
6.2 The 1969 evolutionary sequence 71  
6.3 The role of macro-categories 74  
6.4 The problem of grey 76  
6.5 The role of the Hering primaries 77  
6.6 The arrival of trajectories 78  
6.7 The 1999 evolutionary sequence 81  
6.8 Criticism of early research methodology 84

7 Different approaches 86  
7.1 Introduction 86  
7.2 Barbara Saunders and Jaap van Brakel 86  
7.3 Natural Semantic Metalanguage 91  
7.4 Vantage theory 98  
7.5 The Emergence Hypothesis 103  
7.6 Universalism and relativism 106

8 Historical projects: preliminaries 109  
8.1 What is a ‘historical’ language? 109  
8.2 A major problem 110  
8.3 The scope of the study 110
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.4 Vocabulary retrieval</td>
<td>114</td>
</tr>
<tr>
<td>8.5 Context retrieval</td>
<td>117</td>
</tr>
<tr>
<td>8.6 Metalanguage</td>
<td>121</td>
</tr>
<tr>
<td>8.7 The separability of colour features</td>
<td>125</td>
</tr>
<tr>
<td>9 Synchronic studies</td>
<td>127</td>
</tr>
<tr>
<td>9.1 What is a synchronic study?</td>
<td>127</td>
</tr>
<tr>
<td>9.2 Basic data</td>
<td>127</td>
</tr>
<tr>
<td>9.3 Referents</td>
<td>130</td>
</tr>
<tr>
<td>9.4 Translations</td>
<td>137</td>
</tr>
<tr>
<td>9.5 Contrasts and comparisons</td>
<td>145</td>
</tr>
<tr>
<td>10 Diachronic studies</td>
<td>152</td>
</tr>
<tr>
<td>10.1 What is a diachronic study?</td>
<td>152</td>
</tr>
<tr>
<td>10.2 Colour lexemes and semantic change</td>
<td>153</td>
</tr>
<tr>
<td>10.3 Colour categories and cognitive change</td>
<td>159</td>
</tr>
<tr>
<td>10.4 Linguistic genealogy</td>
<td>163</td>
</tr>
<tr>
<td>11 Prehistoric colour studies</td>
<td>169</td>
</tr>
<tr>
<td>11.1 Introduction</td>
<td>169</td>
</tr>
<tr>
<td>11.2 Modern and historical comparative evidence</td>
<td>169</td>
</tr>
<tr>
<td>11.3 Category development</td>
<td>170</td>
</tr>
<tr>
<td>11.4 Prototypes</td>
<td>172</td>
</tr>
<tr>
<td>11.5 Etymology and prototype change</td>
<td>178</td>
</tr>
<tr>
<td>11.6 Semantic shift</td>
<td>181</td>
</tr>
<tr>
<td>11.7 From the known to the unknown</td>
<td>183</td>
</tr>
<tr>
<td>12 Applications and potential</td>
<td>193</td>
</tr>
<tr>
<td>12.1 Introduction</td>
<td>193</td>
</tr>
<tr>
<td>12.2 Robert Edgeworth and the <em>Aeneid</em></td>
<td>193</td>
</tr>
<tr>
<td>12.3 Literary limitations</td>
<td>194</td>
</tr>
<tr>
<td>12.4 Comparative literary studies</td>
<td>196</td>
</tr>
<tr>
<td>12.5 John Baines and Ancient Egypt</td>
<td>197</td>
</tr>
<tr>
<td>12.6 Conclusion</td>
<td>198</td>
</tr>
<tr>
<td><strong>Appendix: Metalanguage, signs and conventions</strong></td>
<td>199</td>
</tr>
<tr>
<td><strong>Glossary</strong></td>
<td>202</td>
</tr>
<tr>
<td><strong>Notes</strong></td>
<td>212</td>
</tr>
<tr>
<td><strong>Bibliography</strong></td>
<td>236</td>
</tr>
<tr>
<td><strong>Subject index</strong></td>
<td>255</td>
</tr>
</tbody>
</table>
List of tables

<table>
<thead>
<tr>
<th>Table Number</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Basicness criteria of particular value in historical studies.</td>
<td>42</td>
</tr>
<tr>
<td>5.1</td>
<td>West Futunese colour category types with average ages of the informants using them.</td>
<td>68</td>
</tr>
<tr>
<td>6.1</td>
<td>Inventories of basic categories, as represented by the numbers of basic terms (1969).</td>
<td>71</td>
</tr>
<tr>
<td>6.2</td>
<td>The evolutionary sequence of colour category acquisition, as represented by category foci (1969).</td>
<td>72</td>
</tr>
<tr>
<td>6.3</td>
<td>The evolutionary sequence of colour category acquisition, as represented by categories and foci (1975).</td>
<td>75</td>
</tr>
<tr>
<td>6.4</td>
<td>The evolutionary sequence of colour category acquisition (1999).</td>
<td>81</td>
</tr>
<tr>
<td>6.5</td>
<td>Trajectory A, the most common path for BCC acquisition (1999).</td>
<td>82</td>
</tr>
<tr>
<td>6.6</td>
<td>Trajectories B to E for the acquisition of BCCs.</td>
<td>84</td>
</tr>
<tr>
<td>7.1</td>
<td>Vantage theory model of the English red category.</td>
<td>100</td>
</tr>
<tr>
<td>7.2</td>
<td>Vantage theory model of the Hungarian red category.</td>
<td>102</td>
</tr>
<tr>
<td>8.1</td>
<td>A metalanguage for historical colour-term meanings.</td>
<td>124</td>
</tr>
<tr>
<td>9.1</td>
<td>Occurrences of ME rēd in Chaucer's The Parliament of Fowls.</td>
<td>129</td>
</tr>
</tbody>
</table>
Preface

In 1970, I was browsing among the linguistics books in Cardiff University (as it is now), when my eye was caught by some bold blue words on a pure white spine: *Basic Color Terms*. Some enterprising academic or librarian had ordered Brent Berlin and Paul Kay’s recently published book for the library, and had unknowingly changed my life. That sounds a little too dramatic. I have not been exclusively concerned with colour across the intervening years, nor even with semantics in general, but I have never lost that early fascination, inspired by Berlin and Kay’s book, for the classification, labelling and communication of colour. However many times I research other subjects, I find myself drifting back to colour studies with some new angle in mind.

With a background in British archaeology, historical semantics and Anglo-Saxon studies, I nevertheless found myself reading lots of reports by anthropologists on the colour systems of modern-day societies and languages often located in far-flung regions of the world. This was interesting, but I always ended my reading with the same question in mind: how did this particular colour system come to be like that? What was its history? What historical evidence is available? Of course, many of the languages investigated by anthropologists had no historical records, but even where they existed, most of the language-reports were unrelentingly modernist. I watched as more and more publications emerged, reporting on ever more surprising ways (to an English speaker) of dealing with colour concepts; as Berlin and Kay’s evolutionary sequence morphed into elaborate and then reduced forms; as criticism of the sequence mounted and faded by turns; or as the origins of a colour term were ‘explained’ by a quick look in an etymological dictionary, and all the time I was wondering how such statements could be made without thorough historical semantic investigations of individual languages. My own (obviously historically biased) view is that, while a present-day language can be studied exhaustively, providing valuable information, such a study lacks time-depth, the understanding that comes with unearthing centuries of slow development and/or traumatic disturbance, and the changing concepts hinted at by discarded and newly coined vocabulary.
Acquiring this depth of knowledge (where possible) demands a lot of time and work, but the rewards are great because colour, which is involved in so many aspects of our lives, and always has been, can illuminate numerous nooks and crannies of past life. We may find that some people only used colour terms for their animals; or we may find a blaze of brilliant light and shining gold in their religious texts; or a delight in exotic textiles and jewellery; or a long and complex list of colour words used in a particular context; or a dark and devilish store of poetry. All this and more tells us so much about people who can no longer explain in person their delight (or lack of it) in their artefacts and surroundings. With such insights as these, how much better do we understand the colour nuances employed by that society’s modern descendants.

This book has been written with more than one target audience in mind, so I hope that, in aiming at multiple targets, I have at least hit one of them. First of all, I have aimed at the general reader with an interest in linguistics. I have tried to explain several basic principles of semantics, and have added a glossary of technical terms, so that such a reader does not ‘lose the plot’ half-way through (or even earlier). The second target audience is university students studying linguistics, a particular language, literature, anthropology, psychology or perhaps even other subjects in which colour plays a significant role. Finally, I hope my third target, semanticists who are not colour specialists, will find something of use in this book, although they will, with justification, probably skip certain sections.

I would like to thank all those who have helped, advised and generously given information while I was writing this book. With many thanks to: several staff members of AIATSIS, William Biggam, Helen Carron, Adam Głaz, Ármbrúður Heimisdóttir, Carole Hough, Christian Kay, Galina Paramei, Barbara Saunders and Kirsten Wolf. I would also like to acknowledge the valued encouragement and patience of Helen Barton, my editor at Cambridge University Press.
Abbreviations

AD  anno domini (any year more recent than 1 BC)
adj. adjective
AF  Anglo-French
AIATSIS Australian Institute of Aboriginal and Torres Strait Islander Studies
AND  Anglo-Norman Dictionary
B&K (or BK) Berlin and Kay (1969)
BC  Before Christ (any year earlier than 1 AD)
BCC Basic Colour Category
BCE Before the Common Era (any year earlier than 1 AD)
BCT Basic Colour Term
BML British Medieval Latin
BNC British National Corpus
BP Before Present (before 1950)
CSLI Center for the Study of Language and Information (Stanford University)
DMLBS Dictionary of Medieval Latin from British Sources
DOE Dictionary of Old English
EH Emergence Hypothesis
EVT Extended Vantage Theory
f-[colour term] focal-[colour term]
Ger. Modern German
HTOED Historical Thesaurus of the Oxford English Dictionary
IE Indo-European
IPA International Phonetic Alphabet
ISOR Interdisciplinair Sociaal Wetenschappelijk Onderzoeksinstituut Rijksuniversiteit (Interdisciplinary Social Sciences Research Institute, State University [Utrecht])
M-[colour term] macro-[colour term]
[M] (subscript) a semantic molecule, in NSM
MCS Mesoamerican Colour Survey
ME Middle English

xiii
List of abbreviations

MED Middle English Dictionary
ModE Modern English
n. noun
n.d. no date of publication
NF Norman French
NOWELE North-Western European Language Evolution
NSM Natural Semantic Metalanguage
OE Old English
OED Oxford English Dictionary
OLD Oxford Latin Dictionary
OSA Optical Society of America
P Partition, in the UE model
PDE Present-Day English
PIE Proto-Indo-European
RB Relative Basicness
SKY Suomen Kielitieteellinen Yhdistys (Linguistic Association of Finland)
UE Universals and Evolution model (‘Berlin and Kay school’ theories)
VT vantage theory
VT2 vantage theory 2 (a later development)
WCS World Colour Survey