Dependency Phonology

Harry van der Hulst

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1. Historical background and relationships to other approaches

Dependency Phonology (henceforth DP) is an approach to phonological representations. In the paradigmatic dimension of phonological representations, DP offers proposals for a set of ultimate primes or 'features' (i.e. the basic building blocks of phonological segments) and for their relationships within segments. In the syntagmatic dimension, DP proposes a set of structures ranging from the syllabic to the utterance level. As such, DP covers the full range of phonological structure, both at the segmental and the suprasegmental (often called prosodic) level. DP originates from proposals first set forward in Anderson and Jones (1974), the goal being to lay the foundations for a dependency-based approach to phonology, which would form a counterpart to Anderson's dependency-based work in syntax and morphology (see *Article?*). As such, DP falls within the realm of **Dependency Grammar** (see *Article*), adding a novel perspective in that varieties and applications of this type of grammar are or have been mostly (perhaps almost exclusively) limited to morpho-syntax (i.e. constructions with meaning). The idea that phonological and morpho-syntactic structure should both be analyzed in terms of a particular construal of dependency relations reflects what Anderson (1985, 1992) has called the **Structural Analogy Hypothesis** or **Assumption**, viz. the idea that, all things being equal, both articulations of language make use of the same set of formal relations and principles.

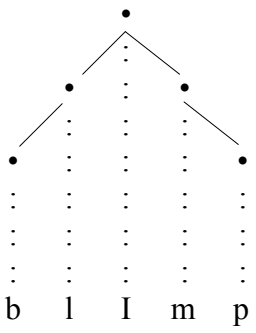
The fullest statement of DP too date can be found in Anderson and Ewen (1987), a work that summarizes and elaborates more than a decade of theoretical extensions and case studies of the original proposals. The corpus of work in DP both before 1987 and after is not large, the number of DP researchers being small compared to those in 'mainstream

generative phonology', to be characterized as work that has emerged from, or adopted by Morris Halle and his students and followers. DP work has failed to penetrate this mainstream and has thus been largely ignored. Ironically, many of the leading ideas that transformed linear generative phonology (as in Chomsky and Halle 1968) into non-linear generative phonology in the nineteen seventies and eighties, were anticipated in the original DP conception (cf. below). DP also bears a close resemblance to a model that emerged in the mid eighties, viz. **Government Phonology** (see *Article*), which differs from it in two ways. Firstly, DP, in its explorations of alternative implementations of its basic ideas, has not put as much emphasis as Government Phonology has on developing a narrowly-defined, restrictive theory of primes and (segmental and suprasegmental) constellations; thus DP is more open-ended. Secondly, in the treatment of phonological alternations, DP adopts the perspective of Chomsky and Halle's model in which language-specific (possibly extrinsically ordered) phonological rules map underlying representations into surface representations, whereas Government Phonology, while rejecting language-specific, extrinsically ordered rules, attempts to derive alternations from the interplay between enriched underlying representations and universal principles and parameters.

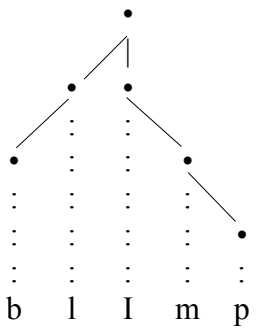
2. Dependency and constituency

A feature that is shared by all dependency graphs is that all terminals depend on some other terminal, except for one terminal which does not depend on anything, the ultimate head of the structure. Although Dependency Grammar formalisms were originally construed as an alternative to constituency-based grammars, thus effectively lacking the notion of constituent and only representing adjunction relations between terminal elements (cf. 1a), DP, by allowing a single terminal to be linked to more than one head (given that these heads dominate each other in terms of subjunction), has effectively re-introduced constituency (cf. 1b):

(1) a.



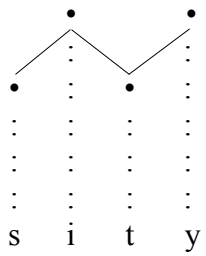
b.



The segment /I/ is the head of /m/ and of /l/ in both representations, but only in (1b) there is an equivalent to the constituent rhyme. Thus DP adopts a marriage of constituency and dependency-based formalisms that is also characteristic of X-bar phrase structure grammar (see *Article*) or Head-based approaches (see *Article*) in syntax. While adjunction allows several elements to depend on one head, DP tends to favour structures in which each head can have only one dependent (thus only allowing 'binary branching structures').

Unlike traditional constituent structures, dependency structures can also permit one daughter to be dependent on two heads, which, at the syllabic level, creates a structure that expresses the notion of **ambisyllabicity**, i.e. the linking of one consonant to two syllable nodes (as in the word 'city'):

(2)



However, it would be possible to restrict dependency relations such that each dependent can have only one head, again bringing the dependency structures one step closer to constituent structure that are augmented with head-dependent labels.

Anderson and Ewen (1987) give a detailed account of how dependency graphs can represent syllabic (including ambisyllabic and subsyllabic) structure and higher prosodic structure. Their work thus covers much the same ground as Metrical Phonology (see *Article*) and Prosodic Phonology (see *Article*), fully compatible with, but being less explicit on the cross-linguistic, parametric application to a wide variety of languages that we find in these mainstream approaches.

At the (intra)segmental level, DP also combines a dependency-based approach with constituency. Already in Anderson & Jones (1974) and Lass (1976) a number of specific arguments are put forward for the view that the matrix characterizing the phonological segment must be partitioned into at least two submatrices, called **gestures** in DP. This subdivision reflects the fact that phonological processes can refer precisely to (e.g. delete or spread) specific gestures, leaving other gestures unaffected (cf. the so-called "stability effects" of Autosegmental Phonology; see *Article*). Lass (1976) discusses cases of reductions of full consonants to the glottal consonant [h] and glottal stop [?], as occurring

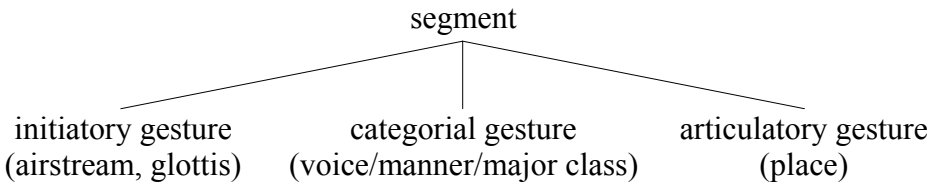
for instance in many varieties of Scots, which show the independence of the laryngeal features vis-a-vis the oral (or supralaryngeal) features, a proposal also made in Thrainson (1978) on the basis of Icelandic preaspiration data and subsequently in various versions of Feature Geometry (see *Article*). The DP-arguments for subsegmental grouping of phonological primes are essentially analogous to the arguments that have been presented for *feature classes* in Feature Geometry.

3. Subsegmental structure in DP

3.1 Gestures and subgestures

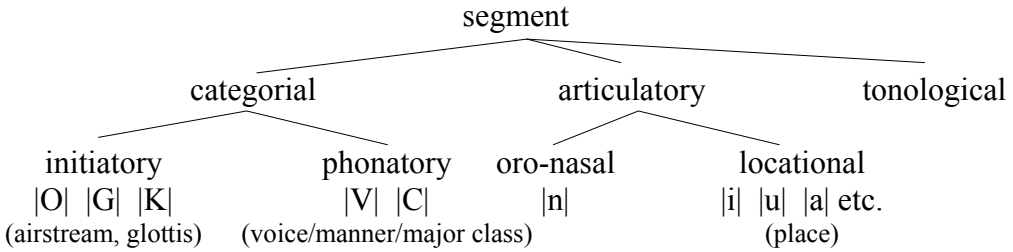
In early DP work, the bipartite division, referred to above, into a **laryngeal gesture** (covering voice and glottal states) and a broad **oral gesture** (covering major class, manner and place primes), was replaced by a proposal for a tripartite gestural organization (Anderson & Ewen 1980, Ewen 1980, Lass 1984), by splitting the oral gesture into a **categorial gesture** (for major class and manner-like distinctions), and an **articulatory gesture** (for place distinctions); the largyngeal distinctions were now incorporated into a **initiatory gesture** (which represented laryngeal and airstream distinctions):

(3)



This three-way division is essentially parallel to the laryngeal, manner and place division proposed in Clements' (1985) proposal for a Feature Geometry. Ewen (1986: 205) then proposed to elaborate this model as in (4), a model that is also used in Anderson and Ewen (1987):

(4)



The label ‘categorial’ is now used for two subgestures: the initiatory subgesture (for laryngeal and airstream distinctions) and the (somewhat confusingly labelled) phonatory subgesture (for major class and manner distinctions). Under the label articulatory gesture, an oro-nasal subgesture (for nasality distinctions) and a locational subgesture (for place distinctions) have been formed. Nasality was formerly (i.e. in the structure in 3) only expressed in terms of the categorial gesture (as a particular combination of the components |C| and |V|; cf. below). In the new proposal, nasality finds expression both in the categorial-phonatory subgesture and as an independent component |n|. In addition, a tonological gesture is mentioned in the later DP works. In (4), the symbols between straight lines represent some of the primes that DP has proposed. The proposals for the tonological gesture are sketchy at best (save for a tantalizing idea; cf. below).

The phonological primes, as is discussed below in more detail, occur with **variable dependency relations** when combined within a subgesture. ‘Variable’ means that the relationship between some element A and some element B can be either A-headed or B-headed, with both options representing different phonological (thus potentially contrastive) expressions.

DP also explores the possibility of allowing the subgestures themselves to enter into variable dependency relations. For example, to express a distinction between (egressive) glottalized and (ingressive) implosive consonants it is suggested that the former display an initiatory component |G| ‘glottalicness’ governing a phonatory component |C| ‘consonantality’, while the latter displays a reversed dependency.

However, similar combinations for |K| ‘velar suction’ or |O| ‘glottal opening’ are not exploited. Anderson and Ewen (1987: 251) also exploit the possibility of allowing variable dependency between the two subgestures of the articulatory gesture to represent two distinctive degrees of nasalization. No variable dependency relationships between the two ‘main’ categorial and the articulatory gestures have been suggested. From a formal point of view, it is not obvious what distinguishes the variable dependencies that appear (or are claimed) to be contrastive and those that do not find such use. Thus, it might be said that the DP model suffers from overgeneration, or a lack of restrictiveness. In an attempt to restrict the DP model, Davenport and Staun (1986) have proposed to dispense with inter-subgesture dependency. Van der Hulst (2004), who has developed a somewhat different gestural organization, has proposed to limit the relations between gestures to fixed (rather than variable) dependency relations.

3.2 The phonological primes

In motivating its primes and their combinations, DP’s primary point of departure is the need to express a certain set of phonological contrasts. Thus, there is an implicit focus on

phoneme inventories. The approach is not, however, exclusively focussed on contrastivity and thus also includes the desire to admit representational differences that allow the expression of phonetic (non-contrastive cross-linguistic or cross-dialectal) differences. Thirdly, arguments for the adoption of primes are based on phonological processes.

The primes that DP adopts are not distinctive (binary-valued) features. Rather, DP adopts the view that the primes of segmental structure are (in an Aristotelian sense) 'substances' in themselves rather than 'properties of substances'. Whereas mainstream binary features are arguably *properties of* segments, DP-primes are segments themselves. Indeed such primes can occur independently as fully pronounceable phonological segments. The requirement of independent occurrence is not obviously met in all cases, however. DP refers to the primes as **components** (or sometimes **elements**). In many ways, components function as the so-called **unary features** that were later proposed in various versions of mainstream generative phonology.

3.2.1 Major class and manner distinctions

The phonatory subgesture contains two **components**, |V| and |C| which are defined as follows: "|V|, a component which can be defined as 'relatively periodic', and |C|, a component of 'periodic energy reduction'." (Anderson and Ewen 1987: 151). From the start DP has adopted the view that the primary interpretation of components is acoustic, a position that we find in Government Phonology as well. These two components are, formally, unary building blocks that can be present or absent in a segmental structure.

Furthermore, although seemingly antagonistic, |C| and |V| can be combined into a single segment, characterizing a segmental type with major class/manner characteristics that lie somewhere between segments that have only |C| or only |V|. (The formal option of a segment having neither has not been systematically explored in DP works.)

Anderson and Ewen then continue on page 151: ".., |V| and |C| differ from the [Jakobsonian] vocalic and consonantal distinctive features in that the presence of, say, |V| in a segment does not necessarily imply that the segment is in a simple binary opposition to an otherwise identical segment not containing |V|. Rather [...] the more prominent a particular[...] component[...] the greater the preponderance of the property characterized by that component." (p. 151). The key term here is 'prominence', which is expressed in terms of a head-dependent relation. If a component is prominent it can be present in a subgesture as a head (either by itself, or governing another component), the dependent role marking relative absence of prominence.

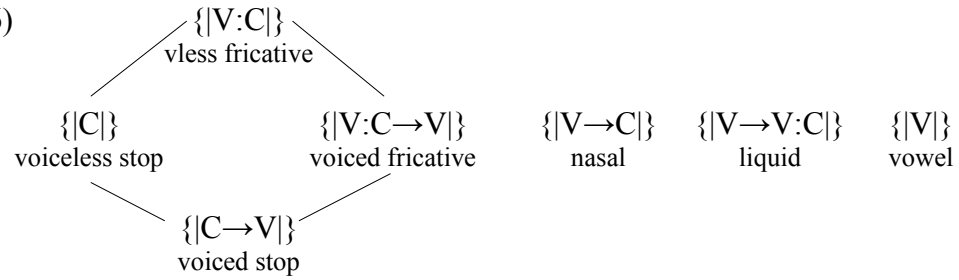
Thus, in DP, components can not only be joined by simple, symmetrical combination, but they can also enter into a relationship in which either component is more important, the

other component being dependent on it. In addition, two components can even entertain a relation in which neither is dominant, a relationship which DP call "mutual/bilateral dependency". Thus we arrive at the set of dependency relationships in (5) which displays two different notations to express the head-dependent relation:

(5) a. {|X;Y|} or {|X→Y|} — Y is dependent on X
b. {|Y;X|} or {|Y→X|} — X is dependent on Y
c. {|X:Y|} or {|X↔Y|} — X and Y are mutually dependent

These dependency relations hand DP the tools to express a number of major and manner segment classes in terms of combinations of |V| and |C|, as in (6):

(6)



Underneath the actual representations it is indicated which classes of segments they represent. Anderson and Ewen argue that the representations appropriately reflect a sonority ranking in which the classes of voiceless fricatives and voiced stops are claimed to have equal sonority. The primary motivation for including voicing in the phonatory gesture is the participation of this property in lenition and fortition processes alongside more obviously manner-like properties such as continuancy.

There are five advantages of the DP proposals which remain valid even if the details of the structures or their interpretations are modified:

Firstly, by invoking dependency relations, DP can strike a balance between systems of phonological primes that allow (in principle unrestricted) use of **multi-valued features** and 'Jakobsonian' systems that only allow binary oppositions. The relations in (5) allow a relative (yet restricted) expression of the prominence of any given component and thus the expression of scalar processes (such as lenition or fortition processes). In fact, DP allows formal expression of all three kinds of oppositions as originally recognized by Trubetzkoy (1969). Privative oppositions involve the presence versus absence of a prime, equipollent oppositions involve the presence of a prime in one member of the opposition and the

presence of another prime in the other member of the opposition. Thirdly, gradual oppositions can be expressed in terms of the way (head or dependent) in which a particular component enters in the composition of a class of segments.

Secondly, by replacing binary features with constellations of unary components varying in complexity, representations adequately reflect the relative markedness of phonological major class and manner categories. In (6), the categories vowel and voiceless stop are the least complex which reflects their indisputable relative unmarked status. Fricatives are more complex than stops and voiced obstruents are more complex than voiceless obstruents. This again reflects well-known and widely accepted claims regarding the relative markedness of these categories. Binary notations can only capture such distinctions by augmenting the basic apparatus with an ad hoc system of **underspecification** (see *Article*).

Thirdly, if we assume (as most phonologists do) that phonological rules can only cause phonetic events by manipulating phonological units, the structures in (6) express that languages can 'spread voicing' (as an assimilatory process) but not the absence thereof. If this is empirically correct, representations as in (6) are superior to binary feature systems in which [+voice] and [-voice] have the same status. Independent of the correctness of this specific prediction, unary systems beat binary systems in terms restrictivess (all other things being equal).

Fourthly, given the addition of a head – dependent relation, an impressive reduction in the number of primes can be achieved. In order to characterize major classes and manner distinctions in the feature system of Chomsky and Halle (1968) (or its feature geometric descendants) one needs many features (such as [voice], [nasal], [lateral], [strident], [consonantal], [continuant], [sonorant], and so on) where DP uses just two single-valued primes, the components |C| and |V| and their interdependencies.

Fifthly, the CV-constellations are constructed in such a way that often-observed affinities between the phonological categories that they represent are formally expressed. For example, in the structures in (6), an ungoverned |V| can be glossed as [(+)sonorant], whereas a governed |V| forms the equivalent of [(+)voice]. This particular example reveals that DP manages to express distinct but clearly related phonological categories in terms of a single primitive appearing in different structural positions, where traditional feature systems must stipulate a relation in the form of ad hoc redundancy rules like [+sonorant] → [+voice]. In DP [+sonorant] and [+voice] are manifestations of one and the same component, viz. |V|. Thus the relation between these two categories is 'built into' the basic vocabulary.

Anderson and Ewen allow various additional structures composed of the components |C| and |V| only some of which are used to deal with more specific manner types (such as lateralized obstruents, fricative trills and the like), inviting the kind of criticism that was already mentioned above, viz., that the model seems to overgenerate. In an attempt to push back overgeneration, Van der Hulst (1995, 2004) proposes to disallow mutual dependency, while accommodating the apparently necessary multiple occurrence of a single component, by assuming that the interpretation of a simple set of structures is dependent on the syllabic position that the structure occurs in.

3.2.2 Laryngeal and airstream distinctions

We now turn to the second subgesture of the categorial gesture, viz. the initiatory subgesture. DP advocates the idea that the traditional concept of phonation (involving glottal states and vocal fold vibration) is relevant to two different gestures. Vocal fold vibration (voicing) is, as we have seen in (6), expressed within the phonatory gesture. Glottal state distinctions are incorporated in the initiatory gesture. This subgesture contains the 'glottal opening' component |O| as well as two components used for the description of different types of airstream mechanisms, |G| (for 'glottalicness') and |K| (for 'velaric suction'). Anderson and Ewen argue that the use of |O| is called for in three types of languages:

- Languages that have a more than two-way distinction (e.g. Indonesian which has voiceless, 'lax voice' and 'tense voice')
- Languages that do not seem to use voice but rather aspiration (e.g. Icelandic)
- Languages that have and opposition between voiced and voiceless sonorants (e.g. Burmese which has this for nasal and laterals)

|G| is introduced not only to· accommodate glotttalized segments, but also in conjunction with the phonatory component |C| for implosive and ejective consonants (see above). |K|, finally, is an ad hoc component for clicks.

3.2.3 Place distinctions

Anderson and Ewen introduce the place components in (7):

(7) *DP place components*

|i| 'palatality, acuteness/sharpness'	|l| 'linguality'
|u| 'roundness, gravity/flatness'	|t| 'apicality'
|a| 'lowness, sonority'	|d| 'dentality'
|@| 'centrality'	|r| 'retracted tongue root'
|a| 'Advanced Tongue Root (ATR)'	|L| 'laterality'

Not all these components play an equally important role in the theory. The heart of the set of place components is formed by the familiar "iua" subset, which plays a key role in the representations of vowels and consonants. Two further components are added for vowels, |@| 'centrality' and |a| 'ATR', as well as a set of components which are mainly or exclusively used for consonants (the right-hand column).

Let us now have a closer look at DP's proposal for vowels. We note at the outset that the DP system differs from the SPE system not only in that they use unary rather than binary primes, but also in choosing different parameters for characterizing the vowel space. Whereas the SPE system is bidirectional (just like, for instance, the unary feature system proposed by Sanders 1972) in that it uses only the high-low and the front-back dimensions in the description of vowels (lip-rounding being 'superimposed' on these two dimensions), the feature systems of DP (and other systems such as GP, Schane's (1984) Particle Phonology and the partly binary-valued theories of Goldsmith 1985 and Rennison 1987) are tridirectional. From a phonetic point of view, the primes |a|, |i| and |u|, which on their own represent the vowels /i/, /u/ and /a/, are clearly basic. They constitute the so-called quantal vowels (Stevens 1972), that is, they are the acoustically most stable vowels, in that their acoustic effect can be produced with a fairly wide range of articulatory configurations. In addition, these three vowels are maximally different, both from an acoustic and an articulatory point of view. Moreover, /i/, /u/, and /a/ are also basic as far as phonology is concerned. They constitute the canonical three-vowel system, and they are also the first vowels that children acquire. Hence it turns out that the choice of |a|, |i| and |u| as basic vocalic features is well-motivated, both phonetically and phonologically. If we include the formal option of mutual dependency, these three components can occur in 3 singleton representations, 6 doublet representations and a rather large number of triplet combinations of which Anderson and Ewen use only three (mostly by assuming that |i| and |u| act as a 'virtual unit' without contrastive dependency relations):

(8) The maximal number of combinations of |a|, |i| and |u|:

{|i|}	/i/	{|u:i|}	/y/ – /ɨ/	{|u|}	/u/
{|i;a|}	/e/	{|u:i;a|}	/ø/ – /ə/	{|u;a|}	/o/
{|a:i|}	/ɛ/	{|a:u:i|}	/œ/ – /ɜ/	{|a:u|}	/ɔ/
{|a;i|}	/æ/	{|a;u:i|}	/œ/ – /ɐ/	{|a;u|}	/ɒ/
			{|a|} /a/		

Lacking representations for back unrounded vowels, Anderson and Ewen introduce the component |@|, which combines with the representation for the front rounded series to produce central or back unrounded vowels. This component can occur with any other representation to represent laxness (centralization) as well. To represent the dimension of expanded/contracted pharynx (or Advanced Tongue Root), Anderson and Ewen introduce two additional components |r| 'retracted tongue root' (also used for pharyngeal consonants) and |a| 'advanced tongue root'. The two components are justified by arguing that languages may differ in terms of which pole in this dimension is dominant. Clearly, at this point the number of possible representations 'explodes' into a set that goes well beyond what would be necessary to represent only phonological contrasts. Anderson and Ewen defend their approach by claiming that non-contrastive phonetic or dialectal differences must be expressable too. Finally, a placeless vowel (having just the phonatory component |V|) is reserved for a reduction, schwa-like vowel.

We will now briefly turn to consonantal representations. Anderson and Ewen adopt a component |l| 'lingual', motivated by Lass (1976, cf. 7) to capture the natural class of high front vowels and tongue blade and tongue body consonants, which he claims recurs in sixteen processes in the history of English. |t| is meant to capture the contrast between apical and laminal coronals, while |d| distinguishes dentals from alveolars. |r|, already mentioned, is introduced for pharyngeal consonants. |L| is introduced to capture laterality, despite the fact that laterals are also captured in the phonatory gesture; this is similar to the dual treatment of nasality (cf. below). |L| is needed for lateralized segments such as lateral fricatives. Here are some representative consonantal place representations:

(9)

{|u|}	{|l;t|}	{|t;l|}	{|l,i|}	{|l,u|}	{|l,u,a|}
labials	laminal coronals	retroflex	palatals	velars	uvulars

Noteworthy is the use of the 'iua' set for consonantal places. The idea to use the same set of place primes for consonants and vowels can also be found in approaches within Feature Geometry (see *Article*) and, of course, in earlier feature proposals by Roman Jakobson (see *Article*). As in the case of vowels, Anderson and Ewen are not just concerned with allowing a minimal set of potentially contrastive representations. This means that their calculus of primes overgenerates from a phonological point of view, which does not take away that the proposed representations capture most of the recurrent natural classes of phonological segments.

3.2.4 Nasality

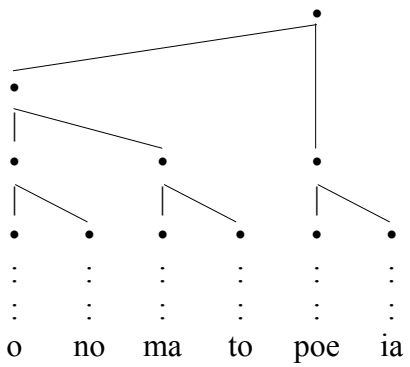
Then, finally, there is the oro-nasal subgesture, which contains precisely one component, |n|, for 'nasality'. Recall that there also is a phonatory characterization of nasals {|V→C|}. One might wonder whether DP really needs a nasality component, or, if it turns out that such a component is necessary, whether this component should have a subgesture entirely for itself. With respect to the first question Anderson and Ewen argue that nasal consonants not only form a natural class with other sonorant consonants by sharing certain characteristics in their categorial (particularly phonatory) representations, they also form a natural class with nasalized segments, which may have different specifications in the categorial gesture. In order for this latter natural class to be reflected by the DP representations of the segments in question, proponents of DP argue that we need a separate component, |n|. The question as to whether the nasality component should occupy a (sub)gesture of its own, is rather more difficult to answer. In DP phonetic considerations have always played a central role in the justification and motivation of its primitives and hierarchical organizations. Although Catford (1977) recognizes only three functional aspects in the specification of speech (correlating with DP's phonatory, initiatory and locational subgestures), Ladefoged (1971) distinguishes four aspects required in speech specification; he adds the oro-nasal aspect. On the basis of Ladefoged's subclassification into four aspects, Anderson and Ewen (p. 148) conclude that "it seems possible, then, to account for the oro-nasal process as a distinct sub-gesture within the articulatory gesture", and that hence a subdivision into two subgestures, just as in the categorial gesture, "is perhaps not inappropriate for the articulatory gesture". Notice, though, that the motivation for a separate oro-nasal subgesture does not appear to be overwhelming.

4. Suprasegmental structures

The idea to represent syllabic organization and stress in terms of dependency relations goes back to the earliest DP publications: "the syllable structure rules [...] and the stress rules are revealed as having [...] the common role of building successively more inclusive trees" (Anderson and Jones 1977: 118). At the syllabic level, headness was first claimed to

correlate with sonority peaks (making sonorants heads of onsets and vowels heads of rhymes), but Anderson (1986) proposed to regard obstruents (sonority minima) as heads of onsets, an idea that we later find in Government Phonology as well (see *Article*). At the suprasyllabic level, Anderson and Ewen propose structures that capture foot organization and prosodic organization at higher levels. Noteworthy is their point that, given the notation that DP uses to expressed the head-dependent relation, trees embody the notion of grid structure (see *Word Stress*), a point that was later independently made in Hammond (1984) and Halle and Vergnaud (1987):

(10)



Anderson and Ewen also propose a distinction between word level representations and uttance level representations, remarking that "any sequence of word structures may be associated with several distinct utterance structures" (p. 122).

5. Reductionism and Radical CV Phonology

In their excursus on representations for tonal distinctions, Anderson and Ewen (p. 273) make the intriguing suggestion that the components |i| and |u| could be employed for high and low tone, respectively, as part of the tonological gesture. What is most noticeable in this proposal is the idea to use the same components, viz. |i| and |u| in two different gestures. To emphasize that this strategy is present in the DP proposals, we can also refer to Anderson and Ewen's suggestion concerning the identity of |a| and |V| (p. 215). In short, in two places these authors suggest the strategy to employ the same components in different (sub)gestures, thus deriving similarities in phonetic interpretation, while attributing the differences to the fact that the (sub)gestural location of a component has a bearing on the phonetic interpretation. This shows that DP offers two possibilities for reducing the number of primes. Firstly, less primes are needed due the dependency relations. Two traditional features can be replaced by the dependent and head occurrence of a single prime, e.g. |V| for [voice] and [sonorant]. Secondly, less primes are needed given grouping: one particular

component may occur in various groups, each time with a different phonetic interpretation and thus replace two or more features (|V| for sonorant or vowel and for low, open place). These reduction possibilities are pushed to their extreme in **Radical CV Phonology** developed in van der Hulst (1988, 1995, to appear, in prep.). In these works, a variant of DP is developed that differs from standard DP in aiming at allowing a precisely-defined, restricted set of structures, needed for the expression of potential phonological contrast only. Restrictions are achieved by using just two components (more or less arbitrarily labeled |C| and |V|) in all subgestures for the expression of all phonological contrasts.

6. Conclusions

The preceding overview should have made it abundantly clear that DP never deserved the marginal position that it has occupied in the field of (generative) phonology. As it stands, DP does not prescribe a specific restricted theory, but this is typical of many other approaches in the field of linguistics. One can criticize the approach 'from the sidelines', saying that it needs more work (or worse: one can ignore it), or one can study it carefully and participate in its further development (or teach it, so that students can make up their own minds).

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