2 Background to Pattern Grammar and Construction Grammar

2.1 Introduction

This chapter provides an introduction to two of the concepts that are central to this study: Pattern Grammar and Construction Grammar. The chapter consists of an overview of each, followed by a discussion of how they are related to one another.

2.2 Pattern Grammar

Pattern Grammar was initiated by Gill Francis and developed as a means of recording the grammatical patterning of individual entries in the Collins COBUILD English Dictionary – CCED (Sinclair 1995). It was based on an insight articulated by Sinclair (1987: 109), that when a lexicographer investigates a word in a corpus using concordancing software, the various senses of the word are observable as different patternings i.e. sequences of lexical and grammatical elements. As an example of the interdependence of grammatical form and meaning, Table 2.1 shows examples of different senses of the verb DECIDE and the observed patterning.

Sinclair (1991: 7) concluded that 'there is ultimately no distinction between form and meaning', and that it was consequently important to record the detail of the patterning of each sense of each word. Of course, learners' dictionaries generally do record grammatical information, but Francis observed that traditional notation has two disadvantages: it tends to use technical terminology that a learner may not know; and it tends to lack important detail (Francis 1993: 140–141). The advantage of the detailed corpus-based lexicography used in the COBUILD project was that every recurring pattern associated with each sense of each word could be recorded, using a simple but flexible scheme. Although each word in the dictionary is coded in this way, this book is concerned only with verb patterns, so this discussion will be restricted to them. When the dictionary was published in 1995, a total of 152 verb complementation patterns had been identified (Francis et al. 1996: 625–630). (Some of these patterns are used with very few verbs; some are variations of other patterns and can be

Table 2.1 *DECIDE pattern and meaning (examples from the BNC and enTenTen21)*

Example	Pattern	Notation	Meaning
Michael decided to change his name.	Subject is animate. Verb is followed by a to-infinitive clause.	**V to-inf**	Michael determines a course of action.
Jen decided that the best thing to do was to leave.	Subject is animate. Verb is followed by a that-clause.	**V that**	Jen reaches a conclusion about a situation.
Lucy decided on the steak and kidney pie.	Subject is animate. Verb is followed by 'on' and a noun phrase.	**V *on* n**	Lucy makes a choice between available foods.
Ecca hesitated, but her new friend's smile decided her.	Subject ('behaviour') is inanimate. Verb is followed by an animate noun phrase.	**V n**	A circumstance enables Ecca to make up her mind.

subsumed in them. There are 87 patterns deemed substantial enough to be covered in a named section in Francis et al. 1996.) The patterns might be divided into five types:

1. The verb is followed by a single element comprising a phrase or clause type e.g. 'verb + noun phrase' (**V n**); 'verb + that-clause' (**V that**); 'verb + -ing clause' (**V -ing**). Examples are 'built a castle', 'said that he was sad', and 'liked drinking black coffee'.
2. The verb is followed by two elements comprising phrase or clause types e.g. 'verb + noun phrase + noun phrase' (**V n n**); 'verb + noun phrase + that-clause' (**V n that**); 'verb + noun phrase + -ing clause' (**V n -ing**). Examples are 'baked her mother a cake', 'told him that she was sad', and 'saw the child crossing the road'.
3. The verb is followed by a prepositional phrase beginning with a specific preposition e.g. 'verb + *at* + noun phrase' (**V *at* n**); 'verb + *into* + noun phrase' (**V *into* n**); 'verb + *on* + noun phrase' (**V *on* n**). Examples are 'look at the picture', 'look into the crime', and 'decide on a puppy'.
4. The verb is followed by a noun phrase and a prepositional phrase e.g. 'verb + noun phrase + *at* + noun phrase' (**V n *at* n**); 'verb + noun phrase + *into* + noun phrase' (**V n *into* n**); 'verb + noun phrase + *on* + noun phrase' (**V n *on* n**). Examples are 'took the applicant at her word', 'bullied him into crime', and 'decided her on a puppy'.
5. The verb is used in a clause beginning with an anticipatory *it* or a dummy subject *there* e.g. '*it* + verb + adjective + that-clause' (***it* v-link adj that**);

'*there* + verb + noun phrase + prepositional phrase' (***there* v-link v prep**). Examples are 'it seemed unbelievable that he was sad' and 'there was a book on the table'.

It will be noted that these codes give information only about the form of the elements in the pattern. For example, as shown in Table 2.1, the subject of DECIDE is always animate, and one might say either human or human-like. Not only is this information not given in the pattern notation, but in fact it is assumed that all verbs occur with Subjects, so that the presence of a Subject is not dependent on which verb is used, and so the patterns do not indicate the presence of a noun phrase before the verb. (See Hanks 2013, discussed in Chapter 4, for an alternative approach.)

In those cases where the code indicates a class of thing (phrase or clause) rather than a specific word, the code can subsume substantial detail. Most strikingly, the term 'noun phrase', indicated by '**n**', includes not only single nouns, pronouns, and multi-word noun phrases, but also '-ing' clauses. For example, the pattern 'verb + *as* + noun phrase' (**V *as* n**) also covers instances of 'verb + *as* + -ing clause', such as . . . *qualify as being in priority need* (Francis et al. 1996: 161). In some cases, however, a phrase type needs to be specified in more detail. The pattern 'verb + noun phrase + *into* + -ing clause' (**V n *into* -ing**) departs from the norm in specifying an '-ing' clause, because the verbs used in that pattern are different from those in the equivalent **V n *into* n** pattern. Specific phrase types are used also when they contribute to the meaning of a verb. The pattern 'verb + reflexive pronoun + prepositional phrase' (**V pron-refl prep**) indicates that the noun phrase following the verb is a particular kind of pronoun (e.g. 'He found himself in a dark forest'). Although in other patterns, the noun phrase can be a pronoun (e.g. an example of **V n n** would be 'He baked himself a cake'), in the case of FIND the reflexive pronoun is integral to the meaning of the phrase. Similarly, the pattern 'verb + amount + *of* + noun phrase' (**V amount *of* n**) indicates that whatever follows the preposition must represent an amount, however, that is expressed (e.g. 'She thought highly / a great deal of her friend'). Again, this usage distinguishes this meaning of THINK.

The next stage in the Pattern Grammar project was the collection of all the entries in the CCED (Sinclair 1995) that have the same pattern. For example, all the verbs with the patterns **V to-inf**, **V that** and **V *on* n** were collected. Unsurprisingly, this is not a random list of verbs; rather, the verbs can be grouped according to shared meaning. For example, the verbs with the pattern **V *on* n** can be arranged into over 30 'meaning groups'. Some examples are:

- The 'comment on something' group e.g. *comment, discourse, dwell, generalise, lecture, preach, pronounce, remark, rule, speak, talk,* and *write*.

- The 'reflect on something' group e.g. *brood, cogitate, meditate, reflect,* and *speculate*.
- The 'beat on something' group e.g. *bang, beat, grate, hammer, press, stamp,* and *tread*.
- The 'depend on someone or something' group e.g. *bank, count, depend, hinge, lean, rely, ride,* and *turn*.
- The 'focus on something' group e.g. *(eyes) alight, centre, (eyes) fall, (eyes) fix, focus,* and *(eyes) rest*.

The patterns and the meaning groups identified are listed in Francis et al. (1996: 215–229) and on the grammar patterns website (grammar.collinsdictionary.com/grammar-pattern). The description of the meaning groups, and the examples given, allow for more details of phraseology to be given. For example, in the description of the 'depend on something' group some verbs are used with an animate subject ('a person relies on something or someone') and some with an inanimate one ('an event turns on a contingency'). In the 'focus on something' group, it is noted that a subset of the verbs listed have 'eyes' as the subject ('her eyes rested on the photograph').

Francis et al. (1996) list 87 'main' verb patterns, that is, those used with sufficient different verbs to warrant a mention in the contents page of the book. Each pattern subsumes its passive equivalent and its phrasal verb equivalent. For example, the pattern entry for **V *on* n** includes the passive pattern ***be* V-ed *on*** (e.g. *His car was fired on*) and the phrasal verb pattern **V P *on* n** (e.g. *Big American firms were muscling in on the market*). In some cases, there are minor patterns, accounting for very few verbs, that are listed as add-ons to the main ones. For example, the pattern entry for **V *on* n** includes **V *on* n *as* n/-ing/ adj** (e.g. *look on someone as selfish*) and **V *on* n to-inf** (e.g. *bank on someone to do something*). This explains the discrepancy between the recorded numbers of patterns: 87 listed in the contents page and 152 in the index.

Pattern Grammar has been criticised, justifiably, for its lack of detail as regards the semantic sets that the participants belong to (Hanks 2013), for its lack of quantitative information (Stefanowitsch and Gries 2003) and for its lack of engagement with semantic theory (Perek and Patten 2019). The meaning groups themselves might be said to be something of a compromise between comprehensive coverage and manageable proportion. For example, one of the 32 groups listed under the pattern **V *on* n** is the 'pounce' group (Francis et al. 1996: 220). The description picks out three subgroups, but does not allocate verbs to the subgroups:

- 'physically attacking someone' e.g. 'pounce on a victim' and 'fire on a village';
- 'criticising someone' e.g. 'turn on someone' and 'round on someone';
- 'stopping someone's activities' e.g. 'crack down on crime'.

These subgroups are very different from each other, raising questions as to whether they belong together. In addition, some of the 16 verbs listed as belonging to the 'pounce' group do not fit comfortably into any of the subgroups. Examples are the verbs DUMP and PREY. The phrase 'dump on someone' has the specific sense of 'talk about one's own unhappiness to an excessive extent', while 'prey on someone' has the specific sense of 'exploit a vulnerable person'. They do, however, fit with the overall group description of 'attacking or harming someone or treating them in a bad or hostile way'. The 'pounce' group could have been divided into several more specific groups, but to some extent having many groups with one or two verbs negates the value of the groups themselves. Even with such broad groupings, there are in all the patterns some verbs that just do not fit, and these are listed in a 'miscellaneous' or 'verbs with other meanings' group.

The important advantage of the Pattern Grammar resource is its comprehensiveness. Every single sense of every single word in the CCED is coded for the grammar patterns it is used with, leading to many thousands of word+pattern combinations. With a very few exceptions, Francis et al. (1996) list all the verbs in that dictionary that have been coded with a given pattern. The main exceptions are the patterns **V** (intransitive verb without complementation e.g. 'The car stopped') and **V n** (transitive verb e.g. 'The horse jumped the fence'). There are so many verbs with these patterns that Francis et al. (1996) list only the most frequent. Aside from these two patterns, the comprehensiveness makes it a useful resource for others wishing to reinterpret the patterns in terms of constructions (e.g. Ellis et al. 2016; Perek and Patten 2019).

2.3 Construction Grammar

Construction Grammar has an extensive literature, which describes several variations on the common approach (Croft and Cruse 2004: 257–290; Fillmore 2013; Hilpert 2014; Hoffman 2016; Michaelis 2024). For the most part, the version that is prioritised here is that articulated by Goldberg (2006), Hilpert (2014), and Haspelmath (2023). This section will consider three aspects of Construction Grammar: what a construction is; how constructions are investigated; and the concept of the constructicon.

Goldberg's definition of constructions is that they are 'learned pairings of form with semantic or discourse functions' (Goldberg 2006: 5). They are said to exist at all levels of language: 'from morphemes to abstract sentence patterns' (Hoffman 2016: 2), and to account for, essentially, everything that a speaker knows about the structure, phraseology and usage of a language (Hilpert 2014: 2). Some definitions specify that a construction should be 'non-compositional', that is, its meaning is not predictable from the meaning of its constituents (e.g. Goldberg 1995: 4). However, Hilpert (2014:12–13) argues

that this criterion is no longer widely used. More recently, Haspelmath (2023: 8) proposes an alternative definition of a construction that is somewhat controversial, but which fits well with the verb argument constructions discussed in this book:

> A construction is a conventional schema for creating or motivating well-formed expressions in which there is at least one open slot that can be filled by one of several expressions that belong to the same form-class.

This slot-and-filler definition excludes both single-word and fixed-phrase constructions, which have no open slot, as well as very generalised constructions such as the interrogative or the past tense. The definition also excludes the requirement that a construction be 'learnt' or 'known', instead requiring it to be 'a conventional schema'. This means that a construction can be discovered in a corpus, as a regularly occurring schema, without the requirement to demonstrate that speakers have a representation of the construction in their minds. This is in line with the approach of Boas (2008) and Goldberg and Herbst (2021). The definition also makes it clear that the construction itself is an abstraction that generates instances, not the instances themselves.

Many well-known studies of constructions focus on the idiosyncratic, sometimes disparagingly known as 'butterfly collecting' (Hilpert 2014:14). Perek (2021) notes commonly cited examples of constructions such as: the 'let alone' construction from Fillmore et al. (1988) (e.g. 'I don't like fish, let alone oysters'); the 'what's X doing Y' construction from Kay and Fillmore (1999) (e.g. 'What's my name doing on this list'); and the 'just because … doesn't mean … ' construction from Bender and Kathol (2001) (e.g. 'Just because she works for Trump doesn't mean she's a racist'). In line with Haspelmath's definition, few if any studies discuss single words in terms of constructions. Similarly, although constructions can be general grammatical principles, such as tense or mood formations (e.g. the 'past tense' construction; the 'interrogative' construction), these again are rarely studied (Perek 2021). On the other hand, there is an extensive tradition of studies of argument constructions (Goldberg 1995; Boas 2008; Hilpert 2014; Diessel 2020; Goldberg and Herbst 2021, Chapter 2). These are the most relevant to the constructions proposed in this book. Examples that are based on verb valency include the 'resultative' construction, the 'ditransitive' construction, and the 'caused_motion' construction. An example based on adjective valency is the 'nice of you (to do)' construction (Goldberg and Herbst 2021).

Studies of argument constructions focus on specifying the meaning of the construction and the constraints on which verbs (or nouns, or adjectives) are licensed to occur in it, as well as extensions to it, such as metaphorical uses. It is argued that a construction is often used with words in a given semantic set (Boas 2008). For example, the 'ditransitive' construction is used with verbs that mean 'transfer possession'. However, one of the main points made in the

literature is that the construction itself has a meaning which is not dependent on the meaning of the verbs found in it. Speakers are often creative with constructions, because the meaning of a construction overrides the usual meaning of its component parts. Goldberg (2006: 73) offers some examples, such as 'Pat sneezed the foam off the cappucino', which is an instance of the 'caused motion' construction because of its form ('verb something somewhere'), even though SNEEZE is an unusual verb to use in this context. Another example is 'She kissed him unconscious', which exemplifies the 'resultative' construction, again because of its form ('verb someone state'), although again KISS does not usually mean 'bring about a result'. An example given by Goldberg and Herbst (2021: 293) is the use of adjectives such as *big, sick, rich, American*, and *cold* in the '(it was) nice of you (to do)' construction. The meaning of the construction means that these adjectives are interpreted with an evaluative, not descriptive, meaning. Hilpert (2014) refers to this as 'coercion', citing Michaelis (2004). He summarises the principle as 'constructions may override word meanings, creating non-compositional constructional meanings in the process' (Hilpert 2014: 17).

Boas (2008) notes that there are problematic limits to this creativity, however. For example, he notes that whereas an example like 'He talked himself blue in the face' is possible, a similar 'He spoke himself blue in the face' is not. This suggests that the idea that a construction will license the use of all verbs in a semantic class must be treated with caution. Boas (2008) proposes that the semantic classes involved should be more narrowly defined to take account of this. An interesting example in English is the verb SUGGEST which, conventionally in British English, is not used in the 'tell someone to do' construction as TELL, ORDER, ADVISE, and COUNSEL are. This implies that SUGGEST does not belong to a set meaning 'impose an action on someone by talking'. The example is interesting because SUGGEST is changing in this regard, such that examples such as (1) and (2) appear to be increasing in acceptability.

(1) I called my midwife and was suggested to go to the hospital. (enTenTen21)

(2) . . . many people suggested me to wear loose and comfortable clothes at that time . . . (enTenTen21)

This implies that SUGGEST is moving from outside a semantic set to inside it.

According to Haspelmath, then, constructions have empty slots that can be filled by a range of words, and the range and relative frequency of these words can be identified from corpus studies. This offers a way of deriving the meaning of a construction based on usage evidence rather than intuition (Boas 2008; Goldberg and Herbst 2021). This approach forms the basis of work by Gries and Stefanowitsch (Stefanowitsch and Gries 2003; Gries and Stefanowitsch

2004; Gries 2019). They use the term 'collostruction' to mean the collocation between constructions and words, and 'collexeme' to mean a word that occurs significantly in a construction. Put simply, these studies explain ways of identifying what is a 'typical' word in the empty slot in a verb argument construction, and by extension what the canonical or prototypical meaning of the construction is. For example, Stefanowitsch and Gries (2003: 225) study the 'into-causative' construction (e.g. 'He tricked me into giving him my phone') and identify TRICK as the verb most strongly attracted to that construction. A possible consequence of this is that when other verbs are used in this construction, such as TALK or DEBATE, the construction still implies a level of trickery or deceit. Gries and Stefanowitsch (2004) study alternations and discover, for example, that whereas GIVE is the verb most strongly associated with the 'ditransitive' construction, the alternative 'to-dative' construction has BRING as its prototypical collexeme. The most typical usages, then, would be 'Mary gave John a book' but 'John brought the book to Mary'.

An important aim of those working in Construction Grammar is not only to list the constructions in a language but to represent the links and dependencies between those constructions: that is, to devise a constructicon. Numerous constructicon projects, relating to several different languages, are now in progress (e.g. Lyngfelt et al. 2018; Herbst and Uhrig 2019; Ziem et al. 2019; Sass 2024). Their aim is to build networks that will account for all constructional features of a language: in traditional terms, all of its grammar, lexis, and phraseology. This is an ambitious goal and understandably some constructicons set themselves more modest interim goals. The constructicon of Czech reported by Sass (2024), for example, prioritises what might be called 'lexical' constructions, leading to a 'construction dictionary' as the intermediate step to a full constructicon.

Here, I will focus on two projects which aim to build constructicons of English. They have been selected because, like the study reported in this book, their starting point is an inventory of verb complementation patterns. The projects are led by (1) Perek and Patten (2019; see also englishconstructicon.bham.ac.uk) and (2) Herbst and Ulrig (2019).

The aim of Perek and Patten's project is to build a constructicon for English that is 'more comprehensive' than current alternatives (e.g. Fillmore et al. 2012; Perek and Patten 2019: 355). To do this they exploit two resources that they describe as comprehensive in complementary ways: FrameNet (Ruppenhofer et al. 2016), which 'is based on sound semantic principles derived from a specific theory of word meaning'; and the Grammar Pattern books (Francis et al. 1996, 1998), which 'contain a wealth of information about the combinatorial properties of a large number of English nouns, verbs, and adjectives' (Perek and Patten 2019: 361–362). The authors exploit that fact that in FrameNet the frames are arranged in hierarchies, using concepts such as

'inheritance'. Perek and Patten (2019: 359) illustrate this with an example of the Transfer Frame, which is inherited by the Giving and Receiving Frames. In turn, the Giving Frame is inherited by the Lending and Supply Frames, and the Offering Frame uses parts of the Giving Frame also. There is, therefore, a hierarchy of frames, with Transfer as the most general and Lending, Supply, and Offering as the most specific.

Perek and Patten (2019) also make use of the fact that all the verbs recorded as occurring with a specific pattern are to be found in electronically stored lists, as are all the verbs recorded as occurring with specific Frames. By matching the lists, it is possible to add semantic information from FrameNet to the patterns. That is, instead of the subjectively derived 'meaning groups', they propose Frame-inspired groupings. Perek and Patten illustrate their approach with the verb complementation pattern **V that**. They identify several general frames that use this pattern: Communication, Mental_activity, Perception, and Emotion. Of these, Communication accounts for most of the verbs with the pattern **V that**. Figure 2.1, from Perek and Patten (2019: 372), shows the relevant frames, with numbers showing the number of verbs identified in each.

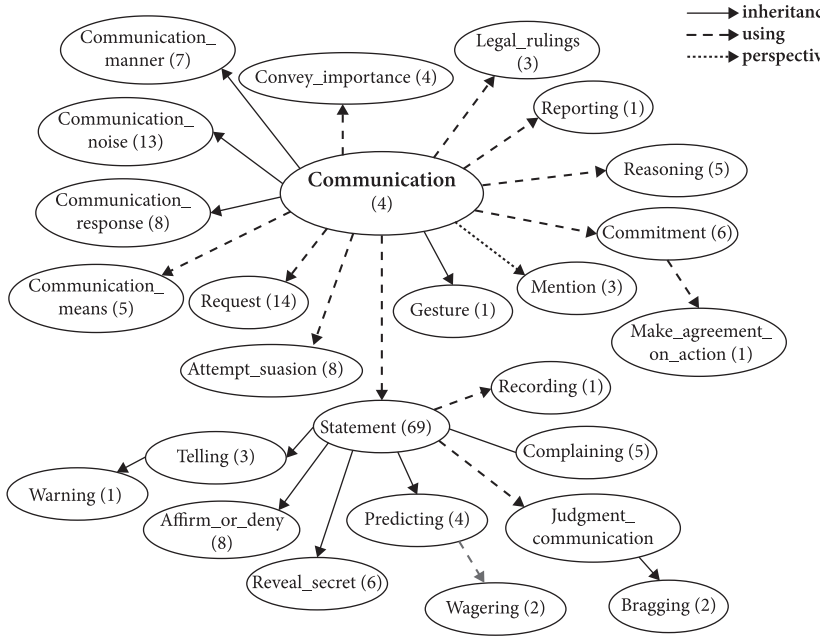

Figure 2.1 The Communication network of frames in the 'V that' pattern. (reproduced from Perek and Patten 2019: 372)

FrameNet lists 24 frames that inherit from or use the Communication Frame, either directly or via another frame. For example, Communication_manner, Communication_noise, and Communication_response all inherit directly from Communication. However, Make_agreement_on_action uses the Commitment Frame, which in turn uses Communication. Perek and Patten place each of the Communication verbs listed under the **V that** pattern in Francis et al. (1996) into one of the 24 frames. They add a further frame, Wagering, proposing that it uses the Predicting Frame, which inherits from Statement.

Perek and Patten (2019: 380) conclude that using FrameNet in this way can 'turn patterns into a structured set of form-meaning pairs at varying levels of semantic granularity', but point out that considerable manual work is needed to merge the two resources into a constructicon. To some extent, the work reported in this book replicates Perek and Patten's work, though it does not use FrameNet, for reasons outlined in Chapter 4. It could be argued that this makes the work in this book less rigorous in terms of semantic theory. On the other hand, the less cumbersome process of arriving at constructions from patterns means that more constructions can be described, and the next step of populating system networks can be achieved.

The starting point for Herbst and Uhrig's (2019) project is the Erlangen Valency Patternbank; this is an inventory of valency patterns for verbs, nouns, and adjectives found in the *Valency Dictionary of English* (Herbst et al. 2004). The valency patterns are similar to the grammar patterns described earlier, and are similarly based on a large-scale corpus lexicography project, but offer more specific detail, for example in relation to collocation as well as grammatical form. As a consequence, a large proportion of verb valency patterns (46 per cent) are specific to a single verb (Herbst and Uhrig 2019: 175). Herbst and Uhrig's aim is to build a constructicon of argument constructions that will be usable by a more general constructicon of English. They note that an argument construction must both describe the form and meaning of the construction and list the items that can occur in it (Herbst and Uhrig 2019: 177), which could be said to be the criteria used also in the study described in this book. Their paper discusses a number of issues of relevance to this study also, such as how specific or how general to make a construction, how to name a construction in a way that most adequately captures its form and meaning, and how to represent the connection between closely related constructions. They also discuss what the representation of a construction should be in a constructicon, concluding that 'it is perfectly obvious that the exact format of an entry must be adapted to the needs of the particular user group envisaged' (Herbst and Uhrig 2019: 179).

Attempts to compile constructicons, such as these, raise the more general question of how constructions are related to one another, or how the relationship between constructions might be described. This matter is discussed in detail by Diessel (2020), who emphasises the need to account for Construction Grammar within psychological theory and frames his argument accordingly. He agrees with Boas that 'argument-structure constructions are organized around particular verbs, or narrow verb classes' (Diessel 2020: 5). He proposes 'constructional relations' of two kinds: 'similarity' and 'contrast'. Similarity relations between constructions, he argues, are similar to lexical relations, in that they form a network of varying kinds of connections, such as hyponymy, synonymy, or collocation. He concludes: 'Taken together, this research suggests that argument-structure constructions are organized in construction families with overlapping structural and/or semantic properties similar to lexical expressions in the mental lexicon' (Diessel 2020: 11).

This is illustrated with a cluster of five constructions expressing possession transfer, each one of which is linked to every other one. The five are:

i. The transitive e.g. 'Sally gave some money'.
ii. The ditransitive e.g. 'Sally gave Jim some money'.
iii. The directional oblique, subdivided into (iv) and (v).
iv. The to-dative e.g. 'Sally gave some money to Jim'.
v. The 'provide *with*' e.g. 'Sally provided Jim with money'.

As all the examples are transitive, they all inherit the characteristics of construction (i). Constructions (iv) and (v) are sub-types of construction (iii). The double object construction (ii) includes all three arguments (Sally, Jim, and money), and the three also appear in constructions (iv) and (v) as alternations of the double object. These relations are shown in Figure 2.2.

The issue of how constructions are related to one another is also a central concern in Goldberg and Herbst (2021). They base their discussion on the 'nice of you' construction (e.g. 'It was nice of you to bring the cake'), and in keeping with similar studies they itemise in detail the constraints on the elements of the

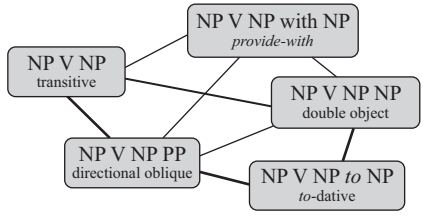

Figure 2.2 Verb argument construction families (from Diessel 2020: 11)

construction. These include restrictions on the to-infinitive clause, which must construe an action rather than a state, and which is unlikely to be passive. The study is corpus-based, with a quantification of the adjectives used. Comparisons are drawn between US and British usage ('nice of you' versus 'good of you'), and the study has a diachronic dimension, with changes in frequency over time noted and accounted for. Importantly, connections are drawn between this construction and other related ones, as itemised in the following:

i. The fragment 'adj of you to' (without *it*), used as a greeting e.g. 'Nice of you to come'.
ii. The fragment 'adj of me' (without *it* or a to-infinitive clause), used as self-criticism e.g. 'Silly of me'.
iii. The similar in form 'difficult to-infinitive' e.g. 'It is difficult to imagine a better example'.
iv. The more general 'adjective to-infinitive' e.g. 'She was impossible to talk to'.
v. The more general 'adjective that-clause' e.g. 'They were surprised that he arrived so early'.

This leads to the discussion of construction relations, and how they might be represented. The authors argue that the situation is neither simple nor random: ' . . . language is not generated by a small set of elegant principles' but also ' . . . constructions do not comprise an unstructured list' (Goldberg and Herbst 2021: 286). They draw an analogy with 'bricolage' in art, which is neither totally ordered not totally disordered. There are no straightforward taxonomies of constructions, but some partial networks might be proposed. Figure 2.3, for example, is an attempt to represent Goldberg and Herbst's observations about relations between the adjective argument constructions mentioned.

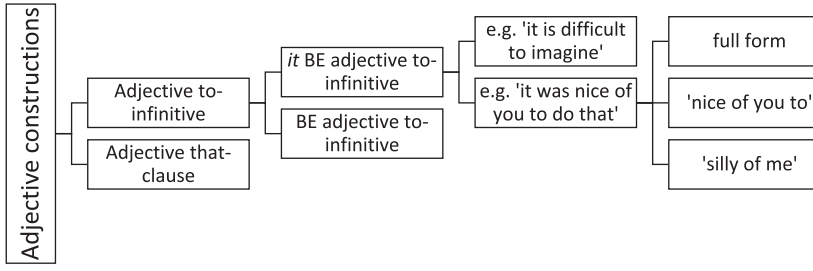

Figure 2.3 Adjective argument constructions (re-imagined from Goldberg and Herbst 2021)

2.4 Pattern Grammar and Construction Grammar Compared

Sinclair's work on Corpus Linguistics and the initial work on Construction Grammar grew up independently of each other, yet it is striking how similar their approaches to language are. Sinclair's work on corpus lexicography led to his proposal of the Unit of Meaning as the place where meaning is located. The Unit of Meaning is a variable phrase, typically consisting of a node wordform or lemma, its associated collocations, word classes and lexical sets, and a discourse function or semantic prosody (Sinclair 1991, 2004). Units of Meaning are remarkably similar to many of the constructions discussed in the literature. The famous 'naked eye' example (Sinclair 2004: 30–35) accounts for phrases such as 'invisible to the naked eye', 'too faint to be seen with the naked eye', or 'barely visible to the naked eye'. Sinclair summarises this as a sequence that mixes meaning with lexical and grammatical items: 'visibility + preposition *to* or *with* + *the naked eye*' (Sinclair 2004: 33). This could equally well be expressed as 'the "visible to the naked eye" construction', similar to 'the "accident waiting to happen" construction'.

From the point of view of Pattern Grammar, there are some equally obvious overlaps. In some cases, the same or very similar phenomena are discussed, with different terminology. Examples include the **V n *into* -ing** pattern and the 'causative "into" construction' (Stefanowitsch and Gries 2003), and the ***it*** **v-link ADJ to-inf** pattern and the 'nice of you' construction (Goldberg and Herbst 2021). Points about the 'meaning' of patterns and the coercion of meaning when the patterns are used creatively are made in Hunston and Francis (2000) and are consistent with the discussions mentioned earlier. It is not surprising, therefore that both Ellis et al. (2016) and Perek and Patten (2019) take the comprehensive listings in Francis et al. (1996) as a resource for 'populating' studies of constructions.

For many years, however, whereas it was noted that patterns and constructions were somewhat similar, they tended to be seen as 'in competition' with each other rather than 'in collaboration'. More recently, the potential contribution of Pattern Grammar to Construction Grammar has been discussed in Hunston and Su (2019) and Hunston (2019, 2022). In these publications, it is proposed that the meaning groups themselves can be interpreted as candidate constructions, thus aligning Pattern Grammar and Construction Grammar. For example, the **V *on* n** pattern, whose meaning groups are shown in Section 2.2, can be reinterpreted as a set of constructions, which might include:

- a '[person] [produce language] *on* [topic]' construction e.g. *He spoke on the evils of race and colour prejudice . . .* (BNC)
- a '[person] [rely/bank] *on* [situation]' construction e.g. *[They] relied on their own expertise*. (BNC)

- a '[eyes] [alight/fall/fix/rest] *on* [entity]' construction e.g. . . . *her eyes rested on a distant tree* . . . (BNC)
- a [person] [form of attack] *on* [person]' construction e.g. *Nicholson rounded on him, his eyes blazing*. (BNC)

Such constructions might be defined at greater or lesser levels of detail. For example, the final construction listed, from the 'pounce on something' meaning group, could be interpreted with each verb + pattern combination constituting a separate construction, or as the generalised construction shown. This line of argument is followed in Chapter 3.

To the suggestion that patterns and constructions are aligned, though, a number of caveats must be made. The pattern-based constructions proposed in this book meet only some definitions of a construction. Most of them, for example, are not non-compositional. That is, their meaning is entirely deducible from their constituent parts. They represent only one kind of construction, with no mention of a wide range of more idiomatic constructions such as 'accident waiting to happen', or 'the more . . . the more . . . ', or 'let alone', or 'what's . . . doing'. They also do not cover more abstract constructions, such as the negative or the interrogative. Finally, the constructions referred to in this book, and listed on the Transitivity-Net website (transitivity-net.bham.ac.uk), are only proposed constructions. They have been derived through a subjective reinterpretation of verb complementation patterns, which themselves are the product of a large-scale corpus study. The constructions have not arisen through a statistical study, neither can it be known whether they exist as mental constructs in the minds of speakers of English. Testing out the proposed constructions through measurement or psycholinguistic experimentation, remains a task for the future.

2.5 Conclusion

This chapter has introduced Pattern Grammar and Construction Grammar as distinct but overlapping approaches to language description. The argument has been made that the corpus analysis work that led to the Pattern Grammar resource can be placed at the service of Construction Grammar, facilitating a more comprehensive approach to deriving constructions and to modelling the connections between them. This implies a difference in status between the two approaches, with Construction Grammar the more theoretically developed of the two, and Pattern Grammar simply helping out. This observation will be returned to in Chapter 9 of this book.

Chapter 3 continues the focus on patterns and constructions, with an account of the development of constructions from patterns, and the use of networks to model a hierarchy of constructions.