A CONVERSATION WITH COLIN CHERRY

CAROL WILDER San Francisco State University

Born in 1914, Colin Cherry received his B.Sc. in engineering with First Class Honors in 1936. During the Second World War, he worked with the British Ministry of Aircraft Production on radar research and flying trials. In 1945 he joined the staff of the Manchester College of Technology for two years before moving to Imperial College of Science and Technology, University of London. He was awarded the D.Sc. in engineering in 1956, and in 1968 received his present appointment as Henry Mark Pease Professor of Telecommunication at Imperial College.

Colin Cherry has travelled widely, and lectured in more than 20 countries. He has published more than 100 papers in journals of engineering, psychology, linguistics, and other fields. In addition to his cornerstone work On Human Communication (John Wiley, 1957; MIT Press, 1966), Cherry has published several other books, including World Communication: Threat or Promise (John Wiley, 1971), and is currently at work on a third edition of On Human Communication to be published by MIT Press.

The following dialogue is based upon conversations which took place at Imperial College, London, during July 1976.

Wilder: One thing that always intrigued me is that, given your training as a formal engineer, you're probably most widely recognized for your human communication interests. How did they evolve?

Cherry: Yes, it is true that my first degree—1936—was in conventional engineering, and it was outdated within 10 years. I've argued ever since that the education of engineers is something that can't be based upon the present day's techniques or knowledge. It can't be just a matter of packing more in the status quo, because that information is going to be outdated very soon. The whole problem of education is not to produce people with a lot of knowledge, but people who are emotionally able to change.

In my own case, I came under all sorts of influences after the war which got me very dissatisfied with the current traditions of engineering education. It seemed to me that it was not the way it ought to be, and I came to think of engineering as essentially a political or social study. It ought not to

be thought of as "applied science," which carries with it the implication that you learn a lot of science, then you go away and apply it. That's quite the reverse of what has happened in many instances; in earlier times especially, when science in fact was "interpreted technology." The science which you pursue is that which is possible in the society of the day, that which is of interest to the establishment, and which they'll finance. It comes out of the economy—it's not something that's just completely free.

As I gradually became dissatisfied with engineering as just applied science and saw that you've got to know a lot more about people. I became interested in the whole subject of design—what we mean by good and bad design. I thought that one could criticize an enormous amount of technology in that way, because it is designed without adequate thought about the people and the society it's going into. It's just designed "technically" and then it's hoped that the public can somehow adapt to it. One striking instance was in the early computer field, where they produced computers which were difficult to operate and which required special training to use. It was a long time before they got onto a realization that they should know a lot more about

how people perceive and behave, now they are able and willing to operate, in order to design computers to be more readily usable.

Wilder: So you saw in yourself an emerging interest in human factors—learning how people go about their work or whatever they do—so that human data could be fed back into the design principles used by electronics engineers and computer scientists?

Cherry: Yes, let me put it this way. I think engineers ought to be educated in a way which makes them much more mindful of the human being, his abilities, limitations, and feelings. They've been pursuing science for too long, you see, as a goal. They think of themselves as sort of pseudo-scientists, and they're not scientists at all. We have this trouble in Britain more than you do-where the engineer has a feeling he has somehow not quite made it-he's not a good enough "scientist." Of course, if he is educated to be a scientist, and he's not one, he's going to be an unhappy person. He sees himself as the wrong kind of person. He's been taught to be something that he is not. I submit that this is educationally a bad policy.

The forces that made me see this eventually were the result of a six-month visit to Boston in 1952 centered at MIT with Jerry Weisner. That was a fascinating time, really. A lot of people concerned with communication more or less came together—Norbert Weiner, of course, was one of them—but there were a lot of others that had a bigger influence on me. One was the linguist Roman Jakobson. The psychologists, too, like George Miller.

I was very much influenced by these men, no doubt about it, and that started off an interest in studies of perception. I thought that we didn't know enough about human perception to talk adequately about design of telephone equipment and services or any other communication equipment; we didn't know enough about speech, for example.

At that time, engineers were being taught that the purpose of a communication channel was to transmit a signal without distortion. Preservation of the waveform, you see, was considered all important. Well, psychologically speaking, this is not so. We can distort that signal beyond all recognition (by any mathematical measure) in ways that will ensure that it still sounds the same—you can hardly tell the difference. It's not to be understood by study of waveforms and Fourier analysis and the like. And it's the same with vision, in that it's not the purpose of a television channel to preserve the video waveform with accuracy—it's to communicate adequate signals to make you see something. And therefore Largued that they needed to know a for more about perception. Also, at that time, many others were interested in hearing, even more than vision, I think. Such worries started me on my downward path!

Wilder: The "Cocktail Party Problem"?

Cherry: Yes, the Cocktail Party Problem was the first one that came up. It had never struck me before, you see, but thinking of communication in terms of people speaking it's obvious that the key problem is: How do you separate two voices? "We don't know" was the answer then. We still don't know. If two people talk at once you can listen to one or the other, but you can't make an electrical device that does this. The Cocktail Party Problem was unsolved and still is. Engineers at that time were talking about signal-to-noise ratios and things like that which, again, has nothing to do with it.

The six months at MIT got me in contact with a lot of others. I did a certain amount of work with people in other disciplines there and did some writing with them, and that really got me wondering what the heck we were trying to do, as communication engineers.

Wilder: Was that the beginning of your interest in information theory and cybernetics?

Cherry: Yes, that was part of the same time—information theory, 'especially. We were fairly closely connected with that move here at Imperial College. Shannon came across here, as did Jerry Weisner and various other people and we held four big meetings in London on it. And at that time it seemed as though information theory was giving the answers to a lot of questions. Now, since then, I

have the gravest doubts about this and so have others. It hasn't helped us a lot to understand human communication, nor even really technical communication. It's done certain things, very important things, but at that time it seemed as though here was a language for talking about the human communication field. But it's not. It's mathematical, it's the way mathematicians think, but it's inadequate because it leaves out the whole psychological side. Information theory helps us to measure the efficiency of our technical channels, and that's very, very important. Its major result, in my opinion, has been the development of coding theory. But it doesn't help us much to understand human communication.

Wilder: It seems to me that information theory dead-ends when people try to make its basic heuristic notions much more powerful than they were even intended to be.

Cherry: Yes, it died a natural death for that reason. The linguists got virtually nothing out of information theory, I would say. I don't know if everyone would agree, but I'd say it misled them, led them up the garden path. There's no reason why they shouldn't learn it even today, mind you, because the subject is of some interest. But in the time I am thinking about—in the fifties—it led some of them to believe they had a tool which was going to be of great linguistic importance. I don't think it has done much to help them, though. You don't hear much about information theory among linguists now, and it's the same with psychologists, some of whom thought they'd got a gift from heaven. It was a blind alley.

Disillusionment with information theory got me onto the American philosopher Sanders Peirce. Partly because, again, Roman Jakobson put me in touch with the work. And it was then I discovered that people have thought about this problem of communication for hundreds of years at a philosophical level. And you can see, through Peirce, which part information theory has clarified and which part it hasn't—Sanders Peirce really got it straight. John Locke laid the foundations.

Wilder: You've adopted Charles Morris' taxonomy—of syntactic, semantic, and pragmatic dimensions of human communication. In which of these areas have we made the most progress?

Cherry: Oh, syntax, of course, the lowest level. It's closer to the physical sciences, and can be dealt with in a more formal, logical sense. Meaning is a thing which is much more difficult; much more argument is involved. But the pragmatic level, of course, raises all the problems because we have inadequate methods for studying it.

Wilder: Have the general semanticists led us any closer to unraveling the meaning of meaning?

Cherry: Well, personally, I'm not very much impressed by the move towards semantic studies today, for understanding human communication. I'd say it's a study of meaning in its general sense and not its specific sense—an individual person in an individual situation. It's the pragmatic level that interests me. I wouldn't talk about the meaning of a sign or the meaning of a word, but the meaning of that sign on that occasion to that person in that situation.

Wilder: General systems theory is another approach to the study of human communication which some find to be currently fashionable. In your view, what contribution has it made?

Cherry: Well. I've got to be a bit careful because I am sort of skeptical about it. I just don't know what people mean by "general systems" or whether they all mean the same thing. It's one of those subjects where people come up to you and say, "Are you doing any work on systems theories?" and you say, "What's that?" and they say, "Oh, you know, systems theory." Then I say "No, I don't know." and the answer in that case is "No, I am not." I'm not sure what they mean by it. I think it is one of those invented subjects, although they are right if they mean that we lack understanding of large-scale organizations.

Wilder: What approaches do you see, if any, which have more power in explaining human communica-

tion: in psychology, in linguistics, in speech communication, or any area?

Cherry: Well. I think we've clarified several separate fields. Communication is a thing you can't talk about in one language-you've got to talk at different levels, of course. And at the telecommunication level of trying to make better systems, I'd still submit we've got to know a great deal more in the experimental psychology field about what happens when you hear meaningful sounds or see meaningful designs. We're relatively ignorant in this field compared to what we can do in the technical field, but I say you can't really separate the two-it was wrong ever to have separated them. You see, the technical side developed very fast because it was amenable to mathematics and it was therefore twisted in order that mathematics could be used. I don't like to say this too loudly, because the walls might fall down here, but it's a fact, you see, that mathematics isn't talking about the real world. It's talking about an invented, idealized world. So that all mathematical descriptions are idealized. You might say physics is the same—it's not talking about reality, it's talking about an idealized reality. You can only speak about it in terms that are suitable for that particular form of language, and all the other is ignored.

Any scientist knows this, of course—he's not really talking about reality—but I think, again, it puts the technologist in a peculiar position because he's got to operate without knowing all about it. He has to operate in a state of partial ignorance. He can't pretend that he knows. In some sense, scientific thinking can lead you to believe that you do know, but you can't dodge it in technology. You've got to make the thing, market it, sell it, people use it, it falls down and people get killed—you're in a world of nonideal situations. All technology must be compromise.

Wilder: But isn't it still possible for people building communications technology to live in ivory towers?

Cherry: Yes, many of them do, I think. But those who are concerned with the installation of our vast scale systems today probably do not, or do less so.

It's all right if you're talking about a single unit sitting on a lab bench, you know—a box with transistors in it and this sort of thing. But once you talk about a telephone network in some remote part of the world that's going to affect those people there, you can't think wholly in scientific terms. You can't even specify what it is you need until you find out something about human factors. Engineers must find out about what the needs are, otherwise they're going to make wrong specifications.

Technology must be a highly political matter. Because you're involved in arbitrary choice out of a number of alternatives, values must be involved. You know that there is no ideal solution because you can't optimize all your criteria at the same time. You can't make the system which is cheapest, which at the same time is the most reliable, or which is going to serve the greatest number of people, or, for example, is going to open up your export market to the greatest extent. We know we can't do all these things simultaneously, therefore which do you do? And before you've decided what you're going to do, you can't even specify what you're going to make; so how can it be anything but a political matter?

I think communication engineers should consider certain philosophical arguments to reveal some of the cliches that exist around the subject. People go on repeating the same sort of thing over and over again and it becomes "truth." I think engineers ought to know something of the history and sociology of technology too. They still talk about communication as "sending signals." and it doesn't mean sending signals. Communication means sharing. That's what the word means, after all. Information is not a commodity, to be exchanged.

Wilder: Two decades ago, when you wrote On Human Communication, you observed signs of a movement to unify and integrate the field of communication studies. How far have we come?

Cherry: Well, not very far. I wouldn't say we've unified studies into a single study of communication—that will never happen because you can talk about the subject at many different levels. What the postwar time at MIT did, that I've

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referred to, was to get many people in touch with each other from different disciplines. It made it respectable to talk with other disciplines in the field. That's easier in the States than here: frankly, it's not so respectable here. To put communication into a single discipline of the established kind, to say: Is it engineering? Is it linguistics? Is it psychology?, is to label it, and I'm saying you can't do this. By its nature it's an interdisciplinary subject, but it's not a popular thing to explore in such a way here in Britain. The academic divisions are still tighter here. It's not easy to do, it's not popular, and it's not a subject which has therefore received a great deal of attention in many centers here, at least compared with the States.

Wilder: Isn't there, however, an interest in Britain in so-called mass communication?

Cherry: Oh—I always recoil when people talk about "mass communication." It's a misnomer. It suggests contempt for the "masses"—anybody else but you. "Mass communication" is a derogatory term in Britain, people use it as such. When one here speaks of "mass communication" it automatically colors the subject. You're not going to say anything good about it if you use that term.

Wilder: I think it is quite the reverse in the United States, where mass communication is seen as a somewhat seductive area of study, interest, and work. That cultural difference in definition of the term reminds me of when you once quoted Oscar Wilde's point about England and America being "two countries separated by a common language."

Cherry: Yes, I think it was Oscar Wilde. Bernard Shaw used it, but I think he pinched it from Wilde.

Wilder: Do you find this to be true in the research community as well, that there are differences in approach to the subject of human communication? You've already noted that there's somewhat of a cultural difference in the respectability of communication studies.

Cherry: Yes, but I think it may be because the U.S.A. is a newer community. Viewed from a distance, it looks as if there's concern in many

centers in the States about the problem of communication, almost as though it suggests that people are wondering whether they're succeeding in doing it. There's always this trend, you know, that studies arise because people are worried about it. You get interested in something because you think you can't do it. Perhaps the great interest in the States in communication is because of the historical path, since you've been a part of the world which has failed, in a sense, to get understood, especially going back to the Isolationist Period, as they called it. Since then, however, international diplomacy has gone through a revolution in the States, perhaps not always for the better, as some of us over here see it. And now you are having this struggle of trying to have diplomatic relations with some of the most difficult parts of the world where in earlier times we had trouble, too; you see, so we know how difficult it is.

Wilder: And you gave up already . . .

Cherry: Yes, we gave up already, if you like; that's right. So you've got this public interest that comes out in the press and everywhere else about "How the heck do we talk to the Arabs," to put it simply, and therefore there is a public interest in communication. I should think partly for this reason.

But I think you're also better at publicity. You have ways of bringing people's attention to the work that's going on in universities and research centers. We could have here, but we don't. It isn't traditional, but I think a great trouble with this whole professionalism here is that if you attempt to popularize any subject (if you're not careful), your academic colleagues will think you're letting the side down. Well it's silly, really, and it's even more difficult for younger or junior faculty to do it. They're worried about criticism. They have to be "with it" a little bit. It's harder for the younger, obviously. The older you get the easier it is to be a heretic-the risk is less. Therefore, changes tend to be done by the older people, which is not in itself a good thing.

Wilder: If you were again to revise On Human Communication, what changes would you make?

Cherry: Well, in fact, I've just been asked by the MIT Press if I'd consider rewriting. I concluded that it is not the sort of book that ought to be "updated": it'd be nonsense, because the subject is so exploded now it would be ridiculous to try and give any impression of all the fields that have developed today. I think I'd say it ought to be as it was before, with perhaps less weight put upon certain things which have come to very little. I wouldn't like to mention any particular examples of that, but one or two things we had hopes in, at that time, haven't gone any further-they were blind alleys. So certain parts of it would be reduced, and it probably needs some kind of philosophical chapter in it about what communication is and what it is not, which I really haven't dealt with adequately before. Intercultural communication, for example; this doesn't fail because people don't send signals to each other.

Wilder: Your interest in intercultural communication seems to have emerged strongly in recent years. I believe you said, in an earlier conversation, that you saw it as one of the most pressing areas for research.

Cherry: Oh clearly, yes. I am sure we need much more research in this area. Linguists, of course, have been in the field for generations, but it's not entirely a linguist's matter.

Wilder: What questions do we need to be asking about intercultural communication?

Cherry: If I could say that, I'd be doing it, but there is a lot going on. There has been an enormous amount of work done in the political and diplomatic fields, for example. But at the more popular level, one might ask how popular images arise. To what extent do we know other people's popular images of ourselves—their nature and their causes? It arises at a popular level in two ways. One is through mass tourism, which I think is a very bad thing; it does harm, in my view, because of the ways people are taught about other countries. They then go there and see what they were taught to see, and to confirm their preconceptions, if you like. So the teaching about other cultures is a thing we need more understanding about.

Wilder: Have telecommunications media made the need to understand other cultures more compelling?

Cherry: Oh, yes, but not because there is much message-sending at a personal level to other countries—there isn't. Most people have little or no direct contact with other countries; their contact is either through things like the press or through broadcast communication systems.

We need to understand more about intercultural communication partly because of these systems and partly because of the styles of popular travel that have evolved in modern times, largely through the airplane. I wonder—perhaps I'm just getting old but I wonder if this cheap travel is not a very bad thing. It's very different for people who emigrate or who have to work or have some kind of struggle when they are in another country, but if they go as tourists, completely protected, where the planning is done by somebody else and they're just taken around, they'll simply go and see the things they know about and confirm their antique beliefs-and that's backward looking. You can only read about things as they were in the past, not as they are going to be or are now. Your views of any other country are old-fashioned and must be.

This struck me forcibly, for example, in my 1952 visit to the States. I was sitting in the New York subway, quietly minding my own business, when there was a man next to me who kept looking my way. I knew he was going to speak in the end, I knew he couldn't resist. And finally he said. "Say, are you a Limey?" I said that, "Yes, I was a visitor." He was quiet, very quiet and polite about it. And then in a most discreet sort of voice said, "Say, have all your folks got shoes?" And that was in 1952!

Now why could he say that is what interested me. Where did he get this idea? I am sure that your papers don't teach you this, it's so ludicrous. So the answer must have been that his parents emigrated probably between 1901 and 1903 when it was a particularly dreadful time in Britain and when a lot of people didn't have shoes—particularly some of the three million or so that went across to the States early this century. And that's been passed on from father to son; he's got that image stuck in his mind.

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He probably knew it was not correct, but he sort of had a feeling that he had to say something, and what was he going to say except something sympathetic? I said "Oh yes, yes, we've got plenty of shoes, thanks very much."

What we know about other countries is always outdated, and therefore I'd argue that unless you have some kind of direct contact with the institutions of that country, such as making your own living there, you have no idea what it's like.

You can only communicate as long as you have a common identification, and by that I mean common institution in the strict social sense, be members of a common group. I don't see how you can communicate otherwise, because what are you sharing? I've never seen it put this way, but it's as simple as that really—you search for some common membership before you can talk to anybody in another culture. What are you both members of? What common ground is there, if you like. Anything outside of that cannot fail to be misunderstood because we can only interpret other people through the eyes of our own institutions.

The commonest mistranslations, of course, are words that suggest political, especially left-wing, activity which are used in different countries in different ways. I remember when I went across in 1952, McCarthy was on the throne for a short while, and I used to be rather interested in pointing out that I was a "socialist" to see signs of shock on people's faces, because the word didn't mean the same thing to them as it did to me. Political terms are particularly dangerous, you can't translate. I was quite safe talking in these terms, being a foreigner, and in academic circles they understood quite well intellectually, although emotionally they might not have. So words, as we all know, are completely inisinterpreted. This is what Oscar Wilde was getting at. The language is not in common, of course, because the institutions aren't shared.

Wilder: You warned in On Human Communication against too rigid an adherence to the behavioral approach to communication studies, but said also that we needed more precision in the formulation of communication research. The experimental method and the behavioral approach apparently lend that

kind of precision, but in my own field, at least, one of the largest divisions seems to be between the behavioral scientists—perhaps even behaviorists—and everyone else. Do you have a sense of this split?

Cherry: Yes, this division still does exist, but when we use a word like "behaviorist" I think we have to be a little more careful of what we mean. What I was getting at there was the behaviorist in the old-fashioned sense of those who would exclude cognition and meaning. I am not against the idea of behaviorism as simply meaning that all you can observe is observable things and conjectures should be avoided. No, clearly, the field of psychology, has advanced and will advance only in the behavioral sphere. But, at the same time, surely anyone worth his salt would argue that concepts are needed which are additional to those of physical science when studying human behavior as distinct from inanimate nature.

When a physicist studies dead objects, he is studying things that don't themselves have any language—they can't set up their own description. Human beings use language and signs, just as the observer describes them in language and signs. Human beings are an articulate phenomenon and this articulation and its meaning is something which is part of their behavior. It is when you say that it is meaningful articulation that all the difficulty arises, because you are interpreting what he is saying. If you are going to communicate you can't fail to interpret, and as long as you do it with the realization that he may not mean the same as you do, you're safe. The problem of meaning cannot be evaded in the study of human communication. I don't see how we can talk about communication if we are confined entirely to the physical level, such as information theory deals with,

Wilder: In your view, do the methods of natural science—the experimental method, in particular—translate effectively into methods for social and behavioral science research?

Cherry: No, but not because these methods are wrong, but because they are not adequate. Certain aspects of the method apply, but you are studying

first of all an animate phenomenon, whereas the methods of the physical sciences first evolved for study of the inanimate world. When you study phenomena involving people, part of the phenomena is statements that they make that need interpreting. In physical science you are saved that dilemma. Mother Nature doesn't talk to you; you invent what she is supposed to be saving. But when you are dealing with human phenomena it's not enough just to count and measure: you've got to interpret. Interpretation seems to be forced upon you in communication studies, and therefore it is wrong to chase after the physical sciences as an ideal. I think all the sciences involving linguistic, articulate phenomena-human beings-have suffered as a result of trying to do this, at some stage or other. I don't say that a lot of the detailed techniques of the physical sciences aren't applicable to statistical analysis, for example; there is nothing wrong with that. I simply say that it's not adequate for the study of human communication at the psychological level, one can't avoid observation of symbolic actions.

Wilder: What place do you see, in communication research, for narrowly defined experimental studies?

Cherry: Oh, these detailed micro-studies have got to be done, but I should think the main problem still is deciding what is worth doing. It seems to me that we are getting to a time where there is an urgent need for more integrated thinking. We've gone to micro-problems much to the neglect of the sort of large scale and more philosophical argument that we had so much of in the last century, which more or less culminated with Max Weber and a few other great thinkers on, you might say, the grand scale. But where is work of this kind going on today? Where are the strategic thinkers? I just don't know.

Wilder: It seems to me that this problem is compounded by the fact that philosophy and the humanities are getting pretty well cut-off from communication research. You said earlier that engineers don't get enough training in thinking about values and people-related issues. I would say that the same is becoming true of social and behavioral scientists, where training has become much more technical and methodologically selfconscious, moving so rapidly away from the old rhetorical philosophical considerations that some people aren't even aware that those considerations ever existed. It concerns me deeply that we seem to have discounted philosophical education in the field of communication.

Cherry: Yes, it concerns me as well. It's tragic, really. I agree with you completely, because not only have engineers in the past been taught physics as though it were enough, or that engineering ought somehow be made precise in the sense that physics is precise. In the case of sociologists, for example, certainly as long as they follow the methodology of physics and talk about observables in the same sense, trying to reduce it to the language of physics in order to make it more respectable, they'll also miss the point. People's behavior is not merely physically observable action, it is essentially symbolic action.

Wilder: What fundamental notions guide your role as a teacher?

Cherry: I think I have certain attitudes toward teaching which may not be very fashionable. I certainly admit that the research students must be ahead of me at all times, because they are doing the work and I am not. I try not to tell them what to do or what is right and what's wrong; essentially they are finding out for themselves. I would argue that education above the secondary level must be selfeducation; all I can do is to try to make it possible. As I said in an earlier article on education, where I defined the role and function of the teacher: "Teaching is a bogus activity." We don't "teach" at all: learning is the real activity. I cannot test the hypothesis that "I am a good teacher" except by asking the question, "Have they learned?" What I observe is the learning, not the teaching. Therefore, if I say that in teaching I "pass something over to" students, I am deceiving myself. All I do, I think, is try to make a situation where their learning can proceed. That's all you can do. The thing to do is to get the student to realize and accept that teacher doesn't know all the answers. It's for him to say. If he can tell me, if he can teach me about it, then he's learned—and so have I.

Wilder: It's somewhat unsettling to think that you're only a good teacher if your students excel you, but it's true.

Cherry: Yes, it's true. You'd be very disappointed if they didn't.

Wilder: I can't resist asking how your dog Pym became so worthy as to garner the dedication for On Human Communication, and consequently to get so much fan mail.

Cherry: Everybody knows it's a tradition in this country for writers to be a bit eccentric; it's respectable. At that time, I was single and this dog sat with me every night—sometimes right through the night—he was all I had to dedicate it to. It also struck me as facetious, in a way, because the book is about human communication, but I didn't expect it to arouse such an interest. I've had letters from many people who have enquired after him.

When the book came to be translated into Russian, they had the greatest difficulty with this dedication. The Russian translator asked me what it meant, and asked if in Britain we were more interested in our dogs than our children (but that

man had lived here in the U.K. a year and I think he was just being naughty!). In the end they left it out—they gave no translation—which was wise, of course.

Wilder: Your second edition was dedicated to those who had enquired after Pym, his fan club. Have you thought about the dedication for a third edition?

Cherry: Oh, yes. The obvious thing to do now, you see, is to refer to all those dogs that have barked astonishment that so many human beings should be interested. One has to stop somewhere!

Wilder: Is there anything you would like to add to the many topics we have covered?

Cherry: We have covered a very wide field, and I am sort of thinking out loud when I am talking like this. I do not want to appear dogmatic on anything at all, for I think we are dealing with things which we know very little about—we're groping all the time. I think what I've tried to do is to look into the errors, or, if you like, into the deceptions of traditional thinking. The biggest enemy of all, in my mind, is the cliché. Cliché-thinking deceives us all the time—we just say something because we have always said it. Communication is filled with popular myths that are passed on. We don't understand it as a process at all.