Sept 1972

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Dear Mr. Lucido,

I am sorry for the delay in replying to your letter of 16 March, but it took time to be forwarded to me in Japan.

I have recently reread Dr. Trinkaus' text. I think that it is an amazing book in that it summerizes large areas of the literature and puts them into a readible form. For a person who is working in the field or close to it such an experience is very worthwhile, in fact I got several new ideas for my own work from rereading it.

Obviously an instructor tries to find a book which will fit the subject matter and format of his course. In my course, which is perhaps unusual for a low level undergraduate course, I require that the students read original papers. They are required not necessarily to know what has been concluded in the paper, but rather how they might arrive at similar conclusions given certain data or how they might themselves go about solving a problem. Obviously they can't help learning a lot of facts, but on the exams and problems I hand out I do not require that they know the facts, rather that they understand how one would go about solving a problem or what they would conclude from certain experimentally found facts. I assigned the students in my course Trinkaus'book in its entirety, not last year, but in the preceeding two years. The best students in the course read it more than once and told me that the more they read it the more they got out of it. In fact, one student felt it was clearly one of the best books he had read, He is going on to graduate school and has already published a scientific paper. The majority, however, did not appreciate this text and I heard a lot of grumbling, so much so, as I indicated to Mr. Riima, that I did not use this text last fall. There are several reasons for this: 1) I think that most students or anyone for that matter, when asked to read a long paper or a short book, start out by trying to get through it as rapidly as possible. Trinkaus'book is deceptive in that it reads easily so the students breeze along not really understanding as they read. Before an exam they probably skim the book but concentrate more on lectures or shorter papers. At first glance the book seems, therefore, somewhat trivial. 2) A far greater difficulty, however, and one which the students complain about, is that it is difficult to find concrete "take home messages". Rather the book to an impatient student seems to be a jumble of examples. What they want is only one example of a phenomenon or an experiment so they can ~~say~~, if asked about a certain thing or if asked to conceive of an experiment to illustrate a particular phenomenon, just call up this example and go from there. Furthermore they want very hard science such that there is no confusion about the results and the plan of the experiment is very straight forward and there thus can be either a yes or a no answer. Most of the students in other courses have been very heavily indoctrinated in molecular biology, particularly of the nucleic acids and do not like the confusion and the complexity of organogenesis. Clearly this criticism is not so much a critcism of the book as much as the subject matter which they do not like from their previous experience. Some of them have told me that they wish

in this book that Trinkaus'had gone into more detail using fewer experiments and from these giving more concrete conclusions. In other words I get the impression that they would prefer just to read original papers. In this case the summery clearly tells what the paper is about and the approach can easily be found. They also state that there is much too much about teleost embryology. When asked on an exam about development of a fish egg, howevery a good percentage of the class clearly did not understand it, so I am not sure how seriously I would take this last criticism.

As to my own comments and suggestions; clearly a lot has happened since the book was written although I must say that Dr. Trinkaus has been remarkably farsighted about his topics. Contact inhibition as a phenomenon has become increasingly more complex, electrical coupling has progressed, cell movements in some ways have become simpler yet clearly there is no increase in our understanding of the mechanisms, perhaps he should think about including gradients as they appear to be coming back into the vogu. I am sure he will include all these new findings, and they fil with electrical coupling. I think it might be helpful to students, however, to give a short summery at the end of each chapter in the new edition in perhaps the same vein a Watson did in his book on nucleic acids so that the student can rapidly find out what the chapter is about. Otherwise all I can suggest is that he might consider giving fewer examples. I think his list of references us extremely helpful to an interested student and I feel that perhaps this could be expanded slightly although the selection given is excellent.

I hope that these comments are not totally useless. I should say that I intend to use Trinkaus'book this coming fall. I will try this time to spread out assignments inthe book.

Tilney (?)