

TITLE: Comparative Concepts

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Abstract

A comparative concept is a linguistic category—morphosyntactic or phonological—that is defined in a language-independent manner, which can be used to compare the grammatical structure of different languages for the formation of language universals. Comparative concepts are central to typology and universals research. Comparative concepts contrast with language-specific grammatical categories and constructions, whose definitions are bound to the individual languages and their structure and history. Comparative concepts are kinds in the philosophical sense. Types of comparative concepts include semantic-pragmatic function (morphosyntax) or phonetics (phonology). Comparative concepts of form paired with function can be divided into constructions and strategies.

Keywords

comparative concepts, typology, universals, semantics, function, information packaging, construction, strategy, kind, historical entity

Key points

- Comparative concepts form the basis of cross-linguistic comparison of language structure and function
- Categories of function (for morphosyntax) or phonetics (for phonology) are clear examples of comparative concepts; in philosophical terms, these are kinds
- Some properties of grammatical form are also kinds but are paired with functionally defined categories that they express
- Categories of grammar cannot serve as comparative concepts, since grammatical categories such as word classes are defined distributionally in a particular language and hence are historical entities (in philosophical terms, spatiotemporally bounded individuals)
- Morphosyntactic comparative concepts can be divided into constructions and strategies, following typological methodology in comparing languages and finding language universals

Glossary (optional)

Nomenclature (optional)

Introduction

A **comparative concept** is a linguistic category—morphosyntactic or phonological—that is defined in a language-independent manner, which can be used to compare the grammatical structure of different languages for the formation of language universals. Identifying and defining comparative concepts is challenging for two reasons. First, languages from different families and areas vary tremendously in grammatical structure. Given this variation, it is not obvious how to find comparable categories across all languages. Second, since the advent of structuralist linguistics, grammatical categories are defined language-internally, that is, based on relationships in the system of the specific language. It is not obvious how to find grammatical categories that are cross-linguistically valid when grammatical categories derived in single-language analyses are defined relative to that language's system. Comparative concepts and the challenges in defining them have been discussed in modern syntactic typology from its beginning (e.g., Greenberg 1966; Ferguson 1970; Keenan and Comrie 1977). However, the term 'comparative concept' was coined much later (Haspelmath 2010), prompting further progress in understanding the nature of comparative concepts.

Body:

Semantic and related categories as comparative concepts

The first type of comparative concept that was recognized in modern syntactic typology, and is still generally accepted, is **semantic**, that is, meaning (e.g. Greenberg 1966:74; Keenan and Comrie 1977:63; Stassen 1985:14). Examples include the category of human beings (for the syntax of nouns) or motion events (for the syntax of verbs and their arguments). Semantic definitions solve both challenges for comparative concepts in a fairly straightforward manner. Since languages are general-purpose communication systems, any meaning can be expressed in some form, and the meaning itself is independent of the formal variation in its expression. And since the meanings are not part of the formal structure of the language, they can be defined in language-independent fashion.

The use of meanings as comparative concepts is not quite as simple as the preceding paragraph implies. First, 'semantics' is too narrow a description of what is communicated in languages. Beyond the basic information content that is expressed ("who does what to whom"), that information is presented in particular ways that are sensitive to the communicative context, including the shared knowledge of the interlocutors, degrees of prominence of different parts of the information presented, the social roles of the interlocutors, and so on. These additional factors are grouped together as **pragmatic** dimensions of what is communicated. A more general description of what is communicated, covering both semantics and pragmatics, is the **function** of the utterance, as opposed to its morphosyntactic **form**.

Not all meanings expressed in a particular language are found in all languages. For example, words for culture-specific concepts, or for flora and fauna found only in a certain geographical region, will not have counterparts in other cultures and other parts of the world. However, most research on morphosyntax focuses on the expression of more general semantic and pragmatic concepts that

are most likely to be found in all languages, such as ‘human’ and ‘motion event’. In some cases, a superordinate functional category such as ‘honorific’ is used to capture similar concepts across a broad set of languages that are otherwise different in their finer-grained divisions.

Finally, what categories of meanings can serve as useful comparative concepts? Most language forms—words, inflectional categories, complex constructions—are polysemous, used for a range of **uses**, that is, more narrowly defined functions. For example, consider the morphosyntactic forms for predicating different semantic categories—events (*She ran*), objects (*She is a doctor*), properties (*She is smart*), and locations (*She is in the office*), in Table 1.

TABLE 1 AROUND HERE

In Guaraní, verbal inflection is found with both event and property predication, while in Avar it is found only with event predication. Conversely, the inflected copula is found with property, object and locative predication in Avar, but only with locative predication in Guaraní. The grammatical category defined by a form in a language is not cross-linguistically comparable, because its range of uses is not shared by all languages, although there is usually some overlap, as we see in Table 1. The solution to this problem is to treat the finest-grained use as the semantic comparative concept: in this case the predication of each semantic category is a distinct function. Cross-linguistically consistent patterns of shared uses by forms in different languages are then empirically derived typological universals (Ferguson 1970; Haspelmath 2003; see also Dahl 1979). The term **etic grid** refers to the same approach (Levinson et al. 2003:487).

Later researchers have taken this idea further, by narrowing semantic concepts to individual tokens of use, elicited by a stimulus. For example, Levinson et al. use pictures depicting spatial relations, and Majid et al. (2008) use videos depicting events in the cutting and breaking semantic domain, as comparative concepts for their studies of adpositions and verbs respectively.

Typologists have developed the **semantic map model** to allow for comparison of word, morpheme and construction categories and their uses across languages. The semantic map model plots word uses across the forms that express them across languages, so that the function of a particular language form is a set of uses. Patterns of overlap and inclusion among the uses expressed by particular language forms are represented in a **conceptual space** of uses. Figure 1 provides semantic maps of the predication constructions of Guaraní and Avar, plotted on a conceptual space proposed in Stassen (1997).

FIGURE 1 AROUND HERE

Functional comparative concepts fall in the ontological category of **kinds**. Kinds are categories of individuals defined by certain inherent qualities they possess. For example, motion events are defined by an incremental change of location of an object over time. These inherent qualities mean that the category definition can apply to any linguistic expression at any time or place; they are not bound to the specific language in which the functional category is expressed. These correspond to ‘classical’ or ‘Aristotelian’ categories in psychology and semantic analysis. Kinds are also called **essentialist** categories, since the inherent qualities are described as the entity’s ‘essence’.

In cross-linguistic comparison of phonology, phonetic reality, either articulatory or acoustic, provides the comparative concepts for comparing phonological categories. As with the form-function mapping, a phoneme is realized with different phonetic properties in different uses. And as with the form-function mapping, those uses serve better as comparative concepts than a grouping of phonetic values in a language-specific phonological category.

Formal properties that serve as comparative concepts, in conjunction with function

There are certain formal properties that can serve as comparative concepts. However, these formal properties are often defined in quite general or abstract terms, in order to make the formal property language-independent. These formal properties still make implicit reference to their associated function (Croft 2009:162). The most basic formal properties are described here, and illustrated in Table 2.

TABLE 2 AROUND HERE

Word/morpheme order is defined in terms of the physical production of morphemes or words. For example, whether the adjective precedes or follows the noun it modifies in an utterance can be discerned without reference to grammatical specifics of the language. However, the order presupposes the ability to identify an ‘adjective’ and a ‘noun’. This is done functionally, so that an adjective denotes a property concept modifying an object concept and a noun denotes an object concept being referred to in the utterance (Greenberg 1966:74; Dryer 2018:804-16).

Zero vs. overt coding of a semantic or pragmatic category is also defined in terms of form independent of specific language facts. Function is involved here as well, since zero vs. overt coding is the coding of a particular meaning. For example, English singular number is zero coded, while plural is overtly coded with the suffix -s in most nouns.

Structural relations between two constructions can be described in language-independent terms, although individual grammatical constructions are defined in language-specific ways. What matters is that similarities and differences between the structures of the two constructions can be defined in language-independent way. Again, the description of form has to be made relative to function. Two types of structural relations are described here.

Recruitment is a relationship between two constructions in which the structure of one construction is recruited or extended to use in the other construction. For example, the construction used for expressing possession is also used to express physiological sensation in many languages, no matter what type of grammatical structure is used to express location in a particular language, for example in French (but not English). Recruitment involves function, since the structure of the two constructions is basically the same, and one must align counterpart functions (for example, the phrase denoting the thing being located and the phrase denoting the thing that is possessed).

Alignment pertains to argument structure constructions (consisting of a predicate and its arguments), such as the transitive and intransitive constructions. In alignment, an argument in one argument structure construction uses the same structural coding as an argument in another argument structure construction. For example, in English the agent argument in the transitive

construction is encoded with the same word order and pronoun form as the single argument role in the intransitive construction. Again, it does not matter how the argument is coded—just that the coding is the same across two different constructions. However, function is involved again, to identify the alignment, for example, which of the A or P role in the transitive construction is expressed with the same form as the S role in the intransitive construction.

Word classes, comparative concepts, and language-specific categories

The most problematic language-specific categories to compare are classes of words, morphemes or syntactic units such as subject vs. object phrases. The issue here is that word classes are defined **distributionally**: a class of words such as English Adjectives is defined by the occurrence of those words in certain roles (slots) in selected constructions; see Table 3.

TABLE 3 AROUND HERE

However, the constructions used for distributional analysis are also language-specific: their structure is defined by a structural configuration of language-specific morphemes, and like words, the range of uses of a construction is specific to that language.

Language-specific categories are not kinds, that is, they are not essentialist categories. The language that includes the constructions that define language-specific categories is a historical entity. In philosophical terms, a historical entity is an **individual** rather than a kind. An individual is spatiotemporally bounded: it is defined as something that comes into being at some place and time, exists across space and time, and eventually ceases to exist. A human language such as Tlingit or Latin is a spatiotemporally bounded, historical, individual. A language arises when it splits off from its parent language, exists for as long as the speech community exists and uses that language, and ceases to exist either when the speech community ceases to use the language, as in the case of Tlingit, or when the speech community splits up and thereby gives rise to new languages, as happened with Latin when it broke up into the modern Romance languages.¹

The utterances of a language and the grammatical structure that they possess are also historical entities or individuals. A language as a historical entity consists of the utterances produced in its history. This particular type of individual is a **population** in the biological sense (Ghiselin 1974; Hull 1976; Mayr 1982:272-75): a set of individuals grouped together not by inherent properties possessed by all of them, but by a historical relationship, in particular their production and reproduction in utterances by members of the speech community.

A single utterance of course exists only briefly, in the course of a conversation. It is a paradigm case of an individual. The grammatical structures that are found in utterances extend across utterances, and are the result of speakers reusing or **replicating** the structures in new utterances while the language is still in use. This replication process generates a population of uses of the

¹ Of course, contemporary languages have not reached the endpoint of their history, so their spatiotemporal end boundary has not yet been reached. Also, a written language will survive as long as the written artifacts exist. It may form the basis of language reawakening, when a community starts using the language forms again, as with Modern Hebrew. However, the break in continuity in language reawakening suggests that the newly used language is a distinct individual from the previous language, with a different spatiotemporal boundary, and hence a different language.

grammatical structure in question. Hence a grammatical structure of a language, such as the English Copular Predication construction, is also an individual, not a kind. The grammatical structure is spatiotemporally bounded by its origin somewhere in the history of English, its use as propagated across the English speech community, and its eventual demise. Finally, the word, morpheme and syntactic unit categories that are defined by their distribution in language-specific constructions are also individuals, since they arise and end along with the constructions that contain them.

In this analysis, word, morpheme and syntactic unit categories are parts of constructions, because they are defined by roles of those constructions. Constructions are in turn parts of languages, because they are embodied in utterances which are parts of the language, which is a historical individual. The part-whole relations between language-specific concepts is illustrated in Table 4.

TABLE 4 AROUND HERE

The common usage by typologists to capitalize language-specific categories and constructions, as well as the names of languages (e.g. Lazard 1975; Comrie 1976; Bybee 1985; Croft 2003) reflects their status as individuals. Individuals are named by proper names, which are conventionally capitalized in English.

The same analysis of language-specific categories as individuals applies to phonological categories in specific languages. Phonemes are categories defined by their relationship to contrasting phonemes, both paradigmatically in the phonological inventory of the language and syntagmatically in the phonotactic structure of the language. Phonemes (and phonotactic structures) are parts of a language and hence are spatiotemporally bounded individuals, more precisely, populations of individual occurrences of the phoneme in utterances in the language.

This view of language and its structure is characteristic of the usage-based approach to linguistic analysis, and also historical sociolinguistics. Structuralist and generative approaches treat grammatical structures as kinds, that is, ‘noun’ or ‘verb’ have inherent properties that are independent of space or time, and hence independent of a language which is said to have ‘nouns’ and ‘verbs’ (e.g. Baker 2003). The inherent properties are posited as ‘underlying’ properties of abstract linguistic categories, rather than properties of ‘surface’ (observable) linguistic categories. This is necessary due to the first challenge for comparative concepts, namely the enormous diversity of grammatical structures across languages. In order to deal with the second challenge, the language-specific nature of ‘surface’ linguistic categories, the observable distributional properties that define the categories are taken to be ‘diagnostics’, ‘tests’ or ‘criteria’ for the identification of underlying inherent categories. However, linguists do not agree on what the diagnostics should be for particular languages, and the diagnostics are not comparable across languages; this approach has been criticized as ‘methodological opportunism’ (Croft 2001:30-32, 41-44; Croft 2009) or ‘diagnostic-fishing’ (Haspelmath 2018:101-2).

The assumption behind the structuralist and generative theory of language-specific categories as kinds and not historical individuals is that language comparison for the purpose of finding universals of language structure requires comparative concepts to be kinds, and that specific language structures are also kinds, in fact, the same sort of kinds that comparative concepts are.

The usage-based approach and the structuralist-generative approach agree that comparative concepts are kinds. They disagree on the ontological status of language-specific categories, with structuralist and generative linguists arguing they are also kinds, and the same as the comparative concepts, while usage-based linguists and some typologists argue that they are individuals and hence ontologically different from comparative concepts.²

In this chapter, we assume the usage-based analysis that language-specific categories and constructions are individuals (spatiotemporally-bounded, historical entities), not kinds. However, it is important to point out that both kinds and individuals are relevant for language comparison and for single-language description and analysis (Croft, to appear). Comparative concepts that are kinds are necessary for language comparison whose goal is uncovering universals of language structure and function. These are **typological comparative concepts**. But there is also language comparison for historical relationships and reconstruction. This is the preserve of comparative historical linguistics. Comparative historical linguistics uses **historical comparative concepts** such as particular cognate sets, borrowings, sound changes, and etymologies to indicate historical relationships across sets of languages.

Conversely, kinds are used in the description of individual languages. For example, the English word *box* in an individual utterance refers to a particular kind of container, and the sound /b/ in *box* is realized as a bilabial obstruent, a kind of articulatory gesture. For individual language description and analysis, we may distinguish **typological properties**—properties of individual forms that are kinds, such as ‘container’ or ‘bilabial obstruent’—from **historical properties**—properties of forms as individuals or historical entities, such as the English Adjective word class and the English Copular Predication construction. These four types of theoretical linguistic concepts are given in Table 5.

TABLE 5 AROUND HERE

Constructions and strategies as comparative concepts in morphosyntactic typology

Comparative concepts (that is, typological comparative concepts) are primarily used for finding universals of language structure. A useful distinction for comparative concepts follows the most common methodology in morphosyntactic typology (Greenberg 1966:73-75; Keenan and Comrie 1977:63-64; Stassen 1985:14-19; Croft 2003, especially chapters 1-2).

As noted above, the primary basis for cross-linguistic comparison is functional. A typologist focuses on a function, or set of related functions, of a construction. A genetically and geographically diverse sample of languages is drawn upon to find the range of morphosyntactic forms used to express the function(s) of the construction(s). The range of morphosyntactic forms is divided into types for expressing the function. This typological classification is created with the

² Some linguists have suggested that language-specific categories can be defined by inherent properties. The properties do not define essentialist categories but instead are ‘homeostatic property clusters’, that is, properties that not all members of the category possess, but are stable (Dahl 2016; Spike 2020). A homeostatic property cluster does not define a kind, since the properties do not apply to all members of the group. It could describe the set of properties found in a population, but it does not define membership in the population (Croft, to appear).

goal of finding an explanation for the diversity of morphosyntactic function and deeper connections with other constructions.

This methodology involves relating function to form in morphosyntactic typology from the beginning of the process. The first step is identifying a function to investigate, and then surveying all the morphosyntactic forms expressing that function in a broad sample of languages. That is, typologists start with an onomasiological approach, from function to form. For example, a ‘relative clause’ is defined in terms of the function of modification of a referent by an action concept (or a proposition, in truth-functional terms). Hence, from a typological perspective, any form expressing that function in any language is an instance of a ‘relative clause’.

This type of comparative concept is a **construction**, in this case specifically a relative clause construction. A construction, in traditional grammar as well as modern construction grammar, is any conventional pairing of form and function. The comparative concept ‘construction’, unmodified, also refers to any conventional pairing of form and function, across languages. When the term is qualified as in ‘relative clause construction’, then it refers to any form-function pairing in any language that expresses the function of action modification (Croft 2022:17). Thus, a relative clause construction is a subtype of a construction.

In the second step of the typological method, the attested forms are divided into types. This typological classification must be done on the basis of cross-linguistically valid formal properties, such as those described above: word order, number of morphemes coding a function in the construction, and more complex structures, all defined in language-independent ways. The comparative concept describing a construction’s function and language-independent properties of its form is a **strategy** (Croft 2022:19).³ That is, a strategy as a comparative concept, like a construction as a comparative concept, is a set of form-function pairings across languages that specifies properties of form as well as properties of function.

Many strategies are defined with respect to a specific construction. For example, the internally-headed relative clause strategy, in which the relative clause head is expressed inside the relative clause, applies specifically to the relative clause construction. Hence the internally-headed relative clause strategy is a subtype of relative clause construction: it has the relative clause function of action modification but is restricted to the constructions with an internal head.

However, other strategies are defined primarily in terms of very general formal properties that apply to constructions of different kinds. These include all of the formal properties described earlier in this chapter. Word order and zero vs. overt coding apply to very large classes of constructions. Strategies such as flagging (case affixes or adpositions) and indexation (also known as ‘agreement’) apply to a large class of constructions that cannot be given a single general functional description.

Conclusion

³ The term ‘strategy’ instead of ‘type’ was first used in this meaning in Keenan and Comrie (1977:64), and has been commonly used in typology since then.

Comparative concepts are kinds, that is, comparative concepts define categories by inherent properties of language form and language function that are not language-specific and therefore are applicable to any language at any place and time. They contrast with categories of words, morphemes and syntactic units which are defined distributionally by occurrence in roles in constructions in a particular language, or phonemes which are defined by their relations to other phonemes and phonological structures in the language. Languages are individuals, that is, historical entities that are bounded in space and time. The constructions that make up a language are also individuals, and the linguistic categories that are defined by constructions are also individuals. But kinds—typological properties—are also necessary for describing specific language categories and constructions. In addition, there are historical comparative concepts that are individuals, describing categories across languages in historical terms, such as cognates and borrowings.

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Website

Comparative concepts: <https://github.com/comparative-concepts>

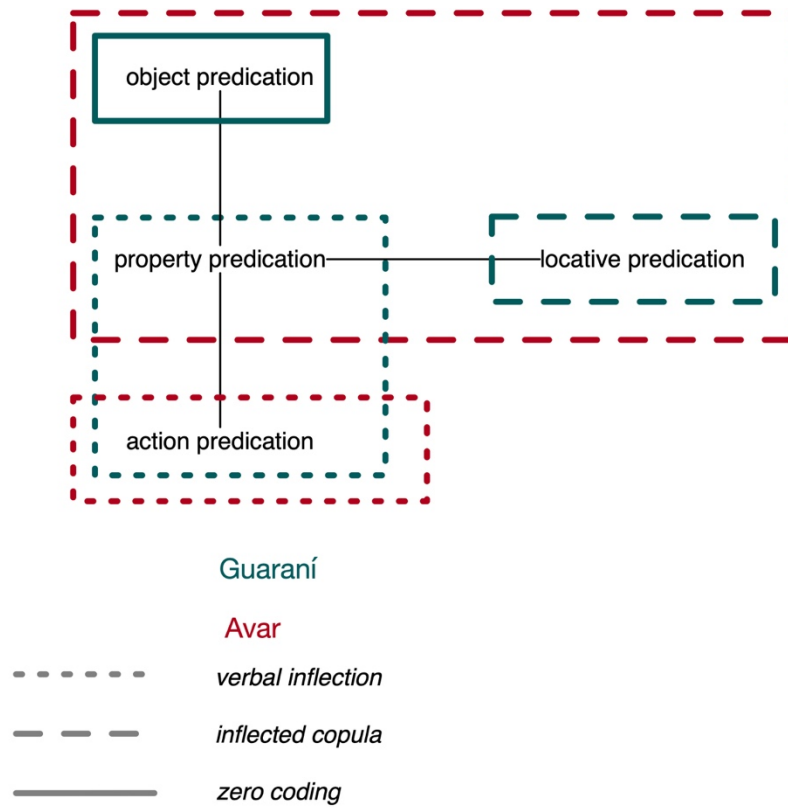


Figure 1. Semantic maps of predication constructions in Guaraní and Avar.

Use/Function	Guaraní (Tupian family, South America) (Stassen 1997:135-36, from Gregores & Suárez 1967:137, 107, 158, 163)	Avar (Nakh-Daghestanian, Caucasus Mountains) (Stassen 1997:146, from Aleksandr Kibrik, pers. comm., and Kalinina 1993:93, 90, 96)
event predication	o-puka 3SBJ-laugh 'He laughs/laughed.'	w-as w-eh-ana CLI-boy CLI-come-PST 'The boy came.'
property predication	sé-rakú 1OBJ-warm 'I am warm.'	ha-w w-as q'úwata-w w-ugo this-CLI CLI-boy strong-M CLI-be.PRS 'This boy is strong.'
object predication	né soldado 2SG soldier 'You are a soldier.'	dir w-ac učitel w-ugo my CLI-brother teacher CLI-be.PRS 'My brother is a teacher.'
locative predication	o-imé oké mé 3SG-be door at 'He is at the door.'	Rasul šaharaŋu-w w-ugo Rasul city-in CLI-be.PRS 'Rasul is in the city.'

Table 1. Uses of different predication constructions in two languages: verbal inflection (light gray), zero coding (dark gray), and inflected copula (white).

Property of Constructional Form	Example of property of form in a particular construction	Illustration
Word Order	property modifier precedes object referent	English <i>tall tree</i> [<i>tall</i> precedes <i>tree</i>]
Zero/Overt Coding	zero coding of singular number vs. overt coding of plural number	English <i>tree-Ø</i> vs. <i>tree-s</i> [singular has no suffix, plural has overt -s suffix]
Recruitment	<i>source</i> : possession	French <i>J'ai une voiture</i> 'I have a car'
	<i>target</i> : physiological sensation	French <i>J'ai froid</i> 'I'm cold' [literally 'I have cold', based on the form of the possession construction]
Alignment	<i>model</i> : intransitive argument	<i>She ran.</i> [form and position of the single argument of intransitive event]
	<i>target</i> : transitive argument	<i>She kissed him.</i> [form and position of agent argument is the same as that of the single argument of intransitive event, while patient's argument form and position are different]

Table 2. Types of properties of constructional form that are comparative concepts.

English Construction name	Construction Schema with relevant Element/Role	Example
Adjectival Modification	[Adj Noun]	<i>a tall tree</i>
Copular Predication	[Sbj <i>be</i> Pred]	<i>That tree is tall.</i>
Comparative Inflection	[Adj- <i>er</i>]	<i>tall-er</i>
Degree Admodification	[<i>very/a little/etc.</i> Adj]	<i>very tall</i>

Table 3. Distribution of English Adjective class in four constructions.

Part-whole hierarchy	Example
Language	<i>English</i>
Utterance	<i>and she brushes off this little hat he has on,</i>
Construction	English Object Relative Clause [[<i>this little hat</i>] [<i>he has _ on</i>]]
Construction Element (= Role)	English Relative Clause Head [<i>this little hat</i>]; English Head Noun [<i>noun</i>]

Table 4. Part-whole relations of spatiotemporally bounded individuals in language.

	Kinds	Individuals
Cross-language comparison	(typological) comparative concepts	historical comparative concepts
<i>examples</i>	<i>relative clause (= action modification)</i> <i>adjective-noun word order</i>	<i>cognate set (e.g. English bone, German sein, Dutch been, Swedish ben)</i>
Language-specific description	typological properties	historical properties
<i>examples</i>	<i>human</i> <i>focus</i> <i>zero coded singular</i>	<i>English Adjective class</i> <i>English Copular Predication construction</i>

Table 5. Types of theoretical concepts for language description and comparison.