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STANDARD FRENCH LIAISON AND NATURAL SYNTAX

PRELIMINARY REMARKS

Natural Syntax is a developing deductive theory, a branch of Naturalness Theory. The naturalness judgements are couched in naturalness scales, which follow from the basic parameters (or "axioms") listed at the beginning of the paper. The predictions of the theory are calculated in what are known as deductions, whose chief components are a pair of naturalness scales and the rules governing the alignment of corresponding naturalness values. Parallel and chiastic alignments are distinguished, in complementary distribution. Here almost only chiastic alignment is utilized, this being mandatory in deductions limited to unnatural environments. (Of special importance below is the word-initial vowel as a phenomenon of low naturalness in Natural Syntax.)

The exemplification is taken from Standard French morphophonology. The aim is to solicit predictions about various aspects of liaison. The focus is on the interaction of liaison with various parts of speech. H aspirée is also considered.

Some recent work related to Natural Syntax: Orešnik (2007 [with Varja Cvetko-Orešnik]; 2007a–e; 2008).

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Natural Syntax is a (developing) deductive linguistic theory that determines the presuppositions on the basis of which a (morpho)syntactic state of affairs can be made predictable, and thus synchronically explained. The two basic kinds of presuppositions are what are known as naturalness scales and rules of alignment among corresponding values of any two scales. Every (morpho)syntactic state of affairs is represented by two comparable variants. Natural Syntax contains no generative component.

I begin by listing the criteria with which Natural Syntax substantiates naturalness scales:

(a) The parameter of favourable for the speaker and of favourable for the hearer. What is favourable for the speaker is more natural, the speaker being the centre of communication. This view of naturalness is commonplace in linguistics (Havers 1931: 171), under the names of tendency to economize (utilized first of all by the speaker) and tendency to be accurate (mainly in the hearer's interest).

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(b) The principle of least effort (Havers 1931: 171). What conforms better to this principle is more natural for the speaker. What is cognitively simple (for the speaker) is easy to produce, easy to retrieve from memory, etc.

(c) Degree of integration into the construction. What is better integrated into its construction is more natural for the speaker.

(d) Frequency. What is more frequent tokenwise is more natural for the speaker. What is cognitively simpler (for the speaker) is used more. (However, the reverse does not obtain: what is natural for the speaker is not necessarily more frequent.)

(e) Small vs. large class. The use of (a unit pertaining to) a small class is more natural for the speaker than the use of (a unit pertaining to) a large class. During speech small classes are easier for the speaker to choose from than are large classes.

(f) The process criterion. Any process is natural; only movement requires special comment. Given a construction, movement of a unit to the left is more natural for the speaker than movement of a unit to the right. (Movement to the left is more natural than non-movement; movement to the right is less natural than non-movement.)

(g) Acceptable vs. non-acceptable use. What is acceptable is more natural for the speaker than what is not acceptable. The very reason for the acceptability of a syntactic unit is its greater naturalness for the speaker with respect to any corresponding non-acceptable unit.

(h) What is more widespread in the languages of the world is more natural for the speaker (the typological criterion). What is cognitively simpler (for the speaker) is realized in more languages.

The basic format of our naturalness scales is >nat (A, B), in which A is favourable for the speaker and B is favourable for the hearer. A and B are the "values" of the scale. Two expanded scales are allowed, viz. >nat (A + B, B) and >nat (A, A + B); they are valid if the corresponding scale of the format >nat (A, B) is valid. Exemplification below.

The above criteria of naturalness (henceforth, axioms) are utilized to support our naturalness scales. Normally it suffices to substantiate any scale with one criterion, which backs up either value A or value B of the scale; the non-supported value is allotted the only remaining position in the scale. Of course, a scale may be supported with more than one criterion. Any clash among the criteria applied to a scale is to be handled with constraints on the combinations of criteria. So far only a few constraints have been formulated; I have not yet encountered much useable crucial language data.

The naturalness scales are an essential part of what are known as deductions, in which Natural Syntax expresses its predictions about the state of affairs in language data. An example of a deduction:

English. The numerical indication of frequency normally consists of a cardinal number followed by the word *times* (e.g., *four times*) except that there are one-word

expressions available for the lowest numbers: *once, twice,* and archaic *thrice* (*Collins Cobuild* 1990: 270–71).

The two variants: the type *once* and the type *four times*.

1. The assumptions of Natural Syntax:

1.1. >nat (the type *once*, the type *four times*)

I.e., the type *once* is more natural than the type *four times*. – According to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (low, non-low) / number

I.e., any low number is more natural than any non-low number (Mayerthaler 1981: 15). – Low numbers are more easily accessible to the speaker. According to the criterion of favourable for the speaker, item (a) in the list of axioms.

2. The rules of parallel alignment of corresponding values:

2.1. value A tends to associate with value C,

2.2. value B tends to associate with value D. See Note 4.1 below.

3. The consequences:

If a language distinguishes between low and non-low numbers in numerical indications of frequency such that one kind of number uses the pattern *four times* and the other kind of number uses the pattern *once*, it is the low numbers that tend to use the pattern *once* and it is the non-low numbers that tend to use the pattern *four times*. Q.E.D. (The reverse situation is not expected.)

4. Notes

4.1. Value A of scale 1.1 (= the type *once*) tends to combine with value C of scale 1.2 (= low number). Value B of scale 1.1 (= the type *four times*) tends to combine with value D of scale 1.2 (= non-low number). Similarly in the remaining deductions, with the proviso that the alignment (unlike here) is chiastic in most cases. Chiastic alignment is explained below.

4.2. Natural Syntax cannot predict the cut-off point between low and non-low numerals.

This deduction maintains that the state of affairs cannot be the reverse; i.e., that numerals above *two* (or *three*) would be one-word formations and that numerals under *three* (or *four*) would be two-word formations. All predictions of Natural Syntax are restricted to such modest claims about the unlikelihood of the reverse situation.

In every deduction, the rules of alignment play a prominent role; compare item 2 in the above deduction. The alignment rules regulate the combinations of corresponding values of the two naturalness scales mentioned in the deduction.

The alignment can be parallel or chiastic. Suppose that the two scales are >nat (A, B) and >nat (C, D). Parallel alignment pairs value A with value C, and value B with value D. Chiastic alignment pairs A with D, and B with C.

A paramount question is when the alignment is parallel and when chiastic. Parallel alignment is the default case. Chiastic alignment is necessary whenever a given deduction is limited to the language data obtaining within an "unnatural environment". This is defined as value B of the scale >nat (A, B), provided the scale

cannot be extended to the right; i.e., if there is no such value that would be even less natural than value B.

An example. In the scale >nat (main, dependent) / clause, the value "dependent clause" is an unnatural environment because the scale cannot be extended to the right. This means: all deductions whose language data lie within the environment "dependent clause" require the implementation of chiastic alignment.

Chiastic alignment is prohibited when a naturalness scale is substantiated with an axiom. If, however, an axiom is engaged as one of the scales in a deduction, it obeys the usual distribution of the alignment rules.

The insistence of Natural Syntax on the distinction between parallel and chiastic alignments stems indirectly from the work of Henning Andersen within markedness theory. Andersen observes situations such as the following in all human semiotic systems: on an everyday occasion casual wear is unmarked, and formalwear marked; on a festive occasion it is the formalwear that is unmarked, whereas casual wear is marked. See Andersen 1972: 45, esp. fn. 23. This example expressed with our scales: (i) >nat (casual, formal) / wear, (ii) >nat (–,+) / marked. A third scale as the source of the environment of the deduction: >nat (everyday, festive) / occasion. If the environment is "everyday occasion", the alignment within (i–ii) is parallel; if the environment is "festive occasion", the alignment within (i–ii) is chiastic.

This paper deals with an important morphophonological question of Standard French grammar: with what is known as "liaison(s)" in French. I hope that it will be seen that Natural Syntax is capable of achieving as much outside syntax as within it. It has in fact been my tacit hope for some time that Natural Syntax can be extended at least to the phonology and morphophonology of any language.

As is well known, liaison is realized only between two words in contact; more precisely, in contact in which the second word begins with a vowel. Regarding the (un)naturalness of such word onset, consider the scale >nat (consonant, vowel) / first segment of a word. This scale is supported by the well-known observation that basic syllable structure is CV; that is, consonant + vowel. Based on this it follows that, whenever a vowel as the initial segment of a word constitutes the environment of some deduction, such an environment is unnatural; consequently the alignment of the corresponding values of the scales of that deduction must be chiastic. This is the essential aspect from the standpoint of the SECOND word in contact.

What is the role of the FIRST word in contact? Its final segment(s) always participate(s) in the decision on whether the conditions for liaison obtain. For instance, in the masculine adjective *grand* 'large' the conditions obtain and liaison is in principle permitted, whereas in the feminine form *grande* the conditions for liaison are not met, hence liaison is not permitted. This permanent property of the final segment(s) of the first word in contact is completely independent of liaison proper, and therefore it can be left out of consideration here. However, it is still possible that some additional feature of the first word helps decide whether liaison will take place. For instance, it is sometimes important that the first word is a

personal pronoun. In such cases, the environment of the deduction is not limited to the initial vowel of the second word, but even encompasses the first word, or at least its final segment(s), and the environment is no longer considered unnatural; parallel alignment is called for.

A technicality: the sign ⌢ denotes the presence of liaison, and the sign | denotes the absence of liaison. Such signs are used only in the positions examined. Elsewhere neither the presence nor the absence of liaison are marked.

The deductions follow.

(1) French. At the end of a rhythmic group liaison is not permitted; for instance, *il est grand // aussi* 'he/it is also large'. Here the double slash separates the two rhythmic groups; there can be no liaison across such slashes. The final syllable of the rhythmic group is accented; the remaining syllables of the rhythmic group count as unaccented (Léon 1969: 119).

The two variants: the (non-)realization of liaison. – The deduction does NOT proceed in the unnatural environment "the initial vowel of a pronounced word"; the final segments of the preceding word are also involved. There is no reason for chiastic alignment.

1. The assumptions of Natural Syntax:

1.1. >nat (–, +) / accented syllable

I.e., an unaccented syllable is more natural than an accented syllable. – According to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (+,–) / liaison

I.e., realized liaison is more natural than unrealized liaison. – The absence of liaison is in the interest of the hearer because it is easier for him to identify words lacking liaison. According to the criterion of favourable for the hearer, item (a) in the list of axioms.

2. The rules of parallel alignment:

2.1. value A tends to associate with value C,

2.2. value B tends to associate with value D.

3. The consequences:

If a language distinguishes (within a rhythmic group) between an accented syllable and unaccented syllables such that one alternative is accompanied by liaison and the other alternative lacks liaison, then it is the accented syllable that tends not to admit liaison and it is the unaccented syllables that tend to allow liaison. Q.E.D. (The reverse situation is not expected.)

(2) French. Obligatory and optional liaison are distinguished. Optional liaison is usually not realized in colloquial language. For instance, liaison is not compulsory in the type *eux aussi* 'they also' and is usually lacking in colloquial language (Jereb 2004: 14).

The two variants: (non-)colloquial language. – The deduction proceeds in the unnatural environment "the initial vowel of a pronounced word".

1. The assumptions of Natural Syntax:

1.1. >nat (+,–) / colloquial language

I.e., colloquial language is more natural than non-colloquial language. – Numerous languages do not use non-colloquial language or use it only sparingly. According to the typological criterion, item (h) in the list of axioms.

1.2. >nat (+,–) / optional liaison

I.e., realized optional liaison is more natural than unrealized optional liaison. – The absence of optional liaison, like the absence of any kind of liaison, is in the interest of the hearer because it is easier for him to identify words lacking liaison. According to the criterion of favourable for the hearer, item (a) in the list of axioms.

2. The rules of chiastic alignment:

2.1. value A tends to associate with value D,

2.2. value B tends to associate with value C.

3. The consequences:

If a language distinguishes between colloquial and non-colloquial language such that one alternative permits optional liaison and the other alternative does not permit it, then it is non-colloquial language that tends to allow optional liaison and it is colloquial language that tends to disallow optional liaison. Q.E.D. (The reverse situation is not expected.)

(3) French. Liaison is obligatory after monosyllabic prepositions, conjunctions, and adverbs whereas liaison is only optional after polysyllabic prepositions, conjunctions, and adverbs. For instance, *en^hiver* 'in winter time' as against *depuis(^)un an* 'for a year' (Jereb 2004: 12, 14).

The two variants: mono- and polysyllabic prepositions, conjunctions, and adverbs. – The deduction does NOT proceed in the unnatural environment "the initial vowel of a pronounced word" but also involves the final segments of the previous word. Consequently there is no reason for chiastic alignment.

1. The assumptions of Natural Syntax:

1.1. >nat (monosyllabic, polysyllabic) / preposition/conjunction/adverb

I.e., a monosyllabic preposition, conjunction, or adverb is more natural than a polysyllabic one. – According to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (+,–) / liaison

I.e., realized liaison is more natural than unrealized liaison. – The absence of liaison is in the interest of the hearer because it is easier for him to identify words lacking liaison. According to the criterion of favourable for the hearer, item (a) in the list of axioms.

A special case of 1.2:

1.2.1. >nat (+, +/–) / liaison

The scale assumes the permitted expanded format >nat (A, A + B) and is automatically valid because the corresponding basic scale 1.2 has been substantiated.

2. The rules of parallel alignment:
2.1. value A tends to associate with value C,
2.2. value B tends to associate with value D.
3. The consequences:

If a language distinguishes between mono- and polysyllabic prepositions, conjunctions, and adverbs such that one set has obligatory liaison and the other set has only optional liaison, then it is monosyllabic prepositions, conjunctions, and adverbs that tend to have obligatory liaison, and it is polysyllabic prepositions, conjunctions, and adverbs that tend to allow only optional liaison. Q.E.D. (The reverse situation is not expected.)

(4a) French. Pronouns ending in a nasal vowel lack liaison if the following word is a verb; for instance, *le mien|est bon* 'mine is good'. There are two exceptions: the pronouns *on* and *en*; for instance, *on^entend quelque chose* 'one hears something' (Jereb 2004: 12–13).

The two variants: (i) *on/en* and (ii) other pronouns ending in a nasal vowel and preceding a verb. – The deduction does NOT proceed in the unnatural environment "the initial vowel of a pronounced word" but also involves the final segments of the preceding word. Consequently there is no reason for chiastic alignment.
1. The assumptions of Natural Syntax:
1.1. >nat (*on/en*, other) / pronouns ending in a nasal vowel

I.e., *on/en* is more natural than other pronouns ending in a nasal vowel. – *On/en* is lighter than other pronouns ending in a nasal vowel as regards its sound body, and therefore more natural according to the criterion of least effort, item (b) in the list of axioms. *On/en* as a token is more frequent than other pronouns ending in a nasal vowel, and thus more natural according to the frequency criterion, item (d) in the list of axioms. *On/en* constitutes a small class, and other pronouns ending in a nasal vowel constitute a large class, hence *on/en* is natural according to the criterion of small vs. large class, item (e) in the list of axioms.
1.2. >nat (+,–) / liaison

I.e., realized liaison is more natural than unrealized liaison. – The absence of liaison is in the interest of the hearer because it is easier for him to identify words lacking liaison. According to the criterion of favourable for the hearer, item (a) in the list of axioms.
2. The rules of parallel alignment:
2.1. value A tends to associate with value C,
2.2. value B tends to associate with value D.
3. The consequences:

If a language distinguishes (in preverbal position) between *on/en* and other pronouns ending in a nasal vowel such that one set has liaison and the other set lacks it, then it is *on/en* that tends to have liaison and it is the other pronouns ending in a nasal vowel that tend to lack liaison. Q.E.D. (The reverse situation is not expected.)

(4b) French. Pronouns ending in a nasal vowel lack liaison if the following word is a verb; for instance, *le mien|est bon* 'mine is good'. There are two exceptions: the pronouns *on* and *en*; for instance, *on^entend quelque chose* 'one hears something' (Jereb 2004: 12–13). Compare *ton^ami* 'your friend'; *on^y danse* 'one dances there'.

The two variants: realized liaison of *on/en* and of other pronouns ending in a nasal vowel when preceding (i) a verb or (ii) other parts of speech. – The deduction does NOT proceed in the unnatural environment "the initial vowel of a pronounced word" but also involves the final segments of the preceding word. Consequently there is no reason for chiastic alignment.

1. The assumptions of Natural Syntax:

1.1. >nat (*on/en*, other) / pronouns ending in a nasal vowel

I.e., *on/en* is more natural than other pronouns ending in a nasal vowel. – *On/en* is lighter than other pronouns ending in a nasal vowel as regards its sound body, and therefore it is more natural according to the criterion of least effort, item (b) in the list of axioms. *On/en* as a token is more frequent than other pronouns ending in a nasal vowel, and thus it is more natural according to the frequency criterion, item (d) in the list of axioms. *On/en* constitutes a small class, and other pronouns ending in a nasal vowel constitute a large class, hence *on/en* is natural according to the criterion of small vs. large class, item (e) in the list of axioms.

1.2. >nat (verb, other parts of speech)

I.e., the verb is more natural than other parts of speech. – The verb is present in almost all clauses, whereas other parts of speech are not necessarily present. According to the frequency criterion, item (d) in the list of axioms. The verb is a small class, whereas other parts of speech constitute a large class. According to the criterion of small vs. large class, item (e) in the list of axioms.

A special case of 1.2:

1.2.1. >nat (verb and other parts of speech, only other parts of speech)

The scale assumes the permitted expanded format >nat (A + B, B) and is automatically valid because the corresponding basic scale 1.2 has been substantiated.

2. The rules of parallel alignment:

2.1. value A tends to associate with value C,

2.2. value B tends to associate with value D.

3. The consequences:

If a language distinguishes (under liaison) between *on/en* and "other" pronouns ending in a nasal vowel and preceding the verb and "other" parts of speech such that one set of pronouns ending in a nasal vowel has liaison before all parts of speech and the other set of pronouns ending in a nasal vowel has liaison only before non-verbs, then it is *on/en* that tends to have liaison before all parts of speech, and it is the "other" pronouns ending in a nasal vowel that tend to have liaison only before non-verbs. Q.E.D. (The reverse situation is not expected.)

(5) French. Adverbial question words ending in a nasal vowel lack liaison; for instance, *quand│est-il arrivé* 'when did he arrive' (Jereb 2004: 13). The corresponding conjunctions do have liaison; for instance, *quandˀ^il viendra* 'when he arrives'.

The two variants: adverbial question words and the corresponding conjunctions. – The deduction does NOT proceed only in the unnatural environment "the initial vowel of a pronounced word" but also involves the preceding word. Consequently there is no reason for chiastic alignment.

1. The assumptions of Natural Syntax:

1.1. >nat (conjunction, adverb)

I.e., a conjunction is more natural than an adverb. – As regards sound body, a conjunction is lighter than an adverb, and therefore more natural according to the criterion of least effort, item (b) in the list of axioms. Conjunctions as a token are more frequent than adverbs as a token, and therefore more natural according to the frequency criterion, item (d) in the list of axioms. Conjunctions as a type are less frequent than adverbs as a type, and thus conjunctions are more natural according to the criterion of small vs. large class, item (e) in the list of axioms.

1.2. >nat (+,−) / liaison

I.e., realized liaison is more natural than unrealized liaison. – The absence of liaison is in the interest of the hearer because it is easier for him to identify words lacking liaison. According to the criterion of favourable for the hearer, item (a) in the list of axioms.

2. The rules of parallel alignment:

2.1. value A tends to associate with value C,

2.2. value B tends to associate with value D.

3. The consequences:

If a language distinguishes between adverbial question words and corresponding conjunctions such that one alternative has liaison and the other alternative lacks it, then it is conjunctions that tend to have liaison and it is adverbial question words that tend to lack liaison. Q.E.D. (The reverse situation is not expected.)

(6) French. In verb forms ending in <rs, rt>, there is liaison only with the immediately following personal pronoun. For instance, *il dort│encore* 'he is still sleeping' lacks liaison, whereas *dortˀ^-il* 'is he sleeping' does have liaison (Léon 1966: 120).

The two variants: the type *dort-il* and the type *dors/t* + other word. – The deduction does NOT proceed in the unnatural environment "the initial vowel of a pronounced word" but also involves the final segments of the preceding word. Consequently there is no reason for chiastic alignment.

1. The assumptions of Natural Syntax:

1.1. >nat (the type *dort-il*, the type *dors/t* + other word)

I.e., the type *dort-il* is more natural than the type *dors/t* + other word. – According to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (+,−) / liaison

I.e., realized liaison is more natural than unrealized liaison. – The absence of liaison is in the interest of the hearer because it is easier for him to identify words lacking liaison. According to the criterion of favourable for the hearer, item (a) in the list of axioms.

2. The rules of parallel alignment:

2.1. value A tends to associate with value C,

2.2. value B tends to associate with value D.

3. The consequences:

If a language distinguishes between the type *dort-il* and the type *dors/t* + other word such that one type has liaison and the other type lacks it, then it is the type *dort-il* that tends to have liaison and it is the type *dors/t* + other word that tends to lack liaison. Q.E.D. (The reverse situation is not expected.)

4. Notes

4.1. The words *fort* 'very' and *toujours* 'always', with optional liaison – for instance, *toujours(^)utile* 'always useful' (Léon 1966: 120) – have two lexical items each: /for/ as well as /for(t)/ and /tužur/ as well as /tužur(z)/.

4.2. The words *trop* 'too' (e.g., *trop^aimable* 'too kind') and *beaucoup* 'very' (e.g., *beaucoup^aimé* 'very popular') (Léon 1966: 120) have lexical items ending in /(p)/; for instance, /tro(p)/. No third French word has a lexical item ending in /(p)/.

(7) French. Any vowel that is the final segment of a word lacking liaison does not change if liaison is realized; for instance, the examples *vient* '(he) comes' and *vient^il* 'does he come' contain the same verb-final vowel. Exceptions: a. the adjective *bon* 'good' loses its nasality under liaison; for instance, *bon^ami* 'good friend' [bonami]; b. in adjectives any final vowel [ε] also loses its nasality under liaison; for instance, *certain^âge* 'a certain age' [sɛrtɛna:ž] (Léon 1966: 122).

The two variants: (un)changed final vowel under liaison. – The deduction does NOT proceed in the unnatural environment "the initial vowel of a pronounced word" but also involves the final segments of the preceding word. Consequently there is no reason for chiastic alignment.

1. The assumptions of Natural Syntax:

1.1. >nat (+,–) / change of vowel due to liaison

I.e., any change of vowel due to liaison is more natural than the absence of such a change. – It is in the hearer's interest that the sounds pertaining to the same morphological paradigm do not alternate because it is easier to identify a lexical item whose sounds do not alternate. Therefore the lack of alternation must be mentioned in slot B of the scale. According to the criterion of favourable for the hearer, item (a) in the list of axioms.

1.2. >nat (small, large) / class of word-final vowels

I.e., a small class is more natural than a large class. – The word-final sounds [õ] and nasal [ε] constitute a small vowel class; the class is natural according to the criterion of small vs. large class, item (e) in the list of axioms.

2. The rules of parallel alignment:

2.1. value A tends to associate with value C,

2.2. value B tends to associate with value D.

3. The consequences:

If a language distinguishes (under liaison) between vowels that do not alternate and vowels that do alternate such that one set constitutes a small class and the other set constitutes a large class, then it is the vowels that do not alternate that tend to constitute a large class and it is the vowels that do alternate that tend to constitute a small class. Q.E.D. (The reverse situation is not expected.)

(8) French. Liaison is prohibited between a noun + adjective in the singular; for instance, *un enfant|aimable* 'an amiable child'. In the corresponding plural, liaison is optional; for instance, *des enfants(^)adorables* 'adorable children' (Jereb 2004: 13).

The two variants: noun + adjective in the singular and the plural. – The deduction proceeds in the unnatural environment "the initial vowel of a pronounced word".

1. The assumptions of Natural Syntax:

1.1. >nat (singular, plural) / noun + adjective

I.e., the singular is more natural than the plural. – The singular is zero coded in many languages, the plural much more rarely. According to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (+,–) / liaison

I.e., realized liaison is more natural than unrealized liaison. – The absence of liaison is in the interest of the hearer because it is easier for him to identify words lacking liaison. According to the criterion of favourable for the hearer, item (a) in the list of axioms.

A special case of 1.2:

1.2.1. >nat (+/–,–) / liaison

The scale assumes the permitted expanded format >nat (A + B, B) and is automatically valid because the corresponding basic scale 1.2 has been substantiated.

2. The rules of chiastic alignment:

2.1. value A tends to associate with value D,

2.2. value B tends to associate with value C.

3. The consequences:

If a language distinguishes between the singular and the plural of noun + adjective such that one grammatical number allows liaison and the other grammatical number does not allow it, then it is the singular of noun + adjective that tends to disallow liaison and it is the plural of noun + adjective that tends to allow optional liaison. Q.E.D. (The reverse situation is not expected.)

4. Notes

4.1. It would be possible for a deduction to cover as variants adjective + noun and noun + adjective (in the singular and separately in the plural); for instance, *petit^enfant* 'small child' and *enfant|aimable* 'amicable child', *petits^enfants* 'small children' and *enfants(^)adorables* 'adorable children'. However, both deductions

would result in correct predictions only if parallel alignment were utilized, a move that is not permitted in this case. The situation supports my old assumption that syntactic similarity should be given preference when the choice is between syntactic and semantic similarity. For instance, the construction (as well as the grammatical number) of the type *petit enfant* and of the type *enfant aimable* is alike semantically, whereas the type *enfant aimable* and the type *enfants adorables* are similar syntactically (and semantically less similar; note the difference in grammatical number). Consequently the deduction involving the variants *enfant aimable* and *enfants adorables*, displaying considerable syntactic similarity, is successful (above), whereas the deduction involving the variants *petit enfant* and *enfant aimable*, whose syntactic similarity is smaller, would not succeed.

4.2. In the plural of compound words such as *arcs-en-ciel* 'rainbows' the head ends in a plural with orthographic *-s*; unexpectedly, there is no accompanying liaison in the pronunciation. The reason: the ending was added by prescriptive grammarians and was never pronounced (Grevisse 1993: 808).

(9) French, only the soigné variety. Liaison is absent (in complex verb phrases) before a non-finite verb if the inversion of the subject and the finite verb is realized; for instance, *sont⌢-ils | entrés* 'did they enter'. If inversion is lacking, liaison is optional; for instance, *je vais(⌢)aller* 'I will go' (Léon 1966: 124, 129).

The two variants: (non-)realized inversion of the subject and the finite verb. – The deduction proceeds in the unnatural environment "complex verb phrase". See item 4.1.

1. The assumptions of Natural Syntax:

1.1. >nat (+,–) / left movement of the finite verb

I.e., left movement is more natural than non-movement. – The inversion of the subject and the finite verb consists in the left movement of the finite verb across the subject. According to the process criterion, item (f) in the list of axioms.

1.2. >nat (+,–) / liaison

I.e., realized liaison is more natural than unrealized liaison. – The absence of liaison is in the interest of the hearer because it is easier for him to identify words lacking liaison. According to the principle of favourable for the hearer, item (a) in the list of axioms.

A special case of 1.2:

1.2.1. >nat (+/–,–) / liaison

The scale assumes the permitted expanded format >nat (A + B, B) and is automatically valid because the corresponding basic scale 1.2 has been substantiated.

2. The rules of chiastic alignment:

2.1. value A tends to associate with value D,

2.2. value B tends to associate with value C.

3. The consequences:

If a language distinguishes between the inversion of the subject and the finite verb and the absence of such inversion such that one alternative allows optional

liaison with the non-finite verb and the other alternative disallows liaison with the non-finite verb, then it is inversion that tends to disallow liaison with the non-finite verb and it is the absence of inversion that tends to allow optional liaison with the non-finite verb. Q.E.D. (The reverse situation is not expected.)

4. Notes

4.1. It follows from the scale >nat (–,+) / complex verb phrase (according to the criterion of least effort, item (b) in the list of axioms) that any complex verb phrase constitutes an unnatural environment.

4.2. In the topic under discussion, colloquial language has little or no liaison. For this reason, the deduction is limited to the soigné variety of French.

(10) French. A relatively small class of words beginning with a vowel in pronunciation (almost all have *h aspirée* as the initial orthographic segment) disallow liaison; for instance, *les|hauteurs* 'the heights'. The remaining words beginning with a vowel in pronunciation (orthographically they begin with a vowel letter or with mute *h*) constitute a large class and admit liaison; for instance, *les^horloges* 'the clocks'.

The two variants: the type *les|hauteurs* and the type *les^horloges*. – The deduction proceeds in the unnatural environment "the initial vowel of a pronounced word".

1. The assumptions of Natural Syntax:

1.1. >nat (the type *les hauteurs*, the type *les horloges*)

I.e., the type *les hauteurs* is more natural than the type *les horloges*. – The type *les hauteurs* constitutes a smaller class than the type *les horloges*. According to the criterion of small vs. large class, item (e) in the list of axioms.

1.2. >nat (+,–) / liaison

I.e., realized liaison is more natural than unrealized liaison. – The absence of liaison is in the interest of the hearer because it is easier for him to identify words lacking liaison. According to the principle of favourable for the hearer, item (a) in the list of axioms.

2. The rules of chiastic alignment:

2.1. value A tends to associate with value D,

2.2. value B tends to associate with value C.

3. The consequences:

If a language distinguishes between the type *les hauteurs* and the type *les horloges* such that one type requires liaison and the other type disallows it, then it is the type *les hauteurs* that tends to disallow liaison and it is the type *les horloges* that tends to require liaison. Q.E.D. (The reverse situation is not expected.)

4. Notes

4.1. There are around 60 lexical items containing initial *h aspirée* in common use (Léon 1969: 127–28). Add *onze* 'eleven' (*les|onze joueurs* 'the eleven players'), although it does not begin with *h aspirée* (Jereb 2004: 13). On the other hand, there are several thousand lexical items spelled with an initial vowel (including words with initial mute *h*).

4.2. Generative phonology's solution for *h aspirée* is to list such words in the lexicon. Given the fact that in principle it is the smaller of two corresponding classes that is entered into the lexicon, generative phonology and Natural Syntax make the same prediction concerning the relative size of the *h aspirée* class.

(11) French. Words with initial *h aspirée* often lose the aspiration in derivatives; for instance, *le|héros* 'the hero' as against *l'héroïne* 'the heroine'; *le|Hegel* '[the philosopher] Hegel' as against *l'hegelianisme* 'the Hegelianism' (Gougenheim 1938: 44).

The two variants: the type *le héros* and the type *l'héroïne*. – The deduction proceeds in the unnatural environment "the initial vowel of a pronounced word".

1. The assumptions of Natural Syntax:

1.1. >nat (–,+) / derivative

I.e., any simplex is more natural than the corresponding derivative. – According to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (+,–) / liaison

I.e., realized liaison is more natural than unrealized liaison. – The absence of liaison is in the interest of the hearer because it is easier for him to identify words lacking liaison. According to the principle of favourable for the hearer, item (a) in the list of axioms.

2. The rules of chiastic alignment:

2.1. value A tends to associate with value D,

2.2. value B tends to associate with value C.

3. The consequences:

If a language distinguishes (in the context of *h aspirée*) between derived and non-derived words such that one class has liaison and the other class lacks it, then it is derived words that tend to lack liaison and it is non-derived words that tend to have liaison. Q.E.D. (The reverse situation is not expected.)

4. Note. This state of affairs has many exceptions.

References

ANDERSEN, Henning (1972) "Diphthongization." *Language* 48, 11–50.

Collins Cobuild English Grammar. London: HarperCollins, 1990.

CVETKO-OREŠNIK, Varja/Janez OREŠNIK (2007) "Natural Syntax: Three-value naturalness scales." *Slovenski jezik/Slovene linguistic studies* 6, 235–49.

GOUGENHEIM, Georges (1938) *Système grammatical de la langue française*. Paris: D'Artrey.

GREVISSE, Maurice (1993) *Le bon usage*. Thirteenth edition, revised by André Goosse. Gembloux: Duculot.

HAVERS, Wilhelm (1931) *Handbuch der erklärenden Syntax*. Heidelberg: Winter.

JEREB, Elza (⁴2004) *Francoska slovnica po naše*. [Grammar of French in Slovenian.] Ljubljana: Cankarjeva založba.

LÉON, Pierre R. (1969) *Prononciation du français standard*. Paris: Didier.

MAYERTHALER, Willi (1981) *Morphologische Natürlichkeit*. Wiesbaden: Athenaion.

Orešnik, Janez (2007a) "Natural Syntax: Negation in English." *Poznań Studies in Contemporary Linguistics* 43, 97–111.

Orešnik, Janez (2007b) "Natural syntax: the grammatical person of personal pronouns." *Sprachtypologie und Universalienforschung* 60, 293–313.

Orešnik, Janez (2007c) "Natural syntax: English interrogative dependent clauses." *Razprave* 20 [Razred za filološke in literarne vede SAZU Ljubljana], 191–208.

Orešnik, Janez (2007d) "Natural syntax: English dependent clauses." *Studia Anglica Posnaniensia* 43, 219–-36.

Orešnik, Janez (2007e) "Natural syntax: English interrogative main clauses." *Linguistica* 47, 35–48.

Orešnik, Janez (2008) "Natural syntax: English relative clauses." *Poznań Studies in Contemporary Linguistics* 44, 61–101. [Link: http://versita.metapress.com/content/120709]

Povzetek

VEZANJE (LIAISON) V KNJIŽNI FRANCOŠČINI IN NARAVNA SKLADNJA

V luči naravne skladnje se obravnava oblikoglasni pojav knjižne francoščine, imenovan vezanje (franc. *liaison(s)*). Obdelane so naslednje podrobnosti:

(1) Vezanje ni dovoljeno na koncu ritmične skupine.

(2) Ločimo obvezno in neobvezno vezanje.

(3) Vezanje je obvezno za enozložnimi predlogi, vezniki in prislovi, neobvezno pa za večzložnimi.

(4) Zaimki na nosni samoglasnik se ne vežejo, če je naslednja beseda glagol; izjemi sta zaimka *en* in *on*.

(5) Prislovne vprašalnice na nosni samoglasnik se ne vežejo, soodnosni vezniki pa se vežejo.

(6) Glagolske oblike na <rs, rt> se vežejo samo z osebnim zaimkom.

(7) Končni nosni samoglasnik besede se zaradi vezanja ne spremeni; izjemi sta [õ] pridevnika *bon* 'dober' in nosni [ɛ].

(8) Vezanja ni med samostalnikom in pridevnikom v ednini; vezanje med samostalnikom in pridevnikom v množini je neobvezno.

(9) Vezanje pred neosebno glagolsko obliko se ravna po inverziji predhodne osebne glagolske oblike: ob inverziji vezanja ni, brez inverzije je vezanje neobvezno.

(10–11) O aspiriranem *h*.