

"COLORLESS GREEN IDEAS SLEEP FURIOUSLY": A LINGUISTIC TEST CASE AND ITS APPROPRIATIONS

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Chomsky: Well, a small industry has been spawned by one linguistic example, namely, Colorless green ideas sleep furiously, which has been the source of poems and arguments and music and so on.

Howard Lasnik: This is a very interesting sentence because it shows that syntax can be separated from semantics, that form can be separated from meaning. Colorless green ideas sleep furiously. Doesn't seem to mean anything coherent but sounds like an English sentence. If you read it back to front – furiously sleep ideas green colorless – that wouldn't sound like English at all.

Chomsky: Well that tells us that there's more to what determines the structure of a sentence than whether it has meaning or not...¹

Anecdotally quoting himself, Chomsky launches the most notorious of linguistic examples, the sentence that makes it into *Bartlett's Familiar Quotations* and is sometimes simply referred to as the "Chomsky sentence" (Policar 1997). Taking up the cue, Lasnik contrasts it to a sequence of word salad – the Chomsky sentence read "back to front" – and both linguists are comfortably embarked on their joint exposition of Chomskyan linguistics. Rather than follow this natural course of events, the present essay will focus on the significance of the sentence's various appropriations. Originally an aspect of literary theory – usually discussed in the context of 'writerly texts' (Barthes 1970), 'creative misreadings' (Bloom 1975), or adaptations of Shakespeare (Dollimore 1984, Walsh 1998) – appropriation refers to the legitimate assumption of interpretive power (often in the face of established and authorized readings). Chomsky good-humoredly accepts the 'industry' of the sentence's appropriations, including the more exotic ones, but, clearly, he and Lasnik (re)appropriate it themselves for the purpose of educating their present audience. Tracing the reception history of the Chomsky sentence, this essay argues that the constructivist energy liberated in the process of appropriation is a crucial aspect of meaning construction in general – whether in interpretation of linguistic examples or of literary texts. (In the following, 'C1' will be used to refer to "Colorless green ideas sleep furiously", i.e., the original version of the Chomsky sentence, and 'C2' will refer to "Furiously sleep ideas green colorless", the scrambled version.)

Today, C1 is often appropriated as basic exercise material, especially in textbooks in linguistics or cognitive science. For instance, exercise I of Andrew Radford's *Transformational Grammar* asks the reader to "[d]iscuss whether any or all of the following

1 The fragment of this dialogue was found at <http://nuance.dhs.org/lbo-talk/9902/0531.html>.

sentences are ill-formed, and if so, what the nature of the ill-formedness is (pragmatic, syntactic, semantic, etc.)" (Radford 1988: 46). Ten sentences are cited, among them assorted oddities like "My wife is not my wife" (item 2), "This is a five-sided hexagon" (item 3), "This oats is of a rather poor quality" (item 4), "Two and two is five" (item 6). C1 comes up as item 9.

No "additional background knowledge or reading" is required for answering the questions, Radford (1988: x) assures us, but readers never do as they are told, especially when they know that they can look up the answer elsewhere. Both C1 and C2 make their first public appearance in chapter 2 of *Syntactic Structures* (Chomsky 1957), which gets down to business briskly, laying down the following stipulations:

From now on, I will consider a *language* to be a set (finite or infinite) of sentences [...]. All natural languages [...] are languages in this sense [...]. Similarly, the set of 'sentences' of some formalized system of mathematics can be considered a language. The fundamental aim in the linguistic analysis of a language *L* is to separate the *grammatical* sequences which are the sentences of *L* from the *ungrammatical* sequences which are not sentences of *L* and to study the structure of the grammatical sequences. The grammar of *L* will thus be a device that generates all of the grammatical sequences of *L* and none of the ungrammatical ones (ibid.: 13, emphases in the original).

The passage creates an analogy between artificial and natural languages. Soon Chomsky will disparage and discard it, but within limits it still works remarkably well. It places a grammatical natural-language sentence such as "Sincerity may frighten the boy" alongside a 'grammatical' mathematical 'sentence' such as " $x=(5-2)+3$ ", and conversely, an ungrammatical natural-language sentence such as "boy the frighten may sincerity" alongside a formula like " $3+2-5(=x)$ ". Actually, the appropriate terms in mathematics and logic are 'well-formed formula' (WFF, pronounced 'Woof') and 'ill-formed formula' (IFF), respectively. One of the immediate effects of Chomsky's analogy is that it enriches the vocabularies on both sides of the divide – prompting mathematicians to investigate the 'syntax' and the 'grammar' of their symbolic language, and prompting linguists to differentiate the various conditions of phonological, syntactic, and semantic well- or ill-formedness.

The revolutionary feature of Chomsky's grammar is that it generates infinitely many grammatical sentences together with their structural descriptions. One must bear in mind, however, that it says nothing about an expression's meaning. This is the point where C1 comes into play, namely as evidence for the fact that "the notion 'grammatical' cannot be identified with 'meaningful' or 'significant' in any semantic sense" (Chomsky 1957: 15). There is nothing in the grammar that prevents it from generating sentences like "Colorless green ideas sleep furiously" or " $2+2=5$ ". It is only when these sentences are *interpreted* that the former comes out as nonsensical and the latter

as false.² For both Chomsky and Lasnik, this is a good reason for separating syntax and semantics. Implicit in such a modularization is a sense of cognitive sequence, roughly paraphrasable as "syntax first, meaning afterwards". From this point onwards, the analogy no longer runs smoothly. While a computer wastes no time on interpreting a formula that is not well-formed, people spend a great deal of time doing exactly that.

To answer Radford's question, one can use Chomsky's own words: C1 is "nonsensical, but [...] grammatical" (Chomsky 1957: 15). Translated into the well-formedness terms required by Radford, the sentence is well-formed syntactically but ill-formed semantically. For a bonus point, we can add that C2 is ill-formed syntactically *and* ill-formed semantically. Let us record this as Answer #1. (We can expect to get full marks for it.)

On closer inspection, there is a snag to the grammaticalness/well-formedness equation. Obviously, anything that is syntactically ill-formed is ungrammatical (Radford 1988: 6). Phonological ill-formedness, on the other hand, does not seem to affect overall grammaticalness at all – as becomes apparent when Radford discusses a "phonologically ill-formed" sentence like "This is A grammatiCAL senTENCE" (ibid.: 4; the capitalized letters indicating stressed segments). On what grounds is the distinction made? Both syntax and phonology are 'components' of the grammar. If the grammar accepts "This is A grammatiCAL senTENCE" then it accepts an ill-formed sequence, subverting its own design requirements. In fact, in the absence of an argument to the contrary (none is presented by Radford), "This is A grammatiCAL senTENCE" must be an ungrammatical sentence. Now consider a grammar which comprises not two components (i.e., syntax and phonology, as in Chomsky 1957) but three (syntax, phonology, and semantics, as from Chomsky 1965 onwards). According to Radford (1988: 28), an adequate grammar must correctly specify "which sentences are (and are not) syntactically, semantically, morphologically, and phonologically well-formed". Hence, because it is ill-formed semantically, C1 is ungrammatical, a conclusion which Radford will find unacceptable.³ Nevertheless, let us appropriate C1 to argue precisely for this answer, and record it as Answer #2.

2 Likewise, "Two and two is five" (item 6 in Radford's exercise) is well-formed on all levels but comes out as false on interpretation. Falsity, on this view, is not a semantic anomaly (see below for a tentative catalog of semantical anomalies).

3 "Given the distinction between ungrammaticality and semantic ill-formedness we have to beware of making (contradictory) statements like: 'Such and such sentence is ungrammatical because it doesn't make sense'", Radford (1988: 16) says. Actually, "the distinction between ungrammaticality and semantic ill-formedness" is just an unargued postulate, not something that must be accepted as 'given'. Even if one accepts that the semantic component is only an 'interpretive' component, the distinction is not a logical consequence in any sense of the word.

While Answer #2 may be held to appropriate C1 against its authorized, original, or at any rate intended evidence, the next stage in the history of the sentence shows a remarkable case of self-appropriation:

Apparently, many linguists hold that if a context can be constructed in which an interpretation can be imposed on an utterance, then it follows that this utterance is not to be distinguished, for the purposes of study of grammar, from perfectly normal sentences. Thus, e.g., 'colorless green ideas sleep furiously' [...] [is] not to be distinguished, in this view, from 'revolutionary new ideas appear infrequently' though the distinction can clearly be both stated and motivated on syntactic grounds. (Chomsky 1964: 50n2)

The 'distinction' alluded to here involves 'degrees of grammaticalness', a concept which receives full treatment in Chomsky (1965: 75-79; 148-53). In this model, degrees of grammaticalness are specifically related to a particular type of rule called 'selection restriction rule'. A selection restriction rule acts as a filter on a verb's possible arguments (i.e., subjects and objects). For instance, a verb like *frighten* demands an animate direct object – one can frighten a boy but one cannot frighten sincerity. Similarly, the verb *sleep* requires an animate subject, so that "the boy sleeps" is OK but "ideas sleep" is not OK. Or, rather, not quite OK, since the latter type of deviant sentence is now identified as 'semi-grammatical'. Evidently, violations of selectional restrictions are less serious than violations of 'strict' syntactic rules, hence C1 comes to be characterized as a 'semi-sentence' distinct from perfectly grammatical sentences like "revolutionary new ideas appear infrequently" on the one hand, and from perfectly ungrammatical ones such as C2 on the other.

This gives us two further answers to Radford's question. Answer #3 is that C1 is ill-formed syntactically because it cannot pass the filter of a syntax enriched by selection restrictions. Answer #4 is that C1 is neither well-formed nor ill-formed syntactically because semi-grammatical sentences occupy a middle ground between perfectly grammatical and perfectly ungrammatical ones.

Deviant sentences come in a range of forms and can be constructed in a variety of ways. A none-too-subtle procedure, as we have seen, is to take a grammatical sentence and re-string it from right to left. A more sophisticated way is to disable certain rules of the grammar or to ignore certain selection restrictions. A third way is to open a book of poetry:

In 1963, in a class on English Structure at MIT, Professor Noam Chomsky introduced examples of word-order violations from a poem written by E.E. Cummings, entitled "Me up at does" – it had appeared in *The New Yorker* that week. Professor Chomsky called our attention to the poem as containing sequences that are not permissible in standard English (Fairley 1981 [1973]: 123).

This anecdote marks an important point in the relationship between literary and linguistic studies. Earlier in the twentieth century, the 'Prague structuralists' around Jan Mukařovský had developed a stylistics of norms and deviations which, unfortunately, had promptly fallen victim to the communists' dislike of everything that smacked of

'formalism'. While the main proponents of the theory were forced to recant, their work continued to be influential in Western universities. In the mid 1960's, Chomsky's 'degrees of grammaticalness' seemed to offer an unmissable opportunity, namely to resurrect the project of structuralist poetics on the ground of generative grammar. Among the theorists who took up a generative approach to stylistics were Timothy R. Austin, Manfred Bierwisch, Irene R. Fairley, Curtis W. Hayes, William O. Hendricks, Richard Ohmann, and James P. Thorne. For anybody interested in the history of literary theory, most of these authors are conveniently represented in two collections of critical essays edited by Donald C. Freeman (1970, 1981).

Although many of the textual analyses in Freeman's two volumes continue to be enlightening reading, it is nevertheless obvious today that the literary theorists were pursuing illusory goals and conceptions. When it came to the crunch, transformational grammar was unable to tell a poetically loaded deviation from a sentence strung backwards. Indeed, the one essay in Freeman (1981) that is as topical today as it was then is Stanley Fish's (1973) devastating dissection of some of the formalist approaches toward literary interpretation.⁴ One of the main reasons why generative stylistics was destined to an early demise was the fact that, within grammatical theory, selectional restrictions and degrees of grammaticalness turned out to be only momentary diversions. As far as selectional restrictions are concerned, Chomsky and others quickly realized that their syntactical status was dubious; as a matter of fact, even in 1965 Chomsky toyed with the idea of moving them to the semantic component (Chomsky 1965: 153). 'Degrees of grammaticalness' fared even worse because the linguists soon realized that a crisp concept of ungrammaticalness was, after all, more useful than an adulterated one.

But let us return to the thread of Radford's exercise. The one constant factor in all our answers given so far was the interpretation that C1 'does not make sense'. It is high time that we look into that judgment now. The first problem that presents itself is the notion of *semantic ill-formedness* itself. In his conversation with Chomsky, Lasnik uses C1 to separate meaning and form; now, the well/ill-formedness terms seem to suggest that meaning can be inspected in some kind of physical form. This is a conceptual problem, and it is prudent to be aware of it; however, I am prepared to accept what most linguists accept at this point, namely that one can hypostatize a 'semantic representation' on a level of theoretical abstraction, and that this representation can indeed be well- or ill-formed.

4 Latent in Fish's critique are the basic argumentative moves of the incumbent deconstructionist movement. Seen from a deconstructionist vantage, Chomsky's discourse exhibits all the typical features of a brazenly dominating discourse – a discourse privileging a centered core and at the same time marginalizing its various 'others' as deviant, aberrant, abnormal, ill-formed, or ungrammatical. The tensions created by these coercive 'idealizations' would be considerable indeed, and it is tempting to appropriate C1 to show how the system fissures along its fault lines.

Consider, then, informally, that semantic anomalies come in three main types – (1) contradictions ("My wife is not my wife", "This is a five-sided hexagon"), (2) incongruities ("Paint is silent", "Ideas sleep"), and (3) redundancies ("A hexagon is a six-sided polygon"). Generally speaking, all of these confront a hearer with useless information. On the strength of these types, C1 can be diagnosed as multiply semantically ill-formed. As Robert Beard (2001) puts it, "the sentence does not make sense because things logically cannot be colorless and green simultaneously, ideas cannot sleep and nothing can sleep furiously (can it?)". Let us add that ideas also cannot be green. In sum, then, C1 contains one contradiction and three incongruities.

Talking of types of *semantic* ill-formedness, we may have been a bit careless about domains and borderlines. Note that our definitions already rely on certain *pragmatic* considerations – considerations involving speakers, hearers and communicative contexts. Not only does our general definition posit that semantic anomalies *confront the hearer with useless information*, Beard thinks nothing of appending a tag question to his seemingly absolute diagnosis. Of course, in one sense, Beard's "can it?" is just a rhetorical question, inviting us to accept his ill-formedness judgment; in a very different sense, however, he also inquires into the (remote) possibility of a hearer's divergent linguistic practice or an unusual belief. Pinker's analysis of C1 has a similarly pragmatic orientation: "Anyone can answer questions like 'What slept?' How? Did one thing sleep or several? What kind of ideas were they?" (Pinker 1995: 89). In order to ask these questions, he must temporarily accept 'that things can sleep', a notion which is semantically incongruous itself, according to the definition given above.

Let us move more deliberately into pragmatics and briefly consider the issue from a Gricean point of view. According to Grice, human communication is governed by a Co-operative Principle (CP) which binds speakers to 'conversational maxims' – to be truthful, to speak to the point, to give the right amount of information, and so on. For a hearer, the CP translates into a set of interpretive assumptions which directly parallel the conversational maxims: that the speaker is speaking co-operatively, relevantly, giving the right amount of information, etc. As a matter of fact, the hearer will go to considerable lengths to protect the CP even in the presence of ill-formed data and/or apparent violations of the CP. Thus many utterances that come as formally, semantically or pragmatically ill-formed will be edited, repaired or re-interpreted for the purpose of obtaining a meaningful interpretation. If successful, that interpretation is called an 'implicature'.

Chomsky freely admits that semi-grammatical incongruities such as "Golf plays John" are in fact interpretable in a variety of rhetorical or figurative ways, especially as personifications, metonymies, metaphors, etc. Whenever the question of deviant sentences comes up, however, Chomsky carefully distinguishes two kinds of interpretations: 'assigned' interpretations and 'imposed' interpretations. Perfectly well-formed sentences are *assigned* an interpretation via rules of meaning projection as specified in the semantic component (Chomsky 1975: 15); grammatically deviant sentences, how-

ever, when interpretable at all, get their interpretations *imposed* on them either as a result of recognizing some rhetorical pattern, or "by virtue of analogies that they bear to nondeviant sentences" (Chomsky 1965: 76), or through contextual factors (Chomsky 1964: 50, see quote above).

Radford (1988) himself presents a very instructive discussion of 'problematic cases' in his chapter on "Basic concepts and fundamental misconceptions". The cases cited include items such as "an honest geranium", "the tree who we saw", and "John killed the stone" (ibid.: 14-16). These examples are clearly odd and ill-formed in 'ordinary circumstances', yet, as Radford points out, all of them are "fully acceptable in a fairy-story context (where beliefs about the real world are suspended)" (ibid.: 15-16). Radford goes no further than this; above all, he does not make the more radical point that suggests itself here, namely that *all* well-formedness judgments are ultimately dependent on circumstantial and contextual factors. To many linguists, as presumably to Radford himself, this is a counterproductive conclusion because they consider context an essentially intractable concept. In general, people are well able to understand sentences in isolation, that is, either in a zero context or in a context of ordinary circumstances. Unfortunately, the distinction between ordinary and special circumstances does not hold up under scrutiny. In order to test it one has to exclude all prior assumptions that potentially fog the issue; the problem is that it is these very assumptions that are at issue. The most likely way to reduce the interference of prior assumptions is to adopt the basic imbecility of an 'artificially intelligent' computational language processor (CNLP). As AI research has demonstrated, to a CNLP, there is no systematic difference between processing 'simple' sentences such as "The box is in the pen" (Raskin 1985: 65) and 'problematic' ones such as "John killed the stone". In order to obtain an interpretation, both the CNLP and the human processor depend on choosing or imagining contexts. While zero and ordinary contexts help uphold the idealization of a context-free or 'pure' semantics, they do so at the cost of ignoring cognitive realities.

Focusing on cognitive realities and practicalities, Marvin Minsky's 'frame theory' is an attempt to design a computational recognition device modeled on (and in turn modeling) human cognition. A frame-based CNLP recognizes a particular phenomenon by accessing (remembering) previously understood 'ideal' patterns (i.e., frames). A frame is a data structure representing a well-understood phenomenon within a range of salient contextual elements. Expectations are represented as 'defaults', while 'terminals' are used to store understood data. Naturally, the frame-oriented processor is expected to recognize standard situations quickly and effortlessly (finding a good match in its database of frames); another requirement is that it must have the means to deal with new situations and difficult, strange or recalcitrant data. Specifically, the processor is required to recognize odd data as odd data, that is, it must avoid both the error of accepting odd data as familiar data and the error of giving up without a struggle (declaring the data wholly incomprehensible).

Looking for examples of difficult verbal data, Minsky immediately appropriates the two Chomsky sentences. Rather than declare them nonsensical from the outset, Minsky carefully monitors his virtual frame processor, which records what it can understand and at the same time reports oddities as they arise. The first thing that the device finds is that C1 "can certainly create an image!" (Minsky 1975: 12). The rest of Minsky's account is worth quoting in full:

The dominant frame is perhaps that of someone sleeping; the default system assigns a particular bed, and in it lies a mummy-like shape-frame with a translucent green color property. In this frame there is a terminal for the character of the sleep – restless perhaps – and 'furiously' seems somewhat inappropriate at that terminal, perhaps because the terminal does not like to accept anything so 'intentional' for a sleeper. 'Idea' is even more disturbing, because one expects a person, or at least something animate. One senses frustrated procedures trying to resolve these tensions and conflicts more properly here or there, into the sleeping framework that has been evoked (ibid.).

Three points are worth noting here. First, the scenario referred to in C1 is actively enriched by exploiting default information – here, the device 'adds' a sleeper and a bed. Second, the 'colorless green' anomaly is repaired by making it refer to a "translucent green" color quality. Third, despite such local repair, the device carefully records the persistent recalcitrance of the data (thus keeping open the option of shifting to a 'replacement frame' that might produce better results).

Repairing 'colorless green' to read 'translucently green' actually amounts to exploiting the ambiguity of individual words. Some of the Internet commentators are quick to point out, for instance, that 'green' can mean 'inexperienced' or 'new', and that 'colorless' can mean 'not sharply defined' (Polcar 1997; Harter 1997). If one allows some metaphorical transfer then C1 creates an image of the sleeping mind which "often indeed moves furiously with ideas and images flickering in and out" (Harter 1997). Combining these patches, Harter understands C1 to express the proposition that "new ideas, not yet sharply defined, circulate in the unconscious, rapidly altering at a furious rate". Note that this interpretation is strictly guided by the strategy of protecting the CP. The 'purely semantic' diagnosis, in contrast, almost obsessively maximizes the sentence's 'nonsense' aspects.

Genre conditions are known to be powerful factors in predetermining or priming cognition. For instance, when jazz guitarist Jeff Neves uses C1 for the title of an instrumental composition the question of its meaninglessness hardly arises. Similarly, when Howard Gardner (1995) uses "Green Ideas Sleeping Furiously" as the title of an article reviewing the development of conflicting ideas in the history of cognitive studies, he probably gets away with it for any or all of the following reasons: (1) because anything goes in titles; (2) because C1 is quoted or 'mentioned' (rather than 'used') material; (3) because C1 is 'mentioned' as well as 'used' material (the title is, after all, meaningful in the context of the article). Strangely enough, although Gardner quotes C1 in the body of the text, giving it its orthodox, 'nonsensical' interpretation, he forgets to note the relevance of his own titular appropriation.

In poetry, tolerance of ill-formedness is particularly high both for genre-specific reasons and for the availability of fictional situations. As Culler famously argues, as soon as one reads a text as a poem (even if it is not really a poem but, say, a newspaper report), "new effects become possible because the conventions of the genre produce a new range of signs" (Culler 1975: 161). All of the five "colorless green ideas poems" reproduced in the appendix provide a context in which C1 becomes meaningful; in fact, poems three to five were written for a literary competition in which this was the task to be accomplished. In the following, I will briefly discuss the appropriative strategies of the poems by Hollander and Jonathan.

Dedicated "for Noam Chomsky", John Hollander's "Coiled Alizarine" was originally published in his *The Night Mirror* (1971). In 1974, the poem appeared as an epigraph in a collection of essays entitled *On Noam Chomsky* (Harman 1974).⁵ In 1998, the poem was suggested as a discussion topic to the Society for Critical Exchange at Case Western Reserve University. "This poem", the submitter prompted, "would seem well-suited to cognitive analysis – Takers anyone?" (Benzon 1998). In the event, nobody rose to the challenge, nor were there any instructive replies to the submitter's further question whether the poem might be read "as a comment on Chomsky's program".

As a matter of fact, Hollander's poem is "well-suited to cognitive analysis" – mainly because it is frustratingly difficult. One might say it requires a Minskyan frame processor with a particular ability to articulate expert complaints. Within its sharply constricted space of three lines (the title adds another line of possible significance, however, and the dedication yet another), the text surveys two strange situations involving two groups of personified entities, thoughts and ideas. The text's main statement contrasts the "slumber" of "crimson thoughts" to the "breathless" (and therefore?) "furious" sleep of "colorless green ideas". The slumber of the crimson thoughts is additionally qualified as "curiously deep", indicating that this group of entities faces (but is presumably unaware of) some imminent transformation – possibly through the agency of the "coiled alizarine" dyeing agent ominously present in the title line. In contrast, again, the green ideas of the Chomsky sentence, though sleeping breathlessly-furiously, seem to be comfortably accommodated in the relative security of their "stodgy viridian" medium. The specific complaint that dogs this interpretation is that the personification of ideas and thoughts cuts the metonymic link that would tie them to a situation involving human agents. Like Minsky's frame device, one senses 'frustrated procedures' trying to answer the questions and to substantiate the various surmises. End of interpretation – as one can see, the complaints are clearly part of it.

Although also a difficult poem, Sister Mary Jonathan's "You, Noam Chomsky" (1965) is a critical comment on the linguist and his program. Dissonantly embedding Chomsky's own exposition of 1957, the poem presents the author's struggle with what

5 In this collection, the shifting evidence of C1 is addressed both in the editor's preface and in Barbara Hall Partee's contribution (Partee 1974 [1971]: 308).

she perceives as a male scientist's patriarchal domination of language through grammar. (*Sentences (1) and (2) are equally nonsensical, but any speaker of English will recognize that only the former is grammatical.*) The linguist's categorical statements are denounced as invalid mainly because they are only one person's psychologically warped construct ("your grammar"); moreover, they are also perceived as unbearably reductive, given a conceptual space which holds more variety than "only the color of the relevant world". C1 is embedded as part of a description of the linguist's eyes, and, in a striking move of recovery, C2 is appropriated as a hypnotical command – "Furiously sleep, Ideas, green, colorless" (*wouldn't sound like English at all*, Lasnik said). The speaker's concluding vision is that, put to sleep, the troublesome ideas will become "careless of responsibility" and that the linguist's patriarchal "fury" will finally subside.

Moving, as we have done, through widening vistas of appropriation and interpretive licence, it will be a fitting conclusion to turn to the appropriative strategies of a discipline which expressly licences its practitioners to see a text not as what it is but as what they think it is a symptom of. Donning the psychoanalyst's hat, Harter (1997) sees C1 as an expression of the creative impulse of a poet *manqué*, almost, but not quite, held at bay by the man of pure reason (*In a class on English Structure at MIT, Professor Noam Chomsky introduced examples of word-order violations from a poem written by E.E. Cummings...*). If dreams and free association open a door into the hidden depths of the unsuspecting subject's mind, then evidently so does spontaneously invented nonsense. It is no surprise, then, that uncannily significant "sleeping images" (Lowe 1927: 313, 325) become visible under the blatant nonsense of C1. There is a telling passage in the Introduction to *The Logical Structure of Linguistic Theory* (Chomsky 1975 [1955]: 25–40), where Chomsky looks back from a distance of twenty years and recalls his early explorations – the dead ends ("Having no very clear idea as to how to proceed further", 25), the promising beginnings ("pursuing this idea, I constructed a detailed grammar", 26), and a good number of slumbering thoughts ("the [...] problem of constructing linguistic theory [...] lay in the immediate background of my [...] thinking", 35). Sketching the "intellectual climate" (39) of the day, he reviews the interdisciplinary approaches that he found "most stimulating" (39) (Jakobsonian linguistics, ordinary language philosophy, mathematical logic), and against these he sets those to which his reaction "was almost wholly negative" (40) (computational linguistics, the mathematical theory of communication, behaviorism). He remembers that he was aware of the "ferment and excitement" (40) which the latter approaches generated, but they struck him as pointless, flawed, "intellectual scandals" (40) even. Colorless green ideas, all of them, sleeping furiously and best left well alone. Clearly, what the world really needed was one of those *revolutionary new ideas* which, he well knew, *appear infrequently*.

Once we admit the pragmatic, poetic and psychoanalytic licences to become part of our strategies of appropriation, then item number 9 of Radford's exercise is no longer

ill-formed at all, neither syntactically nor semantically nor pragmatically. As always, the question is where to draw the line. But the larger lesson of the test case is that there is no line to be drawn between assigned (rule-governed) interpretation and imposed interpretation (appropriation); indeed the more daring and promising hypothesis is that sentences are always appropriated, that interpretations are always imposed. What we need to study in detail are the tacit rules of cognition, and, I take it, these amount to rules of appropriation. When Chomsky, in his conversation with Lasnik, alludes to C1's more exotic appropriations (*... the source of poems and arguments and music and so on*) I finally understand him to say, involuntarily, that it is people, not sentences, that make sense.

Appendix: Colorless Green Ideas Poems

1. John Hollander, "Coiled Alizarine" (1971)

Gilbert Harman, ed. (1974: xiii). Orig. published in John Hollander, *The Night Mirror* (New York: Atheneum, 1971).

Coiled Alizarine
for Noam Chomsky

Curiously deep, the slumber of crimson thoughts:
While breathless, in stodgy viridian,
Colorless green ideas sleep furiously.

2. Sister Mary Jonathan, O.P., "You, Noam Chomsky" (1965), *College English* 26 (1965), 395.

Sentences (1) and (2) are equally nonsensical, but any speaker of English will recognize that only the former is grammatical.

(1) Colorless green ideas sleep furiously.

(2) Furiously sleep ideas green colorless.

–Noam Chomsky, *Syntactic Structures*

Colorless green ideas sleep furiously
in the fan-shaped eyes, that welcomed
only the color of the relevant world,
wearing a face of man,

their green (in violent sleep, the nightmare
day) draining to white or vagueness
in a stretch of fear.

Address yourself, Ideas, to sleep.
Furiously sleep, Ideas, green, colorless,
involved in green, careless of responsibility.

Let all fury, entangled with your grammar,
be a colorless green.

The following poems were entries to the 1985 Christmas Eve Literary Competition at Stanford University. The winning entry was the poem by D.A.H. Byatt. Found at <http://www.emich.edu/~linguist/issues/2/2-457.html>

3. D.A.H. Byatt, "Thus Adam's Eden-plot" (1985)

Thus Adam's Eden-plot in far-off time:
Colour-rampant flowers, trees a myriad green;
Helped by God-bless'd wind and temp'rate clime.
The path to primate knowledge unforeseen,
He sleeps in peace at eve with Eve.
One apple later, he looks curiously
At the gardens of dichromates, in whom
Colourless green ideas sleep furiously
then rage for birth each morning, until doom
Brings rainbows they at last perceive.

4. Bryan O. Wright, "Behold the pent-up power" (1985)

Behold the pent-up power of the winter tree;
Leafless it stands, in lifeless slumber.
Yet its very resting is revival and renewal:
Inside the dark gnarled world of trunk and roots,
Cradled in the chemistry of cell and sap,
Colourless green ideas sleep furiously
In deep and dedicated dormancy,
Concentrating, conserving, constructing:
Knowing, by some ancient quantum law
Of chlorophyll and sun
That come the sudden surge of spring,
Dreams become reality, and ideas action.

5. Edward Black, "Recently discovered sonnet by Alexander Blok" (translated by Edward Black) (1985)

Let us think on them, the Twelve Makers
Of myths, trailblazing quakers
Scourging earthshakers
Colourless green ideas sleep furiously
Before their chrysalides open curiously
Anarchy burgeons spuriously
Order raises new seedlings in the world

By word and gun upheld
The scarlet banner is unfurled
The New Country appears
Man loosens his fears
The New Dawn nears
Recollect our first fathers
The good society in momentum gathers.

References

- Barthes, Roland. 1970. *S/Z*. Paris: Seuil.
- Beard, Robert. 2001. "Can Colorless Green Ideas Sleep Furiously?" <http://www.facstaff.bucknell.edu/rbeard/semantic.html>.
- Benzon, Bill. 1998. "On 'Coiled Alizarine', by John Hollander." Society for Critical Exchange (SCE) Online: Cognition and Literature. <http://engl46181.engl.cwru.edu/webx>
- Bloom, Harold. 1975. *A Map of Misreading*. New York: Oxford University Press.
- Chomsky, Noam. 1975 [1955]. *The Logical Structure of Linguistic Theory*. New York: Plenum.
- . 1957. *Syntactic Structures*. The Hague: Mouton.
- . 1964. "Current Issues in Linguistic Theory". In: Fodor & Katz 1964. 50-118.
- . 1965. *Aspects of the Theory of Syntax*. Cambridge/MA: M.I.T Press.
- Culler, Jonathan. 1975. *Structuralist Poetics*. London: Routledge.
- Dollimore, Jonathan. 1984. *Radical Tragedy*. Brighton: Harvester.
- Fairley, Irene R. 1981 [1973]. "Syntactic Deviation and Cohesion." In: Freeman 1981. 123-37.
- Fish, Stanley E. 1981 [1973]. "What is Stylistics and Why are they Saying Such Terrible Things about it?" In: Freeman 1981. 53-78.
- Fodor, Jerry A. & Jerrold J. Katz, eds. 1964. *The Structure of Language*. Englewood Cliffs: Prentice-Hall.
- Freeman, Donald C., ed. 1970. *Linguistics and Literary Style*. New York: Holt.
- , ed. 1981. *Essays in Modern Stylistics*. London: Methuen.
- Gardner, Howard. 1995. "Green Ideas Sleeping Furiously". *The New York Review of Books*, March 23, 1995. http://cogweb.english.ucsb.edu/Abstracts/Gardner_95.html
- Grice, H. Paul. 1975. "Logic and Conversation." In: Peter Cole & Jerry Morgan, eds. *Speech Acts*. New York: Academic Press. 41-58.
- Harman, Gilbert, ed. 1974. *On Noam Chomsky: Critical Essays*. New York: Anchor.
- Harter, Richard. 1997. "Colorless green ideas sleep furiously". <http://www.tiac.net/users/cr/chomsky.html>.
- Lowes, John Livingston. 1978 [1927]. *The Road to Xanadu: A Study in the Ways of the Imagination*. London: Picador.

- Minsky, Marvin. 1979 [1975]. "A Framework for Representing Knowledge". In: Dieter Metzger, ed. *Frame Conceptions and Text Understanding*. Berlin: de Gruyter. 1-25.
- Partee, Barbara Hall. 1974 [1971]. "Linguistic Metatheory". In: Harman 1974. 303-15.
- Pinker, Steven. 1995. *The Language Instinct*. London: Penguin.
- Polcar, David P. 1997. "Do Colorless Ideas Sleep Furiously?"
<http://www.mit.edu/people/dpolcar/writing/proseDP/text/colorlessIdeas.html>
- Radford, Andrew. 1988. *Transformational Grammar: A First Course*. Cambridge: Cambridge University Press.
- Raskin, Victor. 1985. *Semantic Mechanisms of Humor*. Dordrecht: Reidel.
- Walsh, Marcus. 1998. "Eighteenth Century Editing, 'Appropriation', and Interpretation". *Shakespeare Survey* 51: 125-39.