Chapter 4. Basic clausal constructions and constructional alternations in construction grammars

4.1 Introduction
In human communication, the clause is a basic unit for building discourse. As Langacker (2008a: 354) puts it, “clauses are thus our basic vehicle for talking about the world and relating occurrences to our own circumstances. Usually a discourse consists primarily of a series of clauses; only rarely does it comprise a series of nominals”. Clause structures can be sorted into types according to the relation between nouns and verbs involved.\(^3\) In this sense, transitive, intransitive, and copular structures would be examples of the most basic clause structures, although there is no definite list of clause types (Langacker 2008a: 358). In generative grammars, a clause structure is taken to be purely syntactic and meaningless, and thus any novel senses in a clause would be assigned to its verbs or other constituents. This view, however, has been challenged by construction grammars because of its non-economical nature, circularity, and other problems (Goldberg 1995: 9-21); instead, a constructional approach to grammar holds that clause structures are inherently meaningful, an idea which forms the basis of the present thesis.

This chapter presents a constructional approach to clausal structures in general and then to the specific basic clausal constructions and constructional alternations to be studied in this thesis.

4.2 What is a clausal construction in construction grammars?
In opposition to the truth-conditional view of semantics, cognitive approaches to grammars, especially Langacker’s Cognitive Grammar, Croft’s Radical Construction Grammar, and Goldberg’s Construction Grammar,\(^4\) maintain that meanings of lexical and grammatical constructions are equal to our construal of conceptual content (that is, events) (Croft 2012; Goldberg 1995, 2006; Langacker 1987, 1990, 2008a). Specifically, these approaches hold that lexical or constructional meaning lies neither in the conceptual content nor the human conceptualization alone; instead it resides in the interaction between the two. Based on this view, a number of cognitive

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\(^3\) Clauses can also be classified according to other factors such as the voice, e.g., active vs. passive.

\(^4\) Goldberg’s Construction Grammar simply focuses on the result of conceptualization, rather than the process.
models have been proposed to characterize clausal semantics, including the Billiard Ball Model and the Stage Model (Langacker 1990, 2008a), force dynamics (Talmy 1988, 2000), and causal chains (Croft 1991, 2012). Since Langacker’s Billiard Ball model covers a greater variety of clause types, this model, together with the Stage Model, is taken as the main starting point in the present thesis. Indeed, the Billiard Ball Model is closely related to another group of semantic models for characterizing clausal semantics, which are proposed by Lakoff (1977), Hopper and Thompson (1980), and many others. It is thus necessary to compare the two types of semantic models. In doing so, a better understanding of the Billiard Ball Model is expected to emerge.

In this section, I first briefly introduce the form of a clausal construction (Section 4.2.1) and an understanding of its semantics within construction grammars (Section 4.2.2). After that, I discuss the Billiard Ball Model and the Stage Model (Section 4.2.3). Finally, I compare Hopper and Thompson’s model of clausal semantics with the Billiard Ball Model (Section 4.2.4).

4.2.1 A form-meaning pairing

In construction grammars, a construction is defined as a conventional form-meaning/function pairing. As mentioned in Chapter 2, the formal side of a construction may involve prosodic information, morphological information, syntactic information and/or the information of discourse, genre or interaction, while the semantic/functional side of a construction may involve the semantic, discoursal, and/or pragmatic information.

A clausal construction in this thesis usually consists of a) a verb phrase, which symbolizes a type of event; and b) one or more nominal phrases, which symbolize(s) main participant(s) in the event, as well as c) other optional elements, which symbolize secondary participants and/or some aspects of the setting (see also García-Miguel 2007 for an introduction to a clausal construction). That is, syntactically, a clause structure consists of a verb phrase and noun phrases as well as other optional elements; semantically, it concerns a conception of events in a setting (a detailed introduction to clausal semantics will be given in Section 4.2.2/3/4). Note that a clause also contains information related to the speech event itself. For instance, a clause may be declarative, interrogative, or imperative. However, this arrangement in clauses falls outside the scope of the present thesis, since this thesis is interested in events rather than in speech act/events.

4.2.2 Nature of clausal constructional meaning

4.2.2.1 Conceptual content: frames

Linguistic meanings concern both the conceptual content and the construal imposed
on it. As Langacker (2008a: 43) notes, “every element evokes some content (however schematic it might be), and conversely, any content evoked is construed in some fashion”. The distinction made between the conceptual content and the construal aims to highlight the point that linguistic meanings are not simply truth conditions, but there is no sharp distinction between the two (the conceptual content and the construal) (Langacker 2008a: 43). This section deals with the conceptual content and the next section will consider the issue of the construal.

Put simply, the conceptual content refers to the experience or occurrence in the physical world evoked by an expression. To have a uniform way of referring to content, the term frame was adopted in Fillmore (1982). It is also used in the terms of domain or base by Langacker (1987, 1990, 2008a) and event frame, as applied to events, by Talmy (1996: 238). Since the term frame is intuitively easier to comprehend, this thesis simply adopts this term to refer to conceptual content.

A frame evoked by an expression is taken as the basis for understanding and describing its meaning, that is, as the conceptual content to be construed. More specifically, the semantic representation of lexical and grammatical constructions must also include the background knowledge of a semantic frame within which these concepts are embedded. For example, understanding or describing the word knuckle requires the background knowledge of the concept hand, which in turn requires the background knowledge of the concept arm. Another example would be that one would not be able to understand the word buy without having the common-sense knowledge of the relevant commercial transfer frame. This frame involves the knowledge of a seller, a buyer, goods, money, and the relations among these entities.

Based on Fillmore (1982) and Langacker (2008a), three important properties in frames can be summarized. First, in contrast to the dictionary-like notion of meanings, construction grammars and cognitive linguistics in general take an encyclopedic view of the semantic frame, holding that a semantic frame concerns world, cultural, and any other background knowledge which could be evoked by an expression. For instance, the knowledge of tool objects includes people’s background knowledge of not only the size, shape, and other visual properties, but also how people normally use or manipulate these objects in the world (see also Section 4.3.3). Second, a lexical or grammatical construction may evoke more than one frame. For instance, the concept of argue can evoke a “conversation” frame and a “fighting” frame. Third, components in a frame have different degrees of centrality: they had a different likelihood of being activated when a certain construction is used on a given occasion. For example, the conception of glass may activate a frame of non-metal

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15 There are slight differences among these terms (see Cienki 2007 for an overview of the history of the notion frame and a comparison of the notions frame and domain).
entities, which consists of these entities’ attributes, such as size, shape, function, material, cost, storage, manufacture\textsuperscript{16}, and many others. Among these attributes, it seems that those of size, shape, function, and material are more easily activated than the rest (e.g., its storage and manufacture). In this sense, it can be said that the former attributes are more central while the latter ones are more peripheral in this frame. In addition, some frames evoked are relatively more general and schematic while others are more specific and concrete. For instance, relatively speaking, frames of causation and motion appear more schematic while those of giving and hammering seem more concrete.

4.2.2.2 The notion of construal

Construal, initially called imagery (Langacker 1987), refers to our ability to conceive and portray a certain body of conceptual content in alternate ways (Langacker 2008a: 43). Construction grammars hold that the linguistic form in speech reflects how we (i.e., the speaker or hearer) construe the conceptual content in a frame, rather than simply the conceptual content. Four major dimensions of construal have been identified by Langacker (2008a: ch.3): specificity, perspective, profiling, and trajectory/landmark alignment (see Verhagen 2007 for a comparison of this set of construal operations and the other sets as proposed by Talmy 1988, 2000 and Croft \& Cruse 2004).

1) Specificity refers to “the level of precision and detail at which a situation is characterized” (Langacker 2008a: 55). For instance, the objects hammer and tool may refer to the same entity, but they are construed with different levels of precision. According to Langacker, the former is more specific than the latter. Similarly, the following utterances differ in their specificity or granularity at which a motion activity is construed and characterized: he went to the office vs. he walked to the office.

2) Perspective refers to the vantage point that we use to observe or characterize a situation. For instance, a bombing event can be construed sequentially (e.g., it bombed) or all at once (e.g., the bombing took place at 3 o’clock). The former case is assumed to involve a “sequential scanning” of the event while the latter is seen as involving a “summary scanning”. This dimension of construal – summary/sequential scanning – has been applied to characterize a variety of other lexical or grammatical choice, such as verbs vs. the related nouns (e.g., explode vs. explosion), perfective vs. imperfective aspects (e.g., she is reading the novel vs. she has read the novel once), and verbs vs. the related prepositions (e.g., cross vs. across).

\textsuperscript{16} Langacker (2008a: 47) refers to them as different domains.
3) Profiling refers to the way in which a certain body of conceptual content in a frame is conceived as prominent. The meaning of a construction resides in the interaction between the conceptual content in a frame and the profiling. For instance, the expression of uncle is meaningful in relation to the background frame of kinship relations. Specifically, profiling usually includes the dimensions of focusing and prominence. The former dimension of construal includes “the selection of the conceptual content for linguistic presentation” (Langacker 2008a: 57), such as the selection of “immediate scope” (IS) in the semantic contrast of he broke a glass vs. the glass broke, as will be discussed in the coming section. The latter dimension of construal (prominence, profile) is metaphorically described as the prominent part as the focus of attention within an “onstage region” (Langacker 2008a: 133), such as profiling different sub-parts of the same portion (e.g., I bought my mom a present vs. I bought a present for my mom).

4) Trajector/landmark alignment refers to which of the participants in a profiled relationship is assigned primary and secondary focus of attention respectively. The most prominent participant is called trajector (tr), which involves a primary focus in a profiled relationship. The second prominent participant is referred to as landmark (lm), which concerns a secondary focus in this relationship. Even when expressions evoke the same conceptual content and profile the same relationship, they have different semantics if they involve a different arrangement of trajectors and landmarks. For instance, the two expressions the book is on the table vs. the table is below/under the book refer to the same situation and profile the same locative relationship. The semantic contrast resides in which participant is given primary or secondary focus of attention. In the first example, the primary focus (trajector) is allocated to the book while in the second example, it is given to the table. This dimension of construal can also be reflected in the choice of other lexical or grammatical categories, such as active transitive or passive constructions (e.g., he threw the stone out of the window vs. the stone was thrown out of the window by him).

Note that the four dimensions of construal are not strictly mutually exclusive. Instead, a choice of linguistic encodings may concern more than one dimension of construal (Verhagen 2007: 55). For instance, the choice of a ditransitive construction (e.g., he gave Mary a book) or its dative paraphrase (e.g., he gave a book to Mary) is said to be motivated by the profile difference (profiling different participants in an action chain, which will be discussed later). Yet this choice is also motivated by the arrangement of the trajector and the landmark. In the ditransitive construction, the
receiver *Mary* is chosen as a landmark, whereas in the dative paraphrase, the mover *book* is used as a landmark. Nevertheless, grammatical constructions are usually characterized relative to only one of the above dimensions. It is worth noting that the third dimension of construal – profiling – is particularly relevant in this thesis, since it is crucial for the characterization of clausal constructions, as will be introduced in the coming sections.

### 4.2.3 The Billiard Ball Model and the Stage Model of event construal

Based on the above view of semantics, Langacker (1990, 2008a) proposes the Billiard Ball Model and the Stage Model to understand and characterize the meanings of clausal constructions.

The Billiard Ball Model is closely related to the model of the “action chain”. Both of them involve conception of a series of force dynamic interactions or energy transfer among various participants in the world (semantically this is referred to as transitivity). Langacker describes the model as follows:

> We think of our world as being populated by discrete physical objects. These objects are capable of moving about through space and making contact with one another. Motion is driven by energy, which some objects draw from internal resources and others receive from the exterior. When motion results in forceful physical contact, energy is transmitted from the mover to the impacted object, which may thereby be set in motion to participate in further interactions. Let us refer to this way of thinking about the world as the ‘billiard-ball model’. (Langacker 1990: 209)

Within this model, a list of experientially grounded semantic roles has been identified, which basically consist of “agent”, “patient”, “instrument”, “mover”, and “zero”.\(^{17}\) Agent refers to a participant who volitionally initiates an action, such as *she* in the expression *she brushed the teeth*. Patient refers to a participant which experiences an internal change of state, such as *ice* in *the ice melts* and *glass* in *the glass broke*. It is prototypically an inanimate entity. Instrument is an entity used by agent to perform an action, e.g., *toothbrush* in *she brushed the teeth with toothbrush* and *hammer* in *she broke the glass with a hammer*. Mover is a participant which experiences a change of location, e.g., *flowers* in *she sent him flowers*. Experiencer refers to a participant which has a mental experience, such as *she* in *she likes flowers*. Finally, zero refers to a participant “whose role is conceptually minimal or non-distinctive” (Langacker 2008a: 356). It is an entity which simply “exists, occupies

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\(^{17}\) These semantic roles can be traced back to notions of deep cases in Case Grammar (Fillmore 1968) and to thematic roles.
a location or exhibits a static property” (Langacker 2008a: 356), such as *she* in *she is there*.

The second archetype concerns the Stage Model, that is, how people construe the outside world. Suppose we are watching a play. First, there is a “**maximal scope**” (MS), which refers to our maximal field of view. Second, since we cannot see everything at once, we can only “select a limited area as the general focus of attention (the analog of looking at the stage)” (Langacker 2008a: 356). This onstage region is called “**immediate scope**” (IS). Then we do not focus everything on the stage. Instead we focus attention on certain objects, which is referred to as “**profile**”.

The Billiard Ball Model and the Stage Model are of great value in providing ways of understanding the semantic motivation of linguistic encodings, such as the motivation of various types of clauses. One important instance is that profiling different segments of an action chain leads to different linguistic encodings. For example, by using a transitive clause *he opened the window*, a speaker profiles the whole event in the action chain, including both agent *he* and patient *window* as well as the interaction between them and the change of the patient; by using an intransitive clause *the window opened*, a speaker only profiles part of the event, that is, the change of the patient – *window*.

### 4.2.4 An alternative semantic model of event conception and its relation to the Billiard Ball Model

Meanings of clauses have also been described in a more fine-grained fashion, namely using a series of semantic primitives (Givon 1985; Delancey 1987; Hopper & Thompson 1980; Lakoff 1977; Rice 1987). The key dimension of events in clauses is indeed the notion of energy transfer among various participants (semantically this is referred to as transitivity), which is a major semantic determinant for the use of grammar (such as the choice of clause structure, the choice of subject and object) in encoding events and participants in clauses. Specifically, transitivity is a continuum ranging from high-transitive events to low-transitive events, which can be scaled with the parameters shown in Table 4.1.
Table 4.1 Parameters scaling transitivity (adapted from Hopper and Thompson 1980)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>HIGH</th>
<th>LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. PARTICIPANTS</td>
<td>2 or more participants, A and O&lt;sup&gt;18&lt;/sup&gt;</td>
<td>1 participant</td>
</tr>
<tr>
<td>B. KINESIS</td>
<td>action</td>
<td>non-action</td>
</tr>
<tr>
<td>C. ASPECT</td>
<td>telic</td>
<td>atelic</td>
</tr>
<tr>
<td>D. PUNCTUALITY</td>
<td>punctual</td>
<td>non-punctual</td>
</tr>
<tr>
<td>E. VOLITIONALITY</td>
<td>volitional</td>
<td>non-volitional</td>
</tr>
<tr>
<td>F. AGENCY</td>
<td>A high in potency</td>
<td>A low in potency</td>
</tr>
<tr>
<td>G. AFFECTEDNESS OF O</td>
<td>O totally affected</td>
<td>O not affected</td>
</tr>
<tr>
<td>H. INDIVIDUATION OF O</td>
<td>O highly individuated</td>
<td>O non-individuated</td>
</tr>
</tbody>
</table>

A) **“Participants”** refers to the number of participants in an event depicted in a clause. Only when there are two or more participants, can energy transfer happen.

B) **“Kinesis”** refers to whether a clause encodes a dynamic or static event. There can be energy transfer in the former, e.g. *He broke a vase*, while the energy transfer is difficult to imagine in the latter, e.g. *Jerry likes beer*.

C) **“Aspect”** refers to whether an event is a bounded or unbounded process. A telic action is likely to be more effective than an atelic one. E.g. *I ate it up* (transfer is completed) vs. *I’m eating it* (transfer is only partially carried out).

D) **“Punctuality”** refers to whether an event happens instantly (punctual) or extends over time (non-punctual). A punctual action is likely to be more effective than a non-punctual one. E.g. *He broke the vase* (punctual) vs. *he moved the vase* (non-punctual).

E) **“Volitionality”** refers to whether a causer volitionally initiates the process. E.g. *he broke the glass with a hammer/he ran to school* (volitional) vs. *he broke the glass by accident/he fell over himself* (non-volitional).

F) **“Agency”** refers to whether a process is caused by an animate or inanimate entity. E.g. *he broke the window vs. the wind broke the window*.

G) **“Affectedness of O”** refers to whether an object is affected or not in terms of its state or location. E.g. *he gave the baby to her* (affected in terms of the baby’s

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<sup>18</sup> Hopper and Thompson follow Dixon 1979 in using 'A' (for Agent) and 'O' (for Object) to refer to the two participants in a two-participant clause.
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location) vs. *he held the baby in arm* (not affected either in terms of the state or location).

H) “**Individualization of O**” refers to whether an entity encoded by Object is human, animate (versus inanimate), concrete (versus abstract), singular (versus plural), count (versus mass), and/or referential, definite (versus non-referential) and whether it has a proper name (versus common name).

According to Hopper and Thompson (1980), any event expressed in a clause can be characterized with the above parameters. For instance, the clause *Susan left* refers to an event with one participant and a telic, volitional action. In addition, the more features a clause has in the High column, the more transitive the event involved is. The most transitive event would be one with 8 parameters in the High column: a two-participant, dynamic event with a telic and punctual action; one participant (subject) is animate and volitional while the other one (object) is an individualized entity and one with change of state or location.

This semantic-primitive approach to transitivity is in line with the Billiard Ball Model of the conception of transitivity, as follows. First, these primitive semantic parameters indeed show various facets of the Billiard Ball Model (Rice 1987), both of which (the semantic-primitive model and the Billiard Ball Model) in nature concern causal and aspectual factors in the conception of events (Croft 2012: 354-355). According to Croft, the parameters related to the causation include “number of participants”, “agency”, and “volitionality”, and those related to the aspect of an event include “kinesis”, “telicity”, “punctuality”, and “individualization”. Consequently, a description of the cognitive model in this thesis also concerns the parameters in the primitive approach. For instance, some aspects in the semantics, such as dynamicity and number of parameters (main parameters which distinguish between four basic clausal constructions in this thesis), pertain to both models. Second, both models adopt a prototype approach, holding that a transitive (or intransitive) event can be higher or lower transitive, depending on the parameters in the High column in Table 4.1 that are involved in a clause. This forms the basis of classifying transitive clauses into high-transitive and low-transitive ones, as will be discussed in Section 4.3.1, and of classifying the basic clausal constructions into higher and lower transitive (the noun and verb alternation) in this thesis, as will be introduced in Section 4.3.3. In addition, taking a prototype view of semantic transitivity (clausal semantics), this thesis admits that each construction can be further classified into sub-types according to these parameters, such as “agency”, “volitionality”, “individualization”, or “affectedness”. However, due to limits of time and space, this thesis does not delve deeper into these parameters.

Nevertheless, the two approaches (the semantic-primitive approach and the
Billiard Ball Model) differ in a number of respects. Firstly, as indicated above, in the primitive approach the meaning of a clause is equal to a sum of a list of attributes. That is, this approach takes a compositional view of semantics. By contrast, construction grammars take a holistic view, holding that the meaning of a clausal construction is not simply equal to its sum of its components (e.g., Goldberg 1995; Langacker 1990). Secondly, unlike the Billiard Ball Model of event conception, the semantic-primitive approach does not explicitly deal with the notion of construal, in that it ignores the fact the meaning resides in the interaction between means of construal and the conceptual content. It follows that the semantic primitive approach could not directly or conveniently capture the true nature of the semantic difference in some constructional alternations, such as in He broke the glass vs. the glass broke, or in he gave a book to her vs. he gave her a book. Thirdly, in a primitive semantic approach, transitivity is so fluid19 that it downplays the role of cluster and grouping along the transitivity continuum and does not try to differentiate what is a transitive construction from what is an intransitive construction. Instead, this approach focuses on what is more or less transitive. By contrast, a cognitive grammar approach not only considers the gradual notion of semantic transitivity (that is, more or less transitive), but also gives due attention to the syntactic grouping, by positing a common way of construal of high-and-low-transitive constructions and sorting clauses into transitive, intransitive, and copular constructions (as is usually done in linguistics). Given the above advantages, the Billiard Ball Model serves as a primary starting point for characterizing the semantics of various types of clauses.

4.3 Constructions and constructional alternations to be researched in this thesis

As mentioned above, this thesis considers a number of basic clausal constructions and constructional alternations. Basic clausal constructions in English include transitive, intransitive, and copular constructions in general as well as the more specific ones such as ditransitive, caused motion, resultative, and the Way constructions, as discussed in Goldberg (1995). Since these four specific constructions are found infrequently in spoken language (Thompson & Hopper 2001), they are not taken as the starting point in the present thesis.

Three groups of constructional alternations are considered, namely the causative-inchoative alternation, the higher and lower transitive alternation (the noun and verb alternation), and the dative alternation. The previous chapter briefly mentioned the general motivation for investigating constructional alternations, namely the aim of ascertaining the relations between gestures and means of

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19 According to Hopper and Thompson (1980), transitivity is mostly a semantic category.
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construal afforded by grammatical constructions and the event properties involved. However, construction alternations which could fulfill this aim are not restricted to these three groups of alternations. Further motivations for considering these constructional alternations will be given below in individual sections.

In general, the present section aims to discuss a constructional approach to the above constructions together with motivations for investigating them. Specifically, this section consists of four sub-sections. Firstly, it focuses on basic clausal constructions in general – transitive, intransitive, and copular constructions. Secondly and thirdly, it considers these basic clausal constructions with the same event properties/semantic frames: the causative-inchoative alternation and the higher and lower transitive alternation. The last section deals with the dative alternation.

4.3.1 Basic clausal constructions (transitivity): high-transitive, low-transitive, intransitive, and copular constructions

This section provides an introduction to how basic clausal constructions – transitive, intransitive, and copular structures – are understood and characterized relative to the Billiard Ball Model and the Stage Model. Specifically, this section introduces major events encoded by each construction20 and the ways in which these events are conceptualized according to Langacker (1990, 2008a). An important assumption which underlies this section is that the choice of the constructions depends on speakers’ construal of events, rather than simply on the events in the world.

Note that transitive constructions are further divided into two constructions in this thesis: high-transitive (that is, those with more dynamic activities) and low-transitive constructions (that is, those with more static activities, including mental activity, perception, and other static relations). This is driven by the fact that high-transitive clauses usually involve much higher semantic transitivity than low-transitive clauses do, the latter of which even usually involve lower semantic transitivity than intransitive clauses do, as seen in my pilot study on the transitivity of 500 clauses in talk show interviews following from the criteria in Hopper and Thompson (1980) (Wu & Cienki in preparation). For instance, intransitive clauses indeed usually have more High-transitivity features than low-transitive clauses. The former clauses, such as Susan left, usually involve a number of High-transitivity features, namely action (kinesis), telic, volitional, and sometimes punctual, while the latter ones, such as Jerry likes beer, usually only involve one High-transitivity feature, namely two participants. In addition, this distinction between

20 Note that this section does not cover all instances of each construction. That is, an all-embracing introduction to each construction is not an aim of this section, since each construction with all instances could constitute a complex, separate chapter.
high-and-low-transitive clauses is also motivated by the fact that the two constructions involve different functional and formal properties. First, the two types of clauses instantiate different types of archetypal occurrences: the former instantiates an archetype in which someone did something while the latter instantiates one where someone experiences something.21 Second, the latter type of clause has more syntactic constraints than the former type of clause does. For instance, the latter involves in many cases fewer aspectual uses; the latter typically cannot be passivized while the former typically can. Nevertheless, distinguishing between two types of clauses is not meant to ignore the similarity between them, as will be discussed below.

As a result, the present thesis considers the following clausal constructions: high-transitive construction, low-transitive construction, intransitive construction, and copular construction.

a) High-transitive construction

The form of a high-transitive construction usually consists of [Subject + Verb + Object] (SVO). A high-transitive construction prototypically encodes an event involving a concrete action or physical energy transfer from one participant to another and a change the action brings about, such as in the case of *Floyd broke the glass*. In this example, *Floyd* is an “agent” and he exerted some force, which caused the glass to be broken. That is, energy is transferred physically from the “agent” *he* to the “patient” *glass*.

However, not all cases follow this type. Some instances are extended from this prototypical type, such as *She asked me out* and *I closed my bank account*. In these cases, energy is transferred not physically, but metaphorically. That is, the agent-like participants *She* and *I* carried out non-physical activities, which caused other entities to experience changes. Indeed, many cases in the communication realm belong to this type.

Regardless of the physical or metaphorical actions discussed above, according to Langacker (1990, 2008a), by using a high-transitive clause, a speaker prototypically profiles a whole event – including both an external causation between two

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21 Different archetypal occurrences are usually coded in different syntax, and accordingly these two types of occurrences are indeed coded in different syntax in some languages like in Spanish. It might be the case that these two archetypal occurrences simply happen to share one formal encoding – SVO – in English.
participants and a participant’s change, as shown in Figure 4.1.  

![Figure 4.1 Schema for high-transitive construction (adapted from Langacker 2008a: 385) (circles represent participants; double arrows represent energy transfer between participants; single arrow represents the change that the energy transfer brings about; IS for immediate scope; setting for spatial or locational setting of an event; bold lines represent the parts which are profiled.]

**b) Low-transitive construction**

The form of a low-transitive construction is the same as that of the high-transitive construction introduced above – [Subject + Verb + Object] (SVO). Semantically, low-transitive constructions usually encode static events, such as activities of volition (e.g., wanting, thinking), mental states (e.g., liking, forgetting), perceptions (e.g., seeing, hearing), possession (e.g., having), or other static situations, e.g., *she saw/liked/remembered/imagined the painting* or *she has two paintings*. In these cases, there is no physical or metaphorical energy transfer between the two participants. Instead, the experiencer or possessor, *she*, mentally or perceptually interacts with the other entity, *the painting*. An action chain in this case can be characterized as involving a mental or perceptual path from the subject, which initiates an asymmetrical interaction, to the object, which is the endpoint of the path. Put differently, a low-transitive clause encodes a profile of mental interaction.

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22 Note that the participant’s change is minimized in some activities, such as in grasping and holding actions. Note also that two-participant clauses comprise a diverse variety of activities from a theoretical point of view, whereby the schema which applies to all of two-participant clauses is a rather complex issue. For instance, it is difficult to imagine physical or metaphorical energy transfer in some activities such as visiting or meeting a person. This research is interested in actual spoken usage and gesture use. Given that this type of activity was that not frequent in the interviewing data (12/292), as observed in a pilot study, it is not considered in the present schema of transitive meanings. Instead, this research takes a prototype view of the meaning of transitive clauses.

23 Cases with static symmetrical relation, such as *she resembles her father*, fall outside the scope of this thesis, since in these cases even the mental interaction seems not to exist.
between two participants in static events. It can be represented as follows:

Figure 4.2 Schema for low-transitive construction (adapted from Langacker 2008a: 385) (the single dashed arrow represents the mental interaction between participants)

Despite the above differences in the means of conceptualization afforded by high-transitive and low-transitive constructions, respectively, Langacker proposes a common means of construal afforded by all transitive clauses, namely “asymmetrical interaction” between two participants. Specifically, when speakers choose one participant as subject rather than the other, it means that two participants have different focal prominence. The former has the primary focal prominence in each case, while the latter involves the secondary focal prominence. This then implies some kind of asymmetrical organization between participants, given that two participants involve different degrees of prominence, which results in a mental flow from the primary focal participant to the secondary focal participant. Notably, this interaction between participants is quite subjective since it is the conceptualizer (the speaker or hearer) who totally imposes this asymmetricity on it.

c) Intransitive construction
The syntactic structure of an intransitive construction is [Subject + Verb] (SV), and the construction usually refers to an activity in which a participant experiences a change of state or location. These activities fall in general into two categories. One refers to an absolute/thematic process, such as *the door opened*. In this case, we know there is an external force which causes the change in the world. However, only the change of the theme – *the door* – is profiled, without mentioning the force that causes the change, which can be shown in Figure 4.3.

Figure 4.3 Schema for absolute intransitive construction (adapted from Langacker 2008a: 385)
The second type refers to an agentive (self-propelled) process, such as *I walked to the window*. In this case, the agent and the theme are encoded in one participant, which can be represented in Figure 4.4.

![Figure 4.4](image)

**Figure 4.4** Schema for agentive intransitive construction (adapted from Langacker 2008a: 374) (double arrows within a circle represent the internal causation/self-propelled action)

A schema for both types of intransitive constructions above could be that a speaker prototypically profiles an entity’s change only (either an agentive or a non-agentive one), without its external causation. This can be indicated in the following figure (see Figure 4.5).

![Figure 4.5](image)

**Figure 4.5** Schema for intransitive constructions in general

d) **Copular construction**

Another common clausal structure is a copular construction. Syntactically, it can be represented as [Subject + Copula + Complement]. The complement can be expressed via a noun phrase, adjective phrase, prepositional phrase, or adverbial phrase. Semantically, it is usually associated with the following senses (see also Langacker 2008a: 396-397; Stassen 1997: 12).

a) A stable situation in which an entity occupies a location or is simply there (that is, a locational property of an entity), such as *it is on the table* or *we are on the receiving line*.

b) A stable situation in which an entity exhibits a property, such as physical properties (e.g. size, color, speed), difficulty (e.g., *it is hard/difficult/easy*), value (e.g. *it is good/great/horrible*), or qualification (e.g. *it is probable/true/sure/basic*).
c) A stable situation in which an entity has a property about its referential identity (that is, an entity is linked to an actual individual) or its class membership (a virtual instance of a type). Examples are *Susan is my cousin* and *Susan is a teacher*.

All the above in Section C) indicates that a copular construction usually reflects a profile of a stable situation in which an entity exhibits a property. To put it differently, it can be said that, by using a copular construction, a speaker simply selects a certain entity in a series of events to profile; that is, only a certain point of an action chain is profiled. The characterization of this construction can be represented in the following schema (see Figure 4.6).

![Figure 4.6 Schema for copular construction (adapted from Langacker 2008a: 397)](image)

(Small square represents attributes or entities; circle represents participants; single line represents a linking relation between the two.)

All the above in Section 4.3.1 has shown that the world consists of a series of interactions between participants. The choice of different constructions is seen as reflecting the fact that we conceptualize the world in different ways, all of which can be characterized relative to the Billiard Ball Model and the Stage Model. To summarize, speakers’ conceptualizations of the four types of transitivity in speech differ in terms of whether they involve a dynamic activity (high-transitive and intransitive clauses) or a static activity or situation (low-transitive and copular clauses); in the case of a dynamic activity, whether it includes an external causation (high-transitive clauses) or not (intransitive clauses); in the case of a static activity, whether it involves a mental contact between two participants (low-transitive clauses) or only a static entity with a certain property or location (copular clauses).

Note that if the length of the Action Chain can be comparable to the complexity of event construal, it can be said that high-transitive, intransitive, and copular constructions concern different degrees of complexity in the related event construal. Specifically, high-transitive constructions, which involve a longer action chain than intransitive constructions do, may afford more complex event construal than
intransitive constructions do. Similarly, intransitive constructions, which involve a longer action chain than copular constructions do, may afford more complex event construal than copular constructions do.

4.3.2 The causative-inchoative alternation
The causative-inchoative alternation, which is known by a variety of other names, such as the "anti-causative" alternation and the "ergative" alternation, consists of transitive and intransitive constructions involving verbs of change of state or location. Examples include *she broke the window* vs. *the window broke*, *she opened the door* vs. *the door opened*, and *she dropped the earring* vs. *the earring dropped*. This section will first provide the motivations for studying this alternation and then give an introduction to this alternation.

4.3.2.1 The motivation for the alternation
An examination of the causative-inchoative alternation was initially motivated by the dataset for investigating gestures in relation to high-intransitive and intransitive constructions (see Chapter 5), in which high-transitive events accompanied by gestures were mainly placement events (e.g. clauses with *put*) while intransitive events accompanied by gestures were mainly self-propelled motion events (e.g. clauses with *go* and *dance*). It thus remains unclear whether the difference found in gestures accompanying high-transitive and intransitive clauses is correlated with the type of grammatical construction or simply with types of events. Therefore, a study was carried out to examine high-transitive (referred to as “transitive” in what follows in this section and in the relevant empirical chapter) and intransitive clauses with similar types of events, which are called transitive and intransitive alternations. This helps to discover to what extent gesture relates to the event properties in a semantic frame and to what extent it relates to the means of construal afforded by transitive and intransitive constructions.

A group of transitive and intransitive alternations have been identified in English, such as the middle alternation (e.g., *she cut the bread with a knife* vs. *the bread cuts easily*), the induced action alternation (e.g., *he jumped the horse over the fence* vs. *the horse jumped over the fence*), and the unspecified object alternation (e.g., *she’s eating an apple* vs. *she’s eating*) (Levin 1993: 25-33). The present study specifically considers the causative-inchoative alternation (e.g., *she opened the door* vs. *the door opened*), since this alternation seems to be frequently used in English, and also it usually involves an entity’s change of location, which may play a role in gesture, regardless of transitivity.

The second major motivation comes from the study by Parrill (2010), which predicts that the path of motion events – one sub-type of the events expressed by
the causative-inchoative alternation – may play an exclusive role in gesture, whether transitive or intransitive constructions are used in speech. Parrill found that intransitive events with a path (that is, those with displacements/trajectory movements in entities, e.g., *Dog walks up to house* and *Dog comes into room*) tended to exclusively evoke a particular type of gesture, that is, Observer Viewpoint gestures. On the basis of this finding, she furthermore speculated that events with a path would activate Observer Viewpoint gestures, regardless of transitivity, since a path could be easily gestured from an observer’s point of view. That is to say, the path of events may play an exclusive role in gesture, regardless of transitivity. A hypothesis then follows that the causative-inchoative alternation with a path (namely, motion events) may be accompanied by similar gestural representations.

The path of events can refer to the path of the “Figure” or that of the “Agent”, although the two are not distinguished in Parrill’s prediction above. According to Talmy (1985, 2000), Figure\(^{24}\) is defined as an entity that moves in an event, as in (1), (2), and (3).

(1) *The car rolled down an embankment.*

(2) *The painting has moved from the bedroom to the garage.*

(3) *The magazine dropped.*

Agent refers to an instigator of a motion event, as in (4), (5), and (6).

(4) *We rolled the rock out of the way.*

(5) *I moved the couch into the bedroom.*

(6) *I dropped my ring.*

All motion events encoded in the causative-inchoative alternation prototypically involve a path of a Figure. And yet, the path of the Figure can be implicit or explicit in speech; that is, it may include a directional oblique phrase (abbreviated as OBL hereafter) or not in speech to specify the path, such as *she dropped the ring* and *he rolled the car* (with implicit path; - OBL) vs. *she dropped the ring on the floor* and *he rolled the car down an embankment* (with explicit path; + OBL). As for the path of the Agent, it can be absent or present. For instance, the motion event in *he moved his toupee up* usually does not involve a displacement of the Agent, whereas the motion

\(^{24}\) It is also referred to as “mover” in cognitive grammar (originally called space grammar) or “theme” in case grammar.
event in *he moved the sofa out of the bedroom* prototypically does involve a displacement of the Agent. Since the two types of path in motion events may concern different relations to gesture, both of them are considered in the present study.

Taking the above considerations together, the present study aims to examine whether the above events — events with externally caused change of state/location and with the above two types of path — play an exclusive role in gesture, regardless of transitivity.

4.3.2.2 What is the causative-inchoative alternation?

Both transitive and intransitive constructions of the causative-inchoative alternation could evoke the same semantic frame, which consists of external causation and an entity’s change of state or location that the causation brings about. Specifically, a transitive construction, such as *She opened the door*, refers to an event in which an agent – *she* – transferred energy to a patient – *door*, and causes the patient to change from one state to another (from a closed state to an open state in this case). Even in terms of intransitive clauses, such as *the door opened*, the external causation is not absent, although it is not expressed in language. We know that there is a backgrounded external force, which causes the entity to change (causing the door to open in this case). It might be a person, the wind, or other forces (Langacker 2008a: 370-371). Thus, like transitive clauses, intransitive clauses also evoke events in which one entity caused another to experience a change of state or location.

The choice of transitive or intransitive constructions in speech reflects speakers’ different construals of the above events. Langacker (2008a: 385) proposes that, by using a transitive construction, a speaker profiles the whole chain of the event, namely, both an external causation and an entity’s change of state/location, as indicated in Figure 4.7 – a); by using an intransitive construction, a speaker has an absolute construal of an event; that is, only the change of state or location of an entity is profiled, rather than the external causation which brings about the change, as indicated in Figure 4.7 – b).

![Figure 4.7 Schemas for transitive construction – a) – and intransitive construction – b)](image-url)
4.3.3 The tool noun and tool verb alternation (the higher and lower transitive alternation)

High-transitive (e.g., *he'd hammer nails*) and intransitive constructions (e.g. *could you not hammer?*) are referred to as “higher transitive”, while low-transitive (e.g., *he has a giant hammer*) and copular constructions (e.g., *it’s just a hammer*) are simply referred to as “lower transitive”, since the former constructions concern dynamic activities and the latter concern static situations, and thereby the semantic transitivity of the former clauses is somewhat higher than that of the latter, following Hopper and Thompson’s criteria (1980). Given that the higher transitive constructions concern the verbal uses of tools while lower transitive constructions concern the nominal uses of tools, the higher and lower transitive alternation is also referred to as the tool noun and tool verb alternation in this thesis.

4.3.3.1 The motivation for the alternation

On the basis of the idea that objects afford actions (Gibson 1978, 2014), previous studies have indicated that perceiving tool objects or reading their names activates the mental simulation of the relevant tool use or manipulation, namely the relevant action (Bub et al. 2008; Chao & Martin 2000; Tucker & Ellis 1998; Vannuscorps et al. 2014). In line with the Gestures-as-Simulated-Action hypothesis (Hostetter & Alibali 2008), previous gesture studies have furthermore shown that descriptions of tool objects with a manual affordance (e.g., hammer, brush) tend to activate gestures referring to how speakers use or manipulate the tools, rather than gestures referring to the size or shape of the tools (Masson-Carro et al. 2016). All this seems to suggest that descriptions of the tool frame, either in terms of nouns or verbs in speech, may activate the mental simulation of action\(^{25}\) and thus might be accompanied by gestures of the same mode – those depicting the action of tool use or manipulation (e.g., brushing the teeth and combing the hair). That is to say, a hypothesis follows that the tool frame may play an exclusive role in gesture use, regardless of the type of construction used (that is, high-transitive & intransitive vs. low-transitive & copular constructions). This hypothesis will be tested in the thesis to indicate to what extent gesture relates to the tool frame properties and to what extent it relates to the type of construction used.

4.3.3.2 What is the tool noun and tool verb alternation (the higher and lower transitive alternation)?

As mentioned above, the tool noun and tool verb alternation refer to nominal and

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\(^{25}\) This is also supported by the findings that tool object and tool activities activate the same area in the brain (Vinson & Vigliocco 2002).
verbal uses of tool objects (referred to as the tool frame). The knowledge of the tool frame consists of all kinds of knowledge of tool objects, not only information relating to tools’ shape, size, weight, and so on, but also sensory-motor activities derived from people’s experience of using tools, together with mental simulation of these experiences (Barsalou 1999).

Despite the tool noun and the tool verb evoking the same semantic frame, they afford different means of event construal. Langacker (2008a: 98) holds that what determines syntactic choice is not conceptual content, but speakers’ conceptualization of the conceptual content. This translates into the idea that the choice of nouns or verbs depends on whether a speaker profiles a static situation of tool objects or the dynamic process of tool using activities. More specifically, when using verbs (e.g., he’d hammer nails; could you not hammer?), a speaker profiles the dynamic process of how one uses the tools, as shown in Figures 4.10 and 4.11; when using nouns (e.g., he has a giant hammer; it’s just a hammer), a speaker profiles the static situations of tool objects or the static relations between tool objects (one participant in the event/situation) and zero participants (e.g., possessor, apprehender), as shown in Figures 4.8 and 4.9.

![Figure 4.8 Schema for copular construction – nominal use of tools (e.g., this is a hammer)](image)

![Figure 4.9 Schema for low-transitive construction – nominal use of tools (e.g., he has a hammer)](image)
4.3.4 The dative alternation

The dative alternation concerns two syntactic patterns: [Subj+V+Obj₁+Obj₂] (SVOO), (e.g. she gave me a book) and [Subj+V+Obj+Obl] (SVOtoO) (e.g. she gave the book to me) to describe transfer events. The former is usually referred to as the ditransitive construction or the double-object construction while the latter is often referred to as the prepositional dative construction, the prepositional object construction or the dative construction. The present study simply adopts the terms double object construction (abbreviated as DOC) and prepositional object construction (POC).

4.3.4.1 The motivation for the alternation

A study on the dative alternation in relation to gesture is motivated by the fact that the above constructional alternations concern different types of syntactic transitivity and accordingly obviously different scopes of predication (that is, different “onstage regions” or “immediate scope”). For instance, although transitive and intransitive constructions in the causative-inchoative alternation could activate the same semantic frame, they involve different scopes of predication. Specifically, the causer and the transfer of force form part of the frame activated by an intransitive construction in this alternation, but they do not form part of the “onstage region” (“immediate scope”) in understanding and characterizing this construction. It thus
remains unclear whether gesture still correlates with grammatical constructions or not when these constructions involve the same type of syntactic transitivity and accordingly the same scope of predication. An answer to this question would be of great help in understanding how far the relation between gesture, grammatical constructions, and semantic frames can go.

To address this issue, the present thesis specifically takes one type of constructional alternation which involves the same immediate scope as the starting point – the dative alternation. It is one of a group of constructional alternations possible in language, and attested in English, such as the “Locative Alternation” (transitive) (e.g. *Jack sprayed paint on the wall* vs. *Jack sprayed the wall with paint*), the “Material/Product Alternation” (transitive) (e.g., *Martha carved a toy out of the piece of wood* vs. *Martha carved the piece of wood into a toy*), and the “Material/Product Alternation” (intransitive) (e.g. *That acorn will grow into an oak tree* vs. *An oak tree will grow from that acorn*) (a detailed list of constructional alternations can be found in Levin 1993). The rationale behind studying this type of alternation is as follows. First, this type of alternation seems to appear more frequently in conversation (e.g. with verbs of *giving*, *sending*, *bringing*, *taking*, and others) than many other types do, as found in the speech data in Chapter 5. Second, it is relatively basic to human cognition, perception, experience, language acquisition, and so on (Newman 1996). Third, this type of alternation has attracted a broader discussion on its semantics than many other types have (see Goldberg 1995, 2002; Langacker 1990). Thus investigation of the gestures accompanying it is expected to provide some insights into its semantics (i.e. conceptualization) – that is, whether the two formal patterns involve different meanings or not. In addition, the study on one set of alternations is able to provide a window onto the relation between gesture and grammatical constructions describing the same events and involving the same scope of predication, namely the relation between gesture, grammatical constructions, and semantic frames.

4.3.4.2 What is the dative alternation?
The meanings of the two syntactic constructions of the dative alternation are considered differently in different approaches. In general, there are two views: a monosemy view, in which the two syntactic patterns are treated as synonymous, whereby one of the two patterns is argued to be basic and the other one is derived from it; and a polysemy view, in which the two patterns are treated as semantically different from each other and neither is derived from the other. While the monosemy view is mainly adopted by transformational-generative grammarians (e.g. Aoun & Li 1989; Butt et al. 1997; Larson 1988), the polysemy view is taken by both

Although both constructional approaches and generative approaches may take a polysemy view on the dative alternation, they differ from each other substantially. One important difference is that transformational approaches take the matrix verbs as the source of semantic difference, whereas constructional approaches treat the whole construction as its origin. Goldberg (1995) argues that the constructional account has a number of advantages over the generative one. For instance, problematic issues such as implausible verb sense and circularity can be avoided (see Goldberg 1995 for other merits of a constructional approach). The present research on the dative alternation will mainly refer to constructional approaches (Goldberg 1995, 2002; Langacker 1990).

In construction grammars, the semantics of the dative alternation have mainly been discussed by Goldberg (1995) and Langacker (1990).

a) Goldberg’s approach
Goldberg (1995) referred to the double object construction as the ditransitive construction and to the prepositional dative as an instance of the caused motion construction. This view, although involving different theoretical starting points from those in generative grammars, is consonant with the generative view of the alternation: the double object construction expresses a meaning of ‘caused possession’ while the prepositional object construction expresses one of ‘caused motion’ (Harley 1996, 2000; Jackendoff 1990; Krifka 2004; Pinker 1989). In other words, the double object construction pattern means that a giver causes a receiver to have an object while the prepositional object construction means that a giver causes an object to go to a receiver. This semantic contrast is motivated by a number of selection restrictions on verbs or arguments in these syntactic patterns. For instance, verbs expressing “continuous imparting of force” (e.g. pull and haul) prefer the use of the prepositional object construction (e.g. Ann pulled the box to Beth), rather than that of the double object construction (e.g. ?Ann pulled Beth the box). The reason for this preference is that the prepositional object construction can provide a movement component of the entity (caused motion), which is required by these verbs, whereas the ditransitive pattern cannot (Krifka 2004). Another example given by Krifka (2004) is that an inanimate receiver prefers the use of the prepositional object construction rather than the double object construction, such as Ann sent a package to London VS ?Ann sent London a package. This preference is also caused by the semantic difference between the two patterns: the former one encodes the semantics of caused motion while the latter encodes that of caused
possession, and thus the latter requires the possessor to be animate so that it can have the ability to possess an object (Krifka 2004).

It is worth noting that the semantics in Goldberg’s Construction Grammar refer to the speaker’s conceptualization of events, rather than simply the events in reality (Goldberg 2006), although Goldberg did not explicitly distinguish between events and conceptualization of events in discussing the semantics of the dative alternation. The above semantic difference in the alternation proposed is thus equal to the difference in conceptualization, which is similar to the view in Langacker’s approach.

**b) Langacker’s approach**

Langacker (1990) proposes a semantic contrast between the two constructions by explicitly distinguishing between the speaker’s conceptualization of events and events in reality. Langacker holds that a certain linguistic structure originates from a speaker’s particular construal of an event. In terms of the double object construction (e.g. Bill sent a walrus to Joyce) and the prepositional object construction (e.g. Bill sent Joyce a walrus), both of them refer to the same event (the same semantic frame): a person has an entity (walrus) under his/her control (Bill) initially and then moves the entity along a path to a region under the other person’s control (Joyce). However, by using different syntactic patterns, a speaker puts the focus on different parts of the event. Specifically, Langacker argues that when the double object construction is used, only the possessive relation between the receiver and the entity (that is, the result of the transfer event) is put in focus, as shown in Figure 4.12 a); when the prepositional object construction is used, the dynamic process of the transfer activity is put in focus, as shown in Figure 4.12 b).

![Figure 4.12 Schemas of DOC – a) – and POC – b) (adapted from Langacker 1990: 14)](image)

(X represents the giver; Y represents the entity; Z represents the receiver; Bold lines represent the part profiled by speakers)

The semantic contrast proposed by Langacker, i.e. profiling the transfer result or the transfer process, is in line with one above proposed by Goldberg, the meaning of
caused possession (meaning that someone caused another one to have an entity) or
the meaning of caused motion (meaning that someone causes an entity to go to
another one). Both Langacker and Goldberg maintain that by using the prepositional
object construction, a speaker profiles a more dynamic process, while by using the
double object construction, a speaker profiles a more compact and less dynamic
event – the transferred result (that is, a possessive relation between receiver and the
entity). However, Goldberg’s proposal seems more schematic and more abstract,
whereas Langacker’s seems more concrete and easier to conceive of. For the sake of
simplicity, the present study takes Langacker’s proposal as the main basis, although it
also agrees with Goldberg’s view.

Besides the semantics discussed above, the information structure is believed to
differ in the two constructions as well, according to constructional approaches
(Goldberg 1995, 2002). Specifically, by using the double object construction, a
speaker focuses on a transfer entity versus a receiver in discourse, whereby the
entity is usually new information in discourse and the receiver is usually old
information. By contrast, by using the prepositional object construction, he/she
focuses on a receiver rather than a transfer entity, whereby the entity tends to be old
information in discourse and the receiver is usually new information. For instance,
when using the ditransitive pattern (e.g. she gave me a book), a speaker focuses on
the transferred book, while when using the prepositional dative (e.g. she gave it to
me), the speaker focuses on the receiver, me. However, in order to be consistent with
other empirical studies in this thesis, the present one only focuses on the semantic
aspects of the two constructions in relation to gesture, instead of on the information
structure in this regard.

4.4 Summary
This chapter has introduced a constructional approach to forms and meanings of a
clausal construction in general and has described the notions of basic clausal
constructions. It has also identified three groups of constructional alternations to be
studied in this thesis. Three groups of constructional alternations can be classified
into two types on the basis of the conceptual content (i.e. frame) and the means of
event construal afforded by these constructional alternations, as summarized in
Table 4.2.
Table 4.2 Summary of similarities and differences of conceptual content and construal afforded by three groups of constructional alternations

<table>
<thead>
<tr>
<th>Type of constructional alternation</th>
<th>Conceptual content</th>
<th>Construal</th>
<th>Traditional name for differences in these constructional alternations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frame</td>
<td>Immediate Scope</td>
<td>Profile</td>
</tr>
<tr>
<td>Causative-inchoative alternation</td>
<td>Same</td>
<td>Different</td>
<td>N/A</td>
</tr>
<tr>
<td>Noun-verb alternation</td>
<td>Same</td>
<td>Different</td>
<td>N/A</td>
</tr>
<tr>
<td>Dative alternation</td>
<td>Same</td>
<td>Same</td>
<td>Different</td>
</tr>
</tbody>
</table>

a) Constructional alternation with the same semantic frame, but different scopes of predication (referred to as the “immediate scope” or “onstage region” as mentioned in Section 4.2.3). This includes the causative-inchoative alternation (e.g., *He opened the door & the door opened*) and the [high transitive & intransitive] and [low transitive & copular] alternation (the noun and verb alternation) of tool use (e.g., *He's hammering the nail into the wall & it's a hammer*). Both groups of alternations can activate the same semantic frame, but they involve either a broader or narrower scope of predication (that is, the “onstage region” involved is different). Specifically, in the intransitive construction, the causer and the transfer of force form part of the frame activated, but they do not form part of the “onstage region” in the characterizing and understanding of this construction. This is different from the transitive part of this alternation. In terms of the copular/low-transitive constructions (nominal use) with tool objects, the tool use activities can be activated by these denoting tools, but they are not selected as part of the “onstage region” in the characterizing and understanding of this construction. This is different from the high-transitive/intransitive part (verbal use) of this alternation.

b) Constructional alternation with the same semantic frame and the same scope of predication, but with different profiles. This concerns the dative alternation (e.g. *he gave the book to her & he gave her a book*). This type of alternation involves the same event (i.e. transfer events) and encodes a selection of the same “onstage region”, including the giver, receiver, entity, and the transfer activity. However, the two constructions reflect different profiles of the transfer events.
Specifically, the double object construction in the alternation reflects a profile of the transferred result, whereas the prepositional object construction reflects a profile of the transfer process.

By distinguishing and including the above two types of event construal, it becomes possible to establish whether there is a close and robust relation between gesture and the means of event construal. In other words, this helps to ascertain to what extent gesture is sensitive to various means of event construal afforded by various grammatical constructions (traditionally named as the conceptual structure or syntactic encodings, as shown in Table 4.2).

As indicated in Chapter 3, this thesis investigates the multimodality of constructions by considering the stable form-meaning pairing and dimensions of construal in grammatical constructions in relation to gesture. More specifically, in the coming chapters I will first explore how speakers gesture with respect to four basic and frequently used constructions in spoken language (that is, the high-transitive construction, low-transitive construction, intransitive construction, and copular construction), and furthermore discuss to what extent the gesture produced correlates with the means of event construal afforded by these constructions. After that, I will examine how different groups of constructional alternations relate to their accompanying gestures.