

Comparative concepts and descriptive categories in cross-linguistic studies

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Abstract

In this paper I argue that cross-linguistic grammatical comparison cannot be based on grammatical categories, because these are language-specific. Instead, typology must be (and usually is) based on a special set of **comparative concepts** that are specifically created by typologists for the purposes of comparison.

Descriptive formal categories cannot be equated across languages because the criteria for category-assignment are different from language to language. This old structuralist insight (called *categorial particularism*) has recently been emphasized again by several linguists, but the idea that typologists need to identify "cross-linguistic categories" before they can compare languages is still widespread. Instead, what they have to do (and normally do in practice) is to create comparative concepts that help them to identify comparable phenomena across languages and to formulate cross-linguistic generalizations. Comparative concepts have to be universally applicable, so they can only be based on other universally applicable concepts: conceptual-semantic concepts, formal concepts, general concepts, and other comparative concepts.

If, by contrast, one espouses categorial universalism and assumes cross-linguistic categories, as many generative linguists do, typology works by equating comparable categories in different languages, which are said to "instantiate" a cross-linguistic category. But in typological practice, all that is required is that a language-specific category matches a comparative concept. For example, the Russian Dative, the Turkish Dative and the Finnish Allative all match the comparative concept 'dative case', but they are very different distributionally and semantically and therefore cannot be equated and cannot instantiate a cross-linguistic category 'dative'.

Comparative concepts are not always purely semantically-based concepts, but outside of phonology they usually contain some semantic components. If one is not confident about the universality of meanings, one can substitute extralinguistic contexts for universal meanings. The view that descriptive categories are different across languages and different from comparative concepts leads to terminological problems, which are also discussed here. Finally, I observe that the adoption of categorial universalism has actually impeded, not facilitated, cross-linguistic research.

1. Typology needs comparative concepts

Cross-linguistic comparison would be relatively straightforward if all languages had the same formal categories (such as *accusative case*, *future tense*, *second person*, *adjective*, *subject*, *passive voice*) if the differences between languages were limited to different ways of combining the categories. While such **universal categories** have sometimes been posited (e.g. nouns and verbs in Baker (2003), adjectives in Dixon 2004), it is clear that in general, at most a weaker position can be maintained, according to which there is a set of universally available categories from which languages can make a selection. On this view, languages need not have accusative case, future tense, adjectives, or subjects (etc.), but if a given language has adjectives (etc.), it has

adjectives in the same sense as other languages with adjectives. In other words, this view posits **cross-linguistic categories**, which languages may but need not instantiate (Newmeyer 2007). In this approach, which we can call *categorial universalism*, it is one of the tasks of comparative linguists (i.e. typologists) to determine what these cross-linguistic categories are.

The present paper starts out from an alternative view of the tasks of comparative linguistics. Following recent work on the foundations of grammatical typology by various authors (Dryer 1997, Croft 2001, Lazard 2006, Haspelmath 2007, Cristofaro 2008+), I assume that universal or cross-linguistic categories do not exist. Each language has its own categories, and to describe a language, a linguist must create a set of **descriptive categories** for it. These categories are often similar across languages, but the similarities and differences between languages cannot be captured by equating categories across languages. It was one of the major insights of structuralist linguistics of the 20th century (especially the first half) that languages are best described in their own terms (e.g. Boas 1911), rather than in terms of a set of pre-established categories that are assumed to be universal, although in fact they are merely taken from an influential grammatical tradition (e.g. Latin Grammar, or English grammar, or generative grammar, or Basic Linguistic Theory). This alternative, non-aprioristic approach to categories can be called *categorial particularism*.

Categorial particularism appears to make cross-linguistic comparison more challenging, but I argue that there exists a coherent and viable methodology for typological research that is compatible with it, which has in fact been employed by most researchers in the Greenbergian tradition (e.g. Greenberg 1963, Mallinson & Blake 1981, Comrie 1989, Dryer 1992, Croft 2003, Haspelmath et al. (eds.) 2005, Song (ed.) 2008+). However, linguists have often been unclear about the way in which the apparent paradox of comparability of incommensurable systems can be resolved. It is my goal in this paper to explicate this approach and defend it against challenges from a categorial universalist perspective such as Newmeyer (2007). I will not argue for categorial particularism per se, but I summarize the arguments for it in §2.

Typologists have often observed that cross-linguistic comparison of morphosyntactic patterns cannot be based on formal patterns (because these are too diverse), but has to be based on universal conceptual-semantic concepts (e.g. Stassen 1985:14, Croft 1990:11-12). However, as Newmeyer (2007:§2) rightly emphasizes, "typological generalizations need to make reference to the specific form in which these universal concepts are realized as well" (p. 136). Typologists make generalizations about phenomena such as case affixes, gender, adpositions, passive constructions, and relative clauses, and none of these can be defined in purely conceptual-semantic terms.

Thus, what cross-linguistic studies need in addition, and normally make use of, is **comparative concepts**. Comparative concepts are concepts created by comparative linguists for the specific purpose of cross-linguistic comparison. They are not needed by descriptive linguists or by speakers. They are not psychologically real, and they cannot be right or wrong. They can only be more or less well-suited to the task of permitting cross-linguistic comparison. Comparative concepts are universally applicable, and they are defined on the basis of other universally applicable concepts: universal conceptual-semantic concepts, universal formal concepts, universal general concepts, and other comparative concepts.

Comparative concepts are needed for stating empirically testable universal statements. Consider the generalization in (1).

- (1) In all languages with a dative and an accusative case, the dative case marker is at least as long as the accusative case marker.

To test this claim, we need to identify dative and accusative case markers across languages, and we need to measure phonological length in a cross-linguistically meaningful way. It is relatively easy to see that dative cases (or dative-like cases) cannot be equated across languages, i.e. there is no cross-linguistic dative category. The Russian Dative, the Basque Dative and the Turkish Dative are similar enough to be called by the same name, but there are numerous differences between them. Clearly, their nature is not captured satisfactorily by saying that they are instantiations of a cross-linguistic category "dative".

However, *dative case* can be defined as a comparative concept, as in (2).

- (2) A dative case is a morphological category that has among its functions the coding of the recipient argument of a physical transfer verb (such as 'give', 'lend', 'sell', 'hand'), when this is coded differently from the theme argument.

This definition is based on the conceptual-semantic concepts 'recipient' and 'physical transfer verb', as well as the comparative concepts 'morphological' and 'argument'. The comparative concept 'morphological', in turn, presupposes the comparative concept 'word', definable as a 'segment string that cannot be interrupted by a free form without changing the meaning', and the comparative concept 'argument' can be defined as 'referential phrase that can fill a verb's semantic valency position'. These definitions are still not composed of primitive concepts, but they do not (at least not evidently) introduce language-specific concepts, so they are (or can be made, with suitable refinement) cross-linguistically applicable. Thus, given the definition of the comparative concept 'dative' in (2), we can go on to test the generalization in (1).

This is done by matching the phenomena of languages with the comparative concepts. The Russian Dative matches the 'dative case' concept in (2), and so does the Finnish Allative, but the Nivkh Dative-Accusative case does not match it, despite its name. Note that we cannot say that the Russian Dative and the Finnish Allative "instantiate" the 'dative case' concept, because these categories have many more properties than are contained in the definition in (2). This is the crucial difference between comparative concepts as proposed here and the cross-linguistic categories posited by other linguists. On the categorial universalist view, categories in particular languages instantiate cross-linguistic categories, and they can thus be equated across languages. On the view presented here, the fact that two language-particular categories both match a comparative concept only means that they are similar, but not that they are "the same" in any sense.

I use the term *comparative concept* (rather than *comparative category*) in order to emphasize that the comparative concepts are linguists' constructs, not part of language structure. Since Aristotle, we have known that speakers need categories (semantic categories and formal-grammatical categories) to be able to use language, and linguists need (corresponding) categories to describe languages. If learners or descriptive linguists construct the wrong categories, they fail in their tasks. Comparative concepts, by contrast, cannot be wrong, but only more or less well-suited for the purpose of enabling cross-linguistic comparison.

The remainder of this paper is organized as follows. In §2 I summarize the arguments for the view that each language has its own grammatical categories (categorial particularism). To do typology in this approach, one needs comparative categories, and §3 gives eight concrete examples of comparative grammatical concepts and testable cross-linguistic generalizations based on them. I show that each of the concepts can be defined in a universally applicable way, and that the comparative concepts are crucially different from the corresponding language-specific categories in many cases. In §4 I point out that comparison cannot be based entirely on conceptual-semantic concepts, and I counter the objection that identifying concepts in conceptual-semantic terms is just as difficult as identifying cross-

linguistic categories. In §5 I discuss the terminological issues arising from categorial particularism and propose concrete solutions. Finally, in §6 I show that categorial universalism as practiced in generative linguistics in fact has greater problems with cross-linguistic comparability than the particularist view adopted here.

2. Descriptive linguists need descriptive categories

Most linguists are primarily descriptivists in the sense that they focus on the analysis of a particular language, whether their main concern is theoretical or applied.¹ To describe a language, one needs categories, because it is not possible to list all the acceptable sentences of a language. Out of the countless possibilities, linguists nowadays generally value those descriptions most highly that "do justice" to the language in an optimal way. Well into the 19th century, it was common to find descriptions of caseless languages in terms of the Latin six-case model (nominative: *John*, accusative: *John*, dative: *to John*, genitive: *of John*, ablative: *from John*, vocative: *o John*). Descriptions of this sort worked, in that they allowed the users of the description to distinguish between acceptable and unacceptable expressions in the language, but they did it in a way that has been unacceptable to linguists since the advent of structuralism at the latest. At least as theoretical linguists, we are not satisfied with getting the facts right, but we also want to gain insights into the inner workings of the language, into the way its various elements cohere. This means that English should be described non-aprioristically, with descriptive categories designed for English, not with categories designed for Latin, Arabic or any other language.

As the American structuralists recognized, this emancipation from the Latin (or Standard Average European) model must be extended to all other languages. According to Boas (1911:81), the descriptive categories chosen by the authors of the *Handbook of American Indian Languages* "depend entirely on the inner form of each language ..." Commenting on the Boasian approach, Bach (2004:56) writes: "If a category is simply the name for a set of expressions which in the strictest construal can stand in all and only the same environments, then it is completely obvious that Noun in Japanese grammar and Noun in English grammar, for example, cannot name the same sets ... we must think of the categories as "really" meaning 'Noun-in-Japanese', 'Verb-in-English', and so on."

However, a very different view has come to prevail in the second half of the 20th century, according to which there exists a set of cross-linguistic categories (some of them perhaps even universal) from which languages may choose. According to this view, English happens not to have a dative case, but the Hungarian dative case instantiates the same cross-linguistic category as the Icelandic dative case; Adjectives in Tariana (Aikhenvald 2004) are adjectives in the same sense as adjectives in Russian; or subjects in Tagalog (Kroeger 1993) are subjects in the same sense as in English. On this view, the task of descriptive linguists is to match the phenomena of their language with these pre-established cross-linguistic categories. These categories are often assumed to be part of the innate Universal Grammar (substantive universals, Chomsky 1965:§1.5), but sometimes linguists simply assume their cross-linguistic validity without any cognitive commitment.

More recently, a number of linguists have argued against the view that grammatical categories are cross-linguistic, and have essentially returned to the structuralist position that each language has its own categories and that there are no cross-linguistic categories (Dryer 1997, Culicover 1999: ch. 2, Croft 2000, 2001, Lazard

¹ I follow Lyons (1981:34-35) in contrasting *descriptive linguistics* (the study of particular languages) with *general linguistics* (the study of language in general). *The theoretical-applied* distinction is orthogonal to the *descriptive-general* distinction. I only address theoretical concerns here.

2005, 2006, Haspelmath 2007, 2008+, Mielke 2008, Cristofaro 2008+). It is not my purpose in this paper to defend categorial particularism, but rather to show how language comparison works in this approach. But in a nutshell, the problem with cross-linguistic categories is that the criteria used for identifying categories such as cases, word classes and grammatical relations are themselves language-specific. Subjects in English are identified by a set of criteria that is only partially comparable to the set of criteria that might be used to identify subjects in Tagalog (Schachter 1976). Adjectives in Mandarin Chinese are identified by a set of criteria that is quite different from the criteria applied in Russian (McCawley 1992). Many criteria are completely lacking in many of the languages. Since there is typically no principled way of deciding which criteria are relevant, linguists that assume cross-linguistic categories are often (indeed, usually) in disagreement over category assignments: Is Thai *dii* a verb or an adjective? (Prasithrathsint 2000) Are the French subject pronominals *je, tu, il* (etc.) pronouns or agreement markers? (de Cat 2005) Is the English genitive marker *'s* an enclitic word or a phrasal suffix? (Zwicky 1987) Such category-assignment controversies cannot be resolved, because the answer one gives depends on one's choice of criteria, and this choice is "opportunistic" (Croft 2001, 2008+). Linguists inevitably choose the criteria in such a way that they obtain the result that fits their general perspective best. But since perspectives differ, linguists arrive at different categories, and it is impossible to tell which category assignment is correct.

Moreover, if there were a limited set of cross-linguistic categories from which languages may choose, we would expect that grammatical research from various perspectives would gradually converge on these categories. However, linguists differ widely in the kinds of categories they assume, and a common experience of typologists is that each new language presents them with something that they have never seen before. While there is a core set of phenomena that tend to be quite similar across languages (noun, verb, demonstrative, personal pronoun, subordinate clause, *wh*-fronting, etc.),² there is a large periphery of construction types that seem incommensurable. And where there is broad agreement about certain categories and construction types, it is sometimes hard to avoid the impression that the agreement is based more on grammatical traditions (influential frameworks, or influential languages such as English or Dyrbal) than on real convergence of analyses. As Bach (2004:56-57) notes, early generative grammar "took over with no substantial justification the categories of traditional grammar ... The initial empirical base was English and as this base was broadened to include more and more different languages, these categories were naturally taken over for the 'new' languages".

The Boasian position that each language has its own categories avoids the problems of category-assignment controversies and bias by traditions. Its most glaring potential problem is that it makes languages seem incommensurable, rendering language comparison impossible. And indeed, as Greenberg (1974:42), American structuralists "largely ignored typology". However, I am arguing in this paper that language comparison is not based on categories at all, but on comparative concepts (see §1, and further §6 below). Thus, there is no conflict or tension between a Boasian and a Greenbergian approach.

Culicover (1999: ch. 2) arrives at the same conclusion without even considering linguistic diversity in detail. He observes that syntactic categories must be taken to have subcategories, comprising items with specific properties not shared by all

² As Dryer (1997) emphasizes, there is no need to appeal to cross-linguistic categories to explain these similarities, because functional explanations are available for them. For instance, the fact that nouns and verbs contrast grammatically in most languages is evidently due to the fact that all human beings tend to use time-stable thing concepts as referents and ephemeral process concepts as predicates (Croft 1991).

members of the category (e.g. pronouns as a subcategory of nouns). Sometimes these subcategories are small, consisting only of a single member (e.g. postposed degree adverbs, of which English has only one: *enough*). Culicover notes that if such small and idiosyncratic categories are also assumed to be drawn from a universal set, this entails "that all conceivable sets of elements that could share any formal property at all are universally available syntactic categories, including every individual lexical item" (p. 40). He concludes that this renders the categorial universalist position vacuous, and that it must be abandoned. One might object that degree adverb position should not be a significant subcategory property, but the problem is that there is no principled, cross-linguistically valid set of criteria by which categories could be defined.

Language-specific descriptive categories are required in phonetics and phonology as well. Port & Leary (2005) argue against the assumption of "a fixed, universally available alphabet-like phonetic inventory". The distinctive features of modern phonology were originally conceived of as language-specific categories (Trubetzkoy 1939), and it was only later in work by Roman Jakobson, Morris Halle and others that they were reconceptualized as cross-linguistic categories. More recently, a number of phonologists have advocated a return to the Trubetzkoyan view. In Mohanan et al.'s (2008+) approach, "UG does not provide an inventory of specific distinctive features... Inventories of features, contrastive segments and feature-constraints emerge in an individual grammar in the course of language development through exposure to data." Similarly, Mielke's (2008) "emergent feature theory" argues against innate, cross-linguistic features and in favor of language-specific features. Mohanan et al. (2008+) recognize that this has consequences for cross-linguistic comparison, which cannot be based on a universal list of pre-defined features: "What is needed is a cross-linguistically valid currency of distinctive features: such a currency can obtain without reference to a set of features stipulated in UG" (§6). In other words, phonological typology needs comparative phonological concepts, and it is such comparative concepts that phonological typology (e.g. Maddieson 1984) is based on, often implicitly.

In defense of categorial universalism, Newmeyer (2007:139) observes that not only do we find widespread and unresolvable debates about whether two elements in different languages are members of the same cross-linguistic category, but "debates over whether elements *x* and *y* in the same language are members of the same formal categories are even more widespread". Newmeyer suggests that by parity of argument, one would have to reject the existence of language-specific formal categories. But as I observed above, languages must have formal categories because it is not possible to list all grammatical sentences of a language. The fact that linguists find it difficult to agree on what the categories are just shows that our data are often insufficient to make a unique choice. But speakers do not have sufficient data either, and we cannot be sure that all speakers use the same categories to produce and understand grammatical sentences.³ So this cannot be a problem for the comparativist: Language comparison must be based on what is uniform across

³ It is often assumed without argument that all speakers of the same language have the same categories and the same system. But this assumption is of course far from necessary, as there are generally multiple grammars that yield the same output, and some psycholinguistic research suggests that different speakers indeed do have different grammars (Dąbrowska 2008). Moreover, it is well-known that children acquire language in fairly different ways, i.e. speakers at the age of 2 or 3 clearly do not all have the same categories. It is quite possible that such differences persist, and that the output is adjusted (to conform to social constraints, which become increasingly important at later ages) without a major overhaul of the categories. Newmeyer (2007:§5) fears that categorial particularism leads to a "solipsistic view of grammar", but as long as we realize that speakers have not only grammatical, but also social competence, there is no problem. Each speaker may well have different categories, but all use them in such a way that the output is extremely similar.

speakers (of the same variety of a language), i.e. the output. As long as a description gives an accurate and complete characterization of the speakers' output, it is an adequate basis for language comparison. Comparison is based on comparative concepts, not on descriptive categories, as we will see more clearly in the next section.

3. Examples of comparative concepts

Comparative concepts are necessary for the formulation of cross-linguistic generalizations (or "language universals"). If we were not interested in such generalizations, we could do without comparative concepts, and many descriptive linguists, psycholinguists and sociolinguists do not use comparative concepts in their work at all. To give the reader a good sense of what I am talking about, I give seven concrete examples of comparative grammatical concepts and of the way they are used in cross-linguistic studies. In the following subsections, I will first cite a proposed generalization, and then give a definition for one of the key concepts in the generalization. As in our first example in §1, the definitions will appeal only to universally applicable general concepts (such as 'precede', 'identical', 'overt'), to conceptual-semantic concepts, to universal formal concepts, and to other comparative concepts. The definitions of comparative concepts must not contain language-specific components. The space limitations of this paper do not allow me to justify all aspects of the definitions and the universality of the concepts used in them, but in evaluating such definitions it is important to keep this in mind.

3.1. Adjective

Part-of-speech concepts such as 'adjective' are necessary for stating the well-known Greenbergian generalizations (see 3). Greenberg and other word order typologists have worked with a definition of 'adjective' along the lines of (4).

(3) Generalization: If a language has dominant SOV word order and the genitive follows the governing noun, then the adjective likewise follows the noun (Greenberg 1963, universal 5).⁴

(4) Definition: An adjective is a lexeme that denotes a descriptive property and that can be used to modify a noun.

This definition makes use of the universal formal concept 'lexeme' and the conceptual-semantic concepts 'property' and 'modify' (the latter is necessary to exclude words like *size* and *beauty*, which denote properties, but are not normally used to modify a noun).

Importantly, it is irrelevant for this definition whether a language has a separate word class "Adjective" (i.e. a descriptive category), or whether it uses its "Noun" or "Verb" categories to attribute properties to nominal referents. In the latter case, a verb (= descriptive category) may be an adjective (= comparative concept) for the purposes of cross-linguistic comparison (cf. Dryer 2005a:354). Since descriptive categories and comparative concepts are different kinds of entities, there is no

⁴ This generalization has been called into question by Dryer (1988, 1992, 2005a). This is irrelevant for this paper, because my purpose is merely to explain how comparative concepts function in typology. If Greenberg and Dryer had not assumed the same sense of the term *adjective* (as a comparative concept), neither the formulation of the generalization nor its refutation would have been possible.

contradiction here. (There is a terminological problem, however, which I address in §5 below.)

3.2. Future tense

Tense-aspect concepts have also been widely compared across languages by typologists. Let us consider 'future tense'.

(5) Generalization: In all languages, markers of future tense are less bound than markers of present tense or past tense, or equally bound, but never more so. (Ultan 1978:91)

(6) Definition: A future tense is a verbal grammatical construction that has future time reference as one prominent meaning.

This definition makes use of the universal formal concept 'grammatical construction' (to delimit future tenses from temporal adverbs like *tomorrow*), the conceptual-semantic concept 'future time reference', and the comparative concept 'verb' (defined in a manner analogous to the definition of 'adjective' that we just saw). The vague qualification "prominent" will have to be made more precise in one way or another to make the generalization truly testable

What is important here is that the generalization in (5) cannot be formulated in purely conceptual-semantic terms, because it is not supposed to make claims about temporal adverbs or adverbial clauses. Moreover, future tenses are normally not synonymous across languages. For instance, the Spanish Future tense (e.g. *vendrá* 'will come') is also used to express probability, but not habituality (Butt & Benjamin 2000:213-216), while the Lezgian Future tense (e.g. *qwe-da* 'will come') is also used to express habituality, but not probability (Haspelmath 1993:141-142). The generalization in (5) is intended to cover both forms, but clearly they cannot be "the same category" in any sense. They are different descriptive categories, but they both match the comparative concept in (6). Note that (6) does not require that future time reference is the primary sense of the form in question, and a form such as the Korean *-keyss*-form, which is called "Volitional Mood" (as a descriptive category) by Chang (1996:128-131), can also express future tense and thus falls under (6) and (5), even though volition and probability are its primary senses.

3.3. *Wh*-movement

Comparative concepts are not restricted to concepts which are the counterparts of (morpho-)syntactic categories. Comparative linguists compare entire constructions across languages using comparative concepts, for example '*wh*-movement'.

(7) Generalization: *Wh*-movement is always to the left (Hawkins 1999:273, Dryer 2005b).

(8) Definition: *Wh*-movement is a syntactic construction in which a *wh*-word (or *wh*-phrase) occurs in a special position in which its non-*wh*-counterpart would not normally occur.

This definition makes use of the general concepts 'position' and 'special', the universal formal concept 'syntactic construction', and the comparative concepts '*wh*-word' and '*wh*-phrase' (defined immediately below in §3.4). Note that it contains no conceptual-semantic concept.

Importantly, no claim is made that *wh*-movement is a cross-linguistically uniform process. We know that it is not: In some languages, both content interrogatives and relative clauses undergo *wh*-movement, in others only content interrogatives do, and in yet others a good case can be made that there is a general focus fronting rule that applies to *wh*-phrases and to focused non-*wh*-phrases alike. Thus, the fronting rules in these languages are all different descriptive categories,⁵ but they all fall under the comparative concept in (8).

3.4. *Wh*-word

For a full understanding of '*wh*-movement', we still need to define '*wh*-word':⁶

(9) Definition: A *wh*-word is a word that can be used as a question pronoun, i.e. to represent the questioned content in a content question.

As in the case of the future tense, the definition does not assume that *wh*-words are restricted to the use as question pronouns, and this use does not even have to be their primary use. In many languages, *wh*-words are also used as indefinite pronouns (Haspelmath 1997:§7.3, Bhat 2000) or as relative pronouns, and the question use may not even be more prominent than other uses. Such pronouns have therefore sometimes been called *ignoratives* (Wierzbicka 1980: ch. 8) or *epistememes* (Mushin 1995). But the only meaning that is universally available to what we call *wh*-words is the question-pronoun use, so this is the decisive criterion in the definition of the comparative concept in (9). Again, we can say without contradiction that in a certain language an epistememe (= descriptive category) is a *wh*-word (= comparative concept).

3.5. Relative clause

Another comparative concept type that has figured prominently in cross-linguistic studies is 'relative clause'.

(10) Generalization: If the relative clause precedes the noun either as the only construction or as an alternate construction, either the language is postpositional, or the adjective precedes the noun or both (Greenberg 1963, universal 24).

(11) Definition: A relative clause is a clause that is used to narrow the reference of a referential phrase and in which the referent of the phrase plays a semantic role.

This definition is very similar to the definition in Keenan & Comrie's (1977) influential article on the typology of relative clauses. But while Keenan & Comrie (1977:63) consider it "an essentially semantically based definition", I emphasize here that it is a comparative concept that not only contains conceptual-semantic components such as 'narrow the reference', 'semantic role', but also the formal concept 'clause' (itself a comparative concept, or perhaps a universal formal concept). This concept is necessary to delimit relative clauses from attributive adjectives and possessors, which are semantically like relative clauses, but are not clauses.

⁵ It is true that abstract analyses are possible in which they are all the same process (e.g. move alpha, Chomsky 1981), but such abstract analyses are very hard to test. Here I focus on cross-linguistic generalizations that are readily testable.

⁶ *Wh*-phrase is simply defined as 'a phrase that contains a *wh*-word'.

As in the earlier examples, a construction does not have to be a relative clause in a particular language to qualify as a relative clause for the purposes of cross-linguistic studies. Thus, Comrie & Horie (1995) and Comrie (1998), following Matsumoto (1988, 1997), argue that Japanese clauses such as (12a) instantiate the same construction as in (12b) and (12c).

- (12) a. *gakusei ga katta hon*
 [student NOM bought] book
 'the book that the student bought'
- b. *gakusei ga hon o katta zizitu*
 [student NOM book ACC bought] fact
 'the fact that the student bought the book'
- c. *daareka ga doa o tataku oto*
 [someone NOM door ACC knock] sound
 'the sound of someone knocking at the door'

Matsumoto's and Comrie's "Noun-Modifying Construction" is thus a descriptive category within Japanese. Japanese has no category that closely corresponds to the descriptive category of Relative Clauses in English, but for cross-linguistic studies of relative clauses, the construction in (12a) can be taken as a relative clause (in the comparative sense, cf. Comrie & Kuteva 2005).

3.6. Reflexive pronoun

Reflexive pronouns are preferred in direct-object function (e.g. *She saw herself*) and are used less commonly in adnominal possessive function (cf. **She saw herself's son*). This can be expressed as a universal generalization:

- (13) Generalization: If a language uses a reflexive pronoun for an adnominal possessor that is coreferential with the subject, then it also uses a reflexive pronoun for a subject-coreferential direct object (Haspelmath 2008+a).

- (14) Definition: A reflexive pronoun is a specialized anaphoric expression that can only be used in the same clause as the antecedent.

The definition of 'reflexive pronoun' thus has both a semantic ('anaphoric') and a formal ('in the same clause') component. The definition mentions only part of the usual properties of reflexive pronouns and is silent about the c-command requirement for the antecedent, subject orientation, and the distinction between local and long-distance reflexives. Few languages will have a descriptive category that corresponds exactly to (14), but for typological purposes this definition is sufficient.

3.7. Ergative case

- (15) Generalization: In all languages with an ergative case, it has at least some overt allomorphs (cf. Dixon 1979:§2.3).

- (16) Definition: An ergative case is a morphological category that has among its functions the coding of the agent of typical transitive clauses, when this is coded differently from the patient.

In most languages with cases that match the definition in (11), they are called *ergative*, but it is not possible to equate them across languages, because they may have quite a few additional functions as well (instrumental, locative, possessive, general oblique, cf. Dixon 1994:57). Within each language, there may well be reasons to regard the case not as polysemous, but as having a general meaning that happens to comprise the meaning of the transitive agent. In some languages, the corresponding descriptive category is traditionally known by a different name (Narrative case in Georgian, Relative case in Eskimo). Note also that the generalization in (15) and the definition in (16) are neutral with respect to the competing analyses of split ergative systems: Dixon's, according to which languages like Dyirbal have an ergative-absolutive case system coexisting with a nominative-absolutive case system (in the 1st and 2nd person pronouns), and Goddard's (1982), according to which such languages have a tripartite ("ergative-accusative-nominative") system. On the latter analysis, "Ergative" has a different meaning as a descriptive category, but the comparative concept and the generalization is not affected.

3.8. Tense

A possible generalization about tense is (17) (cf. Tonhauser 2008, who comes close to making the claim that it is true). In order to test it, we need a cross-linguistically applicable definition of 'tense (marker)'. Two such definitions are given in (18a-b).

(17) Generalization: Tense markers only occur on verbs; they do not occur on nouns in any language.

(18) a. Definition: A tense marker is a marker that affects the temporal interpretation of its host.

b. Definition: A tense marker is a marker that occurs as part of a grammatical paradigm, whose occurrence does not depend on the meaning of its host, that encodes a temporal relation between the host time and utterance time (deictic tense) or another contextually given time (relative tense), that does not encode a state change, and that expresses a temporal meaning that may be anaphorically resolved in discourse.

The two definitions in (18a) and (18b) are two different comparative concepts proposed by different linguists. (18a) is the tense concept used by Nordlinger & Sadler (2004, 2008), and (18b) is the tense concept used by Tonhauser (2007, 2008:337-338). Since they work with different comparative concepts, it is not surprising that they come to different conclusions: While Nordlinger & Sadler show that tense on nouns (in sense 18a) is attested widely, e.g. in Guaraní, and hence (17) is wrong, Tonhauser shows that tense on nouns (in sense 18b) does not occur in Guaraní (and perhaps not in the other languages either), so that (17) may well be true. Thus, the apparent controversy about the truth of (17) is in fact a controversy about the usefulness of different definitions of the term 'tense marker'. But Nordlinger & Sadler and Tonhauser fail to fully understand the source of their disagreements because both parties assume that 'tense' is a cross-linguistic category. According to Nordlinger & Sadler (2008:328), "(t)he difference between the two positions amounts to whether or not it is appropriate to consider these nominal temporal markers to be instances of the morphosyntactic category of tense". They cannot give a justification for their view of how 'tense' should be defined, and more generally, they ask, but cannot answer, the question: "(W)hen confronted with unfamiliar or previously undescribed linguistic phenomena, how do we know when to establish a new

category to account for it [as done by Tonhauser, who regards the Guaraní markers are being "in a category of their own"], and when to redefine an existing one [as done by them]?" (p. 329).

Given categorial universalism, this question is inevitable but unanswerable, whereas on categorial particularism, it does not arise: When confronted with a previously undescribed phenomenon, we create a descriptive category for it, and if we want to compare it with other phenomena, we adjust our comparative concepts in such a way as to arrive at the most insightful comparisons and the most interesting generalizations.⁷

3.9. Summary

Comparative concepts are concepts created by comparative linguists for the purpose of formulating readily testable cross-linguistic generalizations (such as those in (3), (5), (7), etc.). They are potentially applicable to any human language.⁸ Their definitions contain other universally applicable concepts of four kinds: conceptual-semantic concepts, general formal concepts (such as 'precede', 'overt'), universal formal concepts (such as 'grammatical construction'), and other (more primitive) comparative concepts.

Comparative concepts allow linguists to identify comparable grammatical phenomena in different languages, but by identifying a phenomenon in a particular language as a match of a comparative concept, nothing is claimed about the way in which that phenomenon should be analyzed within the language (what kind of descriptive category should be used for it). Comparative concepts and descriptive categories are totally different kinds of entities that should not be confused. (In §6 I discuss problems that arise when comparative concepts and descriptive categories are confused.)

4. On the conceptual-semantic basis of comparative concepts

It is frequently asserted in the typological literature that cross-linguistic comparison in the domain of grammar must be based on meaning or function (e.g. Stassen 1985:14, Croft 1995:88, Song 2001:10-12, Croft 2003:13-14).

There are two problems with this claim. The first is that the comparative concepts that typologists actually work with most of the time are not based exclusively on meaning, but on both meaning and form ("mixed functional-formal definitions", Haspelmath 1997:9). Most of the examples of comparative concepts that we saw in §3 crucially contain a (universal) formal component. Thus, if the claim that cross-linguistic comparison is meaning-based is taken to mean that it is exclusively meaning-based, it cannot be right. In this regard, Newmeyer's (2007:§2) critique of the views of Croft (2001) and Haspelmath (2007) is well-taken.

⁷ Tonhauser's (2008:3334-337) defense of her definition amounts to the observation that her narrower definition allows more interesting cross-linguistic generalizations to be stated, and certainly it would be nice if we could maintain the strong claim in (10) rather than having to abandon it. On the other hand, Nordlinger & Sadler's broader definition allowed them to cast their net wide and bring together a fair number of phenomena that had previously not come to linguists' attention. Thus, both comparative concepts have proved productive, and on the present approach, the apparent conflict between the authors simply dissolves.

⁸ Comparative concepts can be defined in such a way that all languages must have them (e.g. adjective, relative clause; it is hard to imagine a language that has no property-attributing words or reference-narrowing clauses). But they can also be defined in such a way that not all languages have them (e.g. *wh*-movement, reflexive pronoun, ergative case). Thus, comparative concepts are not necessarily universal, but cross-linguistic (i.e. cross-linguistically applicable) in the sense that all languages could have them.

The second problem is that meaning is not necessarily universal either. Just as some formal notions are universal (or universally applicable, i.e. cross-linguistic) and others are not, some meanings are (presumably) universal or cross-linguistic, while others are not. Let us call the language-specific meanings *semantic categories*,⁹ and the cross-linguistic meanings *universal conceptual-semantic concepts* (or *universal concepts* for short). An example of a semantic category is the English semantic category 'Progressive'. It is widely assumed that the various occurrences of the (formal category of) Progressive Aspect (*The children are playing; He is being friendly; I am leaving tomorrow*) have a single unitary meaning in English, and this meaning is clearly language-specific. There is probably no other language that has a form that is associated with precisely the same range of uses. Thus, the English semantic category 'Progressive' cannot serve as a basis for cross-linguistic comparison.

Instead, cross-linguistic comparison has to be based on universal concepts, meanings which presumably any human being can conceive of, and which can be put into linguistic form in any language. These universal concepts are what Wierzbicka (e.g. 1998) calls *semantic primes*, and possibly also non-primitive concepts that can be readily composed out of the primes.

Newmeyer (2007:§3) notes that this is not free of problems. His purpose is not so much to cast doubt on the viability of meaning-based comparison, but to argue that "(t)he problems that arise from the use of semantically-based entities in linguistic typology are just as acute as those with [cross-linguistic] formal categories, if not more so" (p. 139). He points to massive disagreements about the best semantic analysis, paralleling disagreements about formal category assignment that Haspelmath (2007) cited as one reason for rejecting cross-linguistic categories. Even if cross-linguistic formal categories did not exist, Newmeyer writes, "we would not be spared debates about whether element *x* in one language is conceptually identical (in the relevant sense) to element *y* in another" (p. 139). He concludes that the approach advocated here is no less problematic than the use of cross-linguistic categories in comparative linguistics.

However, the argument against cross-linguistic categories rests not on the existence of unresolved debates, but on the observation that these debates are not resolvable in principle. There simply is no rigorous methodology that might ever decide whether (to take one example) Tagalog Topics or Tagalog Actors should be equated with English Subjects, because the criteria for subjecthood in English are language-specific and do not carry over to Tagalog without further more or less arbitrary assumptions (Schachter 1976, Dryer 1997). For the identification of counterparts of universal meanings, by contrast, we do have a rigorous methodology: the usual semanticist's toolkit of paraphrase, translation, judgements of synonymy, of entailment, of anomaly, and so on. Using this toolkit, we can determine, for instance, that in (19), the *ng*-phrase is the agent, the word *binili* expresses the action of buying, and the *ang*-phrase is the thing bought, etc. This is sufficient to compare the structure of this sentence with other transitive sentences in other languages.

(19) Tagalog (Schachter & Otnes 1972:70)

Binili ng mangingisda ang bangka.

buy.OBJ.FOC GEN fisherman TOP boat

'The fisherman (ACTOR) bought the boat (TOPIC).'

⁹ A rigidly consistent terminology would have *descriptive semantic categories*, contrasting them with the *descriptive formal categories* of §2. Since the contrast between language-specificity and universal applicability is primarily at issue in the domain of formal categories, I use the abbreviated terms *descriptive category* ('descriptive formal category') and *semantic category* ('descriptive semantic category').

Note that what we have done here is to match formal elements of a language with presumed universal concepts. This enterprise is different from the enterprise of providing a semantic analysis (involving language-specific semantic categories). This is a language-specific descriptive task, comparable to the language-specific descriptive task of finding a set of descriptive formal categories that does best justice to its system. Neither is strictly speaking necessary for using the data for cross-linguistic comparison (cf. Haspelmath 2004). Typologists need to know the distributional facts (whatever the formal analysis), as well as the mapping of the forms to a set of universal concepts (whatever the semantic analysis). Just as there is a rigorous method for establishing the distributional facts, there is a rigorous method for establishing a sentence's meaning from a comparative perspective.

Newmeyer (2007:139-141) illustrates the supposed problems with the two examples of word classes and semantic roles. Statements about adjective-noun order such as (3) above presuppose a conceptual characterization of adjectives and nouns, but which one among the various possibilities suggested in the literature should one choose? The answer is simple: Comparative linguists are free to choose whichever characterization suits them best. If one typologist defines adjectives in terms of medium time-stability (cf. Givón 2001:53), another one in terms of property concepts (cf. Croft 1991), and a third one in terms of the typical meanings of age, dimension, value, and color (cf. Dixon 1977), then we have three different comparative concepts that will probably lead to somewhat different results when studying adjective-noun order. Similarly, the definition of 'ergative' in §3.7 presupposes a characterization of agents, and the typologist is obliged to provide one. The fact that different definitions of *agent* exist just means that the definitions of 'ergative' based on them are somewhat different comparative concepts. The (relative) lack of agreement about the most suitable definition means that claims by different typologists that are formulated with the same terminology are not necessarily directly comparable. But it does not mean that the enterprise of basing cross-linguistic studies on conceptually-grounded comparative concepts is unsound.¹⁰

Moreover, if one is skeptical about linguists' ability to identify universal concepts and their counterparts in languages by the standard methods of semantic analysis, there is an alternative option available. Instead of working with intensional meanings, one can use extralinguistic stimuli for gather comparable cross-linguistic data. This is what Stephen Levinson and his associates have been doing in several cross-linguistic studies, e.g. on topological relation markers (Levinson et al. 2003), cutting and breaking verbs (Majid et al. 2007), and landscape terms (Burenholt &

¹⁰ In practical terms, it is often most convenient to base comparative concepts on rather narrow conceptual prototypes. Thus, one could avoid the undesirable vagueness in many definitions of agent by defining the agent as the argument expressing the agent of the prototypical transitive verb 'kill', on the (relatively uncontroversial) assumption that all languages have a readily identifiable counterpart of 'kill' and that the agent of this verb behaves in the same way as a large number of other arguments, and that it is the sets of arguments identified in this way that we want to compare across languages (cf. Lazard 2002 for an approach along these lines). Newmeyer (2007:141) suggests that if conceptually-grounded definitions can be based on prototypes, then so can cross-linguistic formal categories (such as *subject*). But this is not a viable alternative to comparative concepts as conceived of here, because (i) many (perhaps most) languages would end up without subjects (because the lack prototypical subjects, defined in whatever way), whereas all languages have A-arguments based on a narrowly prototypical agent concept; and (ii) (more seriously) ALL formal criteria for defining subjects (including many of Keenan's (1976) criteria) are language-specific, so that one cannot even say what a relevant prototypical subject would be. (See also Dryer (1997:§7) for arguments against prototype definitions of cross-linguistic categories.)

Levinson 2008). The pictures and video clips used for data elicitation in these studies are simply another type of comparative concept.¹¹

5. Terminology: What to call comparative concepts and descriptive categories

If there were a limited set of cross-linguistic categories from which languages choose, the terminological aspect of cross-linguistic research would be easy: We would simply have to settle on a unique term for each cross-linguistic category or feature. Since the cross-linguistic categories would be used by descriptivists, generalists and typologists alike, these could all use the same terms.

But with the distinction between comparative concepts and descriptive categories that is proposed here as an alternative, terminology becomes a serious issue, because the entities that need to be named are multiplied: comparative concepts are linguist-specific (in the sense that every linguist is free to define her or his own concepts), and descriptive categories are language-specific.

One possible solution for descriptive categories that has occasionally been advocated and practiced is to do without transparent terms entirely and resort to arbitrary numbers or letters. For example, Garvin (1948) (discussed by Dryer 1997:§2) describes the inflectional categories of Kutenai (a language of western North America) with arbitrary letters W, X, Y, ... This solution was sometimes adopted by American structuralists in an attempt to highlight the easily forgotten fact that a Kutenai category called "subjunctive" cannot be equated with a French "subjunctive" as a cross-linguistic category.¹² However, from a practical point of view this terminological solution turned out to be unacceptable: Linguists want to be able to remember names of grammatical categories, so the names need to be transparent.

Another possible solution for descriptive categories is to name them after an exponent, e.g. the *-ing*-form in English (Quirk et al. 1985:92). This practice is not so uncommon, especially for periphrastic categories (e.g. the "*aller* future" in French, the "*bekommen* passive" in German). In the Semitic languages, linguists often use forms of exemplary verbs to refer to the category (e.g. the *nif'al*, *pu'al* or *hif'il* forms in Hebrew, based on the verb root *p'l'do*, Glinert 1989:461).

Since the 1980s, another convention for descriptive categories has gained some ground, especially among typologists who want to contrast descriptive categories with comparative concepts. Following Comrie (1976:10) and Bybee (1985:141), grammatical labels with an initial capital refer to language-specific descriptive categories (e.g. "the Russian Perfective aspect", "the Spanish Imperfect tense"), while ordinary lower-case spelling is used for comparative concepts. This makes sense because descriptive categories are akin to proper names in that they refer to unique entities (one can never say that a category is "an Imperfect", just as one can never say that a city is "a Warsaw"). Croft (2001:50) proposes to extend this convention to syntactic categories (e.g. "the Kutenai Verb") and constructions (e.g. "the Tagalog Actor Focus", "the English Relative Clause"), which are just as language-specific as

¹¹ Such comparative concepts would not be confused with descriptive categories or cross-linguistic categories. There are other kinds of comparative concepts that are clearly distinct from categories, e.g. special typological concepts like 'balancing' and 'deranking' (Cristofaro 2003), translation questionnaire entries (e.g. Dahl 1985), and parallel texts (Cysouw & Wälchli 2007). In this paper, I focus on comparative concepts that could be confused with linguistic categories.

¹² Similarly, terms based on arbitrary numbers have become established in some places, especially in person (*1st*, *2nd*, *3rd*), but also sometimes in tense (*future I/future II* in German grammar), in morphology (inflection classes 1-5 in Latin grammar), in derived verbal stems in Arabic (stem I-XIII), in Bantu genders, and in Finnish infinitives. It is only in the domain of person, where the numbering goes back to antiquity, that linguists have equated the numbered categories across languages.

the tense and aspect forms discussed by Comrie and Bybee. While the practice of capitalizing descriptive categories is not very widespread yet, it has occasionally been adopted in reference grammars (e.g. Haspelmath 1993, Maslova 2003). (However, in reference grammars it is somewhat redundant, because we do not expect to encounter comparative concepts in such contexts.) As the reader may have noticed, this practice has also been adopted in this paper, e.g. in the examples in §3.

No specific terminological convention is proposed for (linguist-specific) comparative concepts here. It might in general be good to adopt more semantic terms (e.g. *possessor* instead of *genitive*, *irrealis* instead of *subjunctive*, *coreferential* instead of *reflexive*), but this is not a general solution, because as we saw, comparative concepts are by no means always or even typically purely semantic concepts. Typologists normally use the same terms that are used in grammars of particular languages, and although this can give rise to misunderstandings, it seems unavoidable because we want the terminology to be transparent.¹³ Readers of cross-linguistic studies have to be aware that definitions of these terms can vary from author to author, and the results of these studies can be evaluated only if one keeps the definitions of the comparative concepts in mind.

6. So-called cross-linguistic categories: conflating descriptive categories and comparative concepts

The idea that grammatical categories exist independently of particular languages and that different languages may have (some of) the same categories has a long history, going back at least to the 17th-18th century approach known as *grammaire générale*. The earliest large-scale typological studies, such as Humboldt (1830) on the dual, Gabelentz (1861) on the passive, and de la Grasserie (1896) on the article, do not show any awareness of the distinction between language-specific categories and comparative concepts. Just as language descriptions at the time tended to work with the categories inherited from Latin and Greek grammar, typology also worked with these categories. That each language has its own categories was an insight of the early 20th century, both among Boasian descriptivists and Saussurean generalists. However, the structuralists of the first half of the 20th century were not much concerned with cross-linguistic studies.

It was only in the 1960s that many general linguists became seriously interested in language comparison again, especially under the influence of Greenberg (1963) and Chomsky (1965). Greenberg and his students worked with comparative concepts as conceived of in this paper, but they did not worry much about their relation to the descriptive categories of individual languages.¹⁴ Chomsky (1965), a work that became even more influential in the field, explicitly espoused categorial universalism: categories (or their more elementary components, features) are universal in the sense that they are part of the innate Universal Grammar.¹⁵ In the Chomskyan approach,

¹³ A possibility would be to use technical notation such as superscript letters (e.g. *adjective^{cp}* for the comparative concept 'adjective'), but I am not confident that many linguists will find this solution attractive.

¹⁴ Note that Greenberg himself never wrote a descriptive grammar of a language. The same applies to most of the authors of the four volumes of the Stanford Universals Project (Greenberg (ed.) 1978).

¹⁵ As noted by Newmeyer (2008:38), this view has been present in Chomsky's writings since Chomsky (1957): "We require that the grammar of a given language be constituted in accord with a specific theory of linguistic structure in which such terms as "phoneme" and "phrase" are defined independently of any particular language." (1957:50)

languages need not instantiate all categories of UG,¹⁶ but every category of a particular language is an instantiation of a category of UG.¹⁷

The generative universalist position on categories, which has been dominant since the 1960s, has a very simple view of categories: There is only one set of them, and they are used by descriptivists, generalists, and typologists alike. Sometimes a distinction is made between "pretheoretical" or "descriptive" concepts on the one hand, and "theoretical" concepts on the other hand, but only the "theoretical" concepts are taken seriously. These are used both for language-specific analysis and for language comparison. These cross-linguistic categories thus conflate descriptive categories and comparative concepts, as understood in this paper.

That typology should be based on language-specific descriptive categories has also been demanded by structuralists such as Peter H. Matthews:

"To ask whether a language 'has' some category is...to ask a fairly sophisticated question... Such warnings were once commonplace... [but] in many typological studies, scholars seem to proceed as if they were irrelevant. Cross-linguistic comparison is, on the contrary, initiated independently or in advance of detailed analyses of individual systems. One approaches each language with, in effect, a checklist.... In principle, comparisons must be based on analyses of particular systems: but, in so many interesting cases, such analyses are lacking." (Matthews 1997:199)

Along similar lines, Newmeyer (1998:337) discusses the "difficulties" of language typology and claims that "formal analysis of language is a logical and temporal prerequisite to language typology. That is, if one's goal is to describe and explain the typological distribution of linguistic elements, then one's first task should be to develop a formal theory." Since no fully satisfactory formal theory of grammar has been developed, this would mean that serious typology has to wait until we have such a theory.

But fortunately, as we saw earlier, generalizations of the kind cited in §3 do not require the development of a "formal theory" (i.e. a set of cross-linguistic categories and architectures). They require that we know what the facts are (in terms of descriptive categories), and they require that we construct precise comparative concepts to compare the facts across languages. But we do not need to have a formal analysis of the relevant subsystem in terms of a set of cross-linguistic formal categories. Newmeyer clearly presupposes that this is necessary, because he equates descriptive and cross-linguistic categories:

"Assigning category membership is often no easy task... Is Inflection the head of the category Sentence, thus transforming the latter into a[n] Inflection Phrase (IP)? ... Is every Noun Phrase dominated by a Determiner Phrase (DP)? ... There are no settled answers to these questions. Given the fact that we are unsure precisely what the inventory of categories for any language is, it is clearly premature to make sweeping claims..." (Newmeyer 1998: 338)

¹⁶ Croft (2001:10) calls this the "smorgasbord" interpretation of UG. I find this an odd name for what has clearly been the dominant view among general linguists in the last few decades. I would prefer to call it "weak categorial universalism", which could be contrasted with "strong categorial universalism" (the view that all languages have the same categories) if necessary. However, I do not know anyone who adopts the strong categorial universalist position.

¹⁷ Newmeyer (2007:149) holds the weaker view that some but not all categories of particular languages are instantiations of cross-linguistic categories. This is a logically possible, but very odd position. In a nativist context that assumes an innate UG, it is very hard to maintain: If children can learn idiosyncratic categories that are not part of UG, they can surely also learn the non-idiosyncratic categories (cf. Culicover 1999:41). If one does not attribute cross-linguistic categories to an innate UG, it is not clear either why some categories would be universally available while others are not. Presumably, in this view cross-linguistic categories arise from functional parallels, but there is no reason why only some but not all categories would have functional parallels in other languages. To the extent that translation is possible (i.e. to a very great extent), all categories should have counterparts in all other languages.

But as long as we know what the facts are and how the comparative concepts should be applied, we can leave questions such as these aside and do typology anyway. And for a Boasian/Saussurean typologist or grammar writer, questions such as these would not even make sense, because categories like IP and DP are not assumed to be universal to begin with.

If the Principles and Parameters programme were leading to an increasingly clear view of what the universal categories and parameters are, the universalist approach would gain plausibility, despite arguments such as Dryer's and Croft's that cross-linguistic formal categories cannot be identified in principle. But as both critics and advocates of the Chomskyan programme have noted (e.g. Newmeyer 2004, 2005:§3.2, Tomasello 2005, Baker 2008+), the Principles and Parameters programme has not led to an increasingly clear picture of the substantive and formal universals of Universal Grammar (cf. also Haspelmath 2008+b).

It seems to me that the conflation of descriptive categories and comparative concepts in presumed "cross-linguistic categories" has made it very difficult for generative linguists to engage in broad cross-linguistic studies. The reason is apparently that on the generative view, language-particular analysis is not possible without a clear picture of UG, and language comparison is not possible without a thorough analysis of the languages that are compared. But our picture of UG is still very murky, and all our language-particular analyses are very preliminary. As a result, virtually all major large-scale cross-linguistic studies of the last two decades (e.g. almost all the chapters of *The World Atlas of Language Structures*, Haspelmath, Dryer, Gil and Comrie (eds.) 2005) have been carried out in the context of the Greenbergian approach, using comparative concepts. Generative linguists have hardly contributed to broadly comparative studies, limiting themselves mostly to "one language at a time" comparisons (Croft 2008+). And those large-scale cross-linguistic studies that were carried out by generativists (e.g. Cinque 1999, Julien 2002, Gianollo et al. 2008+) have in practice used comparative concepts, rather than cross-linguistic categories whose instantiations in individual languages are well-motivated.

7. Conclusion

In this paper I have shown how cross-linguistic comparison is possible if one adopts the position of categorial particularism, i.e. that grammatical categories cannot be equated across languages. Each language has its own categories because the criteria by which the categories are defined (or recognized by learners) are themselves language-specific. A language-specific category set up by a linguist to account for observed speaker behavior is called a descriptive category. Comparative linguists create comparative concepts against which the descriptive categories of particular languages can be matched. These comparative concepts must be universally applicable, i.e. they must be based exclusively on more primitive universally applicable concepts: universal conceptual-semantic concepts, universal formal concepts, universal general concepts, other comparative concepts, or extralinguistic situations. This approach has been widely practiced by comparative linguists working in the Greenbergian tradition, even though not all of them have explicitly adopted categorial particularism and the distinction between descriptive categories and comparative concept has generally been implicit.

This is very different from the categorial universalism that has been very widely adopted since the 1960s. In the generative approach, it is assumed that the categories (or features) in different languages can be equated, and linguists work with a set of cross-linguistic categories. This would seem to make language comparison more straightforward, but in fact the opposite is the case. On the categorial universalist

view, language-particular analysis is not possible without a clear picture of UG, and language comparison is not possible without a thorough analysis of the languages that are compared. Thus, linguists who work with cross-linguistic categories rarely study larger language samples, and the great majority of testable empirical universals (like those listed in §3, and like the over 2,000 universals in *The Universals Archive*¹⁸) have been discovered by linguists who work with comparative concepts as described here.

The categorial particularist view raises terminological questions which I have addressed in §5, and it forces us to be more careful with our formulations of comparisons. Thus, it is strictly speaking illicit to say (e.g.) that "the dative is used more widely in German than in Russian"; instead one should say "the German Dative is used more widely than the Russian Dative".¹⁹ Likewise, one should probably not say (e.g.) that "both Japanese and English have unmarked relative clauses", because while English has a category "Relative Clause" which matches the comparative concept in (10) fairly closely, Japanese does not "have" relative clauses: What it "has" is Noun-Modifying Constructions, which are its counterpart of the comparative concept of 'relative clause'. Languages "have" categories, but we probably do not want to say that they "have" comparative concepts. This example shows that the notion of cross-linguistic categories is deeply ingrained in our habits of talking about languages in a comparative context. Maybe we can keep these habits, just as we still talk about the "rising sun", but it is important to recognize that in at least one approach to comparative linguistics (the Greenbergian, particularist approach), descriptive categories and comparative concepts are quite different kinds of entities.

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(note: "2008+" means "to appear")

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¹⁸ <http://typo.uni-konstanz.de/archive>

¹⁹ Compare the oddness of similar sentences with homonymous place names: "Mérida has more inhabitants in Venezuela than in Spain". It is preferable to say: "Mérida in Venezuela has more inhabitants than Mérida in Spain."

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