Cake-Eating and Cool-Headed Logicians:

The Capture of the Unabomber through Forensic Linguistics

Hannah Hirsh

CLA 208

Joshua T. Katz

13 May, 2014

In a famous, almost legendary incident that has since become part of the oft-repeated folklore of forensic linguistics, Georgetown linguistics professor Roger Shuy was approached by police who requested that he take a look at the ransom notes in a major kidnapping case. The notes demanded payment in weird, semiliterate speech—“No kops! Come alone!!”—followed by instructions regarding the ransom: “Put it in the green trash kan on the devil strip at the corner 18th and Carlson.” Shuy examined the notes, then asked the police, “Is one of your suspects an educated man born in Akron, Ohio?” Astonished, the officers asked him how he had known. “Kop” and “kan,” Shuy explained, were most likely intentional misspellings trying to pass for illiterate speech—and the expression “devil strip” (referring to the patch of grass between the sidewalk and the curb) is a term used solely in Akron, Ohio[[1]](#footnote-1).

The story was a sensation, drawing attention to a field that had previously received little recognition from media outlets in their coverage of crime investigation. Of course, there is a good reason most forensic linguistics cases don’t make it into the news; the discipline is not always headline-worthy, with the majority of investigations relying on the analysis of what most would consider relatively uninteresting linguistic properties, such as phrase structure and punctuation[[2]](#footnote-2). Still, there have been some famous incidents—like the one involving Shuy—in which certain peculiarities in a person’s speech or writing inadvertently betrayed his identity. One of the most remarkable of these incidents was that involving the Unabomber, who terrorized the U.S. over the course of 17 years with his homemade bombs and attacks on industrial society. This paper will examine the specific linguistic anomalies involved in the Unabomber case and analyze what, exactly, makes them “anomalies” in the broader context of the English language.

In late 1979, the FBI became involved in the investigation of a series of bombings by an unknown perpetrator. The homemade bombs, cobbled together out of wood and metal piping, were untraceable; they had been delivered anonymously to University professors and airline officials, seriously wounding those who opened them[[3]](#footnote-3). Though clearly made by the same person, they left no clue as to his identity or motivation; the investigators on the case, which was given the code name UNABOM (UNiversity and Airline BOMber), were baffled. Then, abruptly, the bombings ceased. After six years without a single incident, it seemed unlikely that the case would ever be solved. In 1995, however, the Unabomber struck again, this time writing a letter to *The New York Times* claiming that his group, “FC,” was responsible. Subsequent letters demanded that the paper publish his “manifesto,” a 35,000-word essay titled *Industrial Society and Its Future*[[4]](#footnote-4). Although experts vehemently disputed whether or not they should comply with the demands of a terrorist, the U.S. Department of Justice eventually recommended that the document be published. In September of the same year, both *The New York Times* and *The Washington Post* printed the manifesto as a small pamphlet.

46-year-old David Kaczynski, living with his wife Linda in Albany, New York, began reading through the manifesto when it was published and was disturbed by the familiarity of some of the phrases. It was a voice he recognized—that of his brother, Ted. What caught his attention was the phrase “cool-headed logicians”—one of the buzzwords that his brother had used during their philosophical discussions over the years[[5]](#footnote-5). In the manifesto, the expression appeared as “…But it is obvious that modern leftist philosophers are not simply *cool-headed logicians* systematically analyzing the foundation of knowledge.” Moreover, the ideologies espoused in the rambling text (mostly concerning the dangers of industrialization and the evil of modern technology) were consistent with Ted Kaczynski’s personal philosophy.

After David came forward, the FBI put out a warrant for Ted’s arrest. They took him into custody on April 3rd, 1996, at the remote cabin in Montana where he had lived since 1971. Shortly afterwards, the team began assembling what would be known as the “T-Docs,” a collection of known writings by Ted Kaczynski. In the end, the corpus would contain 178 documents, including Ted’s 1966 doctoral thesis (he had received a PhD in mathematics from the University of Michigan), teaching notes, unpublished essays dealing with sociological issues, an angry missive to a former employer, and personal letters that David had provided. The 14 “U-Docs”—writings by the Unabomber—consisted of the manifesto and other letters that had been sent to both *The New York Times* and the FBI[[6]](#footnote-6).

In charge of the investigation was special agent James R. Fitzgerald, acting chief of the FBI Behavioral Analysis Unit. Fitzgerald had already spent the previous months intensely studying the manifesto, reading it over and over again in the hopes of internalizing the speaker’s sense of identity. One expression in particular had caught his eye; in paragraph 185 of his manifesto, Kaczynski had written: “As for the negative consequences of eliminating industrial society—well, you can’t eat your cake and have it too…” The phrase struck Fitzgerald as slightly funny; wasn’t the saying supposed to be “have your cake and eat it too”? It seemed like a curiously sloppy mistake for a manifesto that was otherwise grammatically immaculate. Finally, Fitzgerald thought, he had “found [the Unabomber] to be linguistically ‘wrong’ about something”[[7]](#footnote-7).

In fact, Kaczynski wasn’t wrong at all; the phrase as it originally appeared in English actually was “eat your cake and have it, too”—the idea being that one cannot eat his cake and then expect to still have it afterwards. The first recorded usage appeared in a 1546 compendium of proverbs by English writer John Heywood as “Wolde ye bothe eate your cake, and haue your cake?”[[8]](#footnote-8).

In 1738, the saying appeared in Jonathan Swift’s satire *Polite Conversation*, an indication that the phrase was already in widespread use; the book was more or less a compendium of catch phrases, idioms, slang, and oaths that Swift considered cliché. In the book, it is a character named Lady Answerall who exclaims, “She cannot eat her cake and have her cake!” Eleven years later, Swift’s book was “reimagined” (read: plagiarized) by an anonymous author under the title *Tittle Tattle*. This time, however, an interesting transposition of verbs took place; the phrase got flipped, resulting in “She cannot eat her cake and have her cake.”

Other adaptations of the phrase began appearing in various publications, one of the more intriguing being a poem in a 1797 edition of the *Connecticut Courant*. The verse read: “Thus greedy boys would gladly treat it/ Could they but keep their cake and eat it”[[9]](#footnote-9). It is interesting to observe here the way the rhyme scheme likely influenced the have-eat construction, and to consider this in the broader context of linguistic change. Although this was not the first occurrence of the have-eat (or, rather, keep-eat) construction, it certainly did not diminish the prevalence of the new wording. The use of the word “keep” rather than “have” also seems to clarify that this is not a mere transient kind of cake-having, thus capturing more clearly the spirit of the original proverb. Unfortunately, “keep” did not seem to catch on.

In the mid-19th century, however, the have-eat verb order began occurring with more and more frequency—so much so that, by 1940, the new phrasing had overtaken the original. Google’s Ngram Viewer, which can graph the frequency with which specific phrases appear in the books published each year, shows that, in the 1990s, occurrence of the “have-eat” construction in American English was nearly five times that of “eat-have”[[10]](#footnote-10). Thus, Ted Kaczynski’s rendering of the phrase in 1995 as “eat your cake and have it too” was quite peculiar—so peculiar, in fact, that Fitzgerald remembered it when, months later, he came across the same expression in the T-Docs.

The proverb appeared twice in the T-Docs, once in a letter that Ted had sent to the Saturday Review magazine in the early 1970s, which claimed that modern society has irreparably damaged Earth’s ecosystems, and once in a letter discovered in their mother’s home. Each time, it was the same wording; each time, without a comma before the “too”[[11]](#footnote-11).

As it turned out, Ted Kaczynski’s mother had always emphasized the correctness of the eat-have verb order, and her son had adhered to what he had been taught. Still, it’s worth noting that the have-eat construction that later emerged isn’t *necessarily* wrong. Although it doesn’t make much sense if we consider “and” to be linking the two events chronologically (i.e., first having the cake and then eating the cake—of course, one can first have his cake and then afterwards eat it), it actually is perfectly reasonable if we think of “and” as simply joining the two phrases (meaning that the cake-having and cake-eating cannot be done simultaneously)[[12]](#footnote-12).

In any case, Kaczynski’s eccentric use of the phrase was a distinctive linguistic anomaly that solidified the case for the T- and U-Docs being penned by the same author. Though it was by no means definitive proof, Fitzgerald was able to immediately recognize the appearance of the same unusual phrasing in both sets of documents as either a compelling piece of evidence, or else an extraordinary coincidence[[13]](#footnote-13).

Further examination of the T-Docs pinpointed several other idiosyncrasies that helped to crystallize Kaczynski’s linguistic fingerprint. For example, he always wrote “pre-industrial” with a hyphen, but “smallscale” without. In various places, the T-Docs also contained the British spelling of certain words: “analyse,” “licence,” “wilfully.” Kaczynski also consistently spelled “instalment” with only one “l” (which used to be a proper British spelling, but is now quite rare and generally considered nonstandard). These linguistic oddities, perhaps unexceptional in their own right, took on much graver implications when they were discovered consistently throughout the U-Docs as well[[14]](#footnote-14).

The histories of these words and how they came to acquire their alternative spellings are long, complex, and sometimes thorny to sort out. “Analyse,” in particular, has an incredibly complicated and disputed story. Some sources claim that the English “analyse” comes from the French *analyser* (meaning “analyze”). *Analyser* itself is a word formed via haplology (the loss of syllables when they are adjacent to other syllables that are identical or similar) from the original *analysiser*. According to the OED, however, the first appearance of *analyser* in French was considerably later than that of “analyse” in English. In reality, theEnglish “analyse” most likely came directly from “analysis,” a word derived from the Greek noun *λύσις*, or *lysis*, meaning “release”[[15]](#footnote-15).

Why, then, some may ask, is the word “analyse” and not “analysise”? The answer is that the verb forms of many English nouns ending in -*lysis* actually did enter via French, and in these cases haplology reduced -*lysiser* to -*lyser*, handing down to us the latter, shortened suffix, minus the final “r” (e.g., “paralyse,” from *paralyser*, from *paralysiser*)[[16]](#footnote-16). Thus, it would seem reasonable to assume that *analyse*, too,underwent this process. Oddly enough, though, it didn’t; instead, speakers of English, trying to coin a verb form for “analysis,” mimicked that process to give us our modern-day “analyse.” The end result for speakers of modern English has been a convenient set of parallel words whose consistency belies their divergent pasts.

At what point, though, did -*lyse* words became -*lyze*? What explains the difference between the British and American spellings? In the case of “analyse,” at least, it seems that “analyze” was a commonly accepted spelling from the start; earlier forms, dating back to the 15th and 16th century (presumably before the “analyse”/ “paralyse” parallel was recognized) are listed as “analuze,” “analise,” and “analize.” Here, the French influence seems indisputable, as both the noun “analysis” and its Greek root would have been pronounced with the “s” sound, and it is only the French verb form, *analyser*, that could have conferred the phonetic “z.” Still, it is unclear at what point the

-*lyse* and -*lyze* spellings became specific to British English and American English. Grammarians often invoke the word’s etymological origins to claim that the -*lyze* spelling is unacceptable, though the phonetic conventions of American English would suggest otherwise[[17]](#footnote-17).

“Licence” does not have quite such a storied past. The word was borrowed directly from the French *licence*, from the Latin *licentia*, from *licēre*, “to be lawful.” In British English, the c-spelling is used to denote the noun and the s-spelling the verb, as is the same with “practice”/ “practise.” American English actually employs the same distinction when the words are pronounced differently, such as “advice”/ “advise” and “device”/ “devise,” but fails to do the same when the pronunciations are identical, as in “licence”/ “license,” usually opting instead for a single spelling. It is not quite clear why the chosen version in this case was “license,” although one might argue that the s-spelling better mirrors American English spelling conventions[[18]](#footnote-18).

By the OED’s standards, however, “licence” would have been the proper choice; the spelling “license,” it claims, has “no justification in the case of the noun,” and is only acceptable in the case of the verb due to the aforementioned parallel with “advice”/ “advise,” a pairing that is considered permissible because of the “phonetic distinction of historical origin” between the noun and the verb[[19]](#footnote-19). Thus, it appears that only the British spelling convention has received the approbation of the establishment; we Americans are, unfortunately, hopelessly degenerate.

Finally, Kaczynski’s spelling of “wilfuly” and “instalment” again adheres to a British convention—this time, the use of only a single “l” when words normally spelled

-*ll* are used to form the main part (not the prefix or suffix) of a new compound (e.g., “wilful,” “skilful,” “enrolment”). Although both “wilful” and “willful” have been around for centuries, “willful” only began gaining popularity in the 1830s, and did not surpass “wilful” in frequency until more than a century later[[20]](#footnote-20). It is worth noting that the rise in popularity of the American spelling more or less coincided with the publication of Noah Webster’s famous *American Dictionary of the English Language* in 1828, which contained only the double-l “willful,” and not its sister “wilful.” A similar trend can be observed for “analyze” and “license,” both of which were included in the dictionary to the exclusion of their British counterparts, and which both began to climb in popularity around the mid-19th century[[21]](#footnote-21). Although other factors were surely at work, the fact that this dictionary (published by an American well-known for his patriotism) purposefully excluded certain spellings again raises important questions about the mechanisms of linguistic change in the context of politics and culture.

These idiosyncrasies, trivial though they may have seemed, in fact each constituted a damning piece of evidence against Ted Kaczynski. When compounded with the weight of “eating your cake and having it too,” “cool-headed logicians,” and many, many other clues—including bizarre references found in both the U-Docs and T-Docs to extremely specific subjects, such as sexual repression during the Victorian era and electrodes being implanted in people’s brains—Ted Kaczynski was cornered. He pleaded guilty on January 22nd, 1998 [[22]](#footnote-22).

Although most cases in forensic linguistics don’t involve such thrilling circumstances, the Unabomber incident was an exception. In the end, Ted Kaczynski was betrayed not by a lock of hair or a sliver of fingernail, but by his linguistic fingerprint, that unmistakable token of his upbringing and his beliefs. In a way, we owe Kaczynski’s arrest more than anything to the countless cultural influences that have so profoundly shaped the English language over the centuries—and which will continue to shape it for years to come. After all, linguistic fingerprints only exist because of the vast variation in language, and it is the rich and tangled history of the English language which makes that variation possible.

This paper represents my own work in accordance with University regulations.

/s/ Hannah Hirsh

Works Cited

“American Dictionary of the English Language.” Webster’s Dictionary 1828. Web. 13

May 2014. <http://webstersdictionary1828.com/>.

“Analyse/ Analyze, v.” Oxford English Dictionary. Web. 10 May 2014.

<http://www.oed.com/view/Entry/7041?rskey=Pjgvb6&result=2&isAdvanced=fal

se#eid>.

“Analyse (v).” Online Etymology Dictionary. Web. 9 May 2014.

<http://www.etymonline.com/index.php?term=analyse>.

Campbell, John H., and Don DeNevi. *Profilers: Leading Investigators Take You Inside*

*the Criminal Mind*. Amherst, N.Y.: Prometheus Books, 2004. Print.

Chase, Alston. *A Mind for Murder: The Education of the Unabomber and the Origins of*

*Modern Terrorism*. W. W. Norton & Company, Incorporated. p. 84.

Chase, Alston. *A Mind for Murder: The Education of the Unabomber and the Origins of*

*Modern Terrorism*. W. W. Norton & Company, Incorporated. p. 84.

Foster, Donald W. “Chapter 3: A Professor's Whodunit.” *Author Unknown: On the Trail*

*of Anonymous*. New York: Henry Holt, 2000. Print.

“Google Ngram Viewer.” Google Ngram Viewer. Web. 13 May 2014.

<http://books.google.com/ngrams>.

Hitt, Jack. “Words on Trial,” *The New Yorker*. July 23, 2012, p. 24.

“Language Log.” *Forensic Linguistics, the Unabomber, and the Etymological Fallacy*.

Web. 13 May 2014.

<http://itre.cis.upenn.edu/~myl/languagelog/archives/002762.html>.

“Licence, n.” Oxford English Dictionary. Web. 10 May 2014.

<http://www.oed.com/view/Entry/107943#eid39414049>.

Olsson, John. *Forensic Linguistics*. 2nd ed., London: Continuum, 2008. Print. p. 41-62.

“Paralyse/ Paralyze, v.” Oxford English Dictionary. Web. 10 May 2014.

<http://www.oed.com/view/Entry/137495?redirectedFrom=paralyse#eid>.

“Unabomber Affidavit Excerpts on Language.” Illinois English. Web. 10 May 2014.

<http://www.english.illinois.edu/-people

/faculty/debaron/380/380reading/Unabombexcerpts.pdf>.

“The Unabomber.” FBI. 24 Apr. 2008. Web. 10 Apr. 2014.

<http://www.fbi.gov/news/stories/2008/april/unabomber\_042408>.

Upward, Christopher, and George Davidson. *The History of English Spelling*. Malden,

MA: Wiley-Blackwell, 2011. Print.

“Wilful vs. Willful.” *Grammarist*. Web. 10 May 2014.

<http://grammarist.com/spelling/wilful-willful/>.

“World Wide Words: Have Your Cake and Eat It.” World Wide Words. Web. 13 May

2014. <http://www.worldwidewords.org/qa/qa-hav2.htm>.

1. Hitt, Jack. “Words on Trial,” *The New Yorker*. July 23, 2012, p. 24. [↑](#footnote-ref-1)
2. Olsson, John. *Forensic Linguistics*. 2nd ed., London: Continuum, 2008. Print. p. 41-62. [↑](#footnote-ref-2)
3. “The Unabomber.” FBI. Web. 10 Apr. 2014. <http://www.fbi.gov/news/stories/2008/april/unabomber\_042408>. [↑](#footnote-ref-3)
4. Chase, Alston. *A Mind for Murder: The Education of the Unabomber and the Origins of Modern Terrorism*. W. W. Norton & Company, Incorporated. p. 84. [↑](#footnote-ref-4)
5. “Language Log.” *Forensic Linguistics, the Unabomber, and the Etymological Fallacy*. Web. 13 May 2014.

   <http://itre.cis.upenn.edu/~myl/languagelog/archives/002762.html> [↑](#footnote-ref-5)
6. Foster, Donald W. “Chapter 3: A Professor's Whodunit.” *Author Unknown: On the Trail of Anonymous*. New York: Henry Holt, 2000. Print. [↑](#footnote-ref-6)
7. Campbell, John H., and Don DeNevi. *Profilers: Leading Investigators Take You Inside the Criminal Mind*. Amherst, N.Y.: Prometheus Books, 2004. p. 205. Print. [↑](#footnote-ref-7)
8. “World Wide Words: Have Your Cake and Eat It.” World Wide Words. Web. 13 May 2014. <http://www.worldwidewords.org/qa/qa-hav2.htm>. [↑](#footnote-ref-8)
9. “Language Log.” [↑](#footnote-ref-9)
10. “Google Ngram Viewer.” Google Ngram Viewer. Web. 13 May 2014. <http://books.google.com/ngrams>. [↑](#footnote-ref-10)
11. Campbell, 206-213. [↑](#footnote-ref-11)
12. “Language Log.” [↑](#footnote-ref-12)
13. Campbell, 212-213. [↑](#footnote-ref-13)
14. “Unabomber Affidavit Excerpts on Language.” Illinois English. Web. 10 May 2014. <http://www.english.illinois.edu/-people/faculty/debaron/380/380reading/Unabombexcerpts.pdf>. [↑](#footnote-ref-14)
15. “Analyse/ Analyze, v.” Oxford English Dictionary. Web. 10 May 2014. <http://www.oed.com/view/Entry/7041?rskey=Pjgvb6&result=2&isAdvanced=false#eid>. [↑](#footnote-ref-15)
16. “Analyse (v).” Online Etymology Dictionary. Web. 9 May 2014. <http://www.etymonline.com/index.php?term=analyse>. [↑](#footnote-ref-16)
17. Readers may be interested to learn that, when the distinction is between -*ise* and -*ize* (as in “organise”/ “organize”), the -*ize* spelling is actually etymologically correct, since the origin in these cases is not “lysis” but the Greek suffix

    -*ιζειν*, Latin -*izāre*. [↑](#footnote-ref-17)
18. Upward, Christopher, and George Davidson. *The History of English Spelling*. Malden, MA: Wiley-Blackwell, 2011. Print. p. 89. [↑](#footnote-ref-18)
19. “Licence, n.” Oxford English Dictionary. Web. 10 May 2014. <http://www.oed.com/view/Entry/107943#eid39414049> [↑](#footnote-ref-19)
20. “Wilful vs. Willful.” *Grammarist*. Web. 10 May 2014. <http://grammarist.com/spelling/wilful-willful/>. [↑](#footnote-ref-20)
21. “American Dictionary of the English Language.” Webster’s Dictionary 1828. Web. 13 May 2014. <http://webstersdictionary1828.com/>. [↑](#footnote-ref-21)
22. Campbell, p. 215. [↑](#footnote-ref-22)