CHAPTER SEVEN

Conclusion

To argue for a naturalistic method of teaching is to argue against many current practices, and so I have devoted much of the last two chapters to a criticism of textbooks and grammar teaching. For the plain truth is that no other important innovations can be made until some of these unwarranted practices are eliminated. But the thrust of these arguments is meant to be positive. Here as in the rest of this book my plea is to bring the teaching of discourse more in line with the goals — thinking, speaking, listening, reading, and writing. More than anything else, it has seemed to me, lack of a global rationale has obstructed this alignment of means and ends and obscured the unity of field. I have tried in preceding chapters to visualize from the learning point of view at least the dim lineaments of the universe of discourse. In keeping with the belief that context governs text, I have taken a big step backward from the subject to get a large perspective and then zoomed in close once or twice for some detail. The result is not a completely systematic and consistent theory, but rather a central way of thinking that I hope will help educators to make harmonious judgments about both the "what" and the "how" of teaching a native language.

If most of the ideas entertained in this book have merit, one far-reaching conclusion must be drawn from them: the division of learning into English, Mathematics, Science, and Social Studies is a huge mistake. The reason I have insisted on the term "discourse" is to show that what we usually call "English" cannot be successfully conceived as merely a separate subject in an array of other subjects.

Because one discourses in his native language about *all* matters and at many abstraction levels, there is really only one subject (aside from art, music, and physical education), and that subject is discourse itself, of which science and social studies are subclasses. The latter are correctly viewed either as bodies of content (symbolized) or as ways of processing information (symbolizing). As content, they are what one discourses about; as process, they are acts of discoursing. Either way they are not subjects separate from and coordinate with the native language, but specialized examples of the functioning of that language. Mathematics, on the other hand, being a symbol system itself, is an extension of ordinary discourse into special notation, the value of which is to gain concision and economy and to reduce the cognitive load of thinking. Mathematical symbols can be spoken and read and can be transliterated back into that ordinary language from which they derive (though admittedly with some loss of meaning in the case of very advanced mathematics). In short, I have not been talking in this book just about "English teaching" but, inevitably, about a whole curriculum, though, again inevitably, in a tentative way.

So I would like to end with the proposal that educators work toward a future reorganization of the total curriculum that would eliminate conventional subject divisions and would base learning on the central process of human symbolization. The distinctions between modes and levels of abstraction are far more important than distinctions in subject content. The most important things children of today will need to know when they are adults are how experience is abstracted, communicated, and utilized, whether the data are recurring phenomena of nature and society or the private truths of the heart.

Information and definitions accumulated from the past — about geography, peoples, machines, nature — all require the same basic reception and treatment by the learner, namely, the will to know, decoding and comprehension, and the assimilation of knowledge into one's prior knowledge systems. These are not specialties of any one subject, and student failures in these subjects are notoriously traceable to such general discursive problems. Furthermore, the teaching of both the social and natural sciences has recently taken a turn toward process, emphasizing less the accumulation of facts than the ways in which natural and social scientists go about ascertaining facts. These ways are basic abstractive methods that should be practiced by learners all through school; they are not unique to one field or subject and should not appear so to students upon the abrupt introduction of a certain "course."

Correspondingly, mathematics teaching has taken a turn toward the understanding of logical principles and away from the memorization of procedures. But the separation of mathematics from English and the empirical subjects breaks the essential continuity between the specialized notation of mathematics and ordinary language, and between the semantic power of mathematics and the data upon which this power can be brought to bear. Mathematical story problems, for example — how many gallons of water flow through a half-inch tap in two hours — require just this ability I am implying to move with ease back and forth between everyday speech and the special notation of mathematics. Beyond this, the failure of many youngsters in mathematics stems simply from poor motivation because the "problems" are pointless exercises, not real problems that arise in the context of, say, learning about mechanics. One symptom of this separation is the great difficulty schools have in coordinating mathematics instruction so that a learner will have studied such-and-such kind of equation in time to do so-and-so sort of physics problem.

But poor coordination is only one effect of our fragmented, ill-conceived curriculum. Waste, inefficiency, and inconsistency are appalling. Basic processes like group discussion, sensory re-

cording, textual comprehension, data gathering, inference making, and verbal composition are critical for virtually all subjects, but none of these receives adequate attention and some are treated only incidentally if at all. The reason for this dereliction is that a given process is considered the province of one subject — as when logic is placed under geometry, "reading comprehension" under English, sensory observation under science — so that no one process gets continuous and comprehensive treatment at all ages. Makeshift efforts may be made, of course, to "get a little logic into the English course" or "work on reading comprehension" in science, but all these efforts show is that none of these things are being taught well anywhere and that integration is desperately needed. Learning the native language entails virtually all the problems encountered in any other subject, and yet there is neither the time nor the means to teach for these problems in an isolated English course (especially when the course is filled with thoughtless rituals). The remaining subjects, on the other hand, also continue to be badly taught, despite current reforms, because the basic abstractive processes upon which they depend fall neither into their bailiwick, except briefly by default, nor into the bailiwick of "English." The current organization of the curriculum features inessentials of content difference and slights the essentials of human symbolization.

What a fundamentally reorganized curriculum would look like I do not know, though I have tried in Chapter Two to suggest the beginnings of a model. Many of our best minds will have to work on this problem in the next few years. Certainly the old "core curriculum" or the joint teaching of *The Grapes of Wrath* by a litterateur and a Gov.-Ec. man do not touch the heart of the matter, though such endeavors do represent some sort of felt need, however inadequately conceived. I should think, however, that reorganization would center on the learner as producer and manipulator of symbols. If he is adept at abstracting and at understanding the abstractions of other people, this learner will have no trouble acquiring the accumulated knowledge of the past, which in any case he will have to select

according to a future we do not know and which will certainly revise considerably whatever we might select for him. Content coverage, in short, simply cannot be allowed to remain the educational issue it has been. Actually, in playing the range of the discursive spectrum, in some such way as I have tried to envision in *A Student-Centered Language Arts Curriculum, Grades K-13,* the learner will become well acquainted with literary, scientific, and utilitarian sub-discourses, *in relation to each other,* and necessarily cover a lot of content anyway even though this content is not segregated into subjects.

Nothing less than the growth of the whole human being requires a new integration of learning. What is common to all subjects should be the unifying force of schools, and what is common is precisely the human capacity to symbolize first- and secondhand experience into an inner world to match against and deal with the outer world. The infant does this already. Such a capacity is not taught; it can only be exercised more or less beneficially. It operates integratively on all fronts at once, at all ages. Education as we know it hinders the growth of this capacity perhaps more than it fosters it. The learner expends most of his intelligence coping with the demands of arbitrary contents and arbitrary schedules instead of using his native apparatus to build his own knowledge structures from what he and others have abstracted. Since the latter is what he will spend the rest of his life doing, whatever the future, this primary activity, I submit, should gain priority over all else in education.