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Introduction

Morphology and emotions: A preliminary typology

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This volume presents nine chapters dealing with emotionally loaded morphology over four continents. The collection is the result of a workshop on “morphology and emotions” (MorphÉm) held by the first author at Dynamique du Langage (CNRS) in Lyon on 29-30 April 2015.¹ In this introduction, we first discuss our definitions of the terms “emotions”, “morphology”, and the intersection between the two (Section 1). In Section 2, we contextualize the study of the morphological encoding of emotions within semantic typology and semantic ecology, and spell out some of the cross-linguistic generalizations that can be made about the morphological encoding of emotions on the basis of the contributions in this volume. In Section 3, we summarize the findings of the volume on the more specific topic of evaluative morphology, the most widespread type of emotionally loaded morphology. Finally, Section 4 offers a chapter-by-chapter outline of the volume.

1. Definitions

“Emotion” is an English word that various speakers use as they see fit, so that there is no *universal* definition of emotions (Izard 2010; Widen & Russell 2010; Wierzbicka 2010). In most of the articles in this volume, the word “emotion” refers to psychological states – that is, internal or private states – that are cognitive and therefore distinct from sensations (such as pain or hunger), and subjective and

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therefore distinct from purely intellectual states (such as doubt or belief). Typical examples of emotions are anger, fear and other responses regularly listed among primary emotions (Ekman 1992), but also more complex emotions such as contempt or romantic love for instance. As internal states, emotions are not directly observable, but are accompanied by observable *symptoms* such as physiological responses (e.g. blushing when ashamed), facial expressions (e.g. smiling when rejoicing), behaviors (e.g. yelling when angry) or speech (verbally expressing or describing one's emotions). In this volume, this definition operates as a pivot but remains flexible. For instance, some of the articles (e.g. Németh & Sőrés) deal with evaluation, i.e. our positive or negative attitude or judgment towards people or things.

We use the term “morphology” in a standard way, to refer to the smallest units capable of conveying meaning in language, irrespective of the debates on the nature of these units (see for instance Blevins 2016). Our investigations about the link between morphology and emotions is firmly onomasiologically oriented. That is, what we define as “emotionally loaded” morphology depends exclusively on the states and events in the world that are referred to or indexed by the morphological devices under consideration – not on properties of the signs. As such, our approach differs from partly semasiologically oriented approach that seek to unveil a set of formal properties constitutive of “expressive” morphology, contrasted with “plain” morphology (see for instance Zwicky & Pullum (1987) for an attempt to define “expressive morphology”, Scalise (1986) for a comparable endeavor targeting evaluative morphology, or Potts (2007) for characterisations of “expressivity” in language in general). The purpose of the present volume is to account for the ways in which emotional states (as defined above) can be described or expressed by morphological means (as opposed to lexical, syntactic or prosodic means for instance), across a diversity of languages in the world. Empirical descriptions of such phenomena remain very limited to date: in fact, we cannot even cite a single work focusing on this question. However, such empirical descriptions clearly complement, and in fact support, attempts to formally characterize “expressive” morphology.

2. Semantic typology

Documenting and analyzing the ways in which emotional states can be described or expressed by morphological means across a diversity of languages in the world is an enterprise in semantic typology, as defined by Evans (2010:504):

Semantic typology is that part of linguistic typology concerned with the expression of meaning in language and languages. It is thus the systematic cross-linguistic study of how languages express meaning by way of signs. Like all branches of linguistic typology, it is concerned with exploring the deep regularities which underlie the incredible diversity in how particular languages work.

Evans (2010:507) then points out that an important aspect of this enterprise consists of describing how meanings are distributed across the subsystems of language. What is typically expressed by lexical means vs. grammatical means? What do prosodic signs typically express, and what do they never express? Such questions are precisely what we are asking here, focusing on the relation between the subsystem of morphology and the semantic domain of emotions. Which emotions are frequently encoded morphologically? Which are never encoded by this subsystem? Can we identify regional patterns in this respect? Etc. The contributions in this volume also consider *how* this morphological encoding proceeds: Which types of morphemes are involved? What is their distribution? When are they used?

One of the advantages of exploring semantic typology within the domain of emotions is that this domain typically recruits significantly from all linguistic subsystems, including prosody (Bolinger 1986:245–252; Irvine 1990; Omondi 1997; Sicoli 2010; Ponsonnet 2014:127–142; Ponsonnet in prep). Therefore, emotions are an ideal domain to study what Evans (2010:508) has called “semantic ecology”, or the way “semantic choices made in one subsystem affect those in others” – that is, the distribution of labor between subsystems. Do languages with high-frequency diminutives encoding affection have less affectionate interjections? Or less words to describe affection? The respective semantic labor covered by various subsystem can also be weighed against other parameters such as the typological profile of a language. Do polysynthetic languages have more emotionally loaded morphology? Can the typological profile of a language influence the actual emotional values conveyed by certain subsystems – for instance, some descriptions of South American and Australian languages suggest that polysynthetic languages may have a tendency to express compassion in particular by means of morphology. Although the answers to these questions lie outside the scope of this volume, some of the contributions do articulate hypotheses in this respect, and all of them offer some ground to tackle these issues in future research.

2.1 *What emotions can be morphologically encoded?*

The present volume answers some of the questions articulated above. Importantly, it gives a good idea of the range of emotional categories that can be encoded in morphology. Even though the empirical sample covered by the nine contributions in the volume does not of course exhaust all possibilities, the scope of attested emotion categories is already broad. For instance, we find that compassion, endearment and affection (Ponsonnet (a), Rose for Mojeño (Arawak, Bolivia), Guillaume for Tacana (Takanan, Bolivia), Vanhove & Hamid Ahmed for Beja (Cushitic, Sudan), Taine-Cheikh for Ḥassāniyya Arabic (Mauritania)) are frequently encoded by means of morphology. Among negative emotions, contempt (Ponsonnet (a)ponsonnet (a)'s typology, Taine-Cheikh for Ḥassāniyya Arabic (Mauritania), Nemeth & Sőrés for Hungarian) and fear (Vuillermet for Ese'eja (Takanan, Bolivia and Peru)) are also relatively common; anger is also attested, albeit more rarely (Zariquiey for Kakataibo (Panoan, Peru)). Surprise is not covered in this volume, but we know it exists based on existing descriptions of mirativity (DeLancey 1997).

If we combine the data presented in this volume with existing publications on mirativity, and use Ekman's (1992) list of basic emotions as a guide, it appears that morphological processes are attested for most basic emotions or at least for closely related emotions. As illustrated in Table 1, this includes anger, disgust (realized as contempt), fear, happiness (realized as generic positive emotions such as affection, endearment, emotional comfort), and surprise. Our sample does not include cases of morphological encoding of sadness. While it is plausible and even likely that some languages, not covered here, do express sadness by means of morphology, it is also likely that this is less frequent than the morphological expression of affection and endearment for instance. These two generic positive emotions are the most represented among morphologically encoded emotions – followed by contempt. Unsurprisingly, these are the emotions expressed by evaluative morphology, which is the most widespread type of emotional morphology.

Table 1. Emotion categories with attested morphological encoding.

2.2 *Four profiles of emotionally loaded morphological devices*

Another dimension of variation is in the type of morphological devices that can express each type of emotions. For instance, compassion is more frequently encoded by evaluative morphology, which often takes the form of distributionally flexible affixes. Contempt (or criticism), on the other hand, is a common extension of nominalizers (Zariquiey for Kakataibo (Panoan, Peru)) and verbalizers (Németh

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& Sőrés for Hungarian), while fear is regularly encoded by affixes that pertain or neighbor the TAM system (Vuillermet for Ese'eja (Takanan, Bolivia and Peru)).

Based on formal and semantic criteria, it is possible to identify four broad profiles within the emotionally loaded morphological devices presented in this volume, three of them being “subtypes” of evaluative morphology. These profiles are spelt out in turn in the following paragraphs. Their properties are not homogenous: each of these groups is defined by criteria that are not necessarily of the same nature as the criteria that define the other groups. Nevertheless, these profiles are enlightening because they correspond to morphological phenomena that have been observed in several languages. As such, this very coarse-grained typology has heuristic benefits for future explorations of the morphological encoding of emotions.

A first profile corresponds to “prototypical” evaluative morphology, which has already been extensively described cross-linguistically (inter alia Scalise 1986; Stump 1993; Dressler & Merlini Barbaresi 1994; Jurafsky 1996; Bauer 1997; Fortin 2011; Grandi & Körtvélyessy 2015a). However, the emotional dimension is often left aside. Formally speaking, prototypical evaluative morphology can include any type of device – often affixes, but also systematic sound change (Vanhove & Hamid Ahmed for Beja (Cushitic, Sudan)), among others. Following Grandi & Körtvélyessy (2015b), evaluative morphology is characterized here in terms of semantic extension (see Jurafsky 1996, Ponsonnet (a)'s typology). As previously observed by Scalise (1986) or Bauer (1997) for instance, the morphological devices that fulfill the semantic criteria for evaluative morphology also tend to share comparable distributional profiles. Among other things, prototypical evaluative devices do not modify the word class of their base, and they occur indifferently on many different parts of speech – especially when they express emotions. As a result of this second property, typical evaluative morphological devices afford a high degree of flexibility in scope when expressing emotions: they can have scope over an entity (when occurring on a noun) but also over an event (when occurring on a verb). Given their ubiquity, prototypical evaluative morphological devices can also have scope over the entire enunciation context, thus conveying emotional connotations (Dressler & Merlini Barbaresi 1994; Ponsonnet 2014:97). Evaluative morphology is discussed in several articles in this volume, including a preliminary typology of its emotional values (Ponsonnet (a)), and the results for this particular type of emotionally loaded morphology are discussed in more detail in Section 3.

A second profile of emotionally loaded morphological devices groups together derivational, often category-changing affixes that result in words alluding to (excessive) habits, and imply criticism to

that extent. This is described in this volume by Zariquiey for Kakataibo (Panoan, Peru, nominalizer -*katsái*) and Németh & Sőrés for Hungarian (verbalizer -*kVdik*). The phenomena in question echo Grandi's (2002) account of augmentative suffixes in Mediterranean languages, where derivational, sometimes category-changing suffixes convey pejoration. Semantically, all these derivational evaluative devices rely upon a conceptual association between regular habit, excess and negative evaluation. As such, the devices in question also relate to aspectual evaluation, which has sometimes been considered a part of evaluative morphology – duration (excessive habit) can be treated as augmentation and brevity as diminution (Stump 1993; Fortin 2011). Grandi (2002) follows the “traditional” usage and calls these derivational devices “augmentatives”, thus implicitly assimilating them to “standard” evaluative morphology. However, the semantic and pragmatic mechanisms via which the category-changing morphological devices described by Zariquiey and Németh & Sőrés acquire their emotional value are very different from what has been described above as prototypical evaluative morphology (first profile of emotionally loaded morphology). The behavior and distribution of the derivational morphemes do not match the typical behavior of evaluative devices. These devices derive words that belong to just one class, and that are by no means as flexible as prototypical evaluative devices. Their scope is equally less flexible, to the extent that their emotional or evaluative value usually applies uniquely to their referent, as opposed to the entire context.

Also branching out of “prototypical” evaluative morphology is verbal evaluative morphology, or morphology that occurs primarily on verbs (while prototypical evaluative morphology occurs primarily on nouns, see Bauer (1997:540) from Nieuwenhuis (1985:221–223)), and primarily has aspectual values. As pointed out above, aspect can be treated as evaluative (“more [or less] of the same event”, (Sapir 1921:79; Kouwenberg & LaCharité 2001)), and indeed some authors have argued that certain types of verbal morphology should be treated as evaluative morphology (Stump 1993; Fortin 2011). Yet here again, this type of evaluative morphology may be better regarded as a distinct profile, apparently yielding vaguer expressive connotations (as opposed to the relatively clear emotional values of diminutives, for instance). This combination of aspectual and expressive values within primarily verbal morphology is illustrated in this volume by reduplication (Ponsonnet (b) on Barunga Kriol, creole, Australia).

On the basis of the data presented in this volume, the group that has been called apprehensives/apprehensional (Lichtenberk 1995), described in this volume by Vuillermet on the basis of data from Ese'eja (Takanan, Bolivia and Peru), constitutes a fourth distinct profile. This group of emotional morphological devices does not display homogenous distribution: as demonstrated by

Vuillermet, in Ese'ejá the system includes verbal affixes that belong to the TAM paradigm, along with a nominal suffix. However, apprehensional morphology displays some unity from the point of view of semantics: all the devices express fear, thus operating within the 'apprehensional' domain. In addition, they (at least sometimes) encapsulate distinctions that exhaust the semantic space of fear-related events. Therefore, apprehensional morphological devices form a system. Mirative markers may offer other instances of comparable systems. The potential resemblances between apprehensional systems and mirative systems is an open question for future research.

In addition to these four profiles, Zariquiey's article on Kakataibo accounts for a couple of emotionally loaded morphological devices which do not form a type given that they do not share any obvious set of characteristics with any of the ones described or known for other languages. These are for instance the expression of irritation by means of specialized negation suffixes; or the expression of anger by a nasalization process that applies throughout the sentence. Among the languages discussed in this volume, Kakataibo is the only one that displays these apparently isolated cases. However, this may as well result from finer-grained documentation: further data on other languages of the world is likely to reveal similar morphological mechanisms, and in general, further profiles of emotional morphology.

3. Evaluative morphology

Evaluative morphology represents a major avenue for the morphological encoding of emotions, and all the articles in this volume but one deal with it in one way or another. Out of the nine contributions in this volume, six focus exclusively on "prototypical" evaluative morphology, and all but one discuss evaluative morphology in one way or another. The articles implicitly or explicitly endorse the definition of evaluative morphology adopted by Grandi & Körtvélyessy (2015b:13). These authors define evaluative morphology as a cross-section of semantic and formal properties, via two essential properties. The first property, which is a "functional-semantic" property, states "that a linguistic construction can be defined as evaluative if it has the function of assigning a value which is different from that of the standard or default". The second property relates to form and states that "an evaluative construction must include at least the expression of the standard value", i.e. the construction must be an addition to a base form. To summarize, evaluative morphology includes all the morphological devices (formal criteria) that can express evaluation (semantic criteria). Evaluative morphological devices are traditionally grouped under three main types: diminutives, augmentatives, and reduplication. An additional distinction that has been adopted at least by some authors in the volume is between devices that *can* express an evaluation of *quantity* (diminutives, augmentatives)

and evaluative devices that *only* express *qualitative* evaluation, which we call “purely expressive” devices (pejorative and meliorative devices, for instance compassionate suffixes discussed by Rose for Mojeño (Arawak, Bolivia) and Guillaume for Tacana (Takanan, Bolivia)). Naturally, diminutive and augmentative devices can express qualitative as well as quantitative evaluation, but purely expressive devices cannot express quantitative evaluation.

3.1 What we already knew

Evaluative morphology has been extensively studied in the last decades, however very little work has extensively dealt with the emotional values of evaluative devices. Firstly, a lot of the research in this domain has focused on the formal properties of evaluative devices (Scalise 1986; Stump 1993; Bauer 1997; and many of the articles in Grandi & Körtvélyessy 2015a). Secondly, even authors who have discussed their semantics (Jurafsky 1996; Fortin 2011) rarely considered emotional values in much detail.

The functions of evaluative morphological devices are usually three-fold. These devices have denotational meanings, where they specify a property of the referent (e.g. large size for augmentative), and related extensions (e.g. specification, approximation, partitive meaning for diminutive). They also have emotional connotations, where a speaker’s choice to use a diminutive or not is influenced by the emotional coloring of the situation. And finally, they are used interactionally to attenuate the effect of a speech-act and manage “politeness” pragmatic effects. The contributions in this volume focus on the emotional connotations of evaluative morphological devices, with some incursion into politeness effects.

Pragmatic effects have been studied in great detail for Italian and German by Dressler & Merlini Barbaresi (1994), and there exist detailed (if shorter) descriptions of the pragmatics of diminutives in a couple of other languages as well (Travis (2004) for Columbian Spanish, Sifianou (1992) for Modern Greek). Emotional connotations of diminutives have been discussed in some details by Wierzbicka (1984) for Polish and English (focusing on personal names) as well as by Taine-Cheikh (1988) for Ḥassāniyya Arabic (Mauritania) and Ponsonnet (2014:81–127) for Dalabon (Gunwinyguan, Australia, see also Ponsonnet & Evans (2015)), plus some more or less detailed mentions in general descriptions. A large number of accounts indicate that affectionate connotations are extremely widespread, and Jurafsky’s (1996) typology also lists sympathy, intimacy and contempt. Emotional connotations of augmentatives are very poorly described, apart from Grandi’s (2002) discussion of

the negative connotations of augmentatives in the Mediterranean area. Finally, with reduplication, endearment was reported in Moravcsik's (1978) typology, and Morgernstern & Michaud (2007) discussed pragmatic functions in some detail. In addition, recent discussions of reduplication published in *Studies in Language* as the present volume was being prepared show that reduplication has an expressive dimension in several languages (Dingemanse 2015; Kallergi 2015; Kouwenberg & LaCharité 2015). Matching Ponsonnet's findings, Kallergi (2015) indicates that this expressive dimension is probably being described as an evaluative coloration – the speaker expresses their appreciation of a situation, rather than a specific emotions, as is the case with diminutives for instance.

Contributions in this volume bring new insights on the emotional values of each of the types of evaluative morphology identified above: diminutives, augmentatives, reduplication, and purely evaluative affixes.

3.2 New insights on the emotional values of evaluative morphology

An important contribution of this volume consists of detailed descriptions of the emotional values of evaluative morphological devices, for a significant number of languages compared to what was previously available on this specific semantic dimension of evaluative morphology. In addition, the articles cover geographical areas and/or types of phenomena on which we had particularly little knowledge.

Two articles discuss evaluative morphology in languages spoken in Africa, namely Ḥassāniyya Arabic (Mauritania, Taine-Cheikh) and Beja (Cushitic, Sudan, Vanhove & Hamid Ahmed). While diminutive morphology in African languages had been extensively discussed where it combines with noun class morphology (see Di Garbo (2013) for an overview), here both authors describe morphological devices independent of the noun class markers. Three other articles (Guillaume for Tacana (Takanan, Bolivia), Rose for Mojeño (Arawak, Bolivia) and Zariquiey for Kakataibo (Panoan, Peru)) contribute analyses on the emotional values of evaluative affixes in languages of South America – an aspect of evaluative morphology that, to my knowledge, had hardly been considered at all so far. These contributions suggest that at least some languages of South America are particularly rich in evaluative and emotional morphology, which is not entirely surprising given that South American languages are morphologically rich in general. Rose's and Guillaume's article on Mojeño (Arawak, Bolivia) and

Tacana (Takanan, Bolivia) respectively offer detailed descriptions of purely evaluative suffixes, which is particularly precious given that we know so little about the typology of such morphemes.

These rich descriptions allowed for another significant contribution concerning the semantic typology of diminutives and augmentatives. Ponsonnet (a)'s preliminary typology of the emotional values of diminutives and augmentatives relies on the articles of the volume, on existing publications, as well as on analyses that were presented at the workshop in which this volume originated but did not make their way to publication (François (2015) on Mwotlap, Oceanic, Vanuatu, Mahieu (2015)). Ponsonnet shows that in addition to affection and endearment, across languages and continents diminutives express positive emotions such as compassion, romantic love, admiration and respect or comfort associated with daily routines, as well as negative emotions such as disapproval and contempt. Diminutives can also bleach to the point that they only express a more generic emotional coloring. While the emotional connotations of augmentatives are more limited, they also display a blend of positive and negative emotions including contempt and repulsion, threat and fear, admiration and respect, endearment and compassion. Ponsonnet (a) also shows that diminutives and augmentatives do not contrast sharply with respect to emotional valence (positive or negative), but while diminutives are anchored in intimacy, the emotions conveyed by augmentatives more often relate to broader social contexts. Based on the small size of the samples (especially for augmentatives), Ponsonnet's typology remains preliminary. However, given that it offers a framework for further descriptions of emotional values in diminutives and augmentatives, it is hoped that it can soon be reconsidered, when more data will become available.

Another contribution to the typology of evaluative morphology has to do with the "profiles" of evaluative morphology that may be identified if we consider evaluative morphology from the point of emotional values and connotations. As pointed out above in §2.2, it may be enlightening to distinguish prototypical evaluative morphology (non-category-changing, primarily nominal morphology with great scope-flexibility in the encoding of emotions) from derivational evaluative morphology (derivational and/or category-changing devices with pejorative connotation relating to habit and excess, and lesser scope flexibility) and from verbal evaluative morphology (non-category-changing, primarily verbal morphology, with mostly connotative expressive functions).

In addition to these typological contributions, Rose establishes important findings with respect to the historical development of diminutives. As pointed out by Mutz (2015:144), studies considering the history of evaluative morphology in non-Indo-European languages are rare, and historical accounts of

purely expressive devices are non-existent (2015:145). Rose remedies both lacks with her diachronic study of diminutives and compassionate suffixes in several varieties of Mojeño (Arawak, Bolivia). Indeed, she shows how diminutives that initially have purely quantitative meanings (“small”) evolve emotional connotations, then to lose them and become purely expressive morphemes. The article demonstrates that Mojeño evaluative morphology is thus cyclically renewed, as diminutives that have evolved into purely expressive affixes are replaced by a new evaluative device with purely quantitative functions. Whether this process applies to other languages in the world where purely expressive morphological devices are found is an open question for future research.

Now that some of the major findings of the volume have been outlined and put into context, we conclude this introduction with brief overviews of each of the contributions.

4. Individual chapters

Following this introduction, Ponsonnet (a) presents a preliminary typology of the emotional values of diminutives and augmentatives that already been summarized above in §3.2. This typology also serves as a frame for some of the following chapters.

Vanhove & Hamid Ahmed study of evaluative morphology in Beja (Cushitic, Sudan), discuss four different devices, occurring on various parts of speech. For each item, they provide details of distribution and associated denotational and emotional values. Gender shift to feminine on nouns occurs on body-parts, geographical terms and place names, as well as nouns for artefacts. This diminutive process has denotational values for all these categories, with additional positive emotional values (affection, familiarity) on place names and geographical terms, and negative values with artifacts. Beja also has a sound diminutive ($r > l$), which can occur on nouns, adjectives and verbs, with a range of positive and negative connotations depending on the nature of the base. The authors note positive and negative connotations in courteous poetry that recall those discussed by Taine-Cheikh for Ḥassāniyya Arabic in Mauritania (see below). Finally, Vanhove & Hamid Ahmed describe an augmentative suffix *-lo:j* on adjectives, and *-l* on manner converbs, with (rare) negative emotional values.

Taine-Cheikh’s article discusses the use and meaning of the diminutive characterized mainly by the infixation of *-(a)y-* in the Ḥassāniyya Arabic dialect (Mauritania). Based on the systematic analysis of the occurrences of diminutives in two corpora of traditional tales and courteous poems, Taine-Cheikh

shows that pejorative uses of the diminutive are as prominent as meliorative ones. In the tales, diminutives cover a broad array of negative emotions such as disdain, pity, mockery, contempt, or even hatred and fear. While affectionate diminutives are rarer in the tales, they are more frequent in courteous poetry, where they express affection, admiration and romantic love. However, even in this context, some diminutives are ambiguous and can also convey criticism. The article also discusses the diminutive formation and its diverse derivations attested in other Arabic dialects. Evaluative morphology is showed to be particularly prevalent in Ḥassāniyya Arabic, possibly because the pragmatic function endorsed by the diminutive in this language implies that it affords a large range of emotional values.

Moving from Africa to South America, Guillaume's contribution analyses the formal, distributional and semantic properties of evaluative morphemes in Tacana and in other languages of the Takanan family (Bolivia), including purely expressive devices. Apart from a diminutive clitic meaning (*chidi*, [tʃiði]) with affectionate values that occur on several word classes including nouns, verbs and adverbs, Guillaume reports three purely expressive items. The clitic *ichenu* [itʃenu], which occurs on nouns, pronouns, verbs and adjectives, is specialized for compassion. The suffix *base* [baʃe], which occurs mostly on nouns, is a depreciative. Finally, a rare verbal suffix *matha* [maða] appears to express depreciation or even hostility. Guillaume also shows that these evaluative morphological devices, including purely expressive devices, are not specific to Tacana, but occur throughout the Takanan family.

As discussed in §3.2 above, Rose's article not only presents and analyses new data on evaluative morphology in varieties of Mojeño (Arawak, Bolivia), but also demonstrates their historical evolution, showing that diminutives in this language tend to lose their denotational values to become purely expressive devices. Rose discusses the suffix *-chicha*, which has strictly denotational values in Old Mojeño, combines denotational and emotional values in Mojeño Ignacio, and emotional values only (compassion) in Mojeño Trinitario – where another suffix, *-gira*, is used as a diminutive, suggesting cycles of replacements of evaluative devices. In addition, Mojeño Ignaciano has another purely expressive suffix *-sami*, which mostly expresses affection and compassion. Rose also discusses the etymology of these suffixes and unveils the source 'child' (for *-chicha*) and 'seed' (for *-gira*), the latter being a counterexample to Jurafsky's (1996) theory concerning the universal source of diminutives.

Zariquiey's chapter is the only one on the volume that does not focus on one particular morphological phenomenon, but offers an impressive (and probably exhaustive) account of four completely different

morphological processes that allow to express emotions in Kakataio, a Panoan language spoken in Peru. This includes illocutionary suffixes, namely the complaining negators *-mín* and *-mán* and the accusatory suffix *-iéé*; the augmentative nominalizers *-katsá* and *tapun*; systematic complete nasalization of utterances to express anger; and the diminutive *-ra* ~ *-ratsu*, which has affectionate and compassionate values. This exemplary account of evaluative morphology in Kakataibo not only reveals unexpected phenomena – such as the negators expressing complaint and the expression of anger via nasalization – but it also suggests, given the number of phenomena accounted for, that in at least some languages of the world closer scrutiny would reveal a significant number of emotionally loaded morphological devices.

The following article offers a detailed account of a derivational evaluative device. Németh & Sörös's article discuss the evaluative values of a Hungarian verbalizer suffix, *-kVdik*, which produces deadjectival and denominal verbs. They show that although this suffix is not usually described as evaluative, it does regularly encode pejorative evaluation. Namely, the suffix is often used on nouns or adjectives denoting a profession in order to express that someone carries out an activity unprofessionally, with a notion of usurpation and low achievement. The Hungarian suffix *-kVdik* is particularly interesting because it is primarily a verbal suffix and because it is a category-changing device, while as pointed out by the authors, prototypical evaluative morphology is primarily nominal and leaves the category of the base unchanged. As pointed out in §2.2 above, this Hungarian suffix offers some resemblances with some of the Mediterranean augmentatives described by Grandi (2002), as well as with pejorative nominalizers described in this volume by Zariquiey for Kakataibo (Panoan, Peru), thus suggesting that derivational/category-changing suffixes with evaluative semantics should be treated as a distinct category.

Ponsonnet (b) also deals with the expressive values of evaluative morphology but considers a different process, namely reduplication in Barunga Kriol, an Australian creole – thus an instance of what has been described above as “verbal” evaluative morphology (§2.2). While there exist relatively extensive studies of reduplication in creole languages (Kouwenberg 2003), few authors have looked at the expressive values of reduplication in much detail. Ponsonnet shows that Barunga Kriol reduplication has a number of expressive usages linked to children in particular, namely hypocoristic usages, descriptions of children's games and imitations, and a softening role in imperatives and reprimands. These expressive values are rarer and less regular than the grammaticalized aspectual values of Barunga Kriol reduplication, but the article shows that the distribution of aspectual reduplication can often be explained in the view of the expressive values of reduplication. In addition,

Ponsonnet observes that the expressive connotations of Barunga Kriol reduplication overlap with those conveyed by affixal evaluative morphology in the Australian languages that have been replaced by this creole.

Concluding the volume, Vuillermet offers a detailed study of apprehensional morphology in Ese'eja (Takanan, Bolivia and Peru). While surprise has sometimes been considered as the only basic emotion to receive grammatical treatment in language, Vuillermet's study challenges previous observations in examining grammatical morphemes dedicated to the encoding of fear. Ese'eja exhibits three distinct fear-morphemes that constitute a coherent morpho-semantic 'apprehensional domain', defined as encoding an emotion triggered by an undesirable entity or by an undesirable, probable event. The three morphemes differ in their locus of marking (main verb, subordinated verb and noun phrase), and, consequently, in their syntactic scope. The existence of three distinct morphemes in a single language partly confirms Lichtenberk's (1995) typology and sets up a preliminary typological framework for the study of the morpho-semantic apprehensional domain crosslinguistically.

This last chapter draws significantly upon Frank Lichtenberk's work on apprehensives, and we feel very bitter that he will never be able to comment upon it. Frank disappeared on the first day of the workshop that gave birth to this volume. This work will remain associated with him in our minds and hearts.

References

- Bauer, Laurie. 1997. Evaluative morphology: In search of universals. Journal Article. *Studies in Language* 21(3). 533–575.
- Blevins, James P. 2016. *Word and paradigm in morphology*. Oxford: Oxford University Press.
- Bolinger, Dwight. 1986. *Intonation and its part: Melody in spoken English*. Book. Stanford: Stanford University Press.
- DeLancey, Scott. 1997. Mirativity: The grammatical marking of unexpected information. *Linguistic Typology* 1. 33–52.
- Dingemans, Mark. 2015. Ideophones and reduplication. Depiction, description, and the interpretation of repeated talk in discourse. *Studies in Language* 39(4). 946–970.
- Dressler, Wolfgang U & Merlini Barbaresi, Lavinia. 1994. *Morphopragmatics. Diminutives and intensifiers in Italian, German and other languages*. Book. Berlin/New York: Mouton de Gruyter.
- Ekman, Paul. 1992. An argument for basic emotions. Journal Article. *Cognition and Emotion* 6(3/4).

- Evans, Nicholas. 2010. Semantic typology. Book Section. In Jar Jung Song (ed.), *The Oxford Handbook of Linguistic Typology*, vol. 504–533. Oxford/Ne York: Oxford University Press.
- Fortin, Antonio. 2011. The morphology and semantics of expressive affixes. Oxford: University of Oxford Thesis. <https://letscrate.com/yXh>.
- François, Alexandre. 2015. Quand la morphologie n'encode pas les émotions : de quelques langues du Vanuatu. Oral presentation. Lyon, 29-30 avril 2015: Workshop MorphÉm.
- Garbo, Francesca Di. 2013. Evaluative morphology and noun classification: a crosslinguistic study of Africa. *SKASE Journal of Theoretical Linguistics* 1. 114–137.
- Grandi, Nicola. 2002. Development and spread of augmentative suffixes in the Mediterranean area. Book Section. In Paolo Ramat & Thomas Stolz (eds.), *Mediterranean languages*, 171–190. Bochum: Dr Brockmeyer University Press.
- Grandi, Nicola & Körtvélyessy, Lívia. 2015a. *Edinburgh handbook of evaluative morphology*. Edited Book. Edinburgh: Edinburgh University Press.
- Grandi, Nicola & Körtvélyessy, Lívia. 2015b. Introduction: Why evaluative morphology. Book Section. In Nicola Grandi & Livia Kortvelyessy (eds.), *Edinburgh handbook of evaluative morphology*, 3–20. Edinburgh: Edinburgh University Press.
- Irvine, Judith T. 1990. Registering affect: Heteroglossia in the linguistic expression of emotion. Book Section. In Catherine Lutz & Lila Abu-Lughod (eds.), *Language and the politics of emotions*. Cambridge: Cambridge University Press.
- Izard, Carroll E. 2010. More Meanings and More Questions for the term “Emotion.” Journal Article. *Emotion Review* 2(4). 383–385. doi:10.1177/1754073910374670. <http://emr.sagepub.com/cgi/content/abstract/2/4/383>.
- Jurafsky, Daniel. 1996. Universal tendencies in the semantics of the diminutive. Journal Article. *Language* 72(3). 533–578.
- Kallergi, Haritini. 2015. Total reduplication as a category of expressives. (Counter)evidence from Modern Greek. *Studies in Language* 34(4). 873–904.
- Kouwenberg, Silvia. 2003. *Twice as meaningful. Reduplication in Pidgins, Creoles and other contact languages*. London: Battlebridge Publications.
- Kouwenberg, Silvia & LaCharité, Darlene. 2001. The iconic interpretations of reduplication: Issues in the study of reduplication in Caribbean Creole languages. *European Journal of English Studies* 5(1). 59–80.
- Kouwenberg, Silvia & LaCharité, Darlene. 2015. Arbitrariness and iconicity in total reduplication. Evidence from Caribbean Creoles. *Studies in Language* 39(4). 971–991.

- Lazard, Gilbert. 1999. Mirativity, evidentiality, mediativity, or other? *Linguistic Typology* 2 3. 91–109.
- Lichtenberk, Frantisek. 1995. Apprehensional epistemics. In Joan Bybee & Suzanne Fleischman (eds.), *Modality in grammar and discourse*, 293–328. Amsterdam: John Benjamins.
- Mahieu, Marc-Antoine. 2015. Les émotions et la morphologie dérivationnelle de l'inuktitut. Oral presentation. Lyon, 29-30 avril 2015: Workshop MorphÉm.
- Moravcsik, Edith A. 1978. Reduplicative constructions. In Joseph Harold Greenberg (ed.), *Universals of human language*, 297–334. Stanford: Stanford University Press.
- Morgenstern, Aliyah & Michaud, Alexis. 2007. La réduplication : universaux iconiques et valeurs en systèmes. *Faits de langues. La réduplication* 29. 117–127.
- Mutz, Katrin. 2015. Evaluative morphology in a diachronic perspective. In Nicola Grandi & Lívia Körtvélyessy (eds.), *Edinburgh handbook of evaluative morphology*, 140–154. Edinburgh: Edinburgh University Press.
- Nieuwenhuis, Paul. 1985. Diminutives. Edinburgh: University of Edinburgh Thesis.
- Omondi, Lucia N. 1997. Dholuo emotional language: An overview. Book Section. In Susanne Niemeier & René Dirven (eds.), *The language of emotions: Conceptualization, expression and theoretical foundation*, 109–887. Amsterdam: John Benjamins.
- Ponsonnet, Maïa. The “compassionate” contour in languages of central western Arnhem Land, and how speakers use it. *Journal of Pragmatics*.
- Ponsonnet, Maïa. 2014. *The language of emotions: The case of Dalabon (Australia)*. Amsterdam/Philadelphia: John Benjamins.
- Ponsonnet, Maïa & Evans, Nicholas. 2015. Diminutives in Dalabon. Book Section. In Nicola Grandi & Lívia Körtvélyessy (eds.), *Edinburgh handbook of evaluative morphology*. Edinburgh: Edinburgh University Press.
- Potts, Christopher. 2007. The expressive dimension. Journal Article. *Theoretical Linguistics* 33(2). 165–198.
- Sapir, Edward. 1921. *Language: an introduction to the study of speech*. Book. New York: Harcourt, Brace and World.
- Scalise, Sergio. 1986. *Generative morphology*. Book. 2nd ed. Dordrecht: Foris.
- Sicoli, Mark A. 2010. Shifting voices with participant roles: Voice qualities and speech registers in Mesoamerica. Journal Article. *Language in Society* 39. 521–553.
- Sifianou, Maria. 1992. The use of diminutives in expressing politeness: Modern Greek versus English. Journal Article. *Journal of Pragmatics* 17. 155–173.
- Stump, Gregory. 1993. How peculiar is evaluative morphology. Journal Article. *Journal of linguistics* 29. 1–36.

- Taine-Cheikh, Catherine. 1988. Les diminutifs dans le dialecte arabe de Mauritanie. Journal Article. *Al Wasît* 2. 89–118.
- Travis, Catherine E. 2004. The ethnopragmatics of the diminutive in conversational Colombian Spanish. Journal Article. *Intercultural Pragmatics* 1(2). 249–274.
- Widen, Sherri C & Russell, James A. 2010. Descriptive and prescriptive definitions of emotion. Journal Article. *Emotion Review* 2(4). 377–378. doi:10.1177/1754073910374667. <http://emr.sagepub.com/cgi/content/abstract/2/4/377>.
- Wierzbicka, Anna. 1984. Diminutives and depreciatives: Semantic representation for derivational categories. Journal Article. *Quaderni di Semantica* 5. 123–130.
- Wierzbicka, Anna. 2010. On emotions and on definitions: A response to Izard. Journal Article. *Emotion Review* 2(4). 379–380. doi:10.1177/1754073910374664. <http://emr.sagepub.com/cgi/content/abstract/2/4/379>.
- Zwicky, Arnold & Pullum, Geoffrey. 1987. Plain morphology and expressive morphology. In Jon Aske, Natasha Beery, Laura Michaelis & Hana Filip (eds.), *Proceedings of the Thirteenth Annual Meeting, General session and parasession on grammar and cognition*, 330–340. Berkeley: Berkeley Linguistic Society.

Table 1. Emotion categories with attested morphological encoding.

	proxy	type of resource	language(s)	authors	remark
anger		suprasegmental: nazalization	Kakataibo	Zariquiey	
	annoyance, irritation	suffixes, including negation suffixes	Kakataibo	Zariquiey	
disgust	contempt, repulsion	diminutive and augmentatives affixes	e.g. Ḥassāniyya Arabic	e.g. Taine-Cheikh, see Ponsonnet (a)	And other languages not discussed in the volume.
	contempt	augmentative sound change	e.g. Beja	e.g. Vanhove & Hamid Ahmed , see Ponsonnet a	And other languages not discussed in the volume
	contempt	verbalizer suffix	Hungarian	Németh & Sörös	
	contempt, criticism	augmentative nominalizer suffix	Kakataibo	Zariquiey	
fear		augmentative affixes, including noun class prefixes	e.g. Ḥassāniyya Arabic	e.g. Taine-Cheikh, see Ponsonnet (a)	Marginal, but see also other languages not discussed in the volume
		verbal apprehensive suffixes	Ese'eja	Vuillermet	A cross-linguistically recurrent phenomenon.
		nominal apprehensive suffix	Ese'eja	Vuillermet	
happiness	affection, endearment, comfort	diminutive and augmentative processes (affixes, sound change, gender shift, reduplication)	e.g. Barunga Kriol, Beja, Ḥassāniyya Arabic, Kakataibo Mojeño, Tacana	Ponsonnet, Vanhove & Hamid Ahmed , Taine- Cheikh, Zariquiey, Rose, Guillaume	And many other languages not discussed in the volume
sadness	no clear illustration of sadness or proxy				
surprise	mirative devices, not discussed in this volume but see DeLancey (1997), Lazard (1999)				