another, and yet another, to take charge and correct the situation. Every effort is made to design, fabricate and construct nuclear plant facilities to the highest quality standards. No other industry has a safety record to match nuclear power.

The Nuclear Way, "Building Fermi-2"
(from a publication by Detroit Edison)

e. We also learned from fallout, how little was known about the risks incurred by large populations exposed to radiation or toxic substances. Before the advent of nuclear energy, medical experience with the internal effects of radiation was very limited, based largely on the fate of several hundred unfortunate women who in the 1920's had used their lips to point up brushes for applying radium-containing luminous paint on watch dials. Standards of radiation exposure were set on the assumption that, at some minimal level, the body would experience no harm at all from radiation, and the AEC used these standards in order to support their claim that fallout was "harmless" to the population as a whole. Later, when it was realized that unlike industrial workers, the general population is unable to escape exposure (for example, by quitting a job) and includes especially susceptible individuals such as children and the aged, the "acceptable" limits were reduced to about three percent of their original value. Finally, experiments show that *every* exposure to radiation, however small, carries with it *some* risk, in the form of genetic damage or cancer.

Barry Commoner, *The Closing Circle*

f. *How large is the risk from normal radioactive discharges?* As explained in Sections 2, 3, and 4, the allowable exposure to the general public from nuclear power plants is limited by Federal regulations to less than one mrem / year. The effects of radiation resulting from nuclear power plants are undetectable. However, making very conservative estimates based on the effects of large doses of radiation, the public risk from allowable exposure limits (which are greater than actual exposures) is less than one in 10 million persons per year.

The American Nuclear Society,
Nuclear Power and the Environment: Questions and Answers

VERBS

Action, and the Choice of Style

Verbs act. Verbs move. Verbs do. Verbs strike, soothe, grin, cry, exasperate, decline, fly, hurt, and heal. Verbs make writing go, and they matter more to our language than any other part of speech.

Verbs give energy, if we use them with energy. I could have said, "Verbs are action. Verbs are motion. Verbs are doing." But if I had written the sentences this second way, I would have written dull prose. I could have gone even further into dullness, and written, "Verbs are words that are characterized by action."

Try to use verbs that act. Yet sometimes you will need to write verbs that are less than active. Just as there are no synonyms, there are no two sentences that mean the same thing but are different only in style. A change in style, however slight, is always a change in meaning, however slight. Is it, therefore, possible to make a stylistic generalization at all?

I think that the generalization remains possible, with explanation and with room for exception. Both explanations and exceptions will follow in the sections on verbs and nouns, but let us start with a general explanation. Most of the time passives and weak verbs evade precision and commitment. Examples follow, in which weak verbs add static to statement, and in which passives avoid being wrong by evading definite statement. These habits fuzz our prose with bad brain fuzz. To recommend that we use active forms of active verbs, is to recommend energy and clarity, definite statement and commitment.

Verbs with Nouns and Adjectives

Usually, a single verb is stronger and better than a strung-out verb-and-adjective or verb-and-noun combination. People say, "I am aware of this fact," or, "I am cognizant of this situation," when they could have said, "I know it." In these examples, we have a weak verb and adjective followed by a noun that means little, but appears to end the sentence, to give the verb an object. The phrases mean something different from "I know it," but the difference is mere pomposity. "I am aware of the fact" differs from "I know it" because it shows us that the speaker thinks well of himself; he sounds like a professor trying to put down another professor who has tried to put him down. "I am cognizant of the situation" is so pompous it may sound ironic; it would usually fall from the lips, or leak from the pen, of someone nervous about his intellectual status, like a television executive.

Look out for the verbs be / is / are and has / have combined with nouns and adjectives. See if you do not gain by using the verb itself, clear and clean. "He looked outside and became aware of the fact that it was raining" revises easily into "He looked outside and saw that it

was raining" or, more simply, "He looked outside. It was raining." Instead of "We had a meeting," try "We met." The meaning is different, slightly, but if the second phrase is accurate, it is better — we save three syllables and add energy to our prose; when we cut to the essential motion, we add vitality. Instead of "They were decisive about the question of . . . ," try "They decided to. . . ."

Now "to be decisive" — if we look at the insides of words — means something quite different from "to decide." The person who "is decisive" has vigor and intellectual intensity; he cuts through the uncertainties that surround a question, and makes a choice firmly and quickly. If you are describing a committee meeting in which, after long discussion, the members reached a consensus or took a vote and decided to do something, "they decided" is the clearest phrase to use. "They reached a decision" wastes words, probably; it does imply that it took some work "to arrive at the decision," which by itself would imply more ease, and less struggle, than "reached." If you feel that the meaning requires "reached" or "arrived," use the accurate word. But, certainly, in writing about the committee meeting described above, "they were decisive about . . ." would be misuse of words. They weren't decisive at all. They decided. Most of the time, when we use a wordy noun / adjective-verb phrase, we are merely trying to *sound* more complicated. Most of the time, the shade of meaning in "reached" or "arrived" is not needed. We use the longer phrase just to *seem* to be considering fine points. The sensible rule: use the shorter, more direct verb ("they decided") except when the longer variation has a precision that your meaning requires. "They talked for two days about lowering the voting age, without coming to a conclusion. Then Senator Jensen returned from a junket. He spoke briefly. He was decisive. The measure carried by a two-thirds majority."

Verbs with Participles

The same advice applies to phrases that use verb forms ending in -ing (present participles). "They were meeting to discuss" can often become "They met to discuss," and "He is clearing his throat" becomes "He clears his throat." But the participle is different in meaning — it marks a different sort of time — and therefore it can be useful when that difference is important. "She'll be comin' 'round the mountain" has more continuous motion in it than "She'll come 'round the mountain." Participles imply continuing action. But be sure that you

intend the difference, and are not just lazy. Apparently the mind finds it easier to be pale than to be colorful. Or maybe the mind finds it easier to avoid the extra vocabulary of verbs, sticking to "be" and "has" with nouns and adjectives. Whatever the reason, when we add little words like "is" and "has" to participles, adjectives, and nouns, usually we thin our prose into invisibility.

The Passive Voice

When writers use the passive, they usually subtract meaning from their prose. We say, "a message was received," instead of "they" (or "I" or "you" or "he" or "she") "received a message." We suppress identity, which is a particular, and we put hazy distance between implied subject and definite action. The passive voice avoids responsibility, as we sometimes claim that "a dish was dropped in the kitchen," rather than name the dropper. It diminishes a sentence by omitting a doer. It can be politically useful: "Napalm was dropped yesterday on structures in a fire-free zone near the DMZ." Sometimes we use the passive from diffidence, or modesty, or false modesty, or all three. It waters the soup. We sound as if we wrote labels for medicine bottles. "Doses may be administered three times daily. Dosage recommended for adults is. . . . ." So a depressed writer might say, making an argument: "It can be assumed that someone in college is fairly mature. It might be objected that. . . ." Here, passives make invisible dialogue, a pale argument between people who are not there. Scientific prose uses the passive by convention, establishing an impersonal tone. Sometimes writers on nonscientific subjects achieve a pseudoscientific tone by using the passive.

Occasionally the passive is right, or unavoidable. Passives are used in a textbook whose author advises against passives.

> The author uses passives in the text.
> The text uses passives.
> Passives are used in the text.

In some contexts, the third sentence is best. The second is most terse, but it involves a metaphor — the text must be compared to a person, if it "uses" something — which may weaken it. The first correctly says that the author does the using, but it would be intrusive in some contexts to state the subject when the subject is perfectly obvious; it would be overexplained, and wordy. It might be better to use the pas-

sive to avoid these other troubles, choosing it as the least of three evils.

Sometimes the passive is useful because we do not know the identity of the doer. The passive (especially if we use it sparingly) can imply this ignorance, which may be part of the meaning of the sentence. Suppose this were the start of a story:

> He walked into his bedroom. Clothes lay in heaps on the floor. Dresser drawers lay upside down on the rug, their contents scattered.

This describes a scene, mostly in the active voice, with inanimate objects (clothes, dresser drawers) doing active things (lay, lay upside down). It is terse, but it implies no reason for the scene, and no response to it. The active voice in this passage is less meaningful than the passive would be:

> He walked into the room. Clothes were heaped on the floor. Dresser drawers were dumped on the rug, and their contents had been scattered.

The scene is the same. We still don't know who did it. But the passives (after the first sentence, which is active) imply that someone else, unknown, has done the damage. They only *imply* it, they do not *state* it, but the implication is real, and further implies shock. The second and third sentences suggest what happens in his mind as he enters the room: "I've been robbed!" To make this last sentence active would sound artificial: "Someone has robbed me!" The writer would be taking as absolute the advice to avoid the passive, which is only a sensible, general rule.

Good writers use the passive for variety in sentence structure, too. Rarely, but they do. In a paragraph about two groups taking opposite sides on an issue, in which all sentences have the active voice, the author looking for stylistic variety might insert the sentence, "Arguments were put forward, on both sides, which would make a goat blush." When you use a passive for variety, be certain that you are not using it for any of the reasons that make passives bad: diffidence, false modesty, evading responsibility, or imitating scientific respectability.

Particular Verbs

I have been writing all along as if there were two classes of verbs: strong ones and weak ones. Of course language is more complicated than that, and not only because weak is sometimes better than strong, as I have argued. Some strong verbs are stronger than others. "He moved" is stronger than "he was in motion." But in a context that admits it, we might say with greater strength, "he crept," or "he slid," or "he hurtled." We would almost always want to say "he crept" rather than "he moved, creeping." (A difference of meaning might, once, make the second phrase useful.) The first verbs I listed in the paragraph that starts this section are general verbs: do, move, act. The second series is particular, and more colorful. Energy lies often in small shades of difference, rather than in opposites like "she was in motion" and "she slithered."

Invisible Verbs

In the prospectus for a dissertation, a Ph.D. candidate wrote this sentence in which he misused verbs; in fact, he managed to write almost *without* verbs.

> Illustrative of what Kornhauser means by constraint imposed on professionals in organizations are the findings of Leo Meltzer in a survey of 3,084 physiologists in the United States.

The sentence has no strong and active verbs. "Means" is the closest. "Illustrative" is an adjective substituted for a verb. "Imposed" is a past participle that suppresses responsibility. "Are" is boring.

To rewrite the sentence in a language not far from the orginal, but with more vigor and clarity, we can simply cut and rearrange.

> Leo Meltzer questioned 3,084 physiologists in the United States; his findings illustrate Kornhauser's contention that organizations constrain professionals.

Maybe "surveyed" is more accurate than "questioned," but "surveyed" smells of jargon.

The last phrase of this revision may not mean what the original author had in mind. Did he mean that the institution imposed the constraint, or that something else, unnamed, chose professionals in organizations, rather than others, to impose restraint on? The ambiguity in the original passage is real, and serves no function; it is merely unclear. The second version is clearer, though without context it still raises questions. What is this constraint? What desires are held back? Does the author mean "constraint" as restraint or as compulsion?

Does he mean all organizations — like YMCAs, universities, corporations, fraternities, bridge clubs, and nations — or specifically professional ones, like the American Association of University Professors, the Modern Language Association, or the American Medical Association? Clarity comes from vigor combined with detail. Verbs are the most vigorous parts of speech; by particularity, they add to detail.

False Color in Verbs

The search for particularity and color can become obvious, and the prose look silly. In the examples that follow, the faults do not lie in the verbs alone, but in the whole style. Verbs are at the center of the action in our prose, however, for good or for ill. In the play, *The Owl and the Pussycat,* a would-be novelist reads the first page of his manuscript to the girl who has invaded his apartment. When he starts by saying the sun "spat" on his protagonist, she flies into a rage. So should we. Men's action magazines are full of Methedrine prose, violence done to language in the name of violence. In a recent thriller called *A Clash of Hawks,* the author's second sentence reads,

> The 200-foot-high derrick was a black, latticed steel phallus raping the hot, virginal blue sky.

Tough writing is not the only kind of bad overwriting. Maybe pretty writing is worse. It is Liberace prose, and it can rely on verbs for its nasty work, too.

> Songbirds trilled out my window, vines curled at the eaves, and Spring drenched the day with gladness.

Often a beginning writer tries to make the verbs describing dialogue too specific: "he whimpered," "she snapped." Almost always it looks too strenuous. We should use "said," or nothing at all, most of the time. The emotion should be in the dialogue itself, in the speaker's words; if the reader has to be told, the emotion is not there. The trick is energy with appropriateness. We may need to learn to do too much before we can learn to do the right amount. Newly wakened to verbs, one student wrote this passage in his next theme:

> The train slammed to a stop in the station. Steam vomited from all apertures. Passengers gushed through the barriers and hurtled into the night.

It was a useful exercise, because the student was searching through his mental dictionary for energetic verbs. The color was more vivid than the actions colored, like photographs in advertisements for food. Steam gushing out at the base of an engine is not like vomiting; "vomiting" is too sick and unpleasant and bad smelling a word; the writer used it only for its power, and not for what it contributed to the picture. Though the general advice — choose color over pallor, energy over lethargy — holds true, one matter overrides all others, in any discussion of style, and that is appropriateness: context is all.

Fancy Verbs

Some verbs are too fancy for normal use. Writers use them when they think their prose ought to wear fancy clothes. "Depict" is usually inferior to "paint" or "draw" or "describe." "He depicted a scene of unparalleled magnitude." (W. C. Fields / thesaurus talk again.) Maybe that means "he painted a big picture," or "he told a good story," or half a dozen other things, but its real meaning is its would-be fanciness. It is a sentence admiring itself in the mirror. "Emulate" would usually be fancy for "copy," "ascertain" for "make sure," and "endeavor" for "try."

Made-Up Verbs

Then there are the made-up words, neologisms, which sound fancy to the people who use them. When we are tempted to say "finalize," we would do better to say "end" or "finish." In general, we should avoid verbs made of an adjective and an -ize; "personalize" is another. Advertising and politics have created many crude verbs, sometimes using nouns as bases instead of adjectives. Some good old English verbs end in -ize. "Scrutinize," deriving from the noun "scrutiny," is a useful verb. "Finalize," on the other hand, is used to sound fancier than "finish" or "end," to give false complexity to a simple act. Therefore it is bad style, pretending to be something that it isn't, a form of euphemism. The writer should search the language for the simplest and most direct way of saying and expressing, not make up a new word when an old one will do.

EXERCISES

1. Underline the weak verbs (verb-noun or verb-adjective or verb-participle combinations, invisible verbs, verbs lacking partic-