NATURAL SYNTAX: THE ENGLISH INDEFINITE ARTICLE

JANEZ OREŠNIK

University of Ljubljana, Ljubljana, Slovenia

ABSTRACT

The framework of this paper is Natural Syntax initiated by the author in the tradition of (morphological) naturalness as established by Wolfgang U. Dressler and †Willi Mayerthaler.

Natural Syntax is a developing deductive 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, the chief components of each being a pair of naturalness scales and the rules governing the alignment of corresponding naturalness values.

Natural Syntax is here exemplified with selected language data bearing on the use of the English indefinite article.

Some recent work related to Natural Syntax: Orešnik 2007a–e; 2008a–c; 2009a,b; 2009 (with Varja Cvetko-Orešnik). (Only work published in English is mentioned).

Keywords: naturalness, syntax, indefiniteness, indefinite article

Natural Syntax is a (developing) deductive linguistic theory that determines the presuppositions on the background 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.

The basic format of our naturalness scales is >nat (A, B), in which A is more natural than B. 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.

I proceed to list the criteria with which Natural Syntax substantiates natural-ness scales:

(a)   The speaker/hearer parameter.

In the scale >nat (A, B), value A is natural for the speaker (and unnatural for the hearer); value B is unnatural for the speaker (and natural for the hearer). The basic naturalness scale is >nat (favourable for the speaker, favourable for the hearer). 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).

I follow Mayerthaler (1981: 13 ff). in assuming that the speaker is the centre of communication, and therefore most properties of the speaker are natural; for instance, being the first person and/or the subject and/or +human and/or +masculine (!) and/or +singular and/or +definite and/or +referential, and so on.

What is favourable for the hearer may be less natural for the speaker. This is a pivotal point in Natural Syntax and will be maintained until some good coun-terexample nullifies it. By way of illustration, it can be pointed out that produc-ing a longish noun phrase may be „tiresome" for the speaker (= less natural for him), but may ease the hearer's decoding process considerably (= be more natu-ral for the hearer).

(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, and so on.

(c)   Degree of integration into the construction.

What is better integrated into its construction is more natural for the speaker. As a rule of thumb, what is located at the margin of a construction is less natural than what is placed inside a construction.

(d)   Frequency.

What is more frequent tokenwise is more natural for the speaker. What is cogni-tively 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. (This is frequency typewise).

(f)   The process criterion.

Any process is natural. Only movement requires special comment. Both leftward and rightward movements are natural when applied separately. When applied together the following scale is valid: >nat (left, right)/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.

I have been applying the above criteria (henceforth also called axioms) (a–h) to language material covering several languages and miscellaneous (morpho)syntactic states of affairs. Throughout my work, the criteria have compelled me, time and again, to reject certain solutions and to give precedence to other solutions. Given this encouraging experience, I will preserve the present list (a–h) until some convincing and irreparable counterexample casts doubt upon my axioms. The occurrence of such an event is in the overriding interest of Natural Syntax anyway. The only realistic aim of deductive theories is that they are eventually disproved. I am afraid that any improvement of the axioms would lead to a reduction of the chances for the desirable definitive outcome.

The above criteria of naturalness 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 (type once, 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 speaker/hearer criterion, 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 the 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 remain-

ing 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.

4.3. Henning Andersen (p.c). has pointed out to me that there is a parallel system covering numerical indications of frequency, one additional time, two/three/four additional times, and so on, which does not make use of the dichotomy treated in the above deduction. Donald Reindl (p.c). has added one more time, two/three/four more times, and so on.

This deduction maintains that the state of affairs cannot be the reverse; that is, that numerals above *two* (or *three*) would be one-word formations and that the numerals under *three* (or *four*) would be two-word formations. All predictions of our 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).

An example. In the scale >nat (main, dependent)/clause, the value "dependent clause" is an unnatural environment. 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. Chiastic alignment is blocked in deductions (also) processing semantic material. For such cases, see section (C) below.

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.

I would like to conclude the introductory remarks by drawing attention to an apparently complicated situation involving both kinds of alignment. Consider the scale >nat (intransitive, transitive)/clause; that is, an intransitive clause is more natural than a transitive clause (because an intransitive clause, displaying fewer core participants than a transitive clause, is natural according to the criterion of least effort, item (b) in the list of axioms). Given this scale, the value "transitive clause" (usually referred to as "transitivity" in my work) is an unnatural environment. This means: any deduction that makes use of the environment "transitivity" requires the implementation of chiastic alignment. A deduction in point:

(1) English. The passive is less frequent textwise than the transitive active (Carter – McCarthy 2006: 793).

The two variants: the transitive active and the passive. The deduction proceeds in the unnatural environment "transitivity".

1. The assumptions of Natural Syntax:

1.1. >nat (passive, transitive active)

I.e., the passive is more natural than a corresponding transitive active. On average, the passive realizes fewer core participants than the transitive active. Therefore the passive is natural according to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (more, less)/frequent tokenwise

I.e., what is more frequent is more natural than what is less frequent. This is the frequency criterion itself, item (d) 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 the language distinguishes between the transitive active and the corresponding passive such that one option is more frequent and the other option is less frequent, then it is the active that tends to be more frequent and it is the passive that tends to be less frequent. Q.E.D. (The reverse situation is not expected).

It is important to realize that the unnatural environment "transitivity" does not percolate in any way. Take scale 1.1 as an example. If either value of scale 1.1 serves as environment in a further deduction, the unnatural environment "transitivity" of deduction (1) ceases to act as an environment (does not percolate). Instead, as is usually the case, value A (= the passive) constitutes a natural environment (and requires parallel alignment); value B (= the active) represents an unnatural environment (and requires chiastic alignment). Consider deductions (2) and (4):

(2) English. The passive. The short passive is more frequent than the long passive. (The short passive lacks the *by*-phrase). For instance, *John was/got arrested (by the police)* (Biber et al. 1999: 943).

The two variants: the short and the long passives. The deduction proceeds in the natural environment "passive". See scale 1.1 of deduction (1).

1. The assumptions of Natural Syntax:

1.1. >nat (short, long)/passive

I.e., the short passive is more natural than the long passive. According to the criterion of least effort, item (b) in the list of axioms.
1.2. >nat (more, less)/frequent tokenwise
I.e., what is more frequent is more natural than what is less frequent. This is the frequency criterion itself, item (d) 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 the language distinguishes between the short and the corresponding long passive such that one option is more frequent and the other option is less frequent, then it is the short passive that tends to be more frequent and it is the long passive that tends to be less frequent. Q.E.D. (The reverse situation is not expected).

A deduction parallel to deduction (2):

(3) English. The *get*-passive is used in clauses denoting dynamic events; for instance, *the fence got damaged*. The *be*-passive can express dynamic events or states; for instance, *the fence was damaged* (dynamic and state) (Carter – McCarthy 2006: 800).

The two variants: *be*-passive and *get*-passive.

1. The assumptions of Natural Syntax:

1.1. >nat (*be-, get-*)/passive

I.e., the *be*-passive is more natural than the *get*-passive. All other things being equal, *be* is a more frequent verb tokenwise than *get*; therefore *be* is more natural according to the frequency criterion, item (d) in the list of axioms.

1.2. >nat (state, dynamic event)

I.e., a state is more natural than a dynamic event. Dynamic events are more salient, and therefore in the greater interest of the hearer, and must be mentioned in slot B of the scale. According to the speaker/hearer criterion, item (a) in the list of axioms.

A special case of 1.2:

1.2.1. >nat (state & dynamic, only dynamic)

Scale 1.2.1 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 the language distinguishes between the *be*-passive and the *get*- passive such that one option expresses dynamic events and states and the other option expresses only dynamic events, then it is the *be*-passive that tends to express dynamic events and states, and it is the *get*-passive that tends to express only dynamic events. Q.E.D. (The reverse situation is not expected).

4. Notes

4.1. Parallel alignment is expected in this deduction because the deduction is parallel to deduction (2). In reality, parallel alignment is the only possibility here because chiastic alignment is blocked anyway because of the semantic material in scale 1.2.1.

4.2. The *get*-passive prevails in negative or problematic contexts (positive contexts are also possible). The scale to replace 1.2.1 above is >nat (positive & negative, only negative)/contexts. Again, the semantic material of this scale blocks chiastic alignment.

4.3. The subject of the *get*-passive is often agent-like. The scale to replace 1.2.1 above is >nat (–, +)/agent-like. To be agent-like is a semantic trait, and chiastic alignment is blocked even in this case.

4.4. Items 4.1–3 suggest that deduction (3) pertains in section C. It is included in the introduction because it helps to illustrate the interplay of parallel and chiastic alignment.

4.5. Carter – McCarthy (2006: 800-801) assert that the *get*-passive is informal. This is inadequate. They point out on p. 278 that the *get*-passive is frequent in spoken academic style; for instance, in lectures. (They cite a passage from a lecture about the alimentary system and from a microbiology lecture).

(4) English. The cognate object is more frequent with a modifier than without it. For instance, *Alice laughed a **scornful** laugh* and *the laugh **(that) Alice laughed*** (Huddleston – Pullum 2002: 305).

The two variants: cognate object +/−modifier. The deduction proceeds in the unnatural environment "transitivity". See scale 1.1 of deduction (1).

1. The assumptions of Natural Syntax:

1.1. >nat (–, +)/modifier

I.e., the absence of a modifier is more natural than its presence. According to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (more, less)/frequent tokenwise

I.e., what is more frequent is more natural than what is less frequent. This is the frequency criterion itself, item (d) 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 the language distinguishes (within the cognate object) between the presence and the absence of a modifier such that one option is more frequent and the other option is less frequent, then it is the presence of a modifier that tends to be more frequent and it is the absence of a modifier that tends to be less frequent. Q.E.D. (The reverse situation is not expected).

4. Note

Uncontroversial deductions involving „transitivity" as an environment abound. I have chosen a (possibly problematic) deduction featuring the cognate object in order to demonstrate in passing that Natural Syntax changes an intransitive verb (here *laugh*) into a transitive one if a cognate object is added, as can be seen from the fact that chiastic alignment must be implemented in item 2 of the scale.

Because the matter under discussion contains features hitherto unmentioned in Natural Syntax, I add yet another (parallel) example in deductions (5) and (6):

(5) English. To express future time, *be going to* is used more than *will* (Palmer 1968: 63). I add that *be going to* is used more than *will* and *shall* taken together.

The two variants: *will/shall* and *be going to*. The deduction proceeds in the unnatural environment "future time", culled from the scale >nat (present, future)/time. (This scale is substantiated with the circumstance that expressions of present time are zero coded more often than expressions of future time. According to the typological criterion, item (h) in the list of axioms).

1. The assumptions of Natural Syntax:

1.1. >nat (*will/shall, be going to*)/as expression of future time

I.e., within expressions for future time, *will/shall* is more natural than *be going to*, according to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (more, less)/frequent tokenwise

I.e., more frequent is more natural than less frequent. This is the frequency criterion itself, item (d) 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 the language distinguishes between *will/shall* and *be going to* as expressions of future time such that one expression is more frequent and the other expression is less frequent, then it is *will/shall* that tends to be less frequent and it is *be going to* that tends to be more frequent. Q.E.D. (The reverse situation is not expected).

(6) English. In expressions of future time, first-person *shall* can be used in formal contexts instead of *will* (Carter – McCarthy 2006: 632).

The two variants: (in the first person) *will* and *shall*. Because *will/shall* is natural according to scale 1.1 in deduction (5), parallel alignment is indicated in spite of the fact that the deduction proceeds in the unnatural environment "future time".

1. The assumptions of Natural Syntax:

1.1. >nat (*will*, *shall*)

I.e., in expressions of future time, *will* is more natural than *shall*. *Will* is ten times more frequent than *shall* (Carter – McCarthy 2006: 650). Thus *will* is natural according to the frequency criterion, item (d) in the list of axioms.

1.2. >nat (–, +)/formal

I.e., informal language is more natural than formal language. Numerous languages do not use formal language at all or only sparingly. According to the typological criterion, item (h) in the list of axioms.

A special case of 1.2:

1.2.1. >nat (+/–, +)/formal language

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 the language distinguishes (in first-person expressions of future time) between *will* and *shall* such that one option is formal and the other option can be used in both formal and informal language, then it is *shall* that tends to be formal and it is *will* that tends to be used in both formal and informal language. Q.E.D. (The reverse situation is not expected).

A further example of this complicated situation seemingly involving three interdependent deductions is to be found below in section (A).

This paper exemplifies Natural Syntax with language data containing the indefinite article. The presentation concentrates on the English indefinite article; only exceptionally, related or more general topics are dealt with.

The basic relevant naturalness scale is >nat (+, –)/definite, supported with the circumstance that the speaker (as the centre of communication) is +definite (in the spirit of Mayerthaler 1981: 13). This means that "−definite" is an unnatural environment requiring chiastic alignment of the corresponding values in paired scales. Similarly, >nat (definite, indefinite)/article; the indefinite article is used much less than the definite article; for details, see deduction (7) below. This means that "indefinite article" also constitutes an unnatural environment requiring chiastic alignment.

Section (A) contains the deductions that are related to the indefinite article, but not limited to it. Section (B) is dedicated to the English indefinite article. Section (C) contains deductions involving semantic material and as a consequence invariably implementing the parallel alignment. A brief conclusion ends the paper.

(A)

From the typological point of view, the interdependence between the definite and indefinite articles is subsumed in the scale >nat ([αdefinite article, αindefinite article], [αdefinite article, −αindefinite article]); that is, having both articles or neither is more natural than having only one of the two articles. The scale is supported with the circumstance that languages having both articles or neither article clearly outnumber the languages that use only one of the articles. Therefore value A of the scale is natural according to the typological criterion, item (h) in the list of axioms. Consequently value B is unnatural. At present I am not aware of any deductions that use value B as an (unnatural) environment, whereas the further expansion of value B into >nat ([+definite article, −indefinite article], [−definite article, +indefinite article]) (substantiated below) is useful. Consider the following deductions:

(7) There are languages that have the definite article and lack the indefinite article; for instance, Icelandic. There are languages that lack the definite article and have the indefinite article; for instance, Turkish. The latter type is rarer. Therefore the relevant scale is >nat ([+definite article, −indefinite article], [−definite article, +indefinite article]); that is, the former situation is more natural than the latter situation, according to the typological criterion, item (h) in the list of axioms. Consequently, the value [−definite article, +indefinite article] represents an unnatural environment.

This deduction deals with the Icelandic case. The two variants: the definite and the indefinite articles. The environment of the deduction is natural: [+definite article, −indefinite article].

1. The assumptions of Natural Syntax:

1.1. >nat (definite, indefinite)/article

I.e., the definite article is more natural than the indefinite article. In languages such as English that use the definite as well as the indefinite article, the definite article is more frequent in texts (tokenwise) than the indefinite article.

For instance, the definite subject is four times more frequent than the indefinite subject in English (Biber et al. 1999: 269). The definite article is therefore more natural according to the frequency criterion, item (d) in the list of axioms.

1.2. >nat (+, −)/acceptable

I.e., what is acceptable is more natural than what is not acceptable. This is the acceptability criterion itself, item (g) 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 definite and the indefinite articles such that one is acceptable and the other is unacceptable, then it is the definite article that tends to be acceptable and it is the indefinite article that tends to be unacceptable. Q.E.D. (The reverse situation is not expected).

(8) There are languages that have the definite article and lack the indefinite article; for instance, Icelandic. There are languages that lack the definite article and have the indefinite article; for instance, Turkish. The latter type is rarer. Therefore the scale is >nat ([+definite article, −indefinite article], [−definite article, +indefinite article]); that is, the former situation is more natural than the latter situation, according to the typological criterion, item (h) in the list of axioms. Consequently, the value [−definite article, +indefinite article] represents an unnatural environment.

This deduction deals with the Turkish case. The two variants: the definite and the indefinite articles. − The deduction proceeds in the unnatural environment "[−definite article, +indefinite article]".

1. The assumptions of Natural Syntax:

1.1. >nat (definite, indefinite) / article

I.e., the definite article is more natural than the indefinite article. In languages such as English that use the definite as well as the indefinite article, the definite article is more frequent in texts (tokenwise) than the indefinite article. Therefore the definite article is more natural according to the frequency criterion, item (d) in the list of axioms.

1.2. >nat (+, –)/acceptable

I.e., what is acceptable is more natural than what is not acceptable. This is the acceptability criterion itself, item (g) 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 definite and the indefinite articles such that one is acceptable and the other is unacceptable, then it is the indefinite article that tends to be acceptable and it is the definite article that tends to be unacceptable. Q.E.D. (The reverse situation is not expected).

4. Notes

4.1. Natural Syntax cannot explain why in some languages – for instance, Turkish – the definite and indefinite articles are assigned acceptability in an unnatural way.

4.2. The remark "The reverse situation is not expected" at the end of item 3 in deduction (7) does not contradict the same remark at the end of item 3 in deduction (8): one deduction is set in a natural environment, and the other deduction in an unnatural environment. Notice that both deductions contain the same naturalness scales.

(B)

(9) English. Indefiniteness. In the singular, count nouns can use an indefinite article, whereas non-count nouns do not use one (Carter – McCarthy 2006: 339).
The two variants: count and non-count nouns in the singular. The deduction proceeds in the unnatural environment "indefiniteness".

1. The assumptions of Natural Syntax:

1.1. >nat (count, non-count)/nouns

I.e., count nouns are more natural than non-count nouns. Count nouns are more frequent tokenwise than non-count nouns (Biber et al. 1999: 242). According to the frequency criterion, item (d) in the list of axioms.

1.2. >nat (–, +)/indefinite article

I.e., the absence of an indefinite article is more natural than its presence. According to the criterion of least effort, item (b) 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 the language distinguishes (in the singular) between count and non-count nouns such that one kind uses the indefinite article and the other kind does not use the indefinite article, then it is the count nouns that tend to use the indefinite article and it is the non-count nouns that tend not to use the indefinite article. Q.E.D. (The reverse situation is not expected).

(10) English. Indefiniteness. Count nouns in the singular can be accompanied by the indefinite article, count nouns in the plural not (*Collins Cobuild* 1990: 54-55).

The two variants: count nouns in the singular and plural. – The deduction proceeds in the unnatural environment "indefiniteness".

1. The assumptions of Natural Syntax:

1.1. >nat (singular, plural)

I.e., the singular is more natural than the plural. The singular is often zero coded and is natural according to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (–, +)/indefinite article

I.e., the absence of the indefinite article is more natural than its presence. According to the criterion of least effort, item (b) 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 the language distinguishes (within count nouns) between the singular and the plural such that one number admits the indefinite article and the other number does not admit it, then it is the count nouns in the singular that tend to admit the indefinite article and it is the count nouns in the plural that tend not to admit the indefinite article. Q.E.D. (The reverse situation is not expected).

(11) English. With nouns that can use the definite and indefinite articles, the indefinite article is used when a noun is mentioned for the first time *(Collins Cobuild* 1990: 54-55).
The two variants: first and non-first mention.

1. The assumptions of Natural Syntax:

1.1. >nat (non-first, first)/mention

I.e., the non-first mention is more natural than the first mention. The hearer is most interested in the first mention, and therefore the first mention must be located in slot B of the scale. According to the speaker/hearer criterion, item (a) in the list of axioms.

1.2. >nat (definite, indefinite)/article

I.e., the definite article is more natural than the indefinite article. The definite article is much more frequent in texts, thus it is more natural according to the frequency criterion, item (d) 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 the language distinguishes between the definite and the indefinite articles such that one is used in the first mention of a noun and the other is used in non-first mentions of that noun, then it is the indefinite article that tends to be used in the first mention of a noun and it is the definite article that tends to be used in the non-first mentions of that noun. Q.E.D. (The reverse situation is not expected).

(12) English. Subject complement. The type *the vicar was worried* expresses a less permanent property than the type *the vicar was a worried man* (examples from *Collins Cobuild* 1990: 54-55).

   The two variants: the type *the vicar was worried* and the type *the vicar was a worried man*. The deduction proceeds in the unnatural environment "subject complement", culled from the scale >nat (subject, other)/clause element, from which it follows that the subject complement represents an unnatural environment.

1. The assumptions of Natural Syntax:

1.1. >nat (*worried, a worried man*)

   I.e., *worried* is more natural than *a worried man*. According to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (more, less)/permanent property

   I.e., a more permanent property is more natural than a less permanent property. On average, the less permanent properties are more salient than the more permanent ones. The less permanent properties are therefore of greater interest to the hearer and must be mentioned in slot B of the scale. According to the hearer/speaker criterion, 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 the language distinguishes between the subject complements *worried* and *a worried man* such that one expresses a less permanent property and the other expresses a more permanent property, then it is the type *worried* that tends to express a less permanent property and it is the type *a worried man* that tends to express a more permanent property. Q.E.D. (The reverse situation is not expected).

(13) English. Indefiniteness. In generic usage the type *a computer* is less frequent than the type *computers* (*Collins Cobuild* 1990: 54-55).

   The two variants: (in generic usage) the singular and the plural. The deduction proceeds in the unnatural environment "indefiniteness".

1. The assumptions of Natural Syntax:

1.1. >nat (singular, plural)

   I.e., the singular is more natural than the plural. The singular is often zero coded and is natural according to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (more, less)/frequent tokenwise

   I.e., what is more frequent is more natural than what is less frequent. This is the frequency criterion itself, item (d) 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 the language distinguishes (in generic usage) between the singular and the plural such that one grammatical number is more frequent and the other grammatical number is less frequent, then it is the singular that tends to be less frequent and it is the plural that tends to be more frequent. Q.E.D. (The reverse situation is not expected).

(14) English. When a numeral or a genitive are determiners they can be preceded by the indefinite article; for instance, [*a hundred*] *charges*, [*a colleague's*] *house*; when they are modifiers they cannot be preceded by the indefinite article; for instance, *these* [*hundred*] *charges, the* [*dollar's*] *worth of coins* (Huddleston – Pullum 2002: 372).

The two variants: determiners and modifiers. The deduction proceeds in the unnatural environment "indefiniteness".

1. The assumptions of Natural Syntax:

1.1. >nat (determiner, modifier)/numeral or genitive

I.e., a determiner is more natural than a modifier. The class of determiners is smaller than the class of modifiers, and therefore the determiners are more natural according to the criterion of small vs. large class, item (e) in the list of axioms.

1.2. >nat (–, +)/indefinite article

I.e., the absence of the indefinite article is more natural than its presence. According to the criterion of least effort, item (b) 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 the language distinguishes (within numerals and genitives) between determiners and modifiers such that one function permits the use of the indefinite article and the other function does not, then it is the determiner that tends to permit the use of the indefinite article and it is the modifier that tends to block the use of the indefinite article. Q.E.D. (The reverse situation is not expected).

(15) English. If the indefinite article is in contact with another determiner, its use is blocked; for instance, **these* [*a hundred*] *charges* (cf. Huddleston – Pullum 2002: 372).

The two variants: the presence and absence of the indefinite article.

1. The assumptions of Natural Syntax:

1.1. >nat (determiner D, determiner D + adjacent indefinite article)

   I.e., determiner D is more natural than determiner D + adjacent article. According to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (+, –)/acceptable

   I.e., what is acceptable is more natural than what is not acceptable. This is the acceptability criterion itself, item (g) 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 the language distinguishes between determiner D and determiner D + adjacent indefinite article such that one option is acceptable and the other option is not acceptable, then it is the determiner D + adjacent indefinite article that tends to be unacceptable and it is the determiner D alone that tends to be acceptable. Q.E.D. (The reverse situation is not expected).

(16) English. The degree modifier *this/that tall* in relation to the indefinite article. The usual word order is *a man this/that tall*, less usual *this/that tall a man* (Carter – McCarthy 2006: 449).

   The two variants: more integrated indefinite article (as in *this tall a man*) vs. less integrated indefinite article (as in *a man this tall*). The deduction proceeds in the unnatural environment "indefiniteness".

1. The assumptions of Natural Syntax:

1.1. >nat (more, less)/integrated, said of indefinite article

   I.e., a more integrated indefinite article is more natural than a less integrated indefinite article. According to the criterion of degree of integration, item (c) in the list of axioms.

1.2. >nat (more, less)/frequent tokenwise

I.e., what is more frequent is more natural than what is less frequent. This is the frequency criterion itself, item (d) 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 the language distinguishes between the type *a man this tall* and the type *this tall a man* such that one type is more frequent and the other type is less frequent, then it is the type *a man this tall* that tends to be more frequent and it is the type *this tall a man* that tends to be less frequent. Q.E.D. (The reverse situation is not expected).

(17) English. The *this/that* of *this/that tall a man* can be questioned (*how tall a man*), whereas the *this/that* of *a man this/that tall* cannot be questioned (Carter – McCarthy 2006: 449).

The two variants: the less integrated *this/that* of *this/that tall a man* and the more integrated *this/that* of *a man this/that tall*. – The deduction proceeds in the unnatural environment "noun phrase", culled from the scale >nat (noun, noun phrase), substantiated according to the criterion of least effort, item (b) in the list of axioms.

1. The assumptions of Natural Syntax:

1.1. >nat (more, less)/integrated, said of questioned *this/that*

I.e., a more integrated *this/that* is more natural than a less integrated *this/that*. According to the criterion of degree of integration, item (c) in the list of axioms.

1.2. >nat (+, –)/acceptable

I.e., what is acceptable is more natural than what is not acceptable. This is the acceptability criterion itself, item (g) 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 the language distinguishes between the type *this/that tall a man* and the type *a man this/that tall* such that the *this/that* of one type can be replaced by a question word and the *this/that* of the other type cannot be replaced by a question word, then it is the *this/that* of the type *this/that tall a man* that can be replaced by a question word and it is the *this/that* of the type *a man this/that tall* that cannot be replaced by a question word. Q.E.D. (The reverse situation is not expected).

(18) English. The intensifying adverb *rather*. When intensifying *rather* is used in a noun phrase also containing the indefinite article and an adjective, the noun phrase can be of the type *a rather posh Greek restaurant*, used in spoken and written language. The noun phrase can also be of the type *rather a rash decision*, more common in written language (Carter – McCarthy 2006: 130). The indispensable feature of the two types is the presence of the indefinite article. (Intensifying *rather* can of course also be used without the indefinite article; e.g. *we passed some rather nice old houses on the main road*).

The two variants: a more and a less integrated *a*. The deduction proceeds in the unnatural environment "noun phrase".

1. The assumptions of Natural Syntax:

1.1. >nat (more, less)/integrated, said of indefinite article

I.e., a more integrated indefinite article is more natural than a less integrated indefinite article. – According to the criterion of degree of integration, item (c) in the list of axioms.

1.2. >nat (–, +)/formal language

I.e., informal language is more natural than formal language. Numerous languages do not use formal language at all or only sparingly. According to the typological criterion, item (h) in the list of axioms.

A special case of 1.2:

1.2.1. >nat (+/−, +)/formal language

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 the language distinguishes (with rather) between a more and less integrated indefinite article such that one option is used in both formal and informal language and the other option is used only in formal language, then it is the more integrated indefinite article that tends to be used only in formal language and it is the less integrated indefinite article that tends to be used in both formal and informal language. Q.E.D. (The reverse situation is not expected).

(19) English. Indefiniteness. In the type *what kind of shop* informal language also uses *what kind of a shop* (Carter – McCarthy 2006: 338).

   The two variants: the type *what kind of shop* and the type *what kind of a shop*. The deduction proceeds in the unnatural environment "indefiniteness".

1. The assumptions of Natural Syntax:

1.1. >nat (type *what kind of shop*, type *what kind of a shop*)

   I.e., the type *what kind of shop* is more natural than the type *what kind of a shop*. According to the criterion of least effort, item (b) in the list of axioms.
1.2. >nat (−, +)/formal language
   I.e., informal language is more natural than formal language. Numerous languages do not use formal language at all or only sparingly. According to the typological criterion, item (h) in the list of axioms.

A special case of 1.2:

1.2.1. >nat (–, +/–)/formal language

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 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 the language distinguishes between the type *what kind of shop* and the type *what kind of a shop* such that one type is used only in informal language and the other type is used in both formal and informal language, then it is the type *what kind of a shop* that tends to be used only in informal language and it is the type *what kind of shop* that tends to be used in both formal and informal language. Q.E.D. (The reverse situation is not expected).

(C)

(20) English. Singular nouns referring to only one thing (*sky, sun*) use the definite article. If such a noun is preceded by a modifier or a quantifier, the indefinite article is used; for example, *we drove under a gloomy sky* (*Collins Cobuild* 1990: 55).

The two variants: the type *the sky* and the type *a gloomy sky*. The deduction proceeds in the unnatural environment "noun phrase". However, chiastic alignment is blocked because of the semantic material ("singular nouns referring to just one thing").

1. The assumptions of Natural Syntax:

1.1. >nat (–, +)/modifier/quantifier

I.e., the absence of a modifier/quantifier is more natural than its presence. According to the criterion of least effort, item (b) in the list of axioms.

1.2. >nat (definite, indefinite)/article

I.e., the definite article is more natural than the indefinite article. The definite article is more frequent in texts than the indefinite article. According to the frequency criterion, item (d) 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 the language distinguishes, with nouns like *sky*, between the absence and presence of a modifier/quantifier such that one option uses the definite article and the other option uses the indefinite article, then it is the absence of a modifier/quantifier that tends to combine with the definite article and it is the presence of a modifier/quantifier that tends to combine with the indefinite article. Q.E.D. (The reverse situation is not expected).

(21) English. Indefiniteness. Some instances of the indefinite article are replaceable by *one* (quantitative use, e.g. *she has just bought a new car*), others not (non-quantitative use, e.g. *Jill is a doctor*) (Huddleston – Pullum 2002: 372).

The two variants: quantitative and non-quantitative use of the indefinite article. – The deduction proceeds in the unnatural environment "indefiniteness". However, chiastic alignment is blocked because of the semantic material in scale 1.1.

1. The assumptions of Natural Syntax:

1.1. >nat (–, +)/quantitative use of indefinite article

I.e., the non-quantitative use of the indefinite article is more natural than the quantitative use of the indefinite article. An indication that the non-quantitative use is more natural can be seen in the circumstance that the non-quantitative indefinite article occurs in syntactic environments that do not have a common denominator. Therefore the non-quantitative use of the indefinite article is difficult for the hearer to decode. Hence the non-quantitative use must be mentioned in slot A of the scale. According to the speaker/hearer criterion, item (a) in the list of axioms.

1.2. >nat (*a*, *one*)

I.e., *a* is more natural than *one*. According to the criterion of least effort, item (b) in the list of axioms.

A special case of 1.2:

1.2.1. >nat (only *a*, *a & one*)

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 the language distinguishes between the quantitative and the non-quantitative use of the indefinite article such that one use allows the replacement with *one* and the other use does not allow the replacement with *one*, then it is the quantitative use that tends to allow the replacement with *one* and it is the non-quantitative use that tends not to allow the replacement with *one*. Q.E.D. (The reverse situation is not expected).

(22) English. Generic use of the indefinite article. The indefinite article mostly cannot be applied to sets; for instance, *A lion will soon be extinct* (example from Huddleston – Pullum 2002: 407). A "set" reading refers to every member of a species. An acceptable "set" reading can be exemplified by *a computer can perform many tasks*. An example of the "non-set" reading: *it can be dangerous to break a law*.

The two variants: (generic use of the indefinite article): the set and the non-set readings. The deduction proceeds in the unnatural environment indefiniteness. However, chiastic alignment is blocked because of the semantic material in scale 1.1.

1. The assumptions of Natural Syntax:

1.1. >nat (set, non-set)/reading

   I.e., a set reading is more natural than a non-set reading. A non-set reading is more complicated for the speaker than a set reading: a non-set reading contains the „all" of the set reading and additionally a negation, thus "not all". What is not favourable for the speaker must be mentioned in slot B of the scale. According to the speaker/hearer criterion, item (a) in the list of axioms.

1.2. >nat (–, +)/indefinite article

   I.e., the absence of the indefinite article is more natural than its presence. According to the criterion of least effort, item (b) in the list of axioms.

A special case of 1.2:

1.2.1. >nat (+/–, +)/indefinite article

Scale 1.2.1 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 the language distinguishes (within the generic indefinite article) between set and non-set readings such that one option requires the indefinite article and the other option allows it, then it is the set reading that tends to allow the indefinite article and it is the non-set reading that tends to require the indefinite article. Q.E.D. (The reverse situation is not expected).

(23) English. The generic use of articles is non-quantitative; for instance, *a/the lion is a ferocious beast* (Huddleston – Pullum 2002: 372, 407).

   The two variants: the generic and other use of articles. The deduction involves both articles and does NOT proceed only in the unnatural environment „indefiniteness". Chiastic alignment is blocked anyway because of the semantic material in scale 1.2.

1. The assumptions of Natural Syntax:

1.1. >nat (generic, other)/use of articles

   I.e., the generic use of articles is more natural than other use of articles. Only genericness is prevailingly expressed with a zero article, and therefore the generic use is natural according to the criterion of least effort, item (b) in the list of axioms. (The definite and the indefinite articles can also be used generically, but that use is formal, *Collins Cobuild* 1990: 55). On the other hand, it is difficult for the hearer to decode genericness because this has several means of expression. Therefore genericness must be mentioned in slot A of the scale. According to the speaker/hearer criterion, item (a) in the list of axioms.

1.2. >nat (–, +)/quantitative use of indefinite article

   I.e., the non-quantitative use of the indefinite article is more natural than the quantitative use of the indefinite article. An indication that the non-quantitative use is more natural can be seen in the circumstance that the non-quantitative indefinite article occurs in syntactic environments that do not have a common denominator. Therefore the non-quantitative use of the indefinite article is difficult for the hearer to decode. Hence the non-quantitative use must be mentioned in slot A of the scale. According to the speaker/hearer principle, 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 the language distinguishes between the generic and other use of articles such that one use is non-quantitative and the „other" use is quantitative or non-quantitative, then it is the generic use that tends to be non-quantitative and it is other use that tends to be quantitative or non-quantitative. Q.E.D. (The reverse situation is not expected).

Conclusion

It has been demonstrated that Natural Syntax can handle English data involving indefiniteness, in particular the indefinite article, provided that indefiniteness is

granted the status of an unnatural environment (requiring chiastic alignment, except when chiastic alignment is blocked and replaced by parallel alignment in the presence of semantic phenomena).

The above illustration testifies that Natural Syntax is capable of predicting a significant amount of language situations, given a small number of presuppositions (i.e., the particular description of language data adopted, the choice of variants, the naturalness scales, the alignment rules) and a modest apparatus (namely the deduction format). As mostly in morphology and unlike in generative syntax, the predictions are shallow in the sense that no prediction follows from any other prediction.

The special trait of Natural Syntax is its insistence on comparing two variants (mostly variant constructions) in each deduction. Thus Natural Syntax has something to say only about those areas of a language that happen to display variants. For instance, the fact that Slovenian uses one construction with the cardinal numerals 1–4, and another from 5 on, is of interest for Natural Syntax; the fact that English makes no such difference cannot be accounted for in Natural Syntax.

Ignoring this limitation, it is still impossible to compare the predictive power of Natural Syntax and, say, of generative grammar because the presuppositions of the predictions in one school and the other are so different.

The development of Natural Syntax is to be continued, exploiting as variegated language material as possible.

REFERENCES

Andersen, Henning
    1972   "Diphthongization", *Language* 48: 11–50.
Biber, Douglas – Stig Johansson – Geoffrey Leech – Susan Conrad – Edward Finegan
    1999   *Longman grammar of spoken and written English*. London: Longman.
Carter, Ronald – Michael McCarthy
    2006   *Cambridge grammar of English.* Cambridge: Cambridge University Press.
Collins Cobuild English Grammar.
    1990   London: Harper Collins.
Cvetko-Orešnik, Varja – Janez Orešnik
    2009   "Natural Syntax: Expressions of future time", in: Steven Franks et al. (eds.), 167–187.
Franks, Steven – Vrinda Chidambaram – Brian Joseph (eds).
    2009   *A linguist's linguist. Studies in South Slavic linguistics in honor of E. Wayles Browne*. Bloomington, IN: Slavica.
Havers, Wilhelm
    1931   *Handbuch der erklärenden Syntax*. Heidelberg: Winter.

Huddleston, Rodney – Geoffrey K. Pullum
    2002   *The Cambridge grammar of the English language.* Cambridge: Cambridge University Press.
Mayerthaler, Willi
    1981   *Morphologische Natürlichkeit.* Wiesbaden: Athenaion.
Orešnik, Janez
    2007a   "Natural Syntax: Negation in English", *Poznań Studies in Contemporary Linguistics* 43: 97–111.
    2007b   "Natural syntax: the grammatical person of personal pronouns", *Sprachtypologie und Universalienforschung* 60: 293–313.
    2007c   "Natural syntax: English interrogative dependent clauses", *Razprave* 20 [*Razred za filološke in literarne vede* SAZU Ljubljana]: 191–208.
    2007d   "Natural syntax: English dependent clauses, *Studia Anglica Posnaniensia* 43: 219–36.
    2007e   "Natural syntax: English interrogative main clauses", *Linguistica* 47: 35–48.
    2008a   "Natural syntax: English relative clauses", *Poznań Studies in Contemporary Linguistics* 44, 61–101.
    2008b   "Natural syntax: English reported speech", *Studia Anglica Posnaniensia* 44: 217–252.
    2008c   "Standard French liaison and Natural Syntax", *Linguistica* 48: 33–48. [Demetrio Skubic octogenario I].
    2009a   "Transitivity in Natural Syntax: Accusative languages", Poznań Studies in Contemporary Linguistics 45: 405-446.
    2009b   "Natural Syntax of Belfast English (I) Subject-verb agreement (II) Imperative", Studia Anglica Posnaniensia 45, 2: 107–43.
Palmer, Frank R.
    1968   *A linguistic study of the English verb*. Coral Gables, FL: University of Miami Press.