

# “Minimum Constellation Necessary for Type Confusion”: Letters to Norbert Wiener

GREGORY BATESON

*These letters from Gregory Bateson to Norbert Wiener, held in the Gregory Bateson Collection at the Don D. Jackson Archive, University of Louisiana at Monroe, are presented here in the order in which they were composed and sent. Note, however, that the typescript of the first letter, here labeled “Approx. 1954,” is in fact a reproduction retyped (presumably by Bateson) and sent along with the third letter, from 1959, printed here. The original letter it reproduces is not in the Jackson Archive but evidence suggests that the original was initially composed in 1954, as Bateson reports. The letters are published with the permission of the Bateson Idea Group and Nora Bateson.*

—Bernard Dionysius Geoghegan

(Approx. 1954)

Dear Weiner [*sic*],

It was pleasant to talk with you the other day and sad that we had so little time. There are a number of things which I would like to ask you including alas a practical question. Let me deal with that first before I come to theoretical matters.

Since I saw you I have heard from the Rockefeller that they are discontinuing the grant to my research project because it is “peripheral to the interests of any of the foundation’s branches.” Can you suggest any persons or foundations whom you think might be interested in a study of the natural history of human communication with special focus on the phenomena of play, psychotherapy, and the communication of schizophrenics. We need \$20,000 a year. We have reason to believe we are on to something good. And “we” is a team with some common understanding of what our problems are.

What we most need I think is the voice of some person who has the brains to recognize that we are on to something good and the status to tell a foundation that this is so. Are you such a person? Or do you know one?

Now to write of pleasanter matters. As I understand it the minimum

constellation necessary for type confusion is a language plus a meta-language. Now, thinking over our conversation, it appears that in play there are two such minimum constellations. We have most concerned ourselves with the paradoxes potentially present in the message “this is play.” We observe that this message can be exchanged non-verbally between mammals and that when it occurs it is usually implicit in those meaningful actions which are qualified by the statement “this is play.” The message “this is play” thus comes to qualify itself and something like an Epimenides paradox arises.

The second constellation is that to which you referred the other day and on which I once published a paper called “Deutero Learning,” i.e., learning to learn.

A question which I cannot clearly resolve is whether these two sets of two-typed communication are really identical or are both independently operating in such phenomena as play.

As I understand it, type confusion leads to paradox when both message and meta-message contain negatives. On this principle we can imagine the generation of paradox in the deutero-learning system when an organism experiences punishment following some failure and, learns that it must not learn that punishment follows failure. This would be approximately the picture of a man who having been punished for failure later is punished for showing his expectation of punishment after failure, e.g. is punished for cringing.

Many of the organized physical games and other types of less organized play which simulate combat have exactly this characteristic—teaching the boy to be a man by penalizing his expectation of punishment. It thus seems to me that the Epimenides paradox latent in the message “this is play” becomes almost the same as the paradox generated by unlearning to unlearn. But of this last step I am unsure.

Another question which I would have liked to ask you concerns the nature of metaphor. At the animal level we observe triads of signals.

- a. Those signals which are parts of inner physiological disturbance which happen to be externally perceptible—blushes, tears, and the like.
- b. Dramatized simulations of (a), e.g. in play, etc.
- c. Signals which indicate whether a given signal is an (a) or a (b). The message “this is play” is thus a signal of the third type.

We argue that in human verbal communication similar constellations are recognizable and sometimes made explicit by such words as “really,” “as if,” “once upon a time,” [which] are signals of the third type qualifying the reality or metaphoricalness of other parts of the message. It appears then that dreams and the hallucinations of schizophrenics consist of something like proto-metaphor. To the

dreamer the dream usually seems like direct experience because it lacks any signal which might qualify the reality of the message.

From this it would seem to follow that there is a stage of thought in which all the messages are proto-metaphorical and that in addition to this type of thinking there is a corrective process whereby the type 3 signals are appropriately added. This seems to me an odd way of designing a computing machine, but I don't know enough about how such machines are designed. Would something like the following make any sense? Attneave argues that the distribution of information and redundancy in the visual field is such that it is economical even for a preponderantly digital computer like the brain to create visual images, i.e. to operate in a partially analogic manner.<sup>1</sup> This suggests that the use of proto-metaphor in the lower levels of the thinking machine might perhaps be economical. I don't know.

Our next task when we get some money is to investigate the use of type 3 signals by schizophrenics and psychotherapists and to try to achieve some formal understanding of what goes on.

I hope that if you are ever on the West Coast you will visit us.

Yours sincerely,

Norbert Wiener  
Mass. Institute of Technology  
Cambridge, Mass.

November 29, 1954

I write to tell you that the Macy Foundation have decided to finance my research and, in a way, to thank you because it was our conversation at your house which gave me the central idea that the traumata in infancy upon which schizophrenia later develops might have the formal character of type confusion.

I wish you were here so that we could discuss this fully and leisurely. My trouble is that I do not know anything about the pathologies of type confusion as these occur in computers, telephone exchanges, and the like. There must be some non-classified literature on this subject. Can you recommend any? Or, still better, can you recommend anybody in this neighborhood who can talk intelligibly on this subject?—I mean, intelligibly to a non-mathematician.

Since I saw you I have had Wittgenstein's new book and it appears that what we are mainly interested in are those signals which identify what Wittgenstein would call "language-games." A number of these signals are verbal, e.g. "as if", etc. It seems likely, therefore, that those who work with the logical problems of translating one language into another have been confronted with the problem of translating signals of this order. The conventional metaphors of one language can often only survive in translation into another when they are specifically labelled as similes. The translating machine would therefore have to know which phrases are metaphoric and which metaphors can be recognized as such in the second language. What the schizophrenic does in his conversation is to use metaphors which are not recognizable as such—even to himself in some instances.

When are you going to India? And is there any hope of your passing this way en route? Somebody should do some thinking about the logical type confusions which arise in syncretic religions such as Hinduism. Strange things must happen when the local religion of a tribe is picked up and absorbed into a larger religious unit, and the details of the local religion are used to validate the premises of the larger whole. St. Paul was on fairly safe ground when he advocated the worship of "The Unknown God."

Anyhow I hope we may see you sooner or later.

Yours Sincerely,  
Gregory Bateson  
Veterans Administration  
Palo Alto, California

November 23, 1959

Dear Norbert:

Thank you very much for putting me on the list to receive *The Tempter*.<sup>2</sup> I appreciated especially your working out of the effects of the sin on the various people. I don't know much about the world of patents, but I suppose it must be very much as you describe. Perhaps the fatal flaw on which your characters get caught is the premise that the man who has the basic ideas works for the sort of benefits which are the natural goal of the other people. In most cases, I think the exploiters could give the basic thinker what he would value without falsifying their own and everybody else's position.

I ran across in our old files the other day a curious case of intellectual indebtedness—a letter which I wrote to you in 1954. In that letter I outlined to you the first version of the “double bind” hypothesis on which we have been working ever since. My indebtedness consists in this—it was because I was writing to you that I could think those thoughts on that day. Life is not so simple that we can say that this man contributes this idea and that man that idea. There is also the mass of thoughts that are generated by interaction.

With best wishes and congratulations on the book.

Yours sincerely,

Gregory Bateson., M.A.

Ethnologist

[Enclosure: Bateson's letter to Wiener dated “approx. 1954.”]

#### Notes

1. This is presumably a reference to Fred Attneave, a psychologist who worked for the U.S. Air Force Human Resources Research Center. See Fred Attneave, “Some Informational Aspects of Visual Information,” *Psychological Review* 61, no. 3 (1954): 183–93.—Eds.

2. Bateson refers to a novel by Norbert Wiener, *The Tempter* (New York: Random House, 1959).—Eds.