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There's Some Problems: Complex Subject Agreement in English and Virus Theory

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THERE'S SOME PROBLEMS: COMPLEX SUBJECT AGREEMENT IN ENGLISH AND VIRUS THEORY

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Many of our most common daily utterances are in contrast with what we may learn in school. Take for example, post-copular subject-verb agreement. Grammar teachers drill that the subject must always agree in number and person with the verb, but we nevertheless see optional agreement in everyday speech.

(1) a. There are books on the table.

b. There is/'s books on the table.

In (1a), the verb agrees in number with the local post verbal subject as 3rd person plural. In (1b) the verb does not agree with the subject, and is instead 3rd person singular. Sobin (1997), following Emonds (1986) claims that (1a) is an example of a prestige English construction which is considered linguistically deviant. He argues further that these constructions are a product of grammar-external rules called grammatical viruses. This paper takes a close look at virus theory and how it may help us to account for inconsistencies within English grammar in particular. I examine the properties of specific viruses in order to differentiate them from natural grammatical processes. I claim in particular that viruses must be analysed as an evolutionary process as they are not phenomena fixed in time. An evolutionary virus model is put forward as a preliminary account for the variability among viruses.

The paper is structured as follows. Section 1 details Sobin's (1997) virus theory for the expletive *there are* constructions and outlines possible problems with this approach (cf. Schütze 1999). Section 2 is dedicated to better defining what a virus is by discussing two other virus possibilities, Sobin's (1997) "...and I... Rule" and Sobin and Lasnik's (2000) "whom rules". A comparison of all three viruses is outlined at the end of this section. The following, section 3, introduces and explains the motivation behind the evolutionary model of viruses. I return to the problems raised in Schütze's (1999) argument against a viral approach to Sobin's "there are Rule" (henceforth, TAR) and attempt to remedy them, continuing to support Sobin's virus model, by means of the proposed evolutionary model. Suggestions for future research are outlined briefly followed by the implications of this research in the concluding section.

1. Complex Subject Agreement in English

There is an option in English to insert the expletive *there* in certain sentences instead of raising the grammatical subject over the verb/copula. Determining verbal agreement in these constructions is not evident. A theoretical model must exist in order to account for the complex agreement patterns noted by Sobin (1997), demonstrated in (1). The sentence in (1a) is considered a construction

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characteristic of prestige English (PE), which Sobin claims to be (i) harder to learn or acquire, (ii) requiring tutorial support, (iii) something not characteristic of "normal" language.¹ Sobin thus assumes that they are linguistically deviant and calls upon virus theory within minimalist assumptions in order to explain their presence in language. In what follows, I will briefly examine Sobin's virus theory and how it is applied to the *there*-insertion alternates. Subsequently, I will explore Schütze's (1999) argument against the virus theory in this context. Finally, I propose to modify the virus theory in order to maintain its validity in this context.

1.1 The TAR and Virus Theory

Sobin (1997) believes that prestige constructions, such as post-verbal subject agreement in *there* expletive constructions (1a) are caused by grammatical viruses which are external to the grammar of a language, even though they can affect it. He shows how viruses must be subject to severe limitations, such as directionality and lexical specificity constraints, so that they do not become a label for any unexplained phenomena. He then shows how the TAR is actually a virus and the singular agreement constructions such as (1b) arise from normal, local specifier-head agreement.

(2) The "there are..." Rule (TAR) If: there $[_{Agrs} + pl]$... be $[_{NP} + pl]$... 1 2 3 4 then: check the plural feature on 2.

This is just an approximation to give an idea of what the TAR might look like. Drawing from data he elicited from university English students, he outlines how he believes TAR is faithful to all of the properties of a virus. I have outlined some examples of his explanations below.²

- (3) a. Lexical specificity TAR is specific to the expletive *there*.
 - b. Directionality –TAR is found almost exclusively when the plural DP is to the right of the finite verb.
 - c. Adjacency –TAR involves plural agreement between the finite verb form and only the closest coordinated DP.
 - d. Underextension –TAR does not apply to all plural forms.

¹ I assume Sobin bases these claims on empirical evidence from studies such as Quattlebaum (1994), but he does not specify the sources directly. They may also just come from his own intuition and/or experience.

 $^{^{2}}$ The grammaticality judgements for (3) are Sobin's own (1997). The fact that there may be disagreement is discussed in 1.2. For the full list of signature virus properties, please refer to Sobin (1997).

1.2 An Argument Against a Viral Account of the TAR

Schütze (1999) disagrees with Sobin, arguing rather that plural subject agreement in *there*-expletives is generated by the grammar proper. Furthermore, contra Chomsky (1995), he claims that singular subject agreement in these contexts conforms to the grammar as well. Thus for him, neither alternant results from a grammatical virus. Schütze provides support for the first claim by showing first, that the TAR in fact does not possess certain critical viral properties and second, how expletive constructions (ECs) can be accounted for by "general properties of the human sentence-processing mechanism". I have outlined his arguments in the following paragraphs.

Firstly, the TAR is not lexically specific. As shown by Sobin himself, it is not restricted to forms of the verb *be*, nor to just auxiliaries.

(4) There appear/?appears to be cookies on the table.

Secondly, TAR is not direction-specific. The triggering DP may be found to the *left* of the verb as well.

(5) How many cookies are/*?is there on the table?

Finally, for TAR to appeal to the adjacency requirement, we must alter the definition of adjacency to refer to a relativised notion, where other material can appear between the verb and the first DP (6) or *there* and the verb (7). This is contrary to strict linear adjacency, which is the requirement for other viruses.

- (6) There *have* **always been** *cookies* on the table.
- (7) *There* often *are* too many people in this room.

Although Schütze accepts the virus theory, he believes that from the above examples *there are* is behaving unlike other viruses and just like other genuine grammatical agreement processes. He explains further that the property of "flat agreement" which is the suggested example of the non-locality property of the TAR virus is more complex than Sobin perceives it to be, and is actually a manifestation of language processing.

The heart of Schütze's proposal lies in the claim that there are two agreement options in UG, one where the subject triggers agreement on the verb, and the other where the subject does not trigger agreement, or triggers default 3^{rd} person singular (3sg) agreement. Languages that demonstrate such alternative complex agreement patterns are Faroese and Icelandic. Drawing on data from these languages, Schütze concludes that English demonstrates both UG acceptable agreement patterns illustrated by *there*-expletives. To summarise, in the case of English, I (or T) must agree with its subject DP. In the case the subject is *there*, I cannot agree with it, and it must agree with a nonsubject DP, or I is 3sg by default.

1.3 Maintaining Viral Status of the TAR

Although Schütze's examples may weaken the argument for a viral approach to the there are alternation in English, his alternative proposal is much less convincing. As explained above, Schütze draws from Icelandic and Faroese in which both agreement and non- (or default) agreement are possible. Therefore, he concludes that since both agreement options for the post-verbal subject (singular and plural) are attestable in UG, they both must be considered grammatical in English. However, the complex agreement processes in Icelandic and Faroese are very restricted and are deeply based in grammar, such as dependency on case marking (see, for example, SigurLsson 1992). On the contrary, English does not have such rigid rules and acceptability of the two agreement patterns are varied and hard to rationalise. It is essentially this variability and the idiosyncratic nature of the grammatical judgements of such sentences that support the virus theory. Yet Schütze attempts to base the general preference of one construction over the other on language processing. He then tries to explain aberrations from this majority with specific explanations. For example, he provides an explanation for why non-agreement is unavailable in some ECs. (This example is from Schütze 1999, with * replaced by ?*.)

(8) ?* There'sn't any dogs/dirt in the yard.

Schütze believes this sentence to be completely unacceptable, whereas I believe the acceptability of this sentence is a lot more varied and not so obvious. The mere fact that there is varied acceptability of sentences such as (8) weakens the argument that English complex agreement patterns are based in standard grammar, similar to Icelandic and Faroese, thus appealing to a virus model. Nevertheless, Schütze makes some valid points questioning Sobin's outlined signature properties of a virus. Furthermore, it is unclear how what is considered a grammatical virus differs from normal language change. Are viruses static or can they be successful enough in grammar to eventually no longer demonstrate viral properties, thus ceasing to be viruses at all (and becoming standard)? In order to uphold the virus model of complex subject agreement, one must either account for these inconsistencies and questions or adjust the general definition of a virus. In the sections that follow, I attempt to redefine and clarify what is a grammatical virus, by means of comparing TAR to other examples in current literature, positing its possible evolutionary effects on standard grammar, and contrasting it with normal language change.

2. Tweaking the Virus Model

In order to develop a more coherent virus model, this section introduces two other grammatical constructions claimed to result from grammar-external rules or viruses.

2.1 The "...and I... Rule"

Alongside plural agreement in expletive *there* constructions, Sobin (1997) deals with nominative Case variability, resulting in other "linguistically deviant"

constructions of the PE variety. The following example illustrates the optional prestige construction, with the nonprestige form shown in parentheses for coordinate NPs.

(9) Mary and *I* (*me*) left early.

In the above context, nominative case marking is optional, and considered characteristic of PE. That is to say, it requires tutorial support and often a conscious effort to produce, and is inconsistent (Emonds 1986, Felber 2004, Quattlebaum 1994). Sobin (1997) claims that nominative case marking in coordinate NPs is due to a virus (the "...and I... Rule"). He demonstrates how this rule possesses all the necessary viral properties.

As Schütze (1999) took issue to Sobin's examples of how the TAR exhibits these signature virus properties, I am uncomfortable accepting some of the rationale for the "...and I... Rule". It is obvious that the rule holds validity in the fact that it is unnatural, inconsistent, and lexically specific, but I disagree that its other so-called properties define it as a virus (as opposed to any other natural language process). For example, the fact that the directionality requirement requires right assignment of nominative case in coordinated NPs with I, but the adjacency requirement requires left assignment of nominative case in the same context, but with 3rd person pronouns, demonstrates a conflict in the data. Sobin attempts to account for this by stipulating a separate "that she... Rule", but that just means that the "...and I... Rule", but not the "that she... Rule", exhibits directionality properties, and the "that she... Rule", but not the "...and I... Rule", exhibits adjacency properties. Both properties should be characteristic of both viruses if they are to be considered signature virus properties. This may be refuted further by noticing that more than half (51%) of the participants in Quattlebaum's (1994) study accepts the prestige variety he in the coordinated subject context NP and he. Although it is less than what is accepted when the pronoun is first in the coordination (75%), it still is significant enough to go against the adjacency requirement. Sobin's suggested solution to either relax the adjacency requirement of the "that she... Rule", or to generalize the lexical specificity requirement of the "...and I... Rule" tampers with the reliability of the viral properties.

We are left in a predicament. The virus model may be exactly what we need to account for such linguistic phenomena, but we must somehow modify the list of viral properties, all the while keeping it constrained enough. However, certain properties may not need to be modified, as any deviation from them could be due to a particular virus changing status in language. Accounting for the inconsistencies in the viral model as an effect of an evolutionary perspective of the virus is necessary, and given the right procedures for doing so, it could be extremely effective. Before putting forward a modified list of viral properties, I will first present another linguistic phenomenon claimed to be due to a grammatical virus.

2.2 The "whom Rules"

Lasnik and Sobin (2000) postulate a virus theory to account for the use of the word *whom* in English. Prescriptively, the rule states that *whom* be reserved for accusative positions, whereas *who* is used in nominative positions.

(10) Who spoke with whom?

In (10), the preposition *with* assigns accusative case to the wh-pronoun resulting in the accusative form of the question word: *whom*. This leads one to assume that *who* acts like nominative (NOM) pronouns, like *she* or *they*, whereas *whom* resembles accusative pronouns, like *her* or *them*. However, as Lasnik and Sobin show this correspondence is only superficial. For example, in (9), we saw a situation where an accusative (ACC) Case pronoun may take the place of a NOM Case one. The ACC variety is much more attested in common usage and has been available for centuries (Lasnik and Sobin 2000). However, when the corresponding question is asked cf. (11), we would expect *whom* as the supposed ACC Case form to be licensed in such a context. However, it is unacceptable and only the NOM Case question pronoun is allowed.

(11) Who/*whom left with Mary?

Furthermore, as (12) illustrates, *whom* may also appear in sentences in which its source is the subject position of a finite clause, a position in which objective pronouns cannot normally appear.

(12) We feed children whom we think are hungry.

So, Lasnik and Sobin suggest that *whom* may have been at one time a part of normal grammar (for example, when Case marking of nonpronominal NPs was present), but has now resulted from two grammatical viruses that seem to mimic the original phenomenon.³

Lasnik and Sobin also introduce another common property of viruses, and that is delayed acquisition. That is to say, these grammatical structures are not characteristic of child language and must be vigorously taught.

As before, I am unsatisfied with some of the alleged virus properties with respect to the *whom* rules. The directionality requirement is used as a potential reason as to why *whom for* is not as acceptable as *for whom*. Yet, this very example is used to show the underextension property of the virus. What is questionable is that the reason why not all forms are attested has already been accounted for as a directionality issue. Therefore, I disagree that one would expect such a form. Of course, it is also important to question why the "*whom* rules" do not adhere to any adjacency restrictions or are not insensitive to nonlexical hierarchic constituents, outlined as necessary viral properties.

2.3 Virus Comparison

³ Reasons for positing two different *whom* rules are outlined in Lasnik and Sobin (2000).

The table below is a summary of the properties of the three constructions discussed above which are said to be governed by grammatical viruses. As illustrated, there is extreme variability even within the class of potential grammatical viruses. This is precisely what the evolutionary model of viruses helps explain, as outlined in section 3.

(15) Oranniaciour virases and then properties	(13))	Grammatical	viruses	and	their	properties	4
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	TAR (Sobin 1997)	<i>and I</i> Rule" (Sobin 1997)	<i>whom</i> Rules" (Lasnik & Sobin 2000)
Lexical Specificity	(•)	~	>
Directionality	(•)	(•)	>
Adjacency	(•)	(•)	
Overextension		~	>
Underextension	(•)	>	(•)
Insensitivity to			
nonlexical hierarchic	v	~	
constituents			
Delayed acquisition	~	~	~

3. Evolution Model of Viruses

3.1 Introducing the Evolution Model

It is not necessarily that the purported viral properties are incorrect, but that their absence in certain viral contexts is due to the evolution (or deterioration) of that virus through its exposure with the grammar proper. However, the current property list needs to be reformulated to avoid any overlap of characteristics as well as to avoid any unnecessary confusion. For example, contra Sobin (1997), I believe that the TAR may apply in the following contexts.

(14) There **are**/is a pencil and a stamp/some stamps on the desk.

This variability is still prevalent in English and must be accounted for. Sobin's (1997) completed a study where his participants had to rate the "naturalness" of sentences similar to the one in (14). But what may be considered "natural" may differ drastically from what may be considered "acceptable" or from what is elicited. I believe the study to be misleading. In any case, as Schütze (1999) points out, processing errors may factor in to the reason why, for example, (14) sounds less natural with the plural agreement, since the singular NP comes first. It seems that the virus properties represent tendencies instead of fixed properties. Yet, as the table in (13) shows, these tendencies do not seem to be regular across the board for all viruses. My proposal aims to effectively exemplify how a virus

⁴ Legend: \checkmark = displays property; (\checkmark) = contestable whether displays property; (*blank*) = does not display property.

rule contrasts from natural grammar and how it modifies it. Viruses should be viewed as an evolutionary process in language that differs from normal language processes in that it is extremely variable and inconsistent. By "evolutionary", I mean "diachronic". Viruses are not static things that are not subject to change. A virus may demonstrate a variety of properties at one point in its development, but may lose those properties later on. Thus, detecting a virus is not an easy task. A virus can be introduced into a language as a rule which is not generative, but rather parasitic on the generative system. Eventually a virus may take on other properties, disappear, or ultimately become so embedded in the language that they evolve into a natural grammar phenomenon, and either replace or at least modify the grammar rule they had been infecting. Possibly much of how language evolves is due to viruses. I posit the following properties of viruses, which I believe better encapsulate what really is a virus characteristically. These properties are situated on a timeline. The actual positions of the properties are suggestive at this point, as there is still a lack of diachronic studies of viruses to support the data. However, it provides a starting point for future modification.

(15) The Evolution Model of a Virus – Preliminary Version
1. Inception → 2. Unnatural, conscious; Extremely specific → 3.
Inconsistent; Autonomous variability [→3'. Evolution to natural process]
OR [→4. (Prescriptive/preferred and delayed acquisition OR old-fashioned language OR weak presence...) → 5. Deterioration and disappearance]

Stage 1 is where the virus is introduced into the language. I do not make any claims at this point as to how this happens or what brings about such a phenomenon, but that will be a critical direction to follow in future research. Stage 2 is where the virus begins to show its conscious and unnatural nature in speech. As a virus is parasitic on a host system already in place, it must produce an alternative construction to the one already instantiated in grammar, which is in contrast, natural and comfortable. In order to differentiate viruses from other language processes which tend to be more of a gradual grammatical change, viruses must show extreme specificity by displaying such properties as the following: lexical specificity, directionality, adjacency, and insensitivity to nonlexical hierarchic constituents. One advantage to the evolution virus model is that a virus need not necessarily show all of these specificity characteristics, however, the more the virus does show, the more easily we are able to identify them. There may be a minimum requirement for how many specificity properties a virus must show, but that would have to be determined from extensive virus data possibilities which is not available at this time. Stage 3 is where the virus becomes a stronger presence in many speakers' grammar. However, due to its viral status, the speaker is very inconsistent with its usage and will oscillate between the standard grammatical form and the newer viral form, depending on situation, context, and other unknown influences. I call this "autonomous variability". This accounts for the optionality of the examples listed by Sobin (14) and Schütze (8). It may also lead to other inconsistencies, such as overextension and underextension, still being very idiosyncratic in production. Stage 4 is obtained when the new viral form is welcomed

prescriptively in the language as the preferred or more prestigious variety, thus creating a (false sense of) grammaticality for the virus and delayed acquisition becomes relevant and apparent. The final stage is when the virus eventually vanishes for the very reason that it was incapable of becoming standard. This implies that a virus will not forever infect a language system. Alternatively, there is the possibility at stage 3 for the virus to go to stage 3' and to thus become the standard grammatical variety. This model distinguishes mature viruses (stage 4) from normal grammatical representations (stage 3') so that the distinctive inconsistent nature of viruses is preserved and the virus-norm distinction is justified.

The divisions between the stages are suggestive. As mentioned above, the lack of empirical data makes it difficult to properly define each stage of the virus. For example, what happens or how long it takes between inception (stage 1) and when the virus starts demonstrating its initial properties is unclear. It is possible that there is no real time change between stage 1 and 2. The same may be true for the divisions between the other stages. What is nevertheless important is that the viral model is viewed as evolutionary, accounting not only for inconsistencies between the different potential viruses, but also for the idiosyncrasies within each individual virus and the rules they govern.

Finally, it is important to mention the possibility of viruses mimicking archaic grammatical features of a language, developing from a former grammatical structure or rule, such as is suggested of the *whom* Rules in Lasnik and Sobin (2000). This may provide clues as to why and how viruses are introduced. In these circumstances, it is possible that the prescriptive nature of the virus (stage 4 above) is actually the first viral stage right after inception. Thus, prescriptivism may serve as a portal for these viruses. I will leave this interesting suggestion to future research.

3.2 Support for the Evolution Model

To further illustrate this proposal, I turn to Schütze's argument against a viral approach to post-verbal subject agreement in expletive constructions (TAR). Although I disagree with his argument, I believe that it indirectly strengthens my evolutionary virus approach. Schütze attempts to show that TAR does not actually exhibit the lexical specificity, directionality, and adjacency properties which are supposed to be characteristic of a well-constrained virus (cf. Sobin 1997). I believe his counter-examples are weak, and the variable characteristics of TAR are due to its relative stage in the viral evolution. Schütze merely compares the postcopular possibility of nominative pronouns (NomPro) with TAR and shows how the one's virus properties are different from the other. Without explanation, these examples are extrapolated to virus theory in general. For TAR, other material may be inserted between the verb and the post-verbal DP, and the rule still applies (as shown in (7)). This, Schütze assumes, supports his claim that TAR is not really a virus. However, it is clear that the stricter adjacency requirement of a single virus (NomPro) should not rule out the validity of the relativised adjacency property of the other (TAR). Thus, the adjacency property of TAR, at this point in time, is just as significant as the one for NomPro. Similar arguments can easily refute the rejection of the

directionality property of TAR, given that it too, is based solely on comparative data with NomPro. Furthermore, the potential lack of lexical specificity of TAR can just be attributed to the possibility of TAR's gradual evolution to becoming more instantiated in grammar. That is to say, TAR may be at a later stage (such as stage 4) in its development as a virus.

Felber (2004) takes it one step further with evidence from a spontaneous speech study in child and adult speech. She agrees with Schütze in terms of TAR not showing the signature virus properties and further concludes that TAR is not a virus because speakers use plural agreement frequently in non-virus contexts. She explains that this is unexpected if we considered TAR as the only way for a verb in an EC to become plural. An evolutionary explanation of the virus may be considered ad hoc in this particular case. Nevertheless, the fact that there is verbal agreement with the post-verbal subject in other contexts than the there is construction, does not invalidate the reasoning behind positing a TAR virus. It is however, problematic for Sobin who believes that the only grammatical option in ECs is singular agreement. As Schütze (1999) shows with examples from Icelandic and Faroese, agreement with both the post-verbal subject and with the expletive are possible in UG. Plural agreement in the contexts shown by Felber (2004) might have nothing at all to do with the TAR virus which remains lexically specific. All three researchers should still agree that *there is* is still more common in spontaneous speech, especially in the nonviral contexts. In Felber's study, adults used plural agreement in viral contexts 70% of the time, children only 29% of the time. This shows both the delayed acquisition property of the virus as well as the inconsistency still present in adult speech (30% of the time, the virus rule did not apply and the grammatical there is alternative was opted for). As for non-viral contexts (where plural NP does not follow the verb, namely in conjoined NPs). I am unable to provide relevant statistics from Felber's study since Felber considers sentences where the expletive there follows the verb as non-viral contexts. As explained above, I consider this to be neither viral nor non-viral, but inappropriate given the fact that it does not apply in TAR contexts, and the agreement could arise from an independent natural language process (contra Sobin 1997). In fact, Felber states that TAR does not apply in all of the non-viral cases which I deem appropriate (i.e., *there* + be + NP_{sing}) for both adult and child speech.

In sum, viruses express variability between each other in terms of their properties due to the very fact that viruses may be at a different stage in their development. A lack of certain signature properties could be a derivative of the virus being at an early stage (i.e., it has yet to develop these properties) or at a late stage (i.e., it is shedding its properties to become more like a true grammatical process). It may be suggested that the TAR is a later-stage virus which is developing grammatical status more and more as the language evolves. Presently, more historical linguistic research needs to be done to see how these phenomena have developed throughout the course of time. A synchronic criticism of virus theory may be unsound given the developmental nature of viruses.

3.3 Future Research

To conclude this section, I draw our attention to the need for future research to provide more evidence for or against these claims. For example, sociolinguistic studies aimed at determining the possible advancement or decline of postcopular subject agreement in expletive constructions might help locate the TAR on the developmental timeline of viruses. It is essential to also conduct a historical study to reveal which came first in English, singular or plural agreement with post-verbal plural subject. A comparative study of viruses versus normal language processes may help to find other important distinctions besides just the extremely variable and inconsistent nature of viruses. Finally studies aimed at determining how language change, in particular viruses, are introduced into a language is crucial for the development of virus theory. For instance, viruses may be introduced in the natural grammar of a language by grammar rules imposed by educational or social systems designed to mimic archaic language features.

4. Conclusion

Virus theory as first outlined by Sobin (1997) offers an interesting take on language variability in what seems to be grammatically deviant prestige constructions (as defined by Emonds 1986). By postulating an extragrammatical rule called a grammatical virus which serves to check a feature that the grammatical system cannot otherwise check, we are presented with a clear way to account for deviations from natural grammars which should otherwise be immune to tampering. So that "virus" does not become merely a label for unexplained phenomena, they must be rigorously defined, thus distinguishing them from natural language change. However, it was shown from analysing the TAR, the "...and I... rule" (Sobin 1997) and the "whom rules" (Lasnik and Sobin 2000) that there is too much variability within the virus scheme in its current form and that in order to maintain virus theory, the properties of viruses must be modified. An evolutionary model factoring in the possible stages of the development of any given virus may be the answer to this variability as it differentiates viruses with respect to their respective current stage. Furthermore, it predicts either a deterioration and eventual disappearance of the virus or an evolution into a natural grammatical phenomenon, thus also predicting a finite lifetime for viruses. Future research determining virus change is necessary at this point in order to provide evidence for or prove false these claims. I hope this work may help to open up the gateway to future modified virus theories and approaches to language complexities.

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