Confronting Our Linguistic Stereotypes: What *Flowers for Algernon* teaches young people about intelligence and language.

by

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Take an English teacher in any high school classroom. Ask her what she wants to accomplish with her charges. Somewhere in her answer she will almost surely say that she hopes her students will learn to write with style, preferably "good" style. Ask her how her students learn which styles are "good." She's likely to answer "by what they read." Now, if you ask her which books she and her colleagues are likely to assign their students, chances are that somewhere on the list you'll find Daniel Keyes' *Flowers for Algernon.* Indeed, the *New York Times* bestseller list aside, given universal education to the age of 16 in the United States, *Flowers for Algernon* may well be one of the most widely read novels in the country. Teenagers often encounter it during their eighth, ninth, or tenth grade years, and for good reason. In 1967, it won the Nebula Award. Along with Ray Bradbury's *Dandelion Wine*, *Fahrenheit 451*, and *Martian Chronicles*, George Orwell's 1984, and J.R.R. Tolkien's *The Hobbit*, it is part of a commonly used "Reading Motivation Unit for High School"(Schlobin, et al.). One reviewer of the American high school canon calls it "a brilliant story" (Aukerman). More tellingly, it may be one of the best remembered. Having polled informally several Midwestern college composition classes, I estimate that about a third of college students recall the story line of this novel, a far higher percentage than any other novel high school education can claim.

A quick summary explains why the 1959 short story, the 1966 full novel it grew into, and the film that subsequently followed, became so popular, especially in school where students have mixed abilities and intelligence levels. As recorded in the journal entry progress reports of the novel's protagonist, Charlie Gordon, the Beekman University team of Professor Nemur and Dr. Strauss have discovered a surgical means by which to increase a brain's intelligence. They have already succeeded at this with mice, particularly one named Algernon, whose mouse IQ has risen to supergenius level as determined by successful completion of Skinner box mazes. They now decide to repeat the experiment on a human subject. A retardate will show the results most dramatically, they decide, and so choose one who has already shown extreme motivation to learn—Charlie Gordon, IQ 68. The experiment surpasses all expectations—Charlie becomes the smartest man in the world, IQ 180—but his metamorphosis includes some side effects. One is that his personality changes from always being friendly and kind to tempermental, impatient, and arrogant. Another is that the effects reverse themselves: Charlie goes back to being the smiling retardate.

In between Charlie loses many friends, becoming an ingenious but lonely man. The moral seems uniformly clear, especially to eighth graders: all humans are full and worthy persons, no matter their intelligence quotient. Treat all persons with respect.

Noted only obliquely, if at all, however, is a lesson all readers seem inclined to absorb here, if they haven't already elsewhere: those with low IQ's speak simple English; those with high IQ's, complex. Of course, one might say, that's to be expected. But what is "simple" English? What's "complex"? Is either a style? Is there a happy medium? And, most importantly, which do we expect students we teach to value?

As it turns out, the difference between "simple" and "complex" in English (notably not any other European languages) is primarily one of etymology. As educational researcher David Corson has shown in his book *The Lexical Bar*, English consists of a primary code, the Germanic Anglo-Saxon, and a secondary code imported from French, Latin, and Greek. Words in the latter have developed connotations of sophistication, erudition, privilege, refinement, and prestige. As a consequence, whenever English speakers speak or write, they assess the formality of the language situation in which they find themselves and choose lexical features that tend toward one code or the other. For instance, an English speaker who desires to sound more formal is likely to opt for "in retrospect" instead of "in hindsight," "protrude" instead of "stick out." They have been doing this ever since the Norman Invasion of 1066 introduced massive numbers of French and Latin words and the British class structure that exists to this day. The effect was not only to grant French, Latin, and Greek words greater prestige; it also relegated the words of the vanquished Anglo-Saxons and Danes to connotations that were informal, roughhewn, and even vulgar.

As Richard Lanham notes in the chapter entitled "High, Middle, and Low Styles" of his *Analyzing Prose*, English speakers have long associated Latinate words with high class, Anglo-Saxon with low. To illustrate his point, he cites several examples, including Boswell's record of Johnson's "translation" of his own statement, "It has not wit enough to keep it sweet," a purely Anglo-Saxon wording, to, "It has not vitality enough to preserve it from putrefaction," where three Romance-based words are substituted merely to add an air of sophistication, education, or higher class. Likewise, he notes Fats Waller's song from this century, "Your Feet's Too Big," which in one line Waller translates to "Honey, you pedal extremities really are enormous" (166). Examples like these have grown numerous among linguists who study "codeswitching." England's noted sociolinguist Peter Trudgill illustrates with his own examples. "I require your attendance to be punctual" becomes "I want you to come on time." Similarly, "A not inconsiderable amount of time was expended on the task" becomes "The job took a long time" (107).

Let's now consider Charlie and his writing. Although the entire story comes to us obstensibly through journal entries, novelist Keyes makes certain that

what we read is indeed a highly readable and engaging novel, judged in part by its equally readable and engaging styles. Since the majority of the entries record Charlie at a middle range of intelligence, most of the language reflects the middle range of Germanic and Latinate codes, a mixture. Keyes employs lexical differences, coupling them with misspellings when Charlie possesses a low IQ, to indicate how we are to judge Charlie. Keyes plays, in a way that must be conscious, on the linguistic stereotypes he expects us to bring to the text, unless, of course, as early adolescents, we haven't yet formed such stereotypes. If not, by the time we finish reading, we will be well on the way to forming them from the way we see language used in this book.

That Keyes must be conscious of what he's doing comes through in the lines he assigns several of the characters, including Charlie, who writes not long after his operation that he has looked up the definition of "subconscious" in the dictionary. The definition he finds there is expressed mostly in Latinate words. Charlie comments, "This isn't a very good dicshunery for dumb people like me" (29). Three weeks later, however, when surgery has supposedly erased any social aversions to Latinate words (Keyes implies the change is due to increased intelligence, but a sociolinguist must take into account social conditions and conditioning) Charlie's outlook has shifted: "I like to look up all the hard words in the dictionary and remember them" (41). Earlier, Keyes has Charlie reveal through misspellings the difficulty he has with a Latinate code foreign to him. Charlie tries to make sense of what he hears by relating the parts of words he thinks he hears to what he already knows. Thus, "motivation" becomes "motor-vation" and "IQ" becomes "eye-Q" (11).

The strategy is hardly a bad one. Indeed, in most languages it works. The big words, after all, are just the little words strung together. Words for abstract ideas combine words denoting concrete ones. Thus, a German who uses the word *Instandsetzung* (renovation) can divide it easily into its parts, In-stand-setz-ung, all but the last of which (the gerund morpheme "-ung" corresponding to English "-ing") can appear separately in their basic senses. One might argue that "renovation" could be similarly divided, and indeed, to a Frenchman doing so might make sense, for the parts separated still carry meaning. To an English speaker, however, doing so makes no sense at all. The word's meaning is opaque, to use Corson's term (21). When the meanings of these separate parts appear by themselves, their morphologies look as if they signify completely different words. The stem "nova," for instance, appears as "new." The leap is far greater for an English speaker from "-nov-" to "new" than for a French speaker from "-nov-" to "nouveau," perhaps even too great a leap for most to make on their own. Thus, the connection is lost. Barnes notes that the "best languages do not borrow but are enlarged by the building of new words from native elements" (Baron, 31). Likewise, the famed Danish linguist Otto Jespersen in his *Growth and Structure of the English Language*, [Leipzig, 1905] asserts that borrowing is not natural. "On the contrary, it is rather the natural thing for a language to utilize its own resources before drawing on other languages." Continuing, he says that the worst thing about loan words "is their difficulty and

undemocratic character which is a natural outcome of their difficulty" and that borrowed words'"great number in the language is...apt to form or rather to accentuate class divisions" (Baron, 56-58). Little wonder, then, that Keyes can play on the stereotype by linking a largely Germanic wordstock to low class and low intelligence, and present Charlie bumbling over what the unprivileged call "big words."

Later, when he reaches IQ 180, Charlie himself becomes the privileged, those around him feeling inferior. (That Charlie can feel comfortable learning to use such words in the space of three months presents a sociolinguistic problem to be taken up in later pages). At this point Dr. Strauss must stress to him that he must "speak and write simply and directly so that people will understand" (103). Only slightly before, one of the employees at the bakery where Charlie worked as a retardate points out the problem of language and sense of human worth. (Before the surgical operation this character continually made fun of Charlie). "Maybe I don't understand some of them big words....but I'm as good as you are—maybe better even" (96). Charlie comments, "Ironic to find myself on the other side of the intellectual fence" (103). Except for the Latinate vocabulary, one would have to deem Charlie's writing at this stage, as one sees in the riposte, quite strong, direct, and precise. Even the scientific writing presented as Charlie's can be rated among the most readable in its genre. Though "simple" and "direct" are never here defined, the reader must reason by the process of elimination that simple and direct mean Anglo-Saxon specifically and Germanic generally.

Even the most casual reader will consciously notice the lines cited above. What the reader notes subconsciously deserves close analysis, however. By taking key entries reflecting the rise and fall of Charlie's IQ, one can examine the etymological sources of the characters' vocabulary, reckon the ratio of Germanic to Latinate words, and determine the intelligence, social standing, and social setting that the author wishes to ascribe to the characters or the situations in which they find themselves.

An etymological analysis works best when it is limited to nouns, verbs, and adjectives. It is in these word classes that the codeswitching typically takes place. Prepositions, by contrast, never switch; all but "because" and "during" are Germanic, and even these two are mixtures. ("Be-" and "-ing" are likewise Germanic). Thus, by counting the nouns in a passage and examining their roots, I obtained a ratio of Germanic nouns to non-Germanic nouns. I also determined the ratio of Latinate nouns to the total number of nouns, which can then be expressed as a fraction or a percentage. Either method will produce illustrative numbers. This study uses the latter method.

Charlie's second "progris riport" (so misspelled), dated "march 4" provides an apt entry for analyzing his lexicon before the operation, when he is deemed to have an IQ of 68. Here the proportion of Latinate words works out to a percentage of 37.7 for the total, as we'll see, a relatively low count. Breaking the number down by word class, Latinate nouns comprise 59.9%

of all nouns, Latinate verbs, 16.2%, and Latinate adjectives, 18.9%. At first glance, the percentage of Latinate nouns seems surprisingly high, given this study's original premise. At this point a qualitative analysis elucidates what is happening. The Latinate words here number among the most common and earliest learned: "desk," "chair," "place," in short, Latinate words that, have driven their Germanic equivalents to obscurity or specialized senses: "board," as in "room and board," "stool," and "stead," as in "in his stead." None of these Germanic nouns could, in modern English, appropriately fill in for the Latinate nouns Charlie uses here. At this point topic determines code, though we shall see that this is not always the case where nearly equal synonyms are available. Verbs and adjectives do follow the pattern predicted, however.

By contrast, Charlie's journal writing at genius level shows a large jump in the Latinate lexical content. Here 48.3% of the words came to English through the Romance languages. Exactly 50.0% of the nouns used are either Latinate or Greek (two nouns from the latter language). Latinate verbs totaled 37.5% and adjectives an enormous 63.6%. At this point I should note that the proportion of adjectives and nouns rises while the proportion of verbs sinks, both when Charlie's intelligence increases and when the professional characters talk to other professionals (including Charlie at his high point). Thus, a high proportion of Latinate adjectives comprises a greater part of the text on these occasions than it does when lower class or less intelligent characters speak or write. (Unfortunately, as we shall see throughout, this novel's flaw is in equating lower class with lower intelligence).

Somewhat later (August 26) Charlie's use of a Latinate vocabulary reaches its zenith when he writes a letter/report to Professor Nemur. Couched in scientific terms, almost all of which are Latinate, the letter contains 72.1% Latinate words in the categories analyzed. Latinate nouns account for 77.0% of all nouns; verbs, 61.3%; adjectives, 70.7%.

As the effects of the operation reverse themselves, the Latinate vocabulary dives with the drop in IQ. Charlie's November 1 entry contains a paltry 13.3% of Latinate words. Latinate nouns comprise 23.4%; verbs, 5.0%; adjectives, 14.3%. (The total number of verbs, as one can now predict for characters with low intelligence, far outnumber totals for nouns and adjectives at this point). Interestingly, Charlie's last entry climbs slightly in its Latinate proportion, probably because of topic. He's compelled to use words like "genius" and "operation," for which no Germanic words are left in the language.

Charlie makes vivid changes as an individual writer in monologue, no audience responding. Other entries, however, record snatches of dialogue in which we can see the social setting and its effect on the character's choice of words. Early on Charlie's entries appear to record dialogue with some accuracy, although one must nevertheless label them paraphrase. Later, as he learns the conventions of writing, quotation marks appear. The author

evidently expects us to accept the dialogue in these sections as verbatim transcriptions.

On March 6 Charlie reports the conversation he has had with the Beekman team, who try to explain to him the ramifications of the operation he is about to have. One can roughly separate Charlie's speech from the professionals'. Lending veracity to Charlie's transcription of words he doesn't yet know, Keyes has Charlie write the first few syllables of "the big words" (all Latinate), leaving asterisks for the missing syllables. The technique requires suspension of the reader's disbelief, but it does effectively allow the professionals to reach the reader through a retardate's journal. "Intellectual" appears as "intelek**," "hostile" as "host**," "uncooperative" as "uncoop**," etc. Sections reflecting Charlie's thoughts (not all of them spoken in conversation) show a Latinate percentage of 21.0%, including nouns, 41.1%; verbs, 12.1%; and adjectives, 16.7%. In contrast, the sections reflecting the professionals' speech (and including some commentary by Charlie) contains 28.3% Latinate vocabulary, Latinate nouns comprising 50.0%; verbs, 10.6%, and adjectives, 37.8%. (Note the rise in adjectives especially, whose total number vastly exceeds Charlie's). In dialogue as well as individual journal entries, the language adheres to the pattern Keyes has established by relating it to intelligence.

Social setting can cause these professionals to employ even more Latinate words than they might otherwise. When Professor Nemur arrives at a professional convention of psychologists, ready to show off his "lab subject" (Charlie), he's questioned, first by a young female clinician, to whom he brags by lecturing, then by the supergenius he thinks of as his creation. Charlie makes him feel inferior, causing Nemur to shift toward an even more Latinate style, as many sociolinguists, including Hymes, Labov, and Trudgill would predict. Professor Nemur's speech includes 72.6% Latinate nouns;50.0%, verbs; 70.2%, adjectives. Charlie's numbers 66.7% Latinate nouns; 80.0%, verbs (including "propounded," a verb one cannot imagine him using during stages of low IQ); 66.7%, adjectives. The totals reflect the outcome of the intellectual parrying: Nemur's Latinate percentage of the total words registers 66.2%. Charlie noses him out at 69.0%. The intellectual dual, the main event at this stage in the story, is borne out in the linguistic dual, a point that enters most readers' minds subconsciously. The lesson is simple enough: the person who employs the greater proportion of Latinate words wins the game. The person who does not is deemed inferior, both in intellect and social standing.

In a quite different setting, where the levels of both socio-economic class and intelligence are presented as much lower than at the psychology conference, we see Keyes' efforts to inform the reader of these levels through the language of the bakery workers. By this time (April 1) Charlie has grown smart enough to learn in a few minutes how to run the mixer, a task, we're told, that took the previous operator two years to learn. Predictably, the Latinate content of Charlie's speech now outnumbers his fellow employees'. Latinate words account for 24.0% of Charlie's speech, as it's recorded in this entry, while the other bakers use only 18.8%. Charlie's Latin-filled language foreshadows the estrangement his co-workers will press upon him when one who was inferior to them, judged in large part by language, surpasses them.

Quite late in the novel, but before Charlie loses his high intelligence, he returns to visit his family. The episode reveals for this study the language environment Charlie grew up in. Interestingly, none of the other family members uses the dialectal features Charlie uses both before the operation *and after* the effects wear off. This latter point is especially important, given what we know now about language acquisition. Children will learn whatever form of language others around them engage them in. Thus, from a language acquisition view, Charlie's use of multiple negatives ("Burt aint no dentist neither,"[4]) seems implausible since the family he grew up in avoids them and even laughable at the end when earlier he had learned to avoid them. As is now commonly acknowledged among linguists, double negatives are a language universal, found in all creoles as well as many national languages like Spanish and, at one time, English, *regardless of their speakers' intelligence*. Yet Keyes chooses to perpetuate the stereotype that a dialectal feature of the modern English world's working class is a sign of low IQ.

Though his family may not belong to the working class, they are nonetheless on the lower end of the economic scale. Through such cues as Charlie's father's employment as a barber supply salesman, Keyes alerts the reader that the Gordons' is a lower-middle class household. The exchange between Charlie and his sister Norma casts shadows from their childhood. Both the words and the emotions they reveal bear the marks of two children in dialogue, even though both are in their thirties. Accordingly, the vocabulary is mostly Anglo-Saxon, especially for Norma. (Herbert Spencer noted as early as 1852 that "a child's vocabulary is almost wholly Saxon...The synonyms learned in after years never become so closely, so originally connected with the ideas signified as do these original words used in childhood" [Hirsch, 79].) Perhaps not surprisingly, then, Norma's Latinate content totals only 7.5%. Charlie, trying to distance himself, alludes at several points to his work. Consequently, his Latinate percentage comes to 31.0.

If the Latinate proportion proves interesting in family dialogue, it seems equally interesting when Charlie writes a lovesick entry while at supergenius level. In contrast to the entries surrounding it, this entry contains relatively few Latinate words. The total turns out to be 26.6%, breaking down to 27.6% of nouns, 20.5% if verbs, and 37.8% of adjectives (including one from Greek). The higher proportion among adjectives signals that Charlie is operating at high intelligence. Nevertheless, the overall low proportion can only be explained by the topic and emotions: love is basic. Accordingly, it requires (at least in Keyes' mind) "basic" language, "simple and direct." In other words, Anglo-Saxon. Romantic Romance language buffs, particularly Francophiles, may find this disconcerting, but Keyes' implication (based on his instinctive stereotypes) is clear: the discourse of love and passion among English speakers is English.

Finally, a look at one special entry reveals special sociolinguistic behavior. In a flashback to Charlie's childhood visit to a doctor, a quack who offers to make him smart, we see an example of true codeswitching in English. Until this point the characters' linguistic shifts have been subtle or gradual, Nemur using somewhat more Latinate words at the conference, Charlie employing more Latinate words as he grows smarter and learns. Dr. Guarino, however, drastically switches codes instantaneously. The circumstances reveal why and are as predictable in their effect as any a sociolinguist might encounter. Guarino first speaks to Charlie's anxious parents in what's commonly known as "plain English." The following sentence is representative: "Now, if you'll just step outside and let me examine the boy." Here only one word, "examine," is Latinate. The father, however, signals suspicion, whereupon the doctor dresses up his plain verbiage, and thus, his position, with "The results are always more significant if the patient and I are alone when the psychosubstantiation tests are performed. External distractions have a deleterious effect on the ramified scores" (124). On this page, Guarino's Latinate content when talking to the parents totals 57.9%. Moments later, however, he converses with the boy Charlie alone. The drop is substantial. The Latinate proportion is just 13.8%. Keyes makes a point of showing, however, that the doctor is not treating Charlie with disrespect. Charlie remembers Guarino as the one person in his childhood who would always give him some kind words and a pat on the back.

The etymological analysis raises to consciousness what our reading minds were probably comprehending subconsciously. As readers of *Flowers for Algernon*, we are to associate use of a Latinate vocabulary with superior intelligence. Likewise, we are to value Latinate words in intellectual discussions, leaving Germanic words to explain ideas to children, to soothe and comfort them, to discuss things with family, to express emotions, and, most damning of all, to get our point across to the lower classes and the less intelligent, which in this book amount to the same group of people.

This particular stereotype is apparently unique to English speakers. Germans and Frenchmen, for instance, have no recourse but to speak German or French. Granted, they can shift between formal and informal forms of their languages, or between dialect and standard, but in no sense can they make the wholesale switch from one code to another as Keyes has Nemur and Guarino do.

I should note that some discrepancy exists among scholars (if they, of all English speakers, can be trusted) as to whether a knowledge of words like "psychosubstantiation" is a mark of intelligence. Psychologist Donald P. Hayes claims it is, at least as an indication of verbal intelligence: "Knowledge of...rare words [beyond a list of the 5000 basic (undefined, incidentally) distinguishes those at the highest levels of 'verbal intelligence' (the mastery level) from the novice, the competent, and the proficient word users" (583). Hayes' study leaves unfilled some huge gaps, however. First, it examines only English speakers. It makes no mention of whether verbal intelligence in German or French, for instance, can be measured by a similar test of rare words in those languages. Second, it fails to take into account, even in the

slightest, socio-economic class of the speakers/readers or the linguistic environment or discourse community to which they belong. The American sociolinguist William Labov, on the other hand, discovered in his studies leading up to the book now considered the classic in its field, *Sociolinguistic Patterns*, that "a working-class or lower-middle-class youth never attains the security in the use of [the] prestige form [of the language] which the youngster from an upper-middle-class family does" (138). Indeed, in another work, *The Study of Non-standard English*, Labov notes that linguistic environment makes a colossal difference, especially for a child learning English: "It is possible that the underlying linguistic system used by a child will be different from that of adults if he has learned very little of the Latinate vocabulary before the age of thirteen" (34). In the most complete research to date, David Corson found that English and Australian youngsters not exposed to a wide range of Greco-Latinate vocabulary by the age of 15 were never likely to learn the code and in fact were far more likely to fail in school (117).

The child growing up in lower or even middle class surroundings must deal with not only linguistic prestige but what Labov dubs "covert prestige." For many the standard may connote prestige in certain settings, particularly official writing, but not in any other setting. This is certainly the case in large segments of America, as Keyes makes plain in his bakery scenes. Nor is the phenomenon entirely unique to North America or even the English-speaking world. English sociolinguist Peter Trudgill remarks that in diglossic situations, including *Schwyzedytsch* and *Hochdeutsch* in Switzerland or classical and colloquial Arabic in North Africa and the Middle East, "individuals [who] attempt to use the high variety in everyday speech...[are] generally felt to be artificial, pedantic, snobbish or reactionary...[though] generally speaking, the high variety has greater prestige than the low, and is often regarded as more beautiful, even if it is less intelligible" (115). What *is* unique about English, however, is the etymological distance between its varieties. Most elements of *Schwyzedytsch* are still recognizable cousins of German; colloquial Arabic is still obviously Semitic. The meanings of one form can still be linked virtually at a glance to forms in the other. In contrast, no such direct links manifest themselves between "mortician" and "undertaker" in English. What is really required is a knowledge of French or Latin--or an elimination of such words, a move last tried in the 19th century (Baron).

Flowers for Algernon is unquestionably a memorable novel, compelling in its dignity for all humankind, touching in its protagonist's attempt to better himself. In so many ways it commends itself as a book for teenagers especially. Nevertheless, teachers should become aware of the linguistic impressions it leaves on its readers. The stereotype that a Germanic wordstock marks the less intelligent, as well as the lower classes, needs to be exposed as the inaccurate generalization it is, unsupported by the findings of sociolinguistics. *Flowers for Algernon* does seem to merit a place in the high school canon. At the same time, however, teachers ought to use it as the starting point in a discussion of language biases.

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Works Cited

Aukerman, Charles W. "SF in the Classroom: Developing a High School Reading List." *Extrapolation* 13.2 (May 1977): 155-161.

Baron, Dennis E. *Going Native: The Regeneration of Saxon English.* Publication of the American Dialect Society, no. 69. University, AL: University of Alabama Press, 1982.

Hayes, Donald P. "Speaking and Writing: Distinct Patterns of Word Choice." *Journal of Memory and Language* 27 (1988): 572-585.

Hirsh, Edward, Jr. *The Philosophy of Composition.* Chicago: University of Chicago Press, 1977.

Keyes, Daniel. *Flowers for Algernon.* New York: Harcourt, Brace and World, 1966.

Labov, William. *Sociolinguistic Patterns.* Philadelphia: University of Pennsylvania Press, 1972.———. *The Study of Nonstandard English.* Urbana, Il: NCTE, 1969.

Lanham, Richard A. *Analyzing Prose.* New York: Charles Scribner's Sons, 1983.

Schlobin, Roger C. and Marshall B. Tymn. "The Year's Scholarship in Science Fiction and Fantasy: 1978. *Extrapolation* 21.1 (Spring 1980): 45-89.

Sykes, J.B., ed. *The Concise Oxford Dictionary of Current English.* Oxford: Clarendon Press, 1976.

Trudgill, Peter. *Sociolinguistics.* Harmondsworth, England: Pelican, 1974.