CHAPTER 1

Defining and Exploring Binomials

Joanna Kopaczyk and Hans Sauer

1.1 What Are Binomials?

Repetition and coordination constitute pervasive phenomena in language and give rise to a host of linguistic structures and choices available to the language user in both speech and writing. In historical texts, which essentially come down to us in a written format, the motivations for repetition and coordination as well as their outcomes may differ from those characteristic of spoken spontaneous production. However, among structures arising from the choice (or need) to repeat and coordinate, one finds binomials, a phrasal unit whose shape, motivation and function bridge the spoken and written medium, bringing together phonology, semantics, syntax, style and etymology.

Consider the following passages from different periods in the history of English: the text in (1) is an excerpt from Chaucer's *Canterbury Tales* (late fourteenth century), in (2a) and (2b) we have fragments from early modern medical texts (Taavitsainen *et al.* 2010), and in (3) – from William Blackstone's *Commentaries* on the English laws (1723–1780).

(1) Whan she hadd swowned with a deedly cheere,
That it was routhe for **to seen and here**.
She seyde, 'Lord, to whom Fortune hath yiven
Victorie, and as a conqueror to lyven,
Nat greveth us **your glorie and your honour**,
But we biseken **mercy and socour**.
Have mercy on **oure wo and oure distresse**!
Som drope of pitee, thurgh thy gentilesse,
Upon us wrecched women lat thou falle.
For certes, lord, ther is noon of us alle,
That she ne hath been **a duchesse or a queene**.'
(Chaucer, *The Knight's Tale*, Fragment I, Cawley ed. [1958] 1992, ll. 913–923)

(2a) **Take and stampe** it & fry it with shepes talow/ and make a playster/ and lay it to a potager man/ & it shall helpe hym within. iii. dayes (1525, *Newe Matter*)

(2b) Put oyle of Hempseede warme into the eare, and stop it with sheeps wooll, and let the Patient **leape and use exercise**, then lye downe on the side that he is payned, to see if any thing will run out. (1634, Hawes, *Pooremans Plasterbox*)

(3) By marriage the **husband and wife** are one person in law: that is **the very being or legal existence** of the woman is suspended during the marriage, or at least is **incorporated and consolidated** into that of the husband: under whose **wing, protection, and cover**, she performs everything: and is therefore called in our law-french feme-covert . . . is said to be covert-baron, or under **the protection and influence** of her **husband, baron or lord**; and her condition during her marriage is called her coverture. (Manchester 1980: 368)

These texts are distant in time from each other, they belong to different genres and traditions, they are addressed to different audiences, and yet they all make use of pairs and strings of coordinated words of the same grammatical class. This usage seems to be dictated by a variety of factors: stylistic, having to do with genre traditions or related to comprehension. The motivations for choosing specific members of the pair may also be diverse: from phonological grounds on segmental and suprasegmental levels, to a range of semantic stimuli. Such constructions have usually been referred to as *binomials*, and their expanded version as *multinomials*. In this volume, we bring together studies into the nature of binomials in English, starting with the earliest history of the language and leading up to the present day.

Binomials have typically been defined as consisting of two words of the same word class which are paratactically coordinated by a conjunction (Malkiel 1959: 113; Bhatia 1993: 108). This structural definition on its own, however, is not enough. There is a difference, albeit not always easy to explain, between the coordinated pairs that would qualify as a binomial and those that would not. Consider the examples in (4), (5) and (6).

(4) They were having *fish and chips*.

(5) They trade in *fish and poultry*.

(6) They saw *fish and salt* on the table.

Example (4) is clearly the most formulaic of the three and the best candidate for a binomial. The meaning of the whole is constructed out of the individual meanings but also goes beyond that and creates a semantic

(and culinary) unit of its own. The arrangement of elements in the pair is irreversible, unless one wants to cancel the idiomatic meaning. It seems that fixedness and formulaicity are good criteria for a binomial. But Example (5) presents a coordinated pair which also forms a unit on semantic grounds: both *fish* and *poultry* stand for the edible flesh of an animal and complement each other to form a unified description of the goods subject to trade. To what extent it is a stable phrase, in terms of the order of elements and frequency of occurrence, is an interesting question, which could be followed up in a corpus-linguistic study (for similar queries, see Mollin 2014). Still, the last example in (6) does not sound like a good candidate for a binomial, even though members of the same word class are coordinated and they may even be placed in a larger semantic field of food.

In this book, we define a binomial as a coordinated pair of linguistic units of the same word class which show *some* semantic relation. We are deliberately non-committal in this definition as we do not want to exclude constructions which overlap with 'core' binomials on structural and semantic grounds, and which may give us an insight to the more general nature and scope of this linguistic phenomenon. However, we do recognize the typical features of a 'core' binomial such as its (relative) irreversibility and formulaic behaviour (see Section 1.5. below). In terms of word classes, binomials most frequently consist of two nouns, e.g. *bread and butter*, *man and wife*, *heaven and earth*, followed by pairs of verbs, e.g. *to have and to hold*, *hit and run*, *divide and conquer*, and of adjectives, e.g. *hot and spicy*, *dead or alive*. Pairs consisting of other word classes (e.g. of adverbs, *loud and clear*, or of prepositions, *in and out*) are rarer, but apart from pairs of nouns, the frequency of the other word classes varies from genre to genre. As chapters in this volume make plain, more research is needed here. In terms of the conjunction involved, *and* is used most often, but *or* and others also occur.

We acknowledge the fact that binomials can sometimes be extended to trinomials and multinomials by adding more coordinated elements, thus shading off into enumerations and lists, e.g. *hold, defend and favour*. The relationship between the binomial at the centre of an expanded sequence and the actual expansion is taken up by several chapters in this book. Some multinomials, however, seem to arise without a connection to a shorter coordinated sequence, e.g. *lock, stock and barrel* 'everything'.

The aim of this book is thus to contribute towards a history of binomials (and multinomials) in English and offer an overview of this

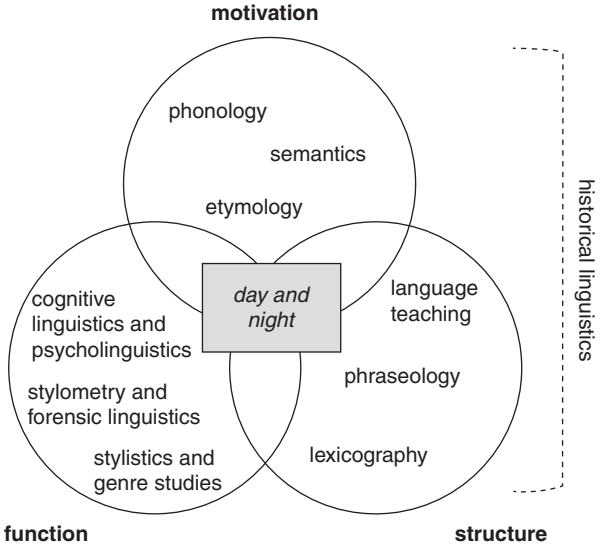

Figure 1.1 Linguistic disciplines and directions of inquiry into binomials

phenomenon in different periods and genres. At the centre of each chapter there are questions concerning the structure and functions of binomials and the motivations for their use. Figure 1.1 suggests what disciplines of linguistic inquiry may want to engage with binomials from their own perspective.

Firstly, it may be interesting to ask why a binomial such as *day and night* should be coined at all. In this specific case, the primary motivation seems to be semantic, but there are also other suggested sources of motivation for binomials, such as phonology, etymology or genre requirements, which we explore in Section 1.3. Secondly, the structure of a binomial and its stability may be interesting from a lexicographic and phraseological point of view, which readily translates into language-teaching contexts and the inclusion of binomials among multi-word units in reference books and dictionaries. Another structural perspective bridges syntax and morphology in terms of how binomials form agreement patterns with the co-text. Finally, a binomial may be approached from a functional angle by various disciplines, with a focus on individual or communal propensity for using coordinated structures in speech and writing. The quotations at the beginning of this introduction have shown that binomials can be found

in texts from every period in the history of English, which means that all lines of inquiry suggested here may be given a diachronic dimension.

Thus, research into binomials brings together several levels of linguistic structure, it requires attention to meaning and usage in context, and it involves looking at the differences in preferences and approaches depending on the author, genre and period. In a diverse area such as this, we cannot claim to be comprehensive in our coverage, but we certainly aim to address the most important aspects of binomial use from a diachronic perspective.

This topic in linguistics is not new and we take care to anchor our investigations in a rich pool of previous scholarship, surveyed in the following sections of this introduction and referred to in the individual chapters. We also highlight areas which still deserve more attention – certainly, not much research into binomials has been done from a genre-and-period perspective, which is one of the gaps our volume helps to fill. There is no comprehensive overview of the phenomenon in the history of English, nor any exhaustive treatment of binomials for any period, author or genre.[1] It is perhaps symptomatic that in the twentieth century only one monograph – Leisi (1947) – was devoted to a single Late Middle English text. Using the term *tautologische Wortpaare* 'tautologic word-pairs', Leisi analysed binomials in Caxton's *Eneydos*. His approach seems self-contradictory: in his introduction he states that binomials are an exception, even a curiosity and an anomaly in language; nevertheless, he then proceeds to give a very detailed and subtle semantic analysis of binomials used by Caxton in the text.

But binomials cannot have been an anomaly or an exception. This is clearly shown by their sheer number, not only in Caxton, but also in many other Old English, Middle English and Modern English texts – among other things, they were certainly an important stylistic feature. So far the outlook on present-day binomials has been mainly psycholinguistic and lexicographic, while binomials in historical texts were usually approached in a more philological vein. However, there has been a renewed interest in historical binomials in recent years (see, e.g., Berger 1993; Markus 2006; Bugaj 2006a, 2006b; Kopaczyk 2009, 2013a; Mollin 2012, 2013, 2014; Sauer 2014). In his PhD thesis, Tani (2010a) used a host of statistical methods to correlate the use of binomials in specific genre traditions and in individual texts across late Middle English prose works.[2] Indeed, with new tools and methodologies, especially involving historical corpora, new research becomes possible and diachronic patterns and pathways of usage, motivation and change start to emerge.

1.2 Early Approaches

Research on binomials has a tradition that is almost exactly two hundred years old.[3] It appears that the first scholar who studied binomials was, in fact, Jacob Grimm. Known by the wider public as a collector of fairy tales, Grimm was one the most important linguists of the nineteenth century, with the formulation of the first Germanic consonantal shift (Grimm's Law) (Campbell 1959: 163; Bammesberger 1992: 27, 33–40), among his most lasting achievements. In an article from 1816 (reprinted in 1882) he noted many similarities between early (Germanic) poetry and legal language, postulating a common origin for both. Even though he did not yet use the term *binomials*, nor any other specific term (see Section 1.3.1 below), in his *Deutsche Rechtsalterthümer* ([1828] 1922, 'Monuments of Early Germanic Law') he presented a collection of legal binomials from various Germanic languages, including Old English.[4]

Thus two strands of research ultimately go back to Grimm: on the one hand studies of binomials in legal language and, on the other, studies of binomials in early Germanic poetry, especially in Old English alliterative poetry. Grimm's hypothesis of a close relation between early poetry and legal language was, however, considerably modified by later research (e.g. Dilcher 1961; Sonderegger 1962; Kopaczyk 2013a). It has been shown, for example, that in later legal texts the number of binomials was much greater than in the earliest texts. It has also been pointed out that binomials with a biblical and Christian background cannot be of ancient Germanic origin; they could only have been created after Christianization, which in England began in the late sixth century, and in other Germanic countries even later (see also Fulk, this volume; Chapman, this volume).

Several initial studies concentrated on binomials in early alliterative poetry[5] (e.g. Hoffmann 1885; Meyer 1889; Salomon 1919; Christiani 1938); this theme is revisited in the chapter by Ogura in this volume. Krause (1922) compared binomials in several languages and concentrated on the factors that influenced or determined the sequence of their elements. His study can be taken as a preliminary step leading up to the more recent preoccupation with the word order in binomials (see Section 1.3.2 below). Binomials in some Old English (and Early Middle English) prose texts were collected and analysed by Koskenniemi (1968), while binomials in Middle English alliterative poetry were collected by Oakden (1930–1935). Oakden's lists document, for example, how many Old English alliterating binomials died out and how many binomials were newly created in Middle English alliterative poetry.

For present-day English, the only twentieth-century monograph on binomials is Gustafsson (1975). Although her nomenclature initially appears to be quite idiosyncratic, a careful review may relatively easily translate her terms into more current terminology. At the same time this discrepancy highlights the overall differences in frameworks, terms and definitions employed by scholars studying binomials. This is why we devote the next two sections to clarifying and defining the basic terminological toolset for a study of binomials, and to outlining the current linguistic approaches to this phraseological phenomenon.

1.3 Exploring Binomials

1.3.1 Terminology

To label the central theme of the book, we have preferred the term *binomial* because it has been most widely accepted as a reference label for the phenomenon in question, especially in linguistic studies. The term seems to have been coined by Malkiel in his 1959 paper on 'irreversible binomials'. It comes across as relatively neutral and leaves the precise formal and semantic relation between the elements of the pair open, thus allowing the inclusion of the maximum number of binomials and drawing attention to peripheral types.[6] In contrast, the term *conjoined phrases* (Tiersma 1999) seems to refer to longer phrasal units, *word pairs* (Tani 2008, 2010a) can refer to any lexical pairings, while *doublets* (Tani 2010b) as a term is rather vague and has been used by scholars to denote a range of stylistic devices, e.g. translational equivalents (Borchers 2007). Several other alternative terms are more restrictive, especially in terms of semantic relations. Thus terms such as *tautological pairs* or *repetitive pairs* (Leisi 1947; Koskenniemi 1968) exclude pairs exhibiting contrast or consisting of antonyms, whereas the term *paired opposites* (Cummings 1980) excludes synonymous and tautological pairs. Choosing only one point of focus, we lose the possibility to investigate semantic motivations behind binomials in their entirety. Furthermore, terms such as *formulae*, *fixed coordinates* and *freezes* (Abraham 1950; Cooper and Ross 1975; Birdsong 1995; Fenk-Oczlon 1989; Landsberg 1995) stress the formulaic and fixed nature of binomials; not all binomials, however, display a fixed order of their constituents. Indeed, corpus research shows that diachronic changes in order preference are by all means possible (Mollin 2014: 109ff.). The ordering preference may also vary from genre to genre and from text to text. It is therefore

important to acknowledge the relationship between fixed and flexible binomials and offer a comprehensive perspective.

1.3.2 *Recent Approaches*

Drawing on ideas initiated by Grimm and other scholars interested in ritualistic aspects of poetry and law, the theme of binomials has mostly been taken up in the context of legal language, both historical and current (Mellinkoff 1963; Gustafsson 1984; Hiltunen 1990; Bhatia 1994; Frade 2005; Iglesias-Rábade 2007; Kopaczyk 2009, 2013a).[7] Viewed in earlier scholarship mostly from a literary and stylistic (rarely lexicographic) perspective, binomials made an entrance into modern linguistic studies of English with the paper by Yakov Malkiel (1959). He was careful to distinguish them from idioms whose semantic and formal characteristics did not extend to the binomials in his scope. Still, he occasionally commented on the loss of idiomaticity if binomial order should be reversed, an observation which gives away the difficulty in classifying binomials as phraseological units. By the same token, in subsequent studies binomials have appeared in lists of various multi-word units, idioms and collocates (Makkai 1972: 155–164, 314–316; Moon 1998; cf. Grant and Bauer 2004). Binomials have also been discussed as an aspect of phraseology in reference materials such as grammars and dictionaries (e.g. Biber et al. 1999: 1030–1036; Huddleston and Pullum 2008: 1287–1289; Hamdan and Abu Guba 2007) and in more specific pedagogical contexts (Moon 1997; Alotaibi and Alotaibi 2015). This is largely due to a shift in the linguistic paradigm. In the second half of the twentieth century, transformational-generative grammatical theories maintainted that a competent native speaker of a language can create an infinite number of new sentences, using a limited number of rules and an infinite inventory of lexical units. Linguistic creativity was seen as one of the defining features of human language (see, for instance, Chomsky 1972). However, new automatic tools for processing linguistic data in large corpora highlighted the fact that language use is, in fact, relatively stable and repetitive. This observation was captured by Sinclair in his *idiom principle* – apparently sentences and phrases are not always created anew by each speaker or writer but they are "semi-preconstructed" (1991: 110). Binomials, at least as far as they are fixed and formulaic, could be considered as a subtype of those prefabricated, repetitive phrases.

One of the central issues taken up in linguistic approaches to binomials is the fixedness of the order of elements in a binomial

pair. The phenomenon has recently been studied from a corpus-based perspective (Hatzidaki 1999; Mollin 2012, 2014; Lohman 2014), as well as by experimental psycholinguistic methods (e.g. Siyanova-Chanturia, Conklin and van Heuven 2011; Arcara et al. 2012). Having followed up Malkiel's (1959: 116) suggestion that different binomials may be placed on a cline of reversibility, Mollin (2014) was able to show, on the basis of the BNC and Google Books N-gram corpus, the synchronic variation in reversibility patterns as well as diachronic trends.

Linguistic investigations have also concentrated on the criteria for a specific ordering of elements within the pair, which complements the research on 'frozenness' by providing arguments for changing the order to comply with a stronger constraint (Mollin 2012; Lohman 2014). The most significant factors involved in the ordering in a binomial pair are semantic and phonological, and these two strands have attracted most scholarly attention. From a semantic perspective, the 'Me-First' constraint (Malkiel 1959; Cooper and Ross 1975) proved very influential at the start, even if prone to criticism for its very specific cultural bias (Kopaczyk 2013a: 72; Mollin 2014: 65). More recent research highlights the importance of other semantic criteria, especially iconic sequencing and perceptual markedness (Benor and Levy 2006; Mollin 2014; Renner 2014), which would account for pairings such as *here and there*, *day and night*, *family and friends*, *mother and father* (in spite of the fact that *father and mother* has been more common historically).

The word order in the same binomials can also be explained from a phonological perspective, using a range of non-metrical and metrical criteria (for summary, see Mollin 2014). The non-metrical factors include alliteration and rhyme, vowel quality and quantity, sonority sequence, vocalic sequence and increasing obstruency (Cooper and Ross 1975; McDonald, Bock and Kelly 1993). Benor and Levy's study (2006) has shown that these constraints on binomial order are relatively weak in comparison to metrical criteria (and especially to the semantic criteria mentioned above). The metrical factors can be boiled down to ordering elements from short to long, a tendency in coordinated structures that was first observed in Sanskrit compounds by Pāṇini. Jespersen's proposal of an "avoidance of lapse" (Jespersen 1905) essentially captured the same principle in terms of reducing the number of consecutive unstressed syllables, and other scholars adopted this criterion combining it with syllable length and weight (Behagel 1909; Krause 1922; Bolinger 1962; Gustafsson 1974). Consequently, this theory predicts that the shorter word would precede the longer word in a binomial.

Studies with a cognitive and psycholinguistic background have been interested in finding frequency-related effects on binomial order (Gustafsson 1976; Fenk-Oczlon 1989; Lohman 2014), e.g. *heads and tails*. Some scholars suggested that the ordering might be alphabetical (Sullivan and Casagrande 1997) but this has not been tested or proven on a larger scale (Mollin 2014: 71; cf. Benor and Levy 2006).

The most important conclusion from research into factors involved in ordering the elements of a binomial is that semantic and phonological constraints "may reinforce or conflict with each other" (Sobkowiak 1993: 394). In view of this conclusion, Sobkowiak proposed a more general "principle of conjunct ordering in English: UNMARKED-BEFORE-MARKED" (1993: 395, emphasis original), calling upon the concept of markedness developed by the Prague School, especially by Nikolai S. Trubetzkoy for phonology and Roman Jakobson for morphology and semantics (see Battistella 1990: 26ff.), and extended from semantic to perceptual markedness in later studies. It is intriguing to note that the ordering pattern for individual binomials may change through time, possibly because the cultural and social changes affect the hierarchies of markedness. For example, the word order in the Old English binomial *sawl and lichama* 'soul and body' places *sawl* first, perhaps because in the Christian tradition the soul was more important than the body. The same order continued into Middle English, but in Modern English it was reversed to *body and soul*, perhaps because the *body* is visible and therefore perceptually less demanding, whereas the *soul* is invisible.

Benor and Levy (2006) look at the interaction of various constraints and admit that it is not clear, at least judging on the basis of their data and models, how various constraints interact. They suggest that there might be differences in behaviour between frozen and flexible binomials and that weak constraints may "gang up" to override strong constraints in individual cases or types. Copestake and Herbelot (2011) make a case for producing predictive models of binomial ordering on the basis of large corpora, such as Wikipedia and Google. The diachronic perspective is largely missing from these and similar studies, though.

In view of the universality of constraints proposed to affect the ordering of elements in a binomial, it is important to stress that the phenomenon of same-word-class coordination is by no means limited to English. Malkiel (1959) uses multiple examples from languages such as Latin, French, Spanish, German, Polish and Russian to illustrate his discussion of motivations behind the members of the pair and their arrangement. More recent research on binomials in other languages includes studies on