Emotion in the Build of Dutch:
Deviation, Augmentation and Duplication[1]

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2016

Abstract: This article addresses the question of how affective information is linguistically packaged in the build of language, specifically (varieties of) Dutch. The article starts with a discussion of the generative-linguistic interface perspective on language: given that language is essentially an information system, the information it represents must be accessible to systems that language interacts with. Thus, if language encodes affective information, this information should be accessible to the affect system. It is proposed that the linguistic encoding of unexpectedness provides a point at which the language system and the affect system interact with each other at the interface. Specifically, affective color can be induced linguistically by deviations from a regular linguistic form or pattern. The linguistic deviation indexes unexpectedness of information. Unexpectedness regards the place of a symbol in a larger linguistic pattern (i.e., space-based indexation of unexpectedness) or the formal manifestation (augmentation and duplication) of the symbol itself (symbol-based indexation of unexpectedness). The phenomenon of linguistic deviation is exemplified on the basis of the behavior of a variety of linguistic elements, including articles, pronouns, subordinators, verbal forms, diminutive morphology, and phonemes.

1. Introduction

This article addresses the question of how emotion (affective information) is linguistically packaged (coded) in the build of language. I will do that by focusing on the linguistic encoding of emotion in a single language, viz., Dutch (and its varieties). A central claim will be that affective "color" can be induced linguistically by deviations from a regular linguistic form or pattern. The linguistic deviation indexes "unexpectedness of information", which I will take to be an important ingredient of emotion. Unexpectedness can regard the place of a linguistic symbol in a larger linguistic pattern (i.e., a deviant position in a linguistic

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representation) or the formal manifestation of the symbol itself (an augmented or duplicated form of a symbol).

The article is organized as follows: Section 2 addresses the question about the interface between language and emotion, and presents the proposal that unexpectedness of linguistic information plays an important role in the linguistic encoding of emotion. Section 3 tries to make the intuitive notion of linguistic unexpectedness more explicit in terms of the generative-linguistic notion of 'imperfection' (a deviation from an expected linguistic pattern) and Shannon's information-theoretical notion of 'quantity of information' (the less predictable, the more informative). Section 4 presents an overview of affective linguistic expressions in Dutch that exhibit an unexpected linguistic property. Section 5 discusses a number of linguistic manifestations of intensity, which is considered to be another important component of emotions. Section 6 concludes this article. It briefly addresses the question of how emotion becomes linguistically manifest in other languages.

2. Language at the interface with emotion

This section presents the proposal that unexpectedness of linguistic information plays an important role in the linguistic encoding of emotion. It is organized as follows: Section 2.1 discusses the generative-linguistic interface perspective on language and the cognitive-psychological theory of appraisal, and addresses the question of how emotion is "implemented" in language. Section 2.2 shows how appraisal theory decomposes emotions into smaller units, specifically the positive/negative value assigned to an object or event, and the intensity of an emotion. It will be argued that unexpectedness and the related deviation from expectation are also important factors involved in the expression of emotion.

2.1. Language and appraisal

A core question in the generative-linguistic study of human language is whether it is well designed for the interaction with other systems within the broader architecture of the human mind/brain (Chomsky 1995; 2002:107). It is assumed that these language-external but mind-internal systems impose conditions that language must satisfy to be usable at all (Chomsky 2000). This interface-approach towards the study of the language faculty obviously raises the

question which neighboring systems it interacts with and what information is accessible to (i.e., legible by) those systems. In view of the traditional assumption that language is a relation of sound and meaning (see, for example, Aristotle's *De Interpretatione*[2]),[3] it has been assumed that there are at least two points of access from language-external systems. The representation of sound —PF (Phonological Form)— is accessed by the sensorimotor (i.e., articulatory and perceptual) systems, and the representation of meaning —LF (Logical Form)— by the conceptual-intentional systems (i.e., the systems of thought).

An obvious candidate for a language-external system that also interacts with the language faculty is the emotion system, a system that deals with the assignment of (positive or negative) value (valence; "emotional meaning") to some object, event or situation (cf. Aristotle 2002, Arnold 1960, Ortony et al 1988), where the value can have different intensities (Spinoza's (1677/1989) "strength of an emotion"; cf. Frijda (2007:153)).[4] Being valenced states that are about something, emotions are considered to be intentional states (Frijda 1994:199, Clore & Ortony 2000:26, Nussbaum 2001:27).[5] The mental evaluation (so-called 'appraisal' in the sense of cognitive psychology's appraisal theory;[6] see Ellsworth and Scherer 2009) of the surrounding external world (but also "inner world", as in the case of the memory of some event or person) plays a prominent role in our mental life, as is also implied by the following statement by Damasio (1999:58): "The consequence of extending emotional value to objects that were not biologically prescribed to be emotionally laden is that the range of stimuli that can potentially induce emotions is infinite. In one way or another, most objects and situations lead to some emotional reaction." The property of unboundedness (infinity) has also been referred to by Scherer (1994:28) in the context of the range of emotions that can be produced by the emotion system: "[...], many different combinations of results from stimulus evaluation checks are possible (especially since evaluation is thought to occur in a

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[2] I used J.L. Ackrill's (1963) translation of Aristotle's *Categories* and *De Interpretatione*. See 16[a]3 and 16[b]26.

[3] Of course, there is also externalization of language via other modalities, as in sign language.

[4] Clore & Ortony (2000:26) define emotions as "affective (i.e., positively or negatively) valenced states that have objects (what philosophers call "intentional" states)."

[5] As one can deduce from this brief characterization of psychology's appraisal theory, there is taken to be a thought component in emotions. The involvement of thought in emotion is also defended by the philosopher Martha Nussbaum in her *Upheavals of Thought* (2001). She makes, for example, the following statement: "[...] emotions always involve thought of an object combined with thought of the object's salience or importance; in that sense, they always involve appraisal or evaluation. I shall therefore refer to my view as a type of "cognitive-evaluative" view [...];" p. 23. By 'cognitive' she means "concerned with receiving and processing information;" p. 23. Another quote from her study that explicitly states the thought-like nature of emotions is the following: "[...] their [emotions; NC] aboutness, their intentionality, their basis in beliefs, their connection with evaluation. All this makes them look very much like thoughts, after all;" p. 33.

[6] The appraisal theory that is part of cognitive psychology should not be confounded with the appraisal theory that is part of systemic functional linguistics. For the latter, see Martin and White (2005).

graduated fashion, determining not only the type but also the intensity of the emotional arousal). In consequence, the number of potential emotional states ([...]) is virtually infinite."

Being emotional and displaying emotional behavior is something we share with many other animals (Darwin 1872/1998). As Damasio (1999:35) suggests, however, there is something special about human emotions: "At first glance, there is nothing distinctively human about emotions since it is clear that so many nonhuman creatures have emotions in abundance; and yet there is something quite distinctive about the way in which emotions have become connected to the complex ideas, values, principles, and judgments that only humans can have, and in that connection lies our legitimate sense that human emotion is special."[7]

Given the prominence of emotion (appraisal) in our daily life and the distinctive nature of human emotion (i.e., the ability to connect valence to an infinite range of elements and a great variety of elements), the question arises whether, and, if so, how, the human emotion/affect system interacts with this other special mental system of human beings: the language faculty. Thus, the following research question can be formulated: How is affective information formally packaged (coded) in human language? That is, what linguistic devices are available for affectively coloring linguistic expressions?

Interestingly and maybe unexpectedly given our emotive nature, the coding of emotion in language has been argued to be quite poor.[8] Of course, we can speak about emotions such as anger and happiness in descriptive terms (what we say; i.e., expressions of thought), as in *I am angry at you* or *This book pleases me*, but, generally, emotions seem to manifest themselves poorly in the formal structure of human language. As Sapir (1921:232) formulates it: "[...] the emotional aspect of our psychic life is but meagerly expressed in the build of language." According to him, "Ideation reigns supreme in language, […] volition and emotion come in as distinctly secondary factors;" (ibidem:40).[9] Jakobson (1960) acknowledges the supremacy of the expression of thought (i.e., ideation) but emphasizes "[...] that this supremacy does not authorize linguistics to disregard the 'secondary factors'." According to Jakobson, "The emotive function, laid bare in the interjections, flavors to some

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[7] Damasio specifies the presumed distinction between human emotions and other animals' emotions by referring to the rich diversity of objects that can trigger an emotion in humans. It is "not just about sexual pleasures or fear of snakes" (p. 35-36), but also about "the sensuous smile of Jeanne Moreau", "the thick beauty of words and ideas in Shakespeare's verse", and "the harmony that Einstein sought in the structure of an equation". See Nussbaum (2001, Chapter 2) for a discussion of emotions in humans and other animals.

[8] For discussion of the expression (i.e., externalization: e.g., facial, vocal, gestural) of emotion, see Davidson et al (2009, Part IV).

[9] For Sapir, language is primarily a cultural institution focused on communication via exchange of thoughts. Emotions are expressed but their expression is "not truly of a linguistic nature;" Sapir (1921:39).

extent all our utterances, on their phonic, grammatical and lexical level. If we analyze language from the standpoint of the information it carries, we cannot restrict the notion of information to the cognitive aspect of language."

The claim that language is primarily a tool for the expression of thought has also been made by Chomsky, both in his early work (e.g., Chomsky 1966/2009b:79) and in his more recent work: "[...] it appears that language evolved, and is designed, primarily as an instrument of thought;" (Chomsky 2009a:29). The acknowledgment that language is primarily a tool for the expression of thought obviously does not dismiss us from addressing the question what the supposedly meager expression of affective information in the build of language looks like. More specifically, the following question could and should be raised: If the linguistic expression of emotion is secondary with respect to the expression of thought, how does secondariness manifest itself in the structure of language?

A linguistic engineer who gets assigned the problem "implement (as good as you can) the affect property in language" —see Picard (1997), who raises the question about the implementation of affect in the context of computers/robots— could implement secondariness by using the formal devices that are used for the expression of thought in a secondary way. That is, affective coloring of linguistic expressions involves the reuse or alternative use of available formal means. Interestingly, the Dutch philosopher-linguist Pos (1935:329) already hints at this secondary nature of the expression of affect in language. First of all, he characterizes language as "une complication de la raison: Je crois que pour comprendre la sphère affective en matière de linguistique, il faut se fonder sur la langue prise comme instrument de la raison. Sur cette base, le sens affectif apparaîtra comme une complication du langage rationnel."[10] Secondly, he characterizes this "complication de la raison" in terms of the inverse use of functional material (i.e., particles/functional categories; "les particules"):[11] "Mais la fonction logique des particules n'est pas la seule qui leur appartienne. Elles ont un autre emploi qui suit un sens inverse: l'usage émotif et affectif;"

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[10] Translation of Pos's French text: "a complication of reason: I believe that in order to be able to understand affective mood linguistically, it is necessary to base oneself on the conception of language as an instrument of reason/thought. On that base, affective feelings will appear as a complication of the language of reason/thought."

[11] According to Pos (1935: 323), the set of "particules" includes, among others, the following elements: prepositions, conjunctions, pronouns, and adverbs with a more grammatical meaning. The "particules" differ from nouns, adjectives, and verbs —which are now often referred to as 'content words'— in having a more abstract (grammatical or discourse-related) meaning. That is, they do not designate "les choses" (objects), "les qualités" (qualities/properties), or "les événements" (events), as nouns, adjectives and verbs do, respectively. See Pos (1935:322-325) for discussion.

(ibidem:328).[12] In this article, I will try to give some further substance to Pos's intuition that the linguistic expression of affective information involves the inverse use of functional material.

2.2 Decomposing emotions

In order to be able to answer the question whether there is any interaction between the emotion system and the language system and (if so) what it looks like, it is, of course, important to try to define the (complex) notions of emotion and language as precisely as possible.[13] Clearly, such a task falls beyond the scope of this article. Let me nevertheless briefly indicate that it is important to provide an explicit definition of emotion if one aims to look for reflexes of affective information in the language system. Take again Sapir's statement that "[...] the emotional aspect of our psychic life is but meagerly expressed in the build of language." This statement certainly makes sense if one tries to identify linguistic manifestations of types of emotions: For example, Dutch does not have a joy-suffix or a functional category expressing anger or a displacement operation expressing disgust. In short, the taxonomy of emotions as proposed, for example, in Ekman's (1992) theory of basic emotions, does not seem to be reflected in the build of language. It should be noted, though, that other scholars studying the nature of emotion, especially those working within the framework of appraisal theory, have questioned the existence of such demarcated emotions (see Scherer 1994).[14] Appraisal theorists consider emotions such as anger, joy, frustration, disgust, sadness, happiness et cetera to be epiphenomena; these emotional "constructions" are decomposable into smaller building blocks, some of which can be shared by different types of "surface" emotions. The following quote from Ortony et al (1988:29) clearly resonates with this view: "[..] our proposal is for a more hierarchical kind of structure in which, at the top level, there are two basic kinds of affective reactions — positive and negative. Valenced

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[12] Translation of Pos's French text: "But the logical function of particles is not the only function they have. They have another use which follows an inverse/opposite direction: the emotive and affective use."

[13] See Hauser, Chomsky and Fitch (2002) for discussion of the notion of 'faculty of language'. For discussion of the notion of emotion, see Ortony et al (1999:28-29) for a definition from the perspective of cognitive psychology (see also note 2) and Damasio (1999:42) for a definition from the perspective of neuroscience. According to Damasio, "[…] the term *feeling* should be reserved for the private, mental experience of an emotion [..]" and "[…] the term *emotion* should be used to designate the collection of responses, many of which are publicly observable."

[14] This discussion seems to be quite similar to the one in linguistics about the nature of syntactic constructions (like passive constructions, relative constructions *et cetera*); i.e., are these constructions real syntactic objects, as defended in construction grammar, or are they epiphenomena and should they be treated as hierarchical arrangements of independent smaller units, as in generative grammar?

reactions are the essential ingredients of emotions in the sense that all emotions involve some sort of positive or negative reaction to something or other. When additional factors are brought into consideration increasingly differentiated emotional states may result." Of course, if appraisal theorists are right and basic emotions do not exist as mental/physical constructs but are epiphenomena, then it is no surprise that we do not find any formal-linguistic manifestations of emotions such as joy, anger, frustration et cetera in the build of language.

Under a multicomponential view of emotions, as characteristic of appraisal theory, one can try to look for language-emotion interface relationships at the level of the subcomponents (building blocks/constituents) that are at the basis of the emotion representation. Two central components were already mentioned earlier: (a) appraisal, i.e., the (mental) assignment of positive or negative value (valence; "emotional meaning") to some object, event or situation; and (b) intensity. Ortony et al (1988)'s position that there are essentially only two general kinds of affective reactions, viz., positive and negative ones, is very similar to Spinoza's (1677/1986) stance on this. Spinoza reduced all emotions to one form or another of pleasure or pain, where pleasure was held to be a transition from a lesser state of perfection to a greater one, and pain, vice versa (cf. Ortony et al 1988:29). According to this approach, emotions cannot be neutral; they must be either positive or negative. Being neutral is being non-emotional (see Ben-Ze'ev 2001:94). As for the intensity of emotion (i.e., the degree to which the evaluation is positive/negative), Ortony et al (1988: chapter 4) identify a number of factors that can influence the intensity of an emotion, among which the following two (related) factors: (i) unexpectedness and (ii) expectation deviation. Ortony et al (ibidem: 64) point out that "[T]he notion of unexpectedness is widely recognized as being important for emotions." They further argue that "[I]n general, unexpectedness is positively correlated with the intensity of the emotion. Other things being equal, unexpected positive things are evaluated more positively than expected ones, and unexpected negative things, more negatively than expected ones." In short, the more unexpected, the more intense. The factor 'expectation deviation' refers to deviations from role and person expectations, i.e., "deviations from what we would expect of people in the particular role in which they are or in which we cast them, or deviations from expectations based upon what we know or believe about the individual person;" Ortony et al (ibidem:79). They illustrate this with the store clerk who has saved a drowning child. This store clerk will be more admired than a life guard who did the same thing, simply because such saving actions are much more unexpected in the case of store clerks. As I will show in the course of this article, the related (factors)

'unexpectedness' and 'deviation from expectation' are variables that manifest themselves also linguistically.

On the basis of the above necessarily incomplete discussion of appraisal theory, we can identify at least the following components of emotion: (i) the positive/negative value assigned to the event/object, (ii) the intensity of the emotion, with unexpectedness and the related deviation from expectation as factors that influence intensity. If one adopts this componential view of emotions, the question arises to what extent there is interaction between the language system and the emotion system at the level of these components (i.e., information units). More specifically, how is positive/negative value represented linguistically, and how is unexpectedness, as an ingredient of intensity, encoded in language?

3. Information, (im)perfection, and (un)expectedness

Under the assumption that language is essentially an information system (Chomsky 2002:108), the information it represents must be accessible to systems that language interacts with. If language encodes affective information, this information should be accessible to the affect system. In this section I will argue that the linguistic encoding of unexpectedness (a factor involved in the expression of emotion) provides a point at which the language system and the affect system interact with each other at the interface. Section 3.1 introduces the generative-linguistic proposal that linguistic expressions must have a 'perfect' (i.e., optimal) interface design. In section 3.2 it is proposed that emotion can be linguistically encoded by means of 'imperfect' properties, i.e., deviations from an expected linguistic pattern. Section 3.3 is a brief discussion of the role that musical 'imperfections' (deviations from expectations) play in triggering emotion in music. Section 3.4 examines those (unexpected) deviations from the perspective of Shannon (1948)'s Information Theory, which defines the 'quantity' of information in terms of its predictability. In section 3.5, three procedures for indexing high information value (unexpectedness) are discussed: (i) space-based indexation: a symbol indexes a high amount of information if it is in a deviant (i.e., marked) position, (ii) symbol-based indexation: a symbol indexes high amount of information if its form deviates from its "neutral" form, and (iii) indexation by duplication: a symbol "spreads out" across a linguistic expression and this way indexes high amount of information. Section 3.6 returns to the proposal that affective linguistic expressions feature an imperfect property. It is proposed that the special status of a linguistic property that indexes affect does not so much reside in its

uninterpretability at the meaning interface (i.e., the LF-CI interface), but rather in the type of interface at which the symbol is active. Specifically, it is the PF-SM interface at which affect is encoded. In other words, the secondariness of the linguistic encoding of affect relates to the externalization of a linguistic symbol.

3.1 Linguistic expressions with a perfect interface-design.

Linguistic expressions generated by the linguistic computational system (syntax, morphology, phonology) should be accessible to (i.e., legible by) the systems that language interacts with. In other words, those systems must be able to "read" the expressions of the language. Specifically, the Sensorimotor (SM) system must be able to read the sound information that is part of the phonological representation (PF), and the Conceptual-Intentional (CI) system (i.e., the system of thought) must be able to read the information contained within the semantic representation (LF). As Chomsky (1986:98) notes, "[...] there is a (UG-)principle of full interpretation (FI) that requires that every element of PF and LF, taken to be the interface of syntax (in the broad sense) with systems of language use, must receive an appropriate interpretation —must be licensed in the sense indicated." Thus, the two linguistic interface representations should not contain properties (information) which the language-external systems cannot make sense of. In short, linguistic expressions must have a 'perfect' (i.e., optimal) interface-design.

As Chomsky (*ibidem*) argues, "The word *book*, for example, has the phonetic interpretation *[buk]*. It could not be represented *[fburk]*, where we simply disregard [f] and [r]; that would be possible only if there were particular rules or general principles deleting these elements." Just like the PF-representation, the information provided by the LF-representation should be fully interpretable. As a first illustration of this, it is impossible to have sentences of the form in (1) with the respective interpretations "I was in Paris last year" and "He met Sue", disregarding the italicized elements.

(1)   a. I was in Paris last year *the man*
       b. *Who* he met Sue.

In short, there can be no superfluous (i.e., uninterpretable) symbols (pieces of information)

in a linguistic representation. As a second illustration of Full Interpretation, there should not be too little information (too few symbols) in a linguistic representation either; that is, there should be enough information at the interface for building an interpretation. For example, a sentence like *He met* is ill-formed (i.e., semantically uninterpretable), since the transitivity of the verb *met* requires the presence of a direct object bearing the thematic role Theme, as in *He met Sue*. As a third illustration of the principle of Full Interpretation, consider the ill-formed sentence *They meets us*, where the 3rd person inflection morphology *–s* on *meets* does not match (i.e., agree) with the subject *they*. Due to the absence of agreement (feature matching), *-s* is not interpretable at the LF-interface.

3.2 Deviation from perfection

The idea that (information contained within) linguistic expressions must be fully interpretable at the interfaces with the CI-system and SM-system, obviously, also holds for a language like Dutch. For example, a linguistic expression like ***Wat sliep je?*** (What slept you?) is ill-formed because the wh-word *wat* cannot be interpreted as an argument of the intransitive verb *sliep*. Another illustration: the nominal construction ***een boeken*** in **Jas las *een boeken*** (Jan read a books) is ill-formed, since the singular indefinite article cannot be interpreted as belonging to the plural noun. Interestingly, the boldface elements in these examples are permitted in similar structural environments when the linguistic expression has an affective/expressive meaning, as in the exclamative-interrogative construction ***Wat** sta je nou te slapen?!* (lit.: what stand you now to sleep; 'Why the heck are you not paying attention!') and the exclamative construction *Jan las (me) **een** boeken!* (lit.: Jan read (me) a books; 'How many books Jan read!). The above contrasts suggest that an illegitimate linguistic design property in 'neutral' (i.e., descriptive/non-affective) use of a linguistic expression can be a legitimate design property in affective/expressive use of a linguistic expression. Given the fact that the symbols *wat* and *een* belong to the class of functional categories, the following question can be raised (cf. also Pos 1935): How are functional categories, as part of a linguistic representation, and affective language use related? That is, what role do functional categories play in the coding of affective information?

Instead of simply coding the affect property necessary for affective use of some linguistic expression by means of some affect feature (say, $F_{[+affect]}$), one could explore the hypothesis, quite in the spirit of Reinhart (2007), that affective linguistic expressions are

somehow deviations from perfect representations (i.e., representations fully interpretable at the interface with the thought system). The use of these 'imperfect' linguistic representations enables the expression of a particular type of information that cannot otherwise be expressed, *in casu* affective information. Compare at this point, for example, the illicit use of the English dummy verb *to do* in declarative clauses in order to obtain a special pragmatic effect, viz., strong affirmation: *John DID eat an apple!* (Chomsky 1991). From this perspective, affective linguistic expressions could be characterized as formally *marked* constructions (see also Foolen 2012); a lexical atom (or computational rule) is used in a non-core-grammatical (i.e., secondary/peripheral) way; see Kean (1975), Van Riemsdijk (1978), Chomsky (1981). See also Chomsky (2004:132), who characterizes markedness as "relaxing some of the conditions of core grammar" (cf. Chomsky 1965:78-79).

The idea that affective linguistic expressions are somehow deviations from perfect representations reminds us of the notion of *degree of grammaticalness* (Chomsky 1955: chapter 5; 1964; 1965:75-79).[15] As noted by Chomsky, there is a clear sense according to which a perfectly well-formed sentence like *John loves company* is more grammatical than *Misery loves company*, which in turn is more grammatical than *abundant loves company*. The last sentence displays a strong violation of a rule of English grammar; say, the rule that the clausal subject is typically an argumental DP, i.e., a potential carrier of a theta role. The adjectival predicate *abundant* cannot fulfill the role of subject (External Argument; EA). The second sentence also deviates from a grammatical rule of English —viz., the selectional rule that requires the external argument of *to love* to be 'animate' (rather than 'abstract')— but the violation is less severe. For this reason, Chomsky calls such sentences 'semi-grammatical'. The fully grammatical sentence *John loves company* satisfies both the subject/EA-requirement and the selectional (*in casu* animacy) requirement.

As Chomsky (1964:384) notes, "There are circumstances in which the use of grammatically deviant sentences is very much in place. Consider e.g., such phrases as Dylan Thomas' "a grief ago", or Veblen's ironic "perform leisure." In such cases, and innumerable others, a striking effect is achieved precisely by means of a departure from a grammatical regularity." As regards the interpretation of such semi-grammatical expressions, Chomsky (1964:384-85) states that "[...] we attempt to impose an interpretation on it, exploiting whatever features of grammatical structure it preserves and whatever analogies we can construct with perfectly well-formed utterances. We do not, in this way, impose an

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[15] See also Ziff (1964) and Katz (1964) for discussion of the nature of linguistic deviations.

interpretation on a perfectly grammatical utterance (it is precisely for this reason that a well-chosen deviant utterance may be richer and more effective)." In other words, deviant linguistic expressions are evocative. They force the hearer to construct an interpretation.[16] As such, the deviant formal design of semi-grammatical expressions provides instructions at the interface with other systems, e.g., the affect system.

3.3 Deviation from expectation in music

If the use of imperfections (marked/deviant properties) in the build of language is a central ingredient for the linguistic encoding of affect, the question obviously arises whether this encoding of affective information finds parallels in other human mental abilities involving symbol manipulation. The musicologist Leonard Meyer, in his classic book *Emotion and Meaning in Music* (1956), argued that music, which can be defined as "organized (i.e., structured) sound" (say, a sequence of notes organized in terms of melodic, harmonic, rhythmic et cetera patterns), gets an emotional meaning by violating the "regular" form or pattern, that is the formal pattern expected by the hearer. He argues that the listener (the receiver of the musical message) does not come to the listening experience as a blank slate but rather has knowledge of musical patterns and styles and, based on that, expectations about the progression of sounds (see Meyer 1956:32). A deviation from the expected progression can be regarded as an affective stimulus. As Lehrer (2008:143) formulates it, "All music needs is a violated pattern, an order interrupted by a disorder." The violated (i.e., deviant/imperfect) pattern excites the listener since she (or better, her auditory cortex) has to struggle to uncover its order. If the musical patterns are too obvious, the music is boring. In short, deviation from expectation triggers a feeling.[17]

The expressiveness of musical imperfections is also found in the following quote from Levitin (2006:169):[18]

"Metrical extraction, knowing what the pulse is and when we expect it to occur, is a crucial

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[16] Chomsky (1955:149) points out "the possibility that certain idioms or metaphors might be characterizable as sentences which occur, but are not of the highest degree of grammaticalness [...]." For the meaningfulness of deviant linguistic expressions in poetry, see also Chomsky (2013).

[17] Recall section 1's discussion about Ortony et al (1988)'s view on the role of 'deviation from expectation' in the definition of intensity of emotion.

[18] See also Huron (2007).

part of musical emotion. Music communicates to us emotionally through systematic violations of expectations. These violations can occur in any domain—the domain of pitch, timbre, contour, rhythm, tempo, and so on—but occur they must. Music is organized sound, but the organization has to involve some element of the unexpected or it is emotionally flat and robotic. Too much organization may technically still be music, but it would be music that no one wants to listen to. Scales, for example, are organized, but most parents get sick of hearing their children play them after five minutes."

3.4 The informativeness of unexpectedness

Meyer's theory about the expression of affect/emotion in music was heavily influenced by Shannon's (1948) article *A mathematical theory of communication.* In this seminal article (see, especially, sections 2, 6 and 7), which laid the mathematical foundations of information theory, Shannon is concerned with the question of how to measure the quantity of information contained in a message being received.[19] He came up with the idea that the amount of information communicated corresponds to the difference between the receiver's uncertainty before the communication and the receiver's uncertainty after it.[20] If the received information matches up entirely with the receiver's expectations/predictions, the quantity of information is low. In that case, the message is obvious and has no surprise value. If, however, the received information departs from the hearer's expectations/predictions, the quantity of information is high. That is, the communicated information has a high surprise value. In short, information theory defines the quantity of information conveyed by a particular message as inversely proportional to the predictability of that message (see also Gallistel and King 2009: 7-10).[21]

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[19] Importantly, 'message' (and 'information'), as used in Shannon's theory, are not restricted to language (spoken or written) and its linguistic symbols (phonemes, words, graphemes et cetera). For example, it can also be musical (e.g., Beethoven's Fifth Symphony), telegraphic (pulses and interpulse intervals, as in Morse code), "biological" (e.g., codon sequences in a DNA molecule), or consist of the information provided by tossing a coin or rolling dice. This "broad" interpretation of 'message' is also clear from Gallistel and King's (2009:306) definition: "One member from a set of possibilities, typically, possible states of the world that are communicated to a receiver."

[20] According to Shannon, 'information' must not be confused with 'meaning'. His notion of information is not about the contents of the message ("what is said"), but rather regards the selection of a message from a set of possible messages ("what could be said"). See Gallistel and King (2009:6).

[21] Shannon uses the notion of (information) entropy for the measure of the uncertainty in terms of unpredictability of a piece of information. See also Gallistel and King (2009: 13-15, 303).

Shannon (p. 3) distinguishes three types of communication systems, one of them being the class of *discrete* systems;[22] that is, systems in which the message consists of discrete symbols. Telegraphy and natural written language are given as examples of discrete systems. Obviously, natural spoken language with its phonemes, morphemes, words et cetera also belongs to this class. With discrete elements being carriers of information (see Gallistel and King 2009: chapter 5), quantity of information —the amount of (un)expectedness— can be measured at the level of those discrete symbols.[23]

According to Shannon's theory of information, an imperfect sequence like *een boeken* (a books) in the exclamative construction *Jan las (me) een boeken!* ('How many books Jan read!) has a high surprise value (i.e., a high quantity of information) for a hearer, since she assigns a very low probability to the fact that the speaker will produce an imperfect pattern (See also Delfitto and Corver 2014). Likewise, *wat* in the exclamative *Wat sta je nou te slapen?!* has a high surprise value since the wh-word in the left periphery of the clause (Spec,CP) —a syntactic position that is normally associated with an interrogative interpretation— cannot be interpreted as an interrogative pronoun that binds a variable (wh-trace) in the clause. The wh-word *wat* seems to be base-generated in [Spec,CP], where it expresses surprise as regards the presupposed information *je staat te slapen* (you are sleeping; 'You are not paying attention').[24] [25]

So far, I have suggested that the imperfection in the otherwise regular linguistic pattern constitutes an affective cue/signal for the receiver of the message. The deviation from the expected progression functions as an affective stimulus for the hearer. One should, of course, also look at the imperfection from the perspective of the speaker, the transmitter of the message. What kind of information does the speaker intend to convey with the imperfect

[22] The other communication systems Shannon distinguishes are: (i) continuous systems (e.g., radio, television), and (ii) mixed systems (e.g., PCM transmission of speech).

[23] See, for example, Shannon's formulation in section 7 of his article: "This is the entropy [amount of uncertainty; NC] of the source per symbol of text."

[24] Likewise in English: an exclamative (root) sentence like *How many languages John speaks!* has a high surprise value since, in spite of the presence of a wh-phrase (*how many languages*) in [Spec,CP], *do*-support does not take place. Compare in this respect the wh-interrogative sentence *How many languages does John speak?*, where *do*-support is required.

[25] See Corver (1990) for arguments that exclamative *wat* does not occupy the left periphery of the clause as a result of displacement to [Spec,CP] but is base generated in that position. One of the arguments given is that the exclamative operator *wat* can be associated with a noun phrase that is embedded within a PP-island, as in *Wat heeft Jan [PP met een mensen] gesproken!* (What has Jan with a people spoken; 'How many people John spoke with!')

property of the linguistic expression? Plausibly, also here 'quantity of information' is the key notion. Specifically, by means of an imperfect linguistic property the speaker symbolizes her surprise at the contents (event, property, quantity, et cetera) expressed by the linguistic expression. That is, the imperfect property signals that the thought expressed has a high amount of information for the speaker, in the sense that it is unexpected for her.

In short, an affectively colorful linguistic expression is an expression with a high information value. It is this high amount of information (unexpectedness) that the speaker wants to express and communicate to another person.[26] This (subjective) high information state of the speaker is indexed by means of an imperfect symbol that violates an otherwise regular linguistic pattern. For the hearer, who receives the message containing the linguistic imperfection, the communicated information also has a high information value. The linguistic property departs from the hearer's expectations and, consequently, has a high surprise value for her.[27]

3.5 Distinguishability and unexpectedness of symbols

In sections 3.3 and 3.4 we saw that unexpectedness caused by deviation from expectation is an important ingredient of the (representation of) emotion. In the build of language, this unexpectedness is encoded by the use of symbols that "violate a linguistic pattern". Arguably, this violation/imperfection makes these symbols highly distinguishable from an information-processing point of view. One might say that they are linguistic cues/stimuli that function as attention markers (carriers of high amount of information) at the surface: as a speaker you control the hearer's allocation of attention and as a hearer you are able to identify relevant information in the environmental linguistic "noise".

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[26] It should be noted, though, that many verbal outbursts (e.g. *Fuck! Shit!* et cetera) seem to be externalizations of affective states that do not necessarily have a communicative function in the sense of exchange of information to a hearer. People curse a lot in isolation. See also Goffman (1978) on so-called response cries.

[27] Unexpectedness and surprise are properties that are also associated with the linguistic phenomenon of mirativity (De Lancey 2001). Besides the use of special prosodic means, mirativity is also encoded lexically and morphosyntactically in various languages, e.g., by the use of functional elements such as clitics, aspectual and temporal suffixes, and conjunctions. Janssen (2005) discusses a number of Dutch patterns featuring mirativity, including: (i) *Watte?!* (what-*e*; 'What?!'), (ii) *Jij hier?* (you here; 'You here?! What a surprise!'), (iii) *Ik en angst?* (I and fear; 'Me being afraid?!'), (iv) *Moet je eens kijken!* (must you PRT look; 'Look at this! How surprising!'). All these patterns display a "special" grammatical property; for example, (i) augmentation of the interrogative pronoun *wat* with -*e*, (ii) absence of a copular verb, (iii) coordination of semantically "non-symmetric" conjuncts, (iv) imperative use of a modal verb.

As noted in Gallistel and King (2009:72), "symbols must be distinguishable one from another because the symbol that refers to one thing must be handled differently at some point in its processing from a symbol that refers to another thing." They argue that symbols can be distinguished in the course of a computation on the basis of two aspects of a symbol: (i) its intrinsic (physical) form and/or (ii) its location in space or in time (i.e., where the symbol is in space and time relative to other symbols). For example, the definite article *the*, as in *the check*, is distinguishable in form from the indefinite article *a*, as in *a check*. In sentences like *I had to **check** my watch* and *I wrote a **check** to the bank* (examples from Gallistel and King) the two symbols *check* are identical in their form but distinguishable from one another by the spatial context in which they occur, specifically by the functional category to their left (*to* and *a*, respectively). On the basis of this spatial distinction, *check* is identified as a symbol for an action (i.e., a verb) in the first sentence and as a symbol for a thing (i.e., a noun) in the second sentence.

If symbols are distinguishable on the basis of intrinsic form and on the basis of their location in space/time, then a symbol arguably obtains an extra high degree of distinguishability if something special (i.e., symbol manipulation) happens to its location and/or its form. Specifically, high distinguishability (i.e., a high amount of information) can be obtained by placing a symbol in a deviant (i.e., unexpected) position in a linguistic representation, or by manipulating the form of the symbol itself, for example, by increasing the size/magnitude of the symbol (i.e., augmentation of the symbol). The unusual location or form of the symbol makes it perceptually distinct from "regular" linguistic information.[28]

In sum, two procedures for indexing high information value (unexpectedness) and high distinguishability can be distinguished:

- Space-based indexation: a symbol (e.g., a functional category) indexes high amount of information and high distinguishability if it is in a deviant (marked) position in a linguistic representation.
- Symbol-based indexation: a symbol indexes high amount of information and high distinguishability if its form deviates from the expected form (e.g., an augmented form, an unexpected case or gender form).

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[28] See also Cosman and Rizzo's (2013) overview article on the phenomenon of attention in which they claim that "[..] attention can select information based on its location in space, its identity, or its relevance to current goals;" p. 115.

To this I add a third type of indexing procedure for marking high information value:

- Indexation by duplication: a symbol (e.g., a suffix or a phonological feature) "spreads out" across a linguistic expression and this way indexes high amount of information and high distinguishability.

In sections 4 and 5, illustrations will be given of each of these formal indexations of high amount of information. Here I suffice with giving one example for each type of indexation. Consider the examples in (2):

(2) a. Jan las (me) **een** boeken!
       Jan read (me) a books
       'How many books Jan read!
     b. **Dat** denkt dat hij heel wat is!
       that$_{\text{NEUT}}$ thinks that he quite something is
       'That guy thinks he is an important person.'
     c. Jan kocht een hel**e** erg**e** dur**e** auto.
       Jan bought a real-*e* very-*e* expensive-*e* car
       'Jan bought a really expensive car.'

(2a) exemplifies space-based indexation: the indefinite article *een*, which normally precedes a singular count noun, occupies a deviant position in the sense that it precedes a plural noun (*boeken*). (2b) is an illustration of symbol-based indexation. Although the subject of the main clause has a human referent (say, 'he'), the pronoun that is used is a neuter demonstrative pronoun. (2c), finally, shows a duplication variant of the neutral form *een heel erg dure auto*, where the adjectival inflection *-e* only shows up on the attributive adjectival head. In (2c), the adjectival inflection has spread onto the degree adverbs that are part of the adjectival phrase.

3.6 Perfect "imperfections": the secondariness of externalization

Let me finish this section by briefly getting back to the notion of imperfection. A symbol (representing information) is imperfect if it is not interpretable (i.e., readable) at the interface. Of course, the interface-interpretability of a symbol is dependent on the interpreting system. For example, phonemes (representing sound information) cannot be interpreted by the CI-

system (thought), and scope-bearing operators (e.g., a wh-operator that binds a variable) are not interpreted by the Sensorimotor system (sound). Returning now to the "imperfect" linguistic symbols that have an affective flavor by indexing unexpectedness (e.g., functional categories like *een* or *wat* in exclamative constructions), I would like to argue that these symbols are uninterpretable (imperfect) by the CI-system but interpretable (perfect) by the affect system (say, the appraisal system). For example, *een* in *die etter van een Jan* (that jerk of a Jan) is unreadable by the CI-system (more concretely, it is not read as representing 'indefiniteness') but—as a linguistic marker of unexpectedness (implying a high amount of information)— readable by the appraisal system (and the attention system: perceptibility).[29]

But if both roles of a symbol —let's call them the LF-role and the affect-role— are perfect (i.e., interpretable) at the interface at which they are interpreted, what causes the secondary "flavor" (recall Pos's inverse use) of symbols (e.g., functional categories) that index affective information? Possibly, secondariness relates to the type of interface relationship a symbol has. Specifically, in line with Chomsky (2009b:386) the primary interface role of a linguistic symbol may be taken to be at the LF-CI interface and the secondary interface role at the PF-SM interface. That is, the semantics of a linguistic symbol (or representation) is more prominent than its externalization (i.e., its realization in sound or sign). Or in more informal terms, "Language is expressions with meaning, and sound is sort of tacked on there somewhere on the side and it does not work very well;" Chomsky (2010). In line with the idea that externalization is a secondary property of language, I propose that linguistic symbols with an affective flavor are typically active on the sound side. In other words, the linguistic encoding of affect is a matter of externalization.[30] This, of course, is quite compatible with Sapir's statements that "ideation reigns supreme in language" and that "the emotional aspect of our psychic life is but meagerly expressed in the build of language." Essentially, the meager expression corresponds to the sound side of language. Notice at this point also Labov's (1985:43) claim that "[...] the peripheral systems [i.e., prosody, vocal qualifier and gesture; NC] are the primary means of conveying social and emotional information, and the grammatical mechanism is the primary means for conveying referential and cognitive information."[31] To make things a bit more concrete, the indefinite article *een* in

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[29] From the perspective of the CI-system, these items can also be qualified as 'expletives'; 'expletives' in the sense of having no semantic contribution at the level of LF-semantics.

[30] See Reilly and Seibert (2009) for a discussion of the expression of affective information in American Sign Language.

[31] Labov (1985:43) calls these affect bearing elements 'cognitive zeroes'. These are items with no cognitive or referential meaning. In other words, they are semantically vacuous.

een man (as in: *Ik zag een man*, 'I saw a man') is a symbol that has both a meaning side (semantics, specifically "indefiniteness") and a sound side (externalization). The element *een* in *die etter van een Jan* only has a sound side. It is a pure PF-symbol, which means that it only interfaces with other (mental) systems (e.g., the affect system) via the PF-interface. It also means that it is (LF-)semantically vacuous.[32] At the end of section 4, I will try to make this more precise.

4. Deviations from linguistic expectations: A case study on Dutch

This section discusses a number of Dutch linguistic expressions that exhibit a symbol (specifically, a functional category) that deviates from a regular pattern.[33] These linguistic expressions are taken from three phrasal domains: the (pro)nominal domain (section 4.1), the adjectival domain (section 4.2), and the clausal domain (section 4.3). The deviations can be characterized as "space-based" (i.e., the symbol occurs in a (linguistic) environment where it is not expected) or "symbol-based" (i.e., the symbol has a deviant formal appearance). It is this (unexpected) deviation that indexes high amount of information and contributes to its high distinguishability. In line with what I argued for at the end of the previous section, these deviations are taken to be externalizations of syntactic positions. This is discussed in more detail in section 4.4.

4.1 Deviations in the nominal domain

The first pattern exemplifying *symbol-based* indexation of affective information involves the use of the neuter demonstrative pronoun *dat* 'that' when reference to (a group of) human individuals is being made. Consider, for example, the following sentences:

(3)　a. **Dat** gaat allemaal maar met elkaar naar bed!

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[32] In this respect, affect bearing elements like exclamative *wat* and *een* are quite similar to the dummy verb *to do* in a sentence like *John DID eat an apple*, where emphatic DID surfaces in a position where it normally does not appear, viz. in the T-position of a declarative clause (see section 3.2).

[33] The main purpose of this section is to give an overview of syntactic patterns featuring a property that deviates from expectation. An in-depth linguistic analysis of the various properties of each pattern falls beyond the scope of this article.

that goes all PRT with each.other to bed

'Those folks are having sex all the time'

b. **Dat** gaat de hele tijd maar uit met z'n allen! Studeren, ho maar!

that goes the whole time PRT PRT with his all! study, no way

'They are all having fun all the time. They don't care about their studies!'

The use of the singular neuter demonstrative pronoun *dat* triggers a negative/pejorative meaning in these examples. Using a more neutral (i.e., non-evaluative) formulation, a speaker will normally use the demonstrative pronoun *die*, as in *Die gaan allemaal met elkaar naar bed*, where the plural demonstrative *die* 'these' refers to a set of individuals (i.e., plurality) introduced in the discourse. It seems that the use of *dat* triggers a collective reading, where *dat* corresponds to the set, or the aggregate. Notice at this point that collective nouns like *stelletje* (pair-DIM, 'bunch') and *zootje* (mess-DIM, 'bunch') also contribute negative meaning. This is exemplified in (4). Interestingly, these (negative-valenced) collective nouns carry the diminutive suffix *-je*, which typically changes a common (i.e., non-neuter) gender noun into a neuter gender noun in Dutch, as in *de zooi* 'the_common gender mess' *versus het zootje* (the_neuter mess-DIM). Possibly, pejorative *dat* is the pronominal equivalent of a negative-valenced collective noun.

(4) a. Jullie zijn me een stelletje hufters!

   you are me a pair-DIM jerks

   'You really are a bunch of jerks!'

b. Dat was me een zootje ongeregeld!

   that was me a mess-DIM abnormal

   'That really was a bunch of scum!'

A second illustration of *symbol-based* indexation of affective information is given in example (6), which is taken from Tegelen Dutch (Houx et al 1968:44):[34]

(5) a.   Gister waar *mien zuster* heéj. Ich had ***'m*** lang neet mier gezéen.

      yesterday was my sister here. I had him (= her) long not PRT seen

      'Yesterday my sister was here. I hadn't seen her for a long time.'

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[34] According to Houx et al (1968), this phenomenon is attested also in other dialects spoken in the (Dutch) province of Limburg.

b. ***Betje*** is gister 15 jaor gewaore, maar jidderein zúut ***'m*** aan vur 18.

Betje has yesterday 15 year become but everyone sees him (= her) PRT for 18

'Betje got 15 yesterday but everyone thinks she is 18 years old.'

In these examples, the masculine personal pronoun *'m* 'him' is used instead of the feminine form *eur* or *ze* 'her'. Here we have another deviant use of grammatical gender. It turns out that this masculine form is typically used to refer to a female person that is closely related to the speaker (e.g., someone from his/her family, someone the speaker knows). Interestingly, when the female person is unknown to the speaker or when the speaker uses more formal polite speech, the speaker uses the feminine pronominal forms *eur* or *ze* 'her' (examples taken from Houx et al 1968:44).

(6) a. A: Kênse ***de vrouw van d'n dokter***?

know-you the wife of the doctor

'Do you know the doctor's wife?'

B: Nae, ich heb ***eur*** nag noëts gezeen.

No, I have her never seen

'No, I've never met her.'

b. ***Zien hóeshelster*** is vertrokke; gister heb ik ***ze*** vur 't lêtst gezéen.

his housekeeper has left; yesterday have I her for the last.time seen

'His housekeeper has gone; yesterday I saw her for the last time.'

The facts in (5) and (6) suggest that social proximity is reflected in the pronominal build of Tegelen Dutch. As noted in Ortony et al (1988:62-64), proximity is an important emotion-inducing variable. Proximity stands for psychological proximity, that is, the *feeling* of closeness, where closeness can be, for example, temporal or spatial. As they point out, an emotion-inducing situation (e.g., someone's death) that is close in time tends to be more intense than an emotion-inducing situation that is more remote. Proximity can also be social: when a family member or friend dies, the intensity of your sadness is bigger than when a relatively or completely unknown person dies.

In the examples in (5) and (6), intensity triggered by social proximity is reflected in the build of Tegelen Dutch. A masculine (i.e., deviant) pronominal form is chosen by a speaker for reference to a female person, if the speaker feels socially close (positive valence) to that person. Following Déchaine and Wiltschko's (2002) proposal that pronouns can have a

layered internal syntax — [DP D [ΦP Φ [NP N]]] — I propose that *'m* in (5) is a deviant manifestation of so-called ΦP, which is the locus of person, number and gender features within the pronominal structure.

An example of noun phrase internal *space-based* indexation of affective information is given in (7), where the demonstrative pronoun *die* 'that[-neuter]' occurs in an unexpected position:

(7)   a. Ha **die** *Jan*! Hoe is 't?

       hey that Jan! how is it?

       'Hi Jan! How are you?'

     b. **Die** Jan toch! Wat een deugniet!

       that Jan PRT! what a rascal

       'Jan, he is such a little rascal!'

In these examples, the demonstrative determiner *die* precedes the proper name *Jan*. Normally, demonstratives and other types of determiners do not precede the proper name in (standard) Dutch: *Ik heb (*die/*de) Jan gezien* 'I saw Jan'. In Southern Dutch dialects, though, you do find noun phrases in which a definite article precedes the proper name, as in Kempenland Dutch *de Cie^j* (the Lucia, 'Lucia') and *den Tei* (the Tei, 'The(odorus)'); see De Bont (1958:377). In line with Longobardi's (1994) analysis of proper names, a proper name like *de Cie^j* can be assigned the following analysis: *[DP de [NP Cie^j]]*, where *de* is an expletive article. In Standard Dutch, the determiner position (D) remains empty, as in *[DP Dø [NP Jan]]*. Suppose now that *die* in (7) is a realization (spell out) of the D-position: *[DP die [NP Jan]]*. More specifically, *die* could be interpreted as a phonologically strong and consequently emphatic realization of the definite article.[35] The appearance of *die* before the proper name has a high surprise value (i.e., indexes unexpectedness), since it involves a violation of a linguistic expectation: the hearer does not expect a proper name after *die*.

A second illustration of *space-based* indexation of affective information within the noun phrase comes from the use of the indefinite article *een* 'a'. Normally the indefinite article *een* combines with a singular count noun, as in *een jongen* 'a boy'. Combining it with a proper name, plural noun or singular mass noun is generally excluded: **een Jan* (a Jan, 'Jan'), **een*

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[35] Historically, the definite article *de* (a weak form) derives from the stronger form *die*. Possibly, the element *die* in the constructions in (7a,b) is another instance of a phonologically strong definite article.

jongens (a boys, 'boys'), **een spinazie* (a spinach, 'spinach').[36] Interestingly, in so-called N-*van*-N constructions (see Bennis et al 1998), these sequences are well-formed, as is illustrated in (8):[37]

(8)   a. die kluns van **een** Jan

        that fool of a Jan

      b. die etters van **een** jongens

        those jerks of a boys

      c. een pracht van **een** spinazie

        a beauty of a spinach

Thus, the pattern *een* + N$_{proper\ name/plural/mass}$, which normally constitutes an illegitimate pattern (i.e., features an LF-uninterpretable symbol), is legitimate when the containing linguistic expression has an affective meaning. Clearly, the N-*van*-N-construction displays this affective meaning: the first noun represents the speaker's evaluation of (i.e., attitude towards) the individual or object designated by the second noun. As is clear from the examples, this noun can have a negative valence (*kluns*, *etters*) or a positive valence (*pracht*).

    The question arises how to analyze the unexpected indefinite article *een* in (8). Following Longobardi (1994), I propose that bare nouns like *Jan* (as in *Ik ontmoette Jan*, 'I met Jan'), *jongens* (as in *Er liepen jongens in de tuin* 'Boys were walking in the garden.') and *spinazie* (as in *Ik at spinazie* 'I ate spinach') are full-fledged DPs whose D-head is empty: *[$_{DP}$ D$_{ø}$ [$_{NP}$ Jan/jongens/spinazie]]*. Longobardi proposes that an empty D-head is associated with an indefinite interpretation (i.e., an existential reading). He further proposes that the definite interpretation of the bare noun *Jan* is obtained by N-to-D movement in overt syntax or at LF.

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[36] A reviewer points out that nouns such as *Jan* and *spinazie* can be used as count nouns when they refer to 'a particular Jan' or 'a particular kind of spinach'. (i) illustrates this use for the proper name *Jan*:

(i)   A: Was Jan daar ook?
           was Jan there too
      B: Er was een Jan, maar niet de Jan die jij bedoelt.
           there was a Jan but not the Jan who you have.in.mind

[37] In Bennis et al (1998), this indefinite article is called the 'spurious indefinite article' (see also Den Dikken 2006). As they point out, it is an element that belongs neither to the preceding noun nor to the following noun. This is very clear from example (8b), where both the preceding and following noun have a plural form. Bennis et al (1998) analyze the spurious indefinite article as a DP-internal small clause head (called Relator-head in Den Dikken 2006), which mediates in establishing a predication relation between the subject (*Jan* in (8a)) and the nominal predicate (*kluns* in (8a)). Thus, (8a) starts out as *[$_{XP}$ Jan$_{SUBJ}$ [$_{X'}$ een [kluns]$_{PRED}$]]* and ends up as *[$_{DP}$ die [$_{FP}$ kluns$_j$ [$_{F'}$ van+een$_i$ [$_{XP}$ Jan$_{SUBJ}$ [$_{X'}$ t$_i$ t$_j$]]]]]* as a result of (i) predicate inversion of *kluns*, (ii) head movement of the spurious indefinite article to a DP-internal functional head F, and (iii) spell out of F as *van*, which is taken to be a nominal copula.

If N is in D, D is no longer empty, and, as a consequence of that, the noun phrase is no longer interpreted existentially. Adopting Longobardi's DP-analysis of bare nouns, I propose that *Jan*, *jongens* and *spinazie* in (8) are DPs as well. Thus, they have the following structure: *[die N van [$_{DP}$ D [$_{NP}$ N]]]*.[38] The deviant property of this affective nominal expression regards the realization of the D-head: *een* lexicalizes D in the wrong structural environment. More precisely, if the indefinite article *een* encodes properties such as indefiniteness, singularity, and countability, its appearance before *Jan* (definite), *jongens* (plural) and *spinazie* ([-countable]) departs from regular nominal syntax.

I will now turn to another phenomenon that illustrates the indexation of affective information by means of linguistic deviation. The deviation regards the element that introduces an exclamative relative clause hat modifies a vocative noun phrase (see also Corver to appear).[39] The pertinent phenomenon is exemplified in (9):

(9) a. Kluns$_{[common-gender]}$ die / **dat** je bent!

  fool who / {that/which} you are

  'You are such a fool!'

  b. Klunzen$_{common-gender]}$ die / **dat** jullie zijn!

  fools who / {that/which} you are

  'You are such fools!'

These examples show that the (common-gender; i.e., non-neuter) antecedent noun can be followed by a relative clause that is introduced either by *die* or by *dat* (see also Paardekooper 1963).[40] The use of *die* 'who' is expected: it is a relative pronoun that agrees in gender and number with the antecedent noun (*kluns/klunzen*). It is the use of *dat* which is quite surprising (i.e., deviant): the antecedent noun *kluns* has common gender and consequently requires the presence of the relative pronoun *die* at the beginning of the relative clause, as in *de kluns die/*dat ik ontmoet heb* ('the fool who I met'). Furthermore, plural antecedent-nouns always require the presence of the relative pronoun *die*, as in *de klunzen die/*dat ik ontmoet heb* ('the

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[38] For reasons of space, I leave the intriguing question about the status of *van* largely undiscussed here. See Den Dikken (2006: chapter 5) and Bennis et al (1998) for elaborate discussion.

[39] For a cleft-like analysis of the examples in (9), see Van linden and Van de Velde (2014).

[40] The relative clause is typically a copular construction featuring the copula 'to be'. This relative clause does not seem to contribute any/much additional semantics; at least not in the way a regular restrictive relative clause does, as in *de man die ik ontmoette* (the man that I met). In a way, the copular relative construction repeats the information contained in the antecedent, which results in an emphatic reading (see also Paardekooper 1963:164).

fools who I met'). Thus, the use of *dat* in these exclamative relative constructions seems to be marked or unexpected.[41]

The question arises how to analyze this deviant use of *dat*. One line of analysis would be to say that *dat* is a declarative subordinator (i.e., C), as in (10a). Under such an analysis, the relative operator (REL) in Spec,CP remains phonologically unrealized. Normally, Dutch, as opposed to English, does not allow a relative clause to be introduced by a subordinator. Given the unusual location of the subordinator, its appearance at the beginning of the exclamative relative clause could be qualified as *space-based* indexation of affective information. Alternatively, one might propose that *dat* is a neuter relative pronoun, as in (10b). In that case, deviation regards the form of the relative pronoun, and we would, consequently, have an instance of *symbol-based* indexation of affective information. Normally, the relative pronoun agrees in number and gender with the antecedent noun, as in (10c). Possibly, the use of the deviant singular neuter pronominal form *dat* triggers a negative/pejorative meaning, just as with the neuter demonstrative pronoun in (3).

(10) a. [kluns$_{[-neuter, +sg]}$ [$_{CP}$ REL$_i$ [$_C$ dat] [$_{TP}$ je t$_i$ bent]]]   (see (9a))

   b. [kluns$_{[-neuter, +sg]}$ [$_{CP}$ dat$_{[+neuter, +sg]/i}$ [$_{C'}$ C$_\varnothing$ [$_{TP}$ je t$_i$ bent]]]]

   c. [kluns$_{[-neuter, +sg]}$ [$_{CP}$ die$_{[-neuter, +sg]/i}$ [$_{C'}$ C$_\varnothing$ [$_{TP}$ je t$_i$ bent]]]]   (see (9a))

As Paardekooper (1963) points out, an analysis according to which *dat* is a neuter relative pronoun is not entirely implausible. As he points out, its appearance in (9) possibly follows from the fact that the relative pronoun has the function of predicate nominal within a copular construction. As shown by the Dutch examples in (11), the pro-form *dat*, functioning here as

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[41] A reviewer raises the question whether the use of the neuter-pronominal form *dat* could be the result of a process in which one form of the available relative pronouns becomes the 'default' and replaces all other relative forms. The use of *dat* in (9) would then be an early attestation of this development. In that case, it would not be a deviant use but rather a progressive use. Although this line of analysis deserves further investigation, there do not seem to be strong signs that hint in the direction of this default use of *dat*. For example, one would expect copular relative clauses to form excellent structural environments for the appearance of this default relative pronoun *dat* (see the discussion of (11)). It turns out, however, that the use of *dat* as a predicate nominal relativizer is completely blocked:

(i)   Jan bleef de eikel [*die / *dat* hij was]
       Jan stayed the jerk who$_{[-neuter]}$ / which he was

It should further be noted that the use of the Maastricht Dutch subordinator *tot* in constructions like (9) is robust and does not seem to have changed in the course of time (for Maastricht Dutch *tot*, see the final paragraph of this section). The judgments of my Maastricht informants correspond to those given in Shepherd (1946). That is, *tot* is used in exclamative relative clauses like (9) but is impossible in "normal" relative clauses. In other words, there do not seem to be signals of extended use of the subordinator *tot* in relative clauses.

a demonstrative pronoun, can fulfill the role of predicate nominal. Note that it is possible for neuter demonstrative *dat* to substitute for a predicate nominal headed by a common (i.e., non-neuter) singular noun (*kluns*) or a plural noun (*klunzen*).

(11) a. A: Ik ben *een kluns.*　　B: *Dat* ben je zeker!

　　　　　　I am a fool　　　　　　　that are you for.sure

　　b. A: Jullie zijn *klunzen.*　　B: *Dat* zijn we zeker!

　　　　　　you are fools　　　　　　　that are we for.sure

In view of the facts in (11), the appearance of a neuter relative pronoun *dat* in (9) is not entirely unexpected. What remains surprising (i.e., deviant), though, is that a neuter relative pronoun can take a [-neuter] noun or a plural noun as its antecedent. As Paardekooper also notes, this seems to be the only instance of a relative construction in which antecedent and relative pronoun do not (have to) match as regards their phi-features. In short, in this analysis, deviation resides in the form of the relative pronoun.

　　The question arises which analysis to adopt for the patterns in (9): the *dat = complementizer* analysis (10a) or the *dat = relative pronoun* (10b) analysis? For Standard Dutch, it turns out to be quite difficult to decide which analysis is the correct one. Certain varieties of Dutch, however, turn out to be more transparant. For example, in Maastricht Dutch (and other Southern varieties of Dutch), the complementizer 'that' is formally distinct from relative pronouns, viz., *tot* 'that' (= complementizer) versus the relative pronominal forms: *dee* masc.sg., *die* fem.sg., *wat/dat* neut.sg., *die* plural (Shepherd 1946).[42] As noted in De Rooij (1967), Maastricht Dutch uses the complementizer *tot* in constructions like (9). Thus, Maastricht Dutch displays the (deviant) pattern in (10a). If Standard Dutch resembles Maastricht Dutch, the element *dat* in (9a,b) must be analyzed as a complementizer, which would qualify the occurrence of *dat* in (9) as an instance of space-based indexation of affective information: the complementizer *dat* occurs in a structural environment where it is normally not attested.

4.2 Diminutives: deviation in the adjectival and pronominal domain

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[42] For information about the grammar of Maastricht Dutch, see also http://www.mestreechtertaol.nl.

This section discusses a deviant linguistic property within the adjectival domain, viz., the appearance of the diminutive suffix *-je* on adjectives. I will discuss one more marked appearance of this suffix, viz., its appearance as a suffix on a personal pronoun.

Normally, the diminutive suffix attaches to a noun, as in *huis-je* (house-DIM, 'little house') and *vachtje* (fur-DIM, little fur). As shown in (12), it is also possible, however, to attach the diminutive suffix to an adjective. In that case, the diminutive expresses a slight degree (say, 'a bit') of the meaning associated with the adjective. Furthermore, the presence of *–je* on the adjectival root is often characterized as adding an affective/expressive flavor to the adjectival expression (see Haeseryn et al 2009:395, De Vooys 1967:202).[43] I assume that it is the unusual (namely, AP-internal) placement of the diminutive morpheme which indexes affective information; so-called *space-based* indexation.

(12) a. Doe 's zacht*je*s!

  do PRT silent-DIM-s

  'Don't make too much noise!'

 b. Open de deur voorzichtig*je*s!

  open the door careful-DIM-s

  'Open the door carefully!'

The question arises how to analyze the diminutive suffix; that is, where does it occur in the morphosyntactic representation? In view of the complementary distribution of the bound comparative morpheme *-er* and the diminutive suffix *-je*, as exemplified in (13a), it does not seem implausible to analyze *-je* as a realization of the Q(uantifier)-head within the extended adjectival projection (see (13b)), i.e., the head that is associated with positive and comparative degree (see Corver 1997a,b).[44] The forms *zachter* and *zachtjes* are derived by

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[43] One reviewer finds the form *voorzichtigjes* ungrammatical and argues that *zachtjes* is a grammaticalized form which is part of a very small paradigm of manner adverbs. As for the form *voorzichtigjes*, a *Google* search (date: September 8, 2016) for this item yielded 4.700 hits. Thus, for many Dutch speakers, including myself, the form *voorzichtigjes* is possible. As regards the "size" of this class of adverbs, I note that this class is less small than it appears to be at first sight. It includes, among others, forms such as *liefjes* ('kindly'), *gezelligjes* ('intimately'), *luchtigjes* ('lightly/loosely'), *stoertjes* ('sturdily'), *vlotjes* ('easily/smoothly'), and *stiekempjes* ('secretly'), which all have a manner-like meaning. But this adverbial pattern is also found with a non-manner interpretation: *eventjes* ('just/for a moment'), *saampjes* ('together'), *(erg) alleentjes* ('(very) lonely'). In Diepeveen (2012), it is shown that this class of adverbs is actually quite large.

[44] Observe that *–je* can combine with a superlative morpheme, as in *Jan reed het zachtjest*, 'Jan drove most slowly', where *zachtjest* has the internal make up: *zacht-je-st* (slow-DIM-SUPERL). This suggests that the superlative morpheme (*-st*) is associated with a different syntactic position than the comparative morpheme (*-er*); see Bobaljik (2012).

moving and adjoining the adjectival head *zacht* to the Q-head, which is occupied by *-er* and *-je*, respectively:

(13) a. Jan rijdt nu $^{?*}$[nog zacht-**je-s**-*er*] / *[nog zacht-*er*-**tje-s**] / [nog zacht-*er*]

       Jan drives now even slow-DIM-s-COMPAR / even slow-COMPAR-DIM-s / even slow-

       COMPAR

    b. [$_{QP}$ [$_Q$ -er / -jes] [$_{AP}$ zacht]]

As shown in (14), the free comparative morphemes *meer* 'more' and *minder* 'less' cán combine with an adjective carrying the diminutive suffix.

(14)   a. Jan rijdt nu [*minder* zacht-*je*-**s**].

       Jan drives now less slow-DIM-s

       'Jan drives a little less slowly now.'

    b. Jan doet tegenwoordig [iets *meer* kalmpjes] aan.

       Jan does currently somewhat more calm-DIM-s PRT

       'These days Jan slows down a bit more/is working less hard.'

Suppose these free morphemes are associated with the specifier position of QP, as represented in (15), and not with the head-position (i.e., Q). I assume that, just like the synthetic comparative form *zachter*, the forms *zachtjes* and *kalmpjes are* derived by movement and adjunction of A (*zacht/kalm*) to Q (*-je*).

(15) a. [$_{QP}$ minder [$_{Q'}$ [$_{Q[+compar]}$ -je] [$_{AP}$ zacht]]]

    b. [$_{QP}$ meer [$_{Q'}$ [$_{Q[+compar]}$ -je] [$_{AP}$ kalm]]]

As shown in (16), the expressive diminutive suffix also appears on personal pronouns in certain varieties of Dutch (examples from Lommel Dutch; Janssen 1991). In standard Dutch, such a pattern is impossible: **hem-ke-s* (him-DIM-s).

(16) a. Zie *humkes* daar eens staan te blêten!

       see him-DIM-s there PRT stand to shout

       'Look how this guy is shouting!'

    b. *Humkes* zal ook 'ns iet zeggen, zalle!

him-DIM-s will also PRT something say, man

'Man, he will finally say something!'

The diminutive suffix in (16) does not designate smallness in the literal (i.e., physical) sense (i.e., *humkes* does not refer to a small male person), but rather smallness in a more figurative (i.e., depreciative) sense. Thus, the speaker uses this suffix to express his (negative) attitude towards the individual designated by the third person pronoun. The deviant nature of *humkes* in (16) has two sides: as regards the internal structure of the pronoun, it is remarkable that a diminutive morpheme combines with a *pro*-noun; normally, the diminutive only attaches to a *noun*. As regards the external syntax (distribution), (16b) tells us that the object-pronominal form *humkes* can occur in subject position (i.e., the position normally associated with nominative case).

Let me try to be more specific about the deviant internal structure of the pronominal form *humkes*. Following again Déchaine and Wiltschko's (2002) proposal that pronominals have internal structure, I tentatively propose the structure in (17) for *humkes*: *hum* is the realization of the phi-features (i.e., 3rd person masculine singular) and *–ke* is the manifestation of a categorial *n*-head. This analysis of the diminutive suffix is in line with Wiltschko (2005)'s analysis of the German diminutive suffix *-chen*, as in *das Pferd-chen* (the$_{neut}$ horse-DIM, 'the little horse'). She argues that *-chen* is akin to a numeral classifier like *Stück* ('piece'), as in *12 Stück Vieh* (12 piece cattle), and that these classifiers are best analyzed as light nouns which take full nouns as their complement. Thus: *[$_{nP}$ Stück [$_{NP}$ Vieh]]* and *[$_{nP}$ -chen [$_{NP}$ Pferd]]*, where, in the latter case, *Pferd* raises and adjoins to the bound diminutive morpheme in order to form a complex word. Extending this analysis to *humkes* in (16) gives us the following structure:[45]

(17) [$_{DP}$ D [$_{\Phi P}$ hum [$_{nP}$ -ke [$_{NP}$ *pro*]]]]

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[45] Interestingly, just like the diminutive *-je/-ke*, a classifier noun like *stuk* can also be used in affectively colored nominal expressions. Consider, for example, the italicized expressions in (i), where *stuk* combines with an abstract mass noun.

(i) *Het stuk verdriet/ongeluk/tuig/ellende/schorriemorrie* verliet boos de kamer.
     the piece sorrow/mishap/scum/misery/scum left angry the room
     'That piece of shit/scum left the room angry.'

Being a light noun, the diminutive suffix normally combines with a full lexical noun, as in German *Pferd-chen* and its (Standard) Dutch equivalent *paard-je*. The deviation in (17) resides in the appearance of *-ke* before a non-lexical NP-complement.

So far, I haven't said anything about the *-s* at the end of *zachtjes* (12a) and *humkes* (16). I tentatively propose that that *-s* corresponds to a genitival case, which, in line with Pesetsky (2013), I take to be an affixal categorial head. Specifically, if we assume that the diminutive suffix *-je/-ke* is a nominal element and if we assume with Pesetsky (2013) that nominal elements are "born genitive", then possibly this remarkable *-s* can be analyzed as an exceptional spell out of genitival case (i.e., affixal N) on the diminutive nominal element itself; that is, $[_{QP}$ *[[$_Q$ -je]+Q$_{aff}$ (= -s)]* $[_{AP}$ *zacht]]* for *zachtjes* (A-to-Q movement not being represented), and $[_{DP}$ *D* $[_{ΦP}$ *hum* $[_{nP}$ *[[-ke]+n$_{aff}$ (= -s)]* $[_{NP}$ *pro]]]]* for *humkes*. In a way *-s* augments the deviant diminutive suffix, possibly to emphasize its expressive nature.[46]

4.3 Deviations in the clausal domain

Departures from a regular grammatical pattern are also attested in the clausal domain. A first illustration of the unexpected use of a linguistic symbol comes from the subordinator *dat* 'that' in exclamative (main) clauses. Normally, the subordinator *dat* only occurs at the beginning of an embedded declarative clause, as shown in (18).

(18) a. Ik denk **dat** Jan boeken gelezen heeft.

      I think that Jan books read has

      'I think that Jan read books'.

   b. *****Dat** Jan boeken gelezen heeft.

      'Jan read books.'

As exemplified in (19), however, exclamative (root) clauses can have the subordinator *dat* in a position (arguably, the C-position) that is normally occupied by the finite verb in main clauses; compare (19a) and (19b); see also Corver 1990, Bennis 1998. The occurrence of the subordinator *dat* in exclamative main clauses can be characterized as *space-based* indexation

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[46] Possibly, we find this same augmentative *-s* in the Dutch emphatic affirmative expression *welles!* (sure-*e-s*, 'absolutely') and the emphatic negative expression *nietes!* (not-*e-s*, 'absolutely not!').

of affective information: the subordinator *dat* occurs in a position —namely a root (i.e., non-embedded) clause— where it normally does not occur.

(19) a. Een boeken **dat** Jan gelezen heeft!

      a books that Jan read has

      'How many books Jan read!'

   b. Een boeken **heeft** Jan gelezen!

      a books has Jan read

      'How many books Jan read!'

Observe that the exclamative noun phrase *een boeken* (a books; 'what a large number of books!') precedes the subordinator. Arguably, this noun phrase occupies the specifier position of C, as in (20).

(20)   [$_{CP}$ een boeken$_i$ [$_{C'}$ [$_C$ dat] [$_{TP}$ Jan t$_i$ gelezen heeft]]]

Some further illustrations of constructions in which a subordinator introduces a root (i.e., non-embedded) clause are given in (21). The phenomenon exemplified here is known as 'insubordination;' see Evans (2007), Foolen (1997, 2012), Bogaart and Verheij (2013), Van linden and Van de Velde (2014). Since the subordinator occurs in an unexpected structural environment, namely the initial position of a root clause, the indexation of affective information may be characterized as being *space-based*.

(21) a. **DAT** je het maar laat!

      that you it but stop

      'Don't dare to do it!'

   b. **DAT** je het maar weet!

      that you it but know

      'You'd better be aware of it!'

   c. En **OF** ie het begreep!

      and whether he it understood

      'He definitely understood it! Don't worry about that!'

As indicated by small capitals, the subordinators carry accent, which is another deviant property (a *symbol-based* one), since normally subordinators are unaccented. I assume the accent on the subordinator emphasizes the presupposedness of the propositions 'you won't do it' / 'you know it' in (21a,b). To put it informally, what the proposition states really is a fact. Something similar seems to be going on in (21c): *of*, which normally introduces an indirect *yes/no*-interrogative clause, has completely lost its interrogative meaning. As a matter of fact, the meaning associated with emphatic *of* is a strongly affirmative "yes"; see Bennis 1989, and Van linden and Van de Velde (2014) for further discussion.[47]

Another construction that features a grammatical deviation and consequently displays unexpected behavior is the exclamative wh-interrogative pattern in (22); see also Hachem (2015).[48]

(22) a. **Wat** sta je me nou aan te staren?!

     what stand you me now PRT to stare

     'Why the heck are you staring at me the whole time!'

  b. **Wat** loop je nou te niksen?!

     what walk you now to do-nothing

     'Why the heck are you doing nothing?!'

As shown by Postma (1994), the Dutch word *wat* can have a variety of meanings, depending on the position it occupies in the clausal structure. For example, in its base position as complement of V, *wat* functions as an indefinite quantifier carrying the meaning 'something', as in (23a). When it occurs in the left periphery of the clause (i.e., Spec,CP) after displacement has applied to it, *wat* typically has the meaning of a wh-interrogative element: *what?*, as in (23b).

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[47] This reminds us of De Groot's (1949:4) second "structural law of the sentence". According to this law, "The real purpose of a sentence is always expressed by its intonation. In case of conflict between the meaning of the words and the purpose of the intonation, the latter prevails;" (p. 4). One of the illustrations De Groot gives is the following: A child is hurt and exclaims: *Ouch!* The father is startled and asks: *Ouch?* In the last case the interjection, which means no question at all, is used to express a question. In a way, the intonation makes the exclamative meaning of the word *ouch* "inaccessible".

[48] This type of exclamative construction typically features semi-aspectual non-main verbs like *staan* 'stand', *zitten* 'sit' or *liggen* 'lie', which refer to a certain posture or position of the subject of the clause. These verbs indicate that we are dealing with an ongoing event. As such they typically combine with atelic verbs, that is, verbs that lack a natural end point. This explains the contrast between *De leerling zat te slapen* (the pupil sat too sleep, 'The pupil was sleeping') and **De pupil zat in slaap te vallen* (the pupil sat in sleep to fall, 'The pupil was falling asleep'). See Broekhuis & Corver (2015:1004-5). Possibly, the ongoing nature of the event contributes to the expressive flavor of this type of exclamative construction. For example, in (22a), the speaker expresses his surprise about the fact that the addressee keeps on staring at her.

(23) a. Jan heeft **wat** gekocht.

    Jan has what bought

    'Jan bought something.'

  b. **Wat** heeft Jan gekocht?

    what has Jan bought

    'What did Jan buy?'

Importantly, under both readings *wat* is interpreted as an argument of the verb; that is, it carries the Theme role assigned by the verb. Notice now that exclamative *wat* in (22) cannot be interpreted as an argument of the verb. In (22a), for example, *aanstaren* already has a Theme-argument (viz., *me*); consequently, *wat* cannot be interpreted as a direct object argument. Notice also (22b), where we have the intransitive verb *niksen*.[49] There is no way in which *wat* can be interpreted as the direct object of this verb. It seems likely, then, that this exclamative *wat* is base-generated in the left-periphery of the clause (Spec,CP), as in (24).

(24) [$_{CP}$ wat [$_{C'}$ sta$_i$ [$_{TP}$ je me nou aan te staren t$_i$]]]?!

Since normally, wh-items like *wat* end up in Spec,CP by means of a displacement operation, the base-generation of *wat* in Spec,CP in the exclamative patterns in (22) can be characterized as being deviant or marked. More specifically, it can be qualified as an instance of *space-based* indexation of affective information: the wh-word *wat* occurs in the left periphery of an interrogative-exclamative clause without being connected to a clause-internal trace position (a "variable").

Let us move on to another syntactic pattern that deviates from expectation: main clauses that lack a finite verb but feature an infinitival verb (also known as 'root infinitival clauses'). Consider, for example, the sentences in (25); example (25b) from Overdiep (1937:371)). Observe that (25a) features a bare infinitive (*doorgaan*), while (25b,c) have a *te*-infinitive (*te maken, te durven*).

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[49] That *niksen* is intransitive is suggested by the fact that it cannot combine with a direct object noun phrase: **Jan nikste dit.* (Jan did-nothing this) **Wat heb je vandaag genikst?* (what have you today done-nothing). One might, however, develop an analysis along the lines of Hale & Keyser (1993) according to which *niksen* derives from a phonologically empty light verb 'doen' ('to do') in which the bare nominal *niks* 'nothing' is incorporated. Crucially, under both analyses *wat* in (22b) cannot be interpreted as an argument of the verb.

(25) a. En maar **doorgaan** met pesten! Vind je dat leuk?

     and but continue with to.tease! find you that nice

     'You keep on teasing. Do you think that's nice?'

   b. Wat mankeert je? Mij wakker **te maken**!

     what is-wrong you? me awake to make

     'What's wrong with you? Waking me up!'

   c. En dan **te durven** beweren dat ie het niet gedaan heeft!

     and then to dare claim that he it not done has

     'And then he even dares to say that he didn't do it!'

Normally, root clauses have a finite verb. A sentence like (25a), for example, has the following finite counterpart: *Je gáát maar door met pesten!*, where *gaat* is the finite verb. These infinitival root clauses are typically uttered by a speaker who is irritated, angry or surprised at someone (e.g., the addressee) or someone's actions. By using a "deviant" pattern (i.e., a root clause without a finite verb), the speaker assigns a high information value to the utterance.

4.4 Deviation as a PF-phenomenon: unexpectedness and late insertion

On the basis of a number of phenomena from Dutch (varieties), I have tried to show so far that affect can be encoded in the build of human language by disorganizing a regular pattern. The disorganizing property (the "imperfection") of a linguistic expression induces an affective/expressive interpretation. In a way the speaker leaves his personal mark/color (subjectivity) on the linguistic expression by adding something unexpected. It is the unexpected linguistic property that indexes (symbolizes) 'high quantity of information' (see section 3.4). From the speaker's perspective, this high quantity of information regards her evaluation of (or attitude towards/surprise at) the contents (thought: event/individual/…) represented by the linguistic expression. From the hearer's perspective, the imperfect property is also interpreted as an index of 'high quantity of information'.

   As we saw above, affective coloring often involves the functional system of human language (see Pos's inverse use of functional material; section 2); that is, functional categories such as *een* 'a', *die/dat* 'that' (demonstrative), *dat* 'that' (subordinator), *wat* 'what', infinitival T (i.e., a T unspecified for tense and agreement properties), diminutive *-je*. As I already hinted at in section 3.2, it does not seem very attractive (i.e., very explanatory) to

mark the affective flavor of a functional category by means of some expressive/affective feature (say, $F_{[+affect]}$). That is, the distinction between the regular indefinite article *een*, as in *een jongen* 'a boy', and the expressive/affective *een*, as in *die etter van een Jan* 'that jerk Jan', should preferably not be coded in terms of two distinct lexical entries, say: *een* [+indefinite, + singular] versus *een* [+indefinite, + singular, + affect]. In other words, it does not seem plausible to double the lexicon by adding functional items with some affective feature. Instead, I would like to propose that the affective/expressive reading results from insertion of a lexical item (a computational atom) into a syntactic (*in casu* functional) position where it cán occur in principle (i.e., the lexical item is of the right "type") but where it does not match with its structural surroundings (the "spatial" context in which a symbol occurs). That is, it is in the wrong linguistic environment. For example, *een* can realize D, as in *[DP een [NP man]]*, but there is an environmental mismatch when the noun is a proper name, as in *[DP een [NP Jan]]* as part of the larger noun phrase *die etter van een Jan*. Another example: the subordinator *dat* can introduce an embedded clause, but normally it is not found in the context of a relative clause; see (9).

   Of course, the question arises as to how this insertion process works. One way of approaching this lexical insertion issue is the following: a lexical item (symbol) is inserted in the right locus (i.e., place occupied by the lexical item) but in the wrong structural environment (configuration). Specifically, in line with the framework of Distributed Morphology (see e.g., Halle & Marantz 1993, Harley and Noyer 1999, Marantz 2001), I assume that there is no such thing as the Lexicon, which is traditionally conceived of as the storage place of words, where a word is a constellation of sound information (e.g. /kæt/), lexical-semantic information (say, 'feline animal often kept as a pet'), and formal-grammatical information (e.g., N/n; i.e., of the categorial type noun). Rather, these different types of "lexical" information are spread out (distributed) over different components:[50] (A) a language-internal component which stores the formal grammatical features of a specific language (e.g., [+/- Tense], [+/- definite], [+/- common gender], [+declarative], et cetera); (B) a language-internal component called the Vocabulary, which lists the arbitrary correspondences between sound and meaning; and (C) a language-external component called the Encyclopedia, which provides the real world knowledge we have about words (e.g., their referents, their special meanings, or their membership in idioms). Each component has its own function: the first component provides the computational atoms (building blocks) for the

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[50] One could also say that the lexicon is a system with a modular structure.

syntactic derivation. This implies that syntax only manipulates formal morpho-syntactic features in order to generate a syntactic representation, which is essentially a hierarchically organized constellation of grammatical features. The Vocabulary component provides the Vocabulary Items (VI; pieces of phonology; sound signs) that (phonologically) spell out the abstract atoms that make up the syntactic object.[51] Thus, vocabulary items are inserted post-syntactically; i.e., after the syntactic representation has been built. The Encyclopedia, finally, represents the real world knowledge we have about words and (presumably) is not accessed during the syntactic derivation of a linguistic expression.

Schematically, this division of (lexical) labor can be represented as in (26), where I ignore the information provided by the Encyclopedia:

(26) a. $[_{CP}$ $C_{[declarative]}$ $[_{TP}$ $[_{DP}$ $D_{[def]}$ $[_{NP}$ N$]]$ $[_{T'}$ $T_{[present;3P.Sg.]}$ $[_{vP}$ V$]]]]$ (syntactic structure)

       $\Downarrow$ $\Downarrow$ $\Downarrow$ $\Downarrow$ $\Downarrow$

     b.   that   the   man   -s   sleep   (vocabulary items = sound)

Thus, the terminal node comprised of the categorial feature D and the formal feature [definite] gets realized (spelled out) by the overt phonology corresponding to *the*. A similar mapping onto sound applies to the other terminal nodes.

An important principle governing the insertion of vocabulary items (VI) into terminal nodes is the so-called Subset Principle. This principle states the following: when two VIs are in competition for insertion into a terminal node Y, the VI which is specified for the largest number of features present in the target terminal node will win the competition. So if we assume that the difference between the determiners *the* and *a* is that *the* is specified for [definiteness], while *a* is not (i.e., *a* is only specified for the categorial feature D), then *the* wins the competition for insertion into the terminal slot $D_{[def]}$. Importantly, both articles are eligible for insertion, but *the* simply has a better match than *a* does.

Taking this approach towards vocabulary insertion as our background, I would like to propose that affective information (specifically the information 'unexpectedness') results from two related factors: (A) the insertion of a non-optimally matching VI in a terminal slot, and, (b) —as a result of (a)— the appearance of this VI in a non-matching linguistic environment. This non-optimal PF-realization (Spell-out) of (syntactic) terminal nodes is schematically represented in the Table in (27) for some of the constructions discussed in sections 4.1 - 4.3.

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[51] This is why DM is called a Late Insertion model.

(27)

construction	optimal VI	non-optimal VI
Dat gaat allemaal maar ... (3a)	$D_{[-neut]} = die$	$D = dat$
Ich had *'m* lang neet mier gezéen (5a)	$\Phi_{[+fem,+sg,+3rd]} = eur/ze$	$\Phi_{[+fem,+sg,+3rd]} = 'm$
die Jan (7a)	$D = ø$	$D = die$
die kluns van *een* Jan (8a)	$D = ø$	$D = een$
Kluns *dat* je bent! (9a)	$C_{[+relative]} = ø$	$C_{[+relative]} = dat$
Doe 's zacht*jes*! (12a)	$Q = ø$	$Q = -je$
humkes (16a)	$n = ø$	$n = -ke$
Een boeken *dat* Jan gelezen heeft! (19a)	$C_{[root\ clause]} \rightarrow$ finite verb in C as a result of Verb Second	$C_{[root\ clause]} = dat$
Wat sta je me nou aan te staren?! (22a)	$Spec,C_{[+interrogative]} \rightarrow$ displaced wh-item	$Spec,C_{[+interrogative]} \rightarrow$ base-inserted wh-item *wat*
En maar *doorgaan* met pesten! (25a)	$T_{[root\ clause]} =$ finite morphology (*doorgaat*)	$T_{[root\ clause]} =$ inf. morphology (*doorgaan*)

Recall that vocabulary items are inserted post-syntactically; i.e., after the syntactic representation has been built. This means that these affect-inducing symbols (non-optimal VIs) play "their affective role" (markers of unexpectedness) only at the level of externalization.[52] This is in line with the view expressed earlier that "the peripheral systems are the primary means of conveying social and emotional information, and the grammatical mechanism is the primary means for conveying referential and cognitive information"; (Labov 1984: 43).

5. Linguistic markers of intensity: some examples from Dutch

[52] See Chomsky (1965:78-79) for two possible approaches towards grammatical deviations (so-called semi-grammatical sentences) like *Misery loves company* (see section 3.2). One approach would be to "relax" the selectional restrictions in syntax; that is, syntax generates a syntactic representation that violates a syntactic constraint. According to the other approach, the incongruity is determined at the syntax-semantics interface: the semantic component interprets *misery* (as agent of *love*) as semantically deviant.

Intensity (Spinoza's strength of emotion) is a core ingredient of the expression of emotion (see Ortony et al 1988: chapter 4, Frijda 2007: chapter 6). In Spinoza's terms, the strength of an emotion is its degree of being a passion. The term 'degree' indicates that intensity is a gradient feature. It operates on a scale centered around a zero (or unmarked/neutral) value, with both positive (increased intensity) and negative (decreased intensity) poles (see Labov 1985). As such, intensity of emotion can be characterized as a deviation from a neutral (non-emotional) mental state.

The question arises how intensity is expressed linguistically. Of course, intensity can be expressed by using a degree word that has a (high) degree reading, as *erg* 'very' in *erg groot* 'very tall' and *enorm* 'enormously' in *enorm sterk* enormously strong', or by using a verb like *balen* 'be fed up', which has a highly negative meaning. In such expressions, intensity is expressed at the level of thought (in informal terms: what you say). In what follows I will discuss a number of linguistic phenomena from Dutch that mark intensity in the (linguistic) way in which information is expressed (in informal terms: how you say it). I will start my discussion with the encoding of intensity at the level of phonology (section 5.1) and continue with (morpho)syntactic ways of encoding intensity (see section 5.2). Recall from section 3.5 that I distinguished three procedures for indexing high amount of information: (i) space-based indexation, (ii) symbol-based indexation (e.g., formal augmentation of a symbol), and (iii) indexation by duplication (e.g., spreading out of a symbol). In what follows, I will show how the last two procedures are involved in the linguistic expression of intensity.

5.1. Intensity via sound

In section 3.1, I introduced Chomsky's (1986) principle of Full Interpretation. According to that principle, every element of a PF-representation and every element of a LF-representation must be interpretable (legible) at the interface with the (mental) language-external systems that the language system interacts with (e.g., the Sensorimotor system for PF-elements and the Conceptual-Intentional system for LF-elements). If intensity is (also) a property of the affect system, the question arises whether, and if so, how linguistic sound information (i.e. a PF-property in the PF-representation) is accessible to the affect system.

A good starting point for our discussion is Roman Jakobson's (1960:354) observation that language has sound information that does not fulfill so much a phonemic function but rather a more affective/expressive role. Jakobson gives the following minimal pair:

(28) a. John is [big]   (neutral/descriptive information)

    b. John is [bi:g] (i.e. bíííg!)   (emotive/affective information)

As Jakobson notes, "The difference between [big] and the emphatic prolongation of the vowel [bi:g] is a conventional, coded linguistic feature like the difference between the short and long vowel in such Czech pairs as [vi] 'you' and [vi:] 'knows', but in the latter pair the differential information is phonemic and in the former emotive." In other words, lengthening the English vowel [I] (i.e., applying a computational operation to the symbol [I] that extends the duration of the vowel) yields an affective/expressive interpretation. Specifically, it adds an intensifying meaning. Importantly, the lengthened vowel does not display any phonemic behavior; that is, it does not serve to distinguish one word from another word, as, for example, the vowels /I/ and /æ/ do in English *big* and *bag*, and the vowels /i/ and /i:/ in Czech *vi* and *vi:*. In other words, the lengthened vowel in (28b) is not distinctive at the descriptive-meaning level. One might also say that length is a phonemically vacuous sound property in (28b).

Also for Dutch, several illustrations can be given of this expressive role of certain sound properties. First, as shown in (29), consonants (often fricatives) can be lengthened.

(29) a. **S**chitterend!

    'Beautiful!'

   b. **Ssssss**chitterend!

    'Really, really beautiful!!!'

Crucially, lengthening (i.e., augmentation) of the fricative, as in (29b), does not alter the descriptive meaning of the word *schitterend* itself; that is, it still means "beautiful". In other words, at the phonemic level, lengthening of the fricative does not change the meaning of the adjective itself. However, the augmentation or stretching of the sound yields an emphatic/intensifying interpretation of the gradable adjective *schitterend*. In a way, lengthening formally marks the high degree of the gradable property associated with the adjective (see also Bolinger 1972: chapter 15, *Intensification by stretching*). Under the

assumption that (high) degree is associated with a functional head within the extended adjectival projection (e.g., the Deg(ree) head; see Corver 1997a,b), as in (30a), I propose that the high degree property associated with Deg gets spelled out phonologically on the adjective by means of lengthening of the fricative, as in (30b):

(30) a. [$_{DegP}$ Deg$_{[+high]}$ [$_{AP}$ schitterend]]

b. *Sssss*chitterend

A second illustration of the expressive role of certain sound properties is given in (31). As noted by Overdiep (1937:158-161), consonants (often fricatives) can become expressive by "sharpening", i.e., a [+voiced] fricative becomes [-voiced], as in (31a,b). Interestingly, this sharpening of the voiced consonant displays duplication (i.e. spreading) behavior (see (31c)); i.e., it applies to all the initial consonants (the onsets) of the attributive adjectival words.[53]

(31) a. **F**iés dat het er was!

dirty that it there was

'It was so dirty over there!'

b. 't Is toch zo'n **ch**óeie jongen!

it is PRT such-a good boy

'It is such a good buy!'

c. **F**ieze **f**uile **ch**ore kerel!

dirty dirty dirty man

'You dirty bastard!'

Interestingly, this sharpening is also found sometimes with dental consonants, as in the exclamative expression *te drommel!* (the deuce, 'what the devil!'), where *te* is actually a definite article (i.e., *de* 'the'). Here intensity is phonologically marked by the use of a voiceless dental stop instead of a voiced dental stop.

Thirdly, as noted in Overdiep (1937:158), some speakers of Dutch can use the bilabial stop /b/ instead of the bilabial (or labiodental) glide /w/ in affective colloquial speech; see the

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[53] The sharpening of the fricative is orthographically represented in the following way: *f* is used instead of *v* (so, *vies→fies*) and *ch* instead of *g* (so, *goeie→choeie*).

examples in (33) from Overdiep (*ibidem*). In a way, complete blocking of the airflow adds intensity to the linguistic expression.[54]

(32) a. **W**el ja!   ('neutral' speech)   (33) a. **B**è ja!   (affective, colloquial speech)

    PRT yes

    'Yes, certainly!'

  b. **W**el nee!   b. **B**èl neen!

    PRT no

    'No, certainly not!'

Fourthly, the glide /j/ in in the emotive (interjective) expressions 'jongen' (literally: boy) and 'jeemienee' can be "sharpened" as an alveo-palatal affricate /č/ (orthographically represented here as *tj*), an alveo-palatal fricative /š/ (orthographically represented as *sj*), or a combination of a dental stop /t/ and an alveo-palatal fricative /tš/ (tsj). These sharpened alternative realizations of the glide /j/, which are augmentations of /j/, do not seem to play any phonemic (distinctive) role in the sense that they do not change the meaning of the word (as opposed, for example, to the contrastive pair *jongen* ('boy') versus *tongen* ('tongues').

(34) a. **J**onge(n), jonge(n)! (disbelief)

    boy, boy

    'It's incredible!'

  b. **Tj**onge, jonge!

  c. **Sj**onge, jonge!

  d. **Tsj**onge, jonge!

(35) a. **J**eemienee!   (astonishment)

    'Gee!'

  b. **Tj**eemienee!

  c. **Sj**eemienee!

  d. **Tsj**eemienee!

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[54] Overdiep (1937:158, note 3) observes that in some varieties of Dutch the use of /b/ instead of /w/ is found in "normal" (i.e., nonaffective) speech. For example, Achterhoek Dutch has the form *boe* 'how' instead of the Standard Dutch form *hoe*, and Maastricht Dutch uses the form *boe* 'where' where Standard Dutch uses *waar* 'where'.

Fifthly, sound segments (especially in the onset) can sometimes be repeated (duplicated) in words that are uttered by speakers in states of astonishment, arousal or anger. This is exemplified in (36b) and (37b), where the labio-dental glide /w/ and the dental /d/ are iterated, respectively.

(36) a. **W**at?
    'What?'
   b. **W-w-w-w-w**AT?
    'What?'

(37) a. **D**'ruit!
    there-out
    'Out! Leave the room!'
   b. **D-d-d-d**'ruit!
    there-out
    'Out! Leave the room!'

As a final illustration of a sound phenomenon that arguably has a more expressive function, consider the following emotive expressions in which the vowel of the first part of the expression (*god*) and the vowel in *domme* match ("harmonize") in vowel quality. In comparison with these harmonizing patterns, the non-harmonizing patterns in (39) sound very strange to my ears. The repetition (duplication) of the vowel in (38) contributes to the expressive (i.e., intensive) flavor of these emotive expressions.[55]

(38) a. g**o**dverd**o**mme
    'goddamned!'
   b. g**a**dverd**a**mme
    meaning: rejection/abhorrance; e.g. upon seeing mouldy food
   c. g**e**dverd**e**mme
    meaning: rejection/abhorrance; e.g. upon seeing mouldy food

   d. g**oe**dverd**oe**me   (dialectal; Southern Dutch)
    'goddammit!'

(39)   *gedverdomme/*gedverdamme/*godverdemme/ etc.

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[55] See Corver (2014) for a discussion of repetition in Dutch curse expressions.

The above examples show a few things. First, manipulation of sound symbols can cause an affective/expressive meaning. Second, at a more descriptive level, some of these sound manipulations (strictly speaking, computations) can be characterized as being augmentative; (i.e., the size of the sound gets "bigger" as a result of lengthening or sharpening) or duplicative (i.e., a sound or sound feature "spreads out").[56] Third, these augmentative sound strategies show that sound information that is uninterpretable (illegible) at the phonemic level (i.e., the level of sounds that can differentiate descriptive meaning) can be interpretable at the expressive/affective level (i.e., the level of sound that corresponds to expressive/affective meaning). For example, the iterated sounds /w/ in (36b) have no phonemic meaning (e.g., *wat* 'what' does not change its descriptive meaning from 'what' into, for example, 'why' when /w/ is duplicated, as in *w-wat*); they contribute expressive meaning (intensity; *in casu* intensity of astonishment). In other words, these sounds are phonemically vacuous. One might also characterize them as expletive sounds.

5.2 Intensity via (morpho)syntax

Intensity can also be expressed by making use of the (morpho)syntactic build of language. In this section, I will discuss a number of morphosyntactic phenomena that do not seem to contribute to descriptive meaning but rather play a more expressive role. As we will see, the morphosyntactic strategies that we find in human language —illustrated here on the basis of Dutch (varieties)— can be characterized as augmentative (e.g., the structure is made "bigger" by adding bound morphology) or duplicative (e.g., the structure is made bigger by spreading of a morphological property associated with an element X onto other elements in X's structural environment); see also Corver (2004, 2014).

A first illustration of the morphosyntactic encoding of affect comes from the (often optional) appearance of /ə/ (schwa) on lexical items that have an intensified/emphatic reading. Overdiep (1936, 1937, 1940) observes, for example, that in Katwijk Dutch it is possible to augment the quantity-designating noun of a pseudopartitive construction with *-e*. This is exemplified in (40):

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[56] Note that also at the syllabic level augmentation can be operative; for example, by pronouncing the syllables as accented, phonologically independent units. This is exemplified in (i):

(i)   wat een á – ké –líg kind!
       what a te – rri – ble child

(40) a. Toe krege we-n-om 'n uur of drie toch *'n hoope waeter*, man!

      then got we-n-around an hour or three PRT a lot-*e* water, man

      'Oh man, around three o'clock we really got a lot of water in our boat!'

    b. Daer viel toch *'n bosse wind* in!

      there fell PRT a lot-*e* wind PRT

      'All of a sudden, there really was a lot of wind!'

Secondly, in Afrikaans -*e* can augment an attributive (monosyllabic) adjective when that adjective has an affective/expressive meaning. Thus, besides the neutral pattern in (41a), where *mooi* has a bare form, Afrikaans also permits the more expressive formal variants in (41b, c, d), which feature -*e* on the attributive adjective.

(41) a. ’n mooi konyn   ('neutral reading')

     ’n mooi-e konyn

    b. ’n mooi**e** konyn   (affective reading)

    c. wat ’n mooi(-**e**) konyn!   (exclamative)

     what a beautiful(-*e*) rabbit

    d. Dit is so 'n mooi(-**e**) konyn!

     this is such-a beautiful(-*e*) rabbit

A third illustration of augmentative -*e* comes from the Dutch examples in (42), where -*e* (optionally) augments a degree word.[57] As shown in (43b), the -*e* can spread leftwards (i.e., duplication) onto the next degree word.

(42) a. een erg(-**e**) dur*e* fiets

     a very-*e* expensive-*e* bike

    b. een vreselijk(-**e**) domme man

     a terrible-*e* stupid-*e* man

     'a terribly stupid man'

(43) a. een heel erg dur*e* fiets

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[57] In the examples in (42) and (43) the presence of –*e* on the degree word is parasitic on the presence of the inflectional morpheme –*e* on the attibutive adjective. When the attributive adjective is bare, which happens when the adjective modifies an indefinite singular neuter noun phrase, the degree word cannot carry an augmentative –*e*. For example: *een erg(*-e) duur huis* (a very(-e) expensive house).

a whole very expensive bike

'a really expensive bike'

b. een hel**e** erg**e** dur**e** fiets

a whole-*e* very-*e* expensive bike

Note that in (42)-(43), the augmentative -*e* appears on a degree word that modifies an attributively used adjective that carries adjectival inflection. As shown in (44), -*e* also sometimes appears on degree words that modify an adjective that is used predicatively.[58] And sometimes we even find augmentative -*e* on nouns that fulfill the role of degree word, as in (45):

(44) a. Dit is *(zo) verdomd(**e**) handig*!

this is (so) damned(*e*) handy

'This is so bloody handy!'

b. Dit is *(zo) verrekt(**e**) duur*!

this is (so) damned(*e*) expensive

'This is so bloody expensive!'

(45) a. MacBook Pro is *(zo) ret**e** snel.*

MacBook pro is (so) ass-*e* fast

'Mac Book pro is bloody fast!'

b. Ik vind dit *reuz**e** leuk.*

I consider this giant-*e* funny

'I think this is really funny.'

Besides these morphosyntactic patterns featuring augmentative -*e*, there are also patterns in which an indefinite-article-like element surfaces right after the adjective. Since the indefinite article also appears at the beginning of the noun phrase, these patterns can be regarded as instances of the duplication phenomenon. An example of this is given in example (46) from Groningen Dutch (Ter Laan 1953:37). An indefinite article *en* appears right after the attributive adjective that modifies the measure noun *bult* 'hump' or *stok* 'piece' (meaning 'a

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[58] Note that in the patterns in (44) and (45) the appearance of augmentative –*e* is not parasitic on the presence of an attributive adjectival inflection.

lot'), but it can also be found in constructions in which the measure noun is simply absent, as in (46c).

(46) a. Hai het [**n** schrikkelk**en** (bult) geld]!

he has a terrible-EN bump money

'He has an enormous amount of money!'

b. Zai haar **n** vrezelk**en** (stok) verdrait.

she had a terrible-EN piece distress

'She is enormously distressed!'

c. Ik haar zoo'**n** geweldig**en**/vrezelk**en**/ontzettend**en** dörst

I had such a enormnous-EN/extreme-EN/terrible-EN thirst

'I was so enormously thirsty!'

Also in other varieties of Dutch, this augmentative use of the indefinite article is attested, as in the examples in (47a,b) from Schouwen-Duiveland Dutch (De Vin 1916) and the example in (47c) from Brabantish Dutch (Corver and Van Koppen 2009).

(47) a. Wat **en** slächt-**en** spul is tat noe!

what a bad-**en** stuff is that now

'What a bad stuff is that!'

b. Zukk-**en** vull-**en** waeter ak noh nojt ezie!

such-a dirty-**en** water have.I PART never seen

'Such dirty water have I never seen before!'

c. [zó**n** schón **'n** klèin **'n** skilderééjke]

so beautiful a small a picture

'such a beautiful small picture/painting!'

Notice also the following partitive constructions from Katwijk Dutch (Overdiep 1940:139), in which the second indefinite article *'n* 'a' precedes a plural noun.

(48) a. D'r waere [**'n** vrácht van **'n** vaertuige]!

there were a load of a vessels

'There were a lot of vessels!'

b. D'r lagge dan [**'n** mácht van **'n** tonne] op tie dam!

there lay then a power of a barrels on that dam

'There lay a lot of barrels on that dam!'

The question, obviously, arises how to analyze augmentative/duplicative *-e* and augmentative/duplicative *'n*. I tentatively propose that the schwa and the indefinite article in the patterns discussed above are spell-outs (i.e., externalizations) of a functional head position. This is illustrated in (49):[59]

(49) a.   [DP een [QP hoop [Q' [Q **-e**] [NP waeter]]]]   (see (40a))

b.   [DP een [FP mooi [F' [F **-e**] [NP konyn]]]]   (see (41b))

c.   [DegP zo [QP verdomd [Q' [Q **-e**] [AP handig]]]]   (see (44a))

d.   [DegP zo [QP reet [Q' [Q **-e**] [AP snel]]]]   (see (45a))

e.   [DP zoo'n [FP geweldig [F' [F **en**] [NP dörst]]]]   (see (46c))

f.   [DP 'n [QP vrácht van [Q' **'n** [NP vaertuige]]]]   (see (48a)) [60]

What these patterns have in common is that a functional head surfaces phonologically when the linguistic expression has an affective/expressive color. At a certain level of abstraction, the augmentative schwa and the augmentative *-en/'n* seem to fulfill the same role as the dummy verb *do* in sentences like *John DID eat an apple* (compare: *John ate an apple*) and *Please, do come home!* (compare: *Please, come home!*). *Do* does not contribute any 'descriptive' meaning but rather adds emphatic/expressive force to the sentence. Likewise, augmentative *-e* and *en/'n* add emphasis. The spell-out of the functional head in (49) indexes a high quantity of information. Specifically, it signals high surprise (unexpectedness) at the quantity (49a,f), degree (49c,d,e) or property (49b) expressed by the element in the specifier of the functional head.

Let me finish this section with a more syntactic strategy for augmentation, viz. coordination of "likes".[61] I assume that in (50a) we have an asyndetic coordination with three identical conjuncts, viz. *trots*. In (50b), the verb *gaat* 'goes' realizes the two conjuncts that are coordinated by *en* 'and'.

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[59] QP is Quantifier Phrase, FP is a functional phrase whose Specifier hosts an attributive modifier; see Cinque 1994.

[60] I won't discuss here the exact status of *van*.

[61] See also Potts's (2007) repeatability property of expressive items: If a speaker repeatedly uses an expressive item, the effect is generally one of strengthening the emotive content, rather than one of redundancy.

(50) a. [trots, TROTS, TROTS] dat Jan op haar was!

proud proud proud that Jan of her was

'Jan was so proud of her!'

b. Je [gaat en gaat] maar door met dat gezever!

you go and go PRT on with that bother

'You simply keep on bothering me!'

A second type of augmentative coordination is exemplified in (51). As noted in Overdiep (1937:118) for Groningen Dutch and Katwijk Dutch, it is possible to express intensification by means of the semantically empty verb *doen* in the second conjunct:[62]

(51) a. Die kaerel *scholt-en dée*!

that guy cursed and did

'That guy was cursing so much!'

b. 't Is 'n *scharrelen-en doen* om d'r te komme!

it is a muddle-along and do for there to get

'It really takes a lot of effort to get there!'

What all these coordinate patterns have in common is that the non-initial conjunct does not really contribute to the descriptive meaning of the entire coordinate structure, at least not in the way *Marie* does in *Jan en Marie* 'Jan and Marie' or *schopt* 'kicks' does in *slaat en schopt* 'hits and kicks'. The non-initial conjunct in (50)-(51) is semantically vacuous in the sense that it does not introduce a new property (50a) or event (the other examples). Its repetitive nature contributes emphasis: the speaker assigns a high information value (intensity) to the property/event designated by the coordination.

Summarizing, on the basis of a number of phenomena attested in (varieties of) Dutch, I have tried to show that there are various linguistic devices for encoding intensity in the build of language. The devices that I discussed all have an augmentative flavor; i.e., the "size" of a symbol (a sound, a syntactic constituent) gets "bigger" as a result of various symbolic manipulations, such as adding a symbol (e.g., a consonant, a schwa), repeating a symbol (e.g., a consonant, a conjunct), or spreading a symbol in a larger linguistic expression (e.g., vowel harmony in curse expressions, spreading of schwa, spreading of an indefinite article).

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[62] Overdiep (1937:118) does not specify which of these examples is from which dialect.

The augmented form of the linguistic symbol/representation can be characterized as being formally marked or deviant, in the sense that it is formally different from the "neutral/expected" form of the symbol.

6. Conclusion

A core question in the study of human language is whether it is well designed for the interaction with other systems within the broader architecture of the human mind/brain. In this article, I examined the interaction between the language system and the emotion system. Specifically, I addressed the question of how affective information is linguistically packaged (coded) in the build of language. I gave an (obviously very incomplete) answer to this question by focusing on affect-related linguistic phenomena in (varieties of) Dutch. A central claim in this article was that affective color can be induced linguistically by deviations from a regular linguistic form or pattern. Evidence in support of this claim came from the deviant use of functional categories. I argued that the linguistic deviation indexes "unexpectedness of information", which is an important ingredient of emotion, and specifically of the intensity dimension of emotion. Unexpectedness can be induced by the "place of a symbol" in a larger linguistic pattern (i.e., space-based indexation of unexpectedness) or by the formal manifestation (e.g., an augmented form) of the symbol itself (symbol-based indexation of unexpectedness). A third way of keying affective information is by means of spreading, which means that the symbol itself is not augmented but that a linguistic expression containing the symbol is augmented as a result of spreading of the symbol within that expression (a sort of "affective/emphatic concord phenomenon").

I argued that these linguistic cues symbolizing unexpectedness (and, consequently intensity) are typically present at the sound side of language; i.e., the PF-side that interfaces with the sensorimotor system. In other words, the linguistic expression of affect is (typically) a matter of externalization. This seems to match with Sapir's statement that "[...] the emotional aspect of our psychic life is but meagerly expressed in the build of language." The meager expression is restricted to the peripheral systems that externalize a linguistic expression. Thus, the emotional aspect of our life is not so much coded in the formal computational system (say, operations like Merge) that builds the hierarchically organized expressions whose symbols ("ideas") are interpreted at the LF-CI interface. As has also been emphasized more recently by Chomsky, there is a fundamental asymmetry between the

meaning side and the sound side of language: Meaning (the linguistic encoding of thought) is primary, sound (the externalization of thought) is secondary.

It was argued that affective externalization makes secondary use of (what look like) symbols of thought (e.g., functional categories such as *een*, *wat*, *dat*, *-je*). Importantly, these symbols were taken to be purely phonological; that is, so-called vocabulary items in the sense of Distributed Morphology. They spell out syntactic slots with which they match in a non-optimal way (i.e., there are vocabulary items that match in a better way with the feature specification of the terminal node). As a result of that, a vocabulary item appears in a linguistic environment (surrounding material in a linear string) that does not fully match. It is this contextual mismatch (disorder) that induces affect.

Although the linguistic encoding of affect has this secondary (i.e., non-optimal) flavor, we should emphasize that at the same time this secondary encoding has a sense of efficiency (i.e., optimality) to it. That is, optimal use is made of available linguistic means. Specifically, by using (i.e., inserting) vocabulary items (*in casu* functional items) in different ways (let's say, via matching VI-insertions and non-matching VI-insertions), the language user is able to express two different types of information: thought information and affective/expressive information. In other words, this multiple use of a single vocabulary item seems in line with the cognitive principle of wanting to encode as much information as possible with the least possible effort. That is, no (or hardly any) new lexical items need to be added to the list of vocabulary items in order to be able to express affect. The linguistic expression of affect "simply" follows from a non-optimal vocabulary insertion operation.

It should be noted that this secondary use of a lexical atom for the purpose of expressing a different type of meaningful information is not unusual in human language. For example, the displacement property (so-called I-merge) may be regarded as a linguistic property that connects two types of semantic properties (information) to expressions, traditionally deep semantic properties (say, theta role information) and surface semantic properties (say, discourse related information); see Chomsky (2002:113-14). For example, a wh-item like *wat*, as in *Wat heb je gekocht?* ('What did you buy?') gets associated with a theta role (information of type α) in one syntactic position (say, the base or 'primary' position) and with a discourse-related role (information of type β; e.g. topic, focus, interrogative) in a second(ary) syntactic position (the position occupied after displacement, sometimes called the edge position since the displaced element occupies the edge of a construction). In other words, one and the same lexical item (or phrase) can provide different types of meaningful

information to the thought system (i.e. the Conceptual-Intentional system) with which it interacts.

As noted by Jakobson (1960), "If we analyze language from the standpoint of the information it carries, we cannot restrict the notion of information to the cognitive aspect of language". That is, the way in which affective information is coded in the build of language should also be part of the linguistic research agenda. In this article I have addressed this issue by examining a range of affect related phenomena in (varieties of) Dutch. From my discussion of these phenomena it became clear that functional categories play an important role in the encoding of affective information in Dutch. It is very likely then that functional categories play an equally important role in the encoding of affective information in other languages.[63] And also in those languages we expect affect to be encoded by the deviant occurrence or the augmented "size" of functional material. Although I leave a systematic, cross-linguistic study of the encoding of affect for future research, let me mention a few examples from other languages that suggest that affective information can be encoded by means of linguistic deviation, augmentation and duplication. First, Svennung (1958:405) notes that, in Mexican Spanish, children's names can sometimes occur with a plural suffix, often in combination with a definite article or a diminutive suffix, as in *Qué lindos son **los** Manuelito**s***! (How nice-PLURAL are the-PLURAL Manuel-DIM-PLURAL; 'How nice Manuelito is!'). Clearly, the expression of plurality is deviant if reference is being made to a single individual. Possibly, the use of the definite article (*los*) formally marks familiarity (social proximity) of the speaker with the individual 'Manuel', and the use of the plural form functions as an intensifier of this familiarity ("great social proximity"). The diminutive seems to add a positive evaluative "flavor" to the proper name by referring to the size (and this way "cuteness") of the individual Manuel. Secondly, as noted in Stankiewicz (1960), the reverse use of gender (e.g., feminine gender instead of masculine gender) contributes emotional intensity in Russian (e.g., *dura* 'fool-fem' speaking to a man). Specifically, it intensifies the negative value expressed by the evaluative noun. Thirdly, in Kutchi Gujarati, a clause may exhibit case spreading (i.e., duplication) if it is expressed with great anger (Pritty Patel p.c.), as in *John-**ne** rolti-**ne** khavi-**ne** ko-**ne** kidthu?* (John-acc/dat bread-acc/dat eat-acc/dat who-acc/dat said; 'Who told John to eat the bread?!'). Fourthly, duplication patterns (involving e.g. determiners or numerals) in Bavarian German mark intensity, as in the following examples: ***die** ganz **die** großn Brezn*, the very the big pretzels 'the really very big

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[63] See Ochs & Schieffelin (1989) and Besnier (1990) for discussion of affect related phenomena in languages other than Dutch.

pretzels'), and ***zwei*** <u>***ganz***</u> ***zwei*** <u>*alte*</u> *Brezn* (two very two old pretzels, 'two really very old pretzels'); see Plank 2003.

It is very likely that the encoding of affect in the build of language is a cross-linguistic phenomenon. One of the aims of linguistic research should be to find out in what ways languages are alike (uniformity) and different (diversity) in the way emotion (affective information) is encoded in the build of human language.

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