INTRODUCTION

Colour and colour terms have been the subject of research in many fields including anthropology, psychology, philosophy, linguistics and design. With a range of 7.5 to 10 million colours discernible to the human eye (Brown and Lenneberg (1954) in Taylor 2007a; Miller , 2001: 1; Tye, 2002: 11) as well as intensive and extensive research into how the colour spectrum is divided and named in different languages and cultures, a wealth of work has contributed to understanding what colour is and how it is used.¹ However, there seems to be one area of linguistic research - namely the framework of cognitive semantics - which refrains from cross-linguistic analyses of colour words in terms of their polysemity.

With the author's intention to, at least partially, fill this gap, the purpose of this study is to present a comparative analysis of the meaning extensions of six basic colour terms: *black, white, red, blue, green, yellow* (henceforth BCTs) in two languages, English and Polish. The approach applied here is based on the fundamental assumption of cognitive semantics that word meaning is a flexible set of concepts without rigid boundaries and that the proliferation of polysemous senses is natural. The research has been conducted with the application of selected constructs and tools developed within the cognitive semantic paradigm, mainly those proposed by George Lakoff (1987).

This book, which is intended to provide an in-depth examination into the polysemy of selected colour terms, in many respects draws on the existing body of work in the field of cognitive semantics. However, it differs in its intention to encompass what has been analysed in separation, and apply a wealth of theoretical constructs and empirical methods in a cross-linguistic, corpus-based semantic analysis.

The primary goal is to find out which natural prototypes contribute to the meaning of each respective colour term in either language. This is followed by an attempt to establish how extended the meanings of these basic colour terms are, and whether their figurative lexical realisations are similar. The parallel semasiological analyses of the colour terms with a focus on the conceptual mechanisms of meaning extension (metonymy and metaphor) and the resulting proposals of their radial structures constitute the qualitative part of the study. This is followed by quantitative, corpus-based analysis of the relative salience of the main readings of each colour term, which is the basis for further comparison. The frequencies of occurrence of polysemous senses within large random samples of corpus citations will hopefully provide information on which senses of each colour term are most entrenched at present and whether there are any significant differences between the semantics of the basic colour terms in English and Polish. These are believed to reflect divergent perceptions of the world and diverse cultural realities.

¹ MacLaury (1997) claims that since 1858 more than 3000 works have been written where colour terms are the major issue (Steinvall, 2002: 1).

The methodological principle is to try to cover all contemporary uses of each colour term and to present them in the form of psychologically plausible chains of extensions. The main database for the research are two linguistic corpora which serve two purposes: the illustration of the polysemous uses and the frequency counts to provide empirical evidence of a cognitive proximity or distance reflected in the use of the six basic colour terms. The assumption of cognitive semantics - that a word provides access to vast layers of experience and knowledge, both individual and collective – would suggest that the research will provide an insight into the conceptualisations shared by Polish and English native speakers. It is hoped that the analysis conducted in accordance with the cognitive theory of meaning will also account for intriguing semantic phenomena concerning colours, which can be summarised in seemingly childish questions:

Why do most people use the basic colour terms when more specialized terms exist for most perceivable shades?

Why is coffee without milk called 'black' when, actually, it is dark brown?

Why are cowards yellow?

Why does blue have such diverse meanings as 'sad', 'puritanical' and 'obscene'?

Cognitive semantic approach seems very promising as a method of deciphering the meanings of linguistic units once considered "deviant" or "dead". On the other hand, such an analysis is highly speculative and open to alternative interpretations as we are dealing with conceptual phenomena, inherently subjective and flexible. The following analysis may be regarded as a kind of a testing ground in an endeavour to 'grasp', describe and compare the highly polysemous categories of colour terms in two languages. The scope is broad, the phenomena described require meticulous research and a series of choices at each step. Faced with such a wealth of, not infrequently conflicting, information, the author has been compelled to make difficult choices. Therefore, any shortcomings and misinterpretations can only be my own responsibility. The outcome should be regarded as a hypothesis, open to discussion, extension, and modification by way of refining the descriptive and analytic methods. As outlined in the brief introductory section, this study has been designed with a view to responding to a range of issues. Some of them address the main questions signalled above, while the others indirectly contribute to the question of the applicability of electronic corpora in linguistic research.

The main objective, however, is to compare the English and Polish BCTs as cognitive categories reflecting human experiences of the world. The extent of meaning extensions and the levels of entrenchment exhibited by respective readings will hopefully provide relevant answers.

In order to draw any conclusion concerning the conceptual underpinnings of the polysemies of BCTs in the two languages under examination, several other questions require investigation. They can be summarised as:

- 1. Do the frequencies of the BCTs in two languages under analysis reflect the implicational hierarchy order proposed by Berlin and Kay (1969)? How can the differences be accounted for?
- 2. Does the use of the six BCTs provide an insight into diverse ways of segmenting the colour spectrum? In other words, does any colour term in English seem to cover a wider or narrower range of this spectrum than its Polish equivalent?
- 3. Are the prototypical natural reference-points in the semantics of the English and Polish BCTs coincident or do they differ in any respects?
- 4. Is metonymy the main conceptual mechanism of meaning extension of BCTs as suggested by Barcelona (2003), Niemeier (2007), and several other cognitive semanticists?
- 5. In what ways does conceptual metaphor contribute to the meaning extensions of the BCTs under analysis? To what extent is the meaning of a colour term embodied?
- 6. Are the two corpora applied in the current research compatible and reliable enough to ensure an appropriate basis for any conclusions regarding the polysemy and salience of BCTs?

What is expected as the outcome of this analysis refers to the main tenets of cognitive semantics. The original assumption is that speakers of the two related languages (both belonging to two sub-families of the Indo-European languages), sharing (as all humans do) the same physical and perceptual properties, living in similar environments (due to geographical proximity), enjoying the same level of civilisational development, exposed to similar social and cultural experience, should reveal (through the language use) this underlying conceptual proximity as well. Thus, more similarity than difference is expected to arise from the comparison of the meanings of the colour terms in question.

Typographical conventions

Linguistic forms: Italics: *dog, black* Meanings of linguistic forms: Single quotes: 'dog' In-text citations: Double quotes: "..." Corpus citation: Numbered, non-quoted Emphasis: Bold face Cognitive categories/concepts: Small caps: DOG, VEHICLE Cognitive metaphors/metonymies: small caps: LIFE IS A JOURNEY,

PLACE FOR INHABITANTS

Domains: small italicised caps: COLOUR, EMOTION

> metonymic mapping followed by the resulting reading

>>, >>> further metonymic mappings

=> metaphorical mapping followed by the resulting reading

Abbreviations

BCT	basic colour term
BCC	basic colour category
PIE	Proto-Indo European
PWN	PWN Corpus of Polish
B&K	Berlin and Kay
BNC	British National Corpus

All numbered citations throughout this volume have been extracted from the BNC or PWN corpus unless otherwise specified.

1. RESEARCH INTO PERCEPTION AND MEANING OF COLOUR

The experience of colour is common to nearly all people and has been the subject of a great many philosophical treatises, scientific and artistic experiments, anthropological studies, and countless books in fields as diverse as physics and linguistics. The phenomenon of colour is complex enough to have intrigued and inspired generations of researchers and idealogues. The most renowned individuals who have significantly contributed to the modern understanding of colour, or who have significantly influenced colour semantics, include: Hippocrates, Newton and Goethe. It is beyond the scope of this research to include descriptions of their theories, which have been thoroughly explicated in numerous publications before.

The twentieth century, however, witnessed an unprecedented explosion of interest in colour: in arts (Itten, Kandinsky, Klee), the chemistry of dyeing (Chevreul), psychology and chromotherapy, anthropology (MacLaury, Paramei, Dedrick), sociolinguistics, and literary analysis. Technological advances in artificial dyes and the production of textiles and plastic meant unlimited possibilities for manufacturers of daily objects, thus introducing a lot of vivid colours into the human environment. Most of the new hues and shades were named after flowers and fruit, natural substances, foodstuff and geographical names. Still, everyday language does not seem to have benefitted from the colour revolution. Apart from the areas where colour does matter, e.g. fashion, it is extremely rare to make fine distinctions between, for instance, purple and dark magenta. This is, by no means unique to the European or western world. John Gage, the author of the most thorough history of color theory, notes that "every civilisation had (and still has today) its myths and associations with colour, but oddly, none of them has named many colours" Gage (2006: 56). "The puzzle of colour-terminology – why such a rich human experience has issued in such a universally impoverished vocabulary" (ibid.) sparked interest in the anthropology of colour and the patterns of colour naming.

1.1 COGNITIVE SEMANTIC RESEARCH INTO COLOUR TERMS

Colour terms do not simply designate colour. Languages abound in colour terms which carry emotional or figurative associations. Even a cursory review of the meanings of BCTs reveals a high degree of polysemy which correlates with their high frequencies in linguistic corpora.

This chapter presents an overview of selected works and authors who have either investigated the semantic flexibility of colour terms in English and Polish, or have analysed them in contrast to the BCTs in other Slavonic or Germanic languages. The two exceptions are articles by Irena Vaňkova (2000; 2003) and Alfred Zaręba (1954). Vaňkova focuses on the semantics of single BCTs and the applications of colour terms in descriptions of facial colours in Czech. However, since the language is closely related to Polish, her observations are likely to have validity for this study. Zaręba (1954), on the other hand, focuses on the history of colour terms in Polish dialects, and provides a well-