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Dear Felix,

I have been very pleased to hear that you were consulted about the book on relativity I am writing in Polish for PWN and the desirability of it being translated into English. The present situation is as follows:

1. I am committed to write a book on relativity in Polish, intended as a text for our students. The deadline is June 30, 1971.

2. About three months ago, the foreign editor of PWN requested me to prepare a summary of the chapter headings of the projected book, explaining that a "Western publishing house has shown interest in cooperating with them in making the book available to English-speaking readers". Since this did not imply any commitment on my side, I prepared the sheet you probably have seen.

3. Since you agree to write with me a book on relativity, I will definitely not consent to the Polish textbook being translated into English. Although our book will be very different from the Polish one, there will be unavoidable repetitions that would create an impossible situation, comparable to that on the Peanuts market.

4. None of the chapters of the textbook has been written up in a final form yet. There are various first drafts, sets of lecture notes, Brandeis material etc.

5. I shall be very pleased if you communicate my position to Mr. Cameron so as to avoid the necessity of turning him down at a later stage. However, I might be inclined to cooperate with Wiley on a book on "Differential Geometry with Applications", should they be interested.

6. You are completely free to choose a publisher for us. My only preference is to avoid Rhodesian, Albanian, Haitian and similar publishing houses.

Turning now to the question of our joint project, it seems to me that we should concentrate on the topics and aspects of relativity we are reasonably good at. In particular, it seems worth-while to emphasize what you call the structural side of the theory and the relation between observations and various mathematical elements of models of space-time. Classical experiments, such as the optical ones, should be analyzed from the point of view of what theories are compatible with them. Mathematics should be used in a non-dogmatic manner, choosing the tools most appropriate to any given topic, with preference given to intrinsic methods, of course.

It would be very good if we could meet some time this year to discuss at least the chapter headings and the material we should cover. I do not have to tell you that I really look forward to collaborating with you. It is my feeling that we do not have to rush - it is never too late for one more good book but no more bad books should be published so late.

I shall go to Copenhagen in September. Could you drop in then for a few days so that we could discuss things? In any case, I hope you will visit Warsaw on your way to and from the Soviet Union. Mielnik's visit to Austin seems to be getting postponed for later on and on. Would you consider him as a speaker at your summer meeting? Woronowicz is another possibility.

I am enclosing a tentative proposal of the chapter headings of our book. Can it be the basis for discussion?

Should I ask the postmaster to trace Alfred's picture /it was sent by registered mail/? Incidentally, the book on Cracow is from Mielnik.

I find it outrageous that AJP did not accept your conservative paper on tachyons. I hope you are publishing it somewhere else. Our Academy would be proud to have it appear in its Bulletin.

I am very interested but not astonished to hear about Bend Schmid's construction of the positive definite metric on the bundle of frames. Give my best greetings to John Stachel if he is still with you.

With best wishes and regards,

Yours,

A. Trautman

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10 April 1970

Dear Andreej,

I was very pleased at your enthusiastic response to my tentative remarks about the possibility of writing a book, and look forward to discussing it with you in Copenhagen. Before I got your letter, I had independently decided to visit Copenhagen in September, because I am developing some side interests in studying the history of science from a concrete point of view, and I want to ask Rosenfeld about his experience in this field. He writes that he will probably be there throughout the month, and with high probability from 7 to 26 September. Can you let me know the dates of your projected visit, as I have to meet a great many other boundary conditions? I have not yet heard from Indiar or from Petrov, so the rest of my hoped-for trip is not yet settled.

As far as the book is concerned, I think that a good deal of discussion will be necessary before our ideas about it converge strongly. A friend to whom I was explaining the project the other day asked me what kind of book it would be, and I answered impulsively "the last one"! I think this is perhaps overambitious, but I should certainly be inclined to write something in the nature of a standard treatise (of course it may be called "Introduction to ..."), rather than an introductory textbook. Of course one should emphasize the parts of the subject which one is 'reasonably good at', but isn't writing a book, like preparing a lecture course, an opportunity to become 'reasonably good at' things which one didn't know very well before?

Of course your list of chapters covers a great deal of the subject, and I shall not presume at this stage to suggest alterations of substance. However, I might remark that some of the chapters, e.g. "2. Algebra and differential geometry" could become exceedingly long.

In fact, a large number of the chapter headings could serve (and have served) as book titles themselves. Of course by taking a unified point of view one would eliminate duplication, but on the face of it this book could be enormous. I shouldn't necessarily mind that, because I think that most books are too short to cover the subject properly. One way to deal with the starting problem (i.e. the problem "where do we start this topic?") would be to follow the practice of Hewitt and Ross, who, if I remember correctly, say in the introduction to their book Abstract Harmonic Analysis v. 1, that they assume in the reader a familiarity with van der Waerden Modern Algebra, Halmos Measure Theory and Kelley General Topology! (I do not suggest that we should assume familiarity with these books, but merely that this is a possible mode of procedure).

Another point which I think should be discussed carefully is the question of motivation. It is very hard to understand how physics developed into its present state without some historical awareness, and the least study of history, even in the most superficial way, produces some surprises, at least for me. I'm not sure that ~~enough~~ <sup>I want</sup> to go so far as to suggest that one should actually write a book showing the order of historical development, but some balance, perhaps like that struck by Pauli in his book, ought to be attempted. In fact, every time one gets too enthusiastic about the whole idea, one ought to read Pauli's book and ask "Can I do better than this?" Unless the answer is a clear Yes, what is one doing writing a book at all?

Mr Cameron is coming to see me on Tuesday, when I shall encourage him to take up your offer of Differential Geometry with Applications. He will probably want to see if he can commission our joint project, but I am disinclined to agree to anything at this stage. In the meantime I had a letter from Oxford University Press asking for a short (~ 60 K words) book on relativity, so I've written back to ask if they'd be interested in a long one.

I am afraid that I have done nothing more about a summer meeting, and since there is a meeting in Berne in May, any number of whose participants intend to pass through London, it seems more desirable to have our next meeting in the autumn,

