

Passages from "Language, Rules, and Behavior" (1949)

1. My purpose in writing this essay is to explore from the standpoint of what might be called a philosophically oriented behavioristic psychology the procedures by which we evaluate actions as right or wrong, arguments as valid and invalid and cognitive claims as well or ill grounded. More specifically, our frame of reference will be the psychology of rule-regulated behavior...

2. I shall attempt to map a true *via media*... between **rationalistic a-priorism** and what... I shall call "**descriptivism**," by which I understand the claim that all meaningful concepts and problems belong to the empirical or descriptive sciences, including the sciences of human behavior.

3. "How can one assert the existence of concepts and problems which do not belong to empirical science, without admitting the existence of a domain of non-empirical objects or qualities together with a mental apparatus of acts and intuitions for cognizing them?"

4. Notice that our suspicious pragmatist did not say
 "The concepts and problems of mathematics belong to naturalistic psychology."
 If he had, he clearly would be formulating a descriptivistic philosophy of mathematics. What he actually said was
 "... there is no aspect of *mathematical inquiry as a mode of human behavior* which requires a departure from the categories of naturalistic psychology for its interpretation."
 With this latter statement I am in full agreement. It must by no means be confused with the former.

5. But if I do not accuse the pragmatist of being a descriptivist as a matter of principle, I do contend that pragmatism has been characterized by a descriptivistic bias.

6. [S]hall we say that psychology deals with some but not all of the properties exhibited by psychological processes? And if not with all, then what distinguishes the properties with which it does deal from those with which it does not?

7. As I see it, an inventory of the basic qualities and relations exemplified by this universe of ours, and, in particular, by the mental processes of human beings, would no more include obligatoriness than it would include either logical or physical (that is, "real") connections.

8. To make the ethical "ought" into even the second cousin of the "hurrah" of a football fan is completely to miss its significance. If I have become more and more happy of late about Kant's assimilation of the ethical "ought" to the logical and physical "musts," it is because I have increasingly been led to assimilate the logical and physical "musts" to the ethical "ought."

9. Shall we say, then, that one does not justify a *proposition*, but the *assertion* of a proposition? -- that one does not justify a *principle*, but the *acceptance* of a principle? Shall we say that all justification is, in a sense which takes into account the dispositional as well as the occurrent, a *justificatio actionis*? I am strongly inclined to think that this is the case.

10. I should be inclined to say that the use Jones will make of instances is rather of the nature of Socratic method. For Socratic method serves the purpose of making explicit the rules we have adopted for thought and action, and I shall be interpreting our judgments to the effect that A causally necessitates B as the expression of a rule governing our use of the terms "A" and "B." (fnt 2)
11. [We] must distinguish between action which merely *conforms to* a rule, and action which occurs *because of* a rule. A rule isn't functioning as a rule unless it is in some sense internal to action. Otherwise it is a mere generalization.
12. Yet above the foundation of man's learned responses to environmental stimuli -- let us call this his *tied behavior* -- there towers a superstructure of more or less developed systems of rule-regulated symbol activity which constitutes man's intellectual vision.
13. To say that man is a rational animal, is to say that man is a creature not of *habits*, but of *rules*. When God created Adam, he whispered in his ear, "In all contexts of action you will recognize rules, if only the rule to grope for rules to recognize. When you cease to recognize rules, you will walk on four feet."
14. The mode of existence of a rule is as a generalization written in flesh and blood, or nerve and sinew, rather than in pen and ink.
15. A rule, on the other hand, finds its expression either in what are classified as non-declarative grammatical forms, or else in declarative sentences with certain special terms such as "correct," "proper," "right," etc., serving to distinguish them, from generalizations. What do these special features in the formulation of rules indicate? They give expression to the fact that a rule is an embodied generalization which to speak loosely but suggestively, tends to make itself true.
16. It is only by absorbing the insights of rationalism that a pragmatic empiricism can do justice to the facts.
17. [W]here the *regulist* speaks of statements which exhibit the rules of the language in which they are formulated, the *rationalist* speaks of intuition or self-evidence. The regulist goes from object-language up to meta-linguistic rule, whereas the rationalist goes from object-language down to extra-linguistic reality. The regulist explains the significance of the word "must," as it occurs in arguments, in terms of the syntactical rules of the language in which it occurs; the rationalist explains it in terms of a non-linguistic grasp of a necessary connection between features of reality.
18. [A]s children we learn to understand the noise "blue" in much the same way as the dog learns to understand the noise "bone," but we leave the dog behind in that the noise "blue" also comes to function for us in a system of rule-regulated symbol activity, and it is a *word*, a linguistic fact, a rule-regulated symbol only in so far as it-functions in this linguistic system.

19. To think of a system of qualities and relations is, I shall argue, to use symbols governed by a system of rules which, we might say, implicitly define these symbols by giving them a specific task to perform in the linguistic economy. The linguistic meaning of a word is entirely constituted by the rules of its use.

20. The reader is quite correct in predicting that we shall take the former course and grant that the rules are themselves rule-governed. He is, however, mistaken in inferring that this "regress" is vicious. It would be vicious if the infinity of rules which an organism would have to learn in order to exhibit rule-governed behavior constituted an infinity of rules which differed in the full-blooded way in which the rules of chess differ from the rules of bridge. ...[T]he regress would still be vicious if in order for a type of behavior to be rule-governed, every instance of the behavior must be accompanied (brought about) by an organic event of which the *text* (to use Bergmann's term) is the core-generalization of the rule. If this were the case, then, obviously, an infinite hierarchy of events with texts would have to occur in order for any case of rule-governed behavior to occur. (ftnt 5)

21. If there were such things as sense meaning rules (as opposed to verbal conditionings) how should they be formulated? Perhaps: "When I have such and such experiences, I am to use the expression 'I see red' "? ...In order for the rule to be intelligible, the person who is to obey it must already know when he sees red. But to know when he sees red he must, according to these same *moderni*, understand the meaning of either the symbol "red" or a synonym (which need not, of course, belong to any intersubjective language of *overt* utterance). In short, the very symbols whose possession of meaning is explained by these overly enthusiastic regulists in terms of sense meaning rules, must either already have meaning independently of the rules, or else the sole value of the rules is to serve as a means of acquiring synonyms for symbols which have meaning independently of the rules. This is but a sample of the confusion into which one gets by failing to distinguish the learning of tied symbol behavior from the learning of rule-regulated symbol activity.

22. The stress laid by many empiricists on "ostensive definition" is on the one hand a sound recognition of the patent fact that a meaningful language system must tie up with the environment, and on the other hand a sad confusion between learning the *definition* of a word, that is to say, learning to use it in a rule-regulated manner according to socially recognized rules, and learning (being conditioned) to respond with the word-noise to certain environmental stimuli. This confusion is exhibited by the ambiguous usage of the phrase "ostensive definition." (ftnt. 6)

23. Action on a rule presupposes cognition, and if confusion leads these philosophers to conceive of all symbol behavior as in principle—that is, parroting aside—rule-regulated, then they are committed to the search for an extra-symbolic mode of cognition to serve as the tie between meaningful symbol behavior and the world. This link is usually found, even by regulists who have been decisively influenced by behaviorism, in a conception of the *cognitive given-ness of sense-data*.

24. Here we must pay our respects to John Dewey, who has so clearly seen that the conception of the cognitive given-ness of sense-data is both the last stand and the entering wedge of rationalism.

25. It is my purpose in the following pages to sketch a regulist account of real connections and of the "synthetic *a priori*" which preserves the insights of the rationalistic doctrine, while rejecting its absolutism as well as the pseudo-psychology of cognitive given-ness on which this absolutism is based.
26. Where Hume charged the rationalist (and before him, common sense) with projecting a subjective feeling of compulsion into the environment, we charge the rationalist with projecting the rules of his language into the non-linguistic world.
27. Our task is to give an account of the rules in terms of which, we have claimed, the causal modalities are to be understood.
28. **The meaning of a linguistic symbol as a linguistic symbol is entirely constituted by the rules which regulate its use.** The hook-up of a system of rule-regulated symbols with the world is not itself a rule-governed fact, but -- as we saw -- a matter of certain kinds of organic event playing two roles: (1) a role in the rule-governed linguistic system, and (2) a role in the structure of tied sign responses to environmental stimuli.
29. if the linguistic as such involves no hookup with the world, if it is -- to use a suggestive analogy - a game played with symbols according to rules, then what constitutes the linguistic meaning of the factual, non-logical expressions of a language? The answer, in brief, is that the undefined factual terms of the language are *implicitly* defined by the conformation rules of the language.
30. [K]nowing a language is a knowing *how*; it is like knowing how to dance, or how to play bridge.
31. We have interpreted the notion of real connection in terms of the conformation rules of languages. We thus make real connections, so to speak, entirely immanent to thought. They are the shadows of rules.
32. Linguistically we always operate *within* a framework of *living* rules. To *talk about* rules is to move *outside* the talked-about rules *into* another framework of living rules. (The snake which sheds one skin lives within another.) In attempting to grasp rules *as rules* from without, we are trying to have our cake and eat it. To *describe* rules is to describe the *skeletons* of rules. A rule is *lived*, not *described*. Thus, what we justify is never a rule, but behavior and dispositions to behave. The "ought" eludes us and we are left with "is." The skeletons of rules can be given a pragmatic or instrumentalist justification. This justification operates within a set of living rules. The death of one rule is the life of another. Even one and the same rule may be both living as *justificans* and dead as *justificandum*, as when we justify a rule of logic. Indeed, can the attempt to justify rules, from left to right, be anything but an exhibition of these rules from right to left? To learn new rules is to change one's mind.

Passages from “Some Reflections on Language Games” (1951)

1. [Regulism] It seems plausible to say that a **language** is a system of expressions the use of which is subject to certain **rules**. It would seem, thus, that learning to use a language is learning to **obey the rules** for the use of its expressions. However, taken as it stands, this thesis is subject to an obvious and devastating refutation. After formulating this refutation, I shall turn to the constructive task of attempting to restate the thesis in a way which avoids it. In doing so, I shall draw certain distinctions the theoretical elaboration of which will, I believe, yield new insight into the psychology of language and of what might be called “norm conforming behavior” generally. The present paper contains an initial attempt along these lines.

2. The refutation runs as follows:
Thesis. Learning to use a language (L) is learning to obey the rules of L.
But, a rule which enjoins the doing of an action (A) is a sentence in a language which contains an expression for A.
Hence, a rule which enjoins the using of a linguistic expression (E) is a sentence in a language which contains an expression for E,—in other words a sentence in a *metalanguage*.
Consequently, learning to obey the rules for L presupposes the ability to use the metalanguage (ML) in which the rules for L are formulated.
So that learning to use a language (L) presupposes having learned to use a language (ML). And by the same token, having learned to use ML presupposes having learned to use a *meta-metalanguage* (MML) and so on.
But this is impossible (a vicious regress).
Therefore, the thesis is absurd and must be rejected. 1,2-28]

3. [Regularism] Now, at first sight there is a simple and straightforward way of preserving the essential claim of the thesis while freeing it from, the refutation. It consists in substituting the phrase ‘learning to *conform* to the rules . . .’ for ‘learning to obey the rules . . .’ where ‘conforming to a rule enjoining the doing of A in circumstances C’ is to be equated simply with ‘doing A when the circumstances are C’—regardless of how one comes to do it. [It is granted that ‘conforming to’ is often used in the sense of ‘obeying’ so that this distinction involves an element of stipulation.] A person who has the habit of doing A in C would then be conforming to the above rule even though the idea that he was to do A in C had never occurred to him, and even though he had no language for referring to either A or C.

4. [A good thought that lies behind the inadequate suggestion that mere *conformity* to rules is enough.] What is denied is that playing a game *logically* involves obedience to the rules of the game, and hence the ability to use the language (play the language game) in which the rules are formulated. [5-29]

5. Sections 6-9 give “Metaphysicus”’s view: there is a *prelinguistic* awareness of the rules, or of the normative demands they make, couched in prelinguistic awareness of various universals.

6. Unfortunately, a closer examination of this “solution” reveals it to be a sham. More precisely, it

turns out, on analysis, to be in all respects identical with the original thesis, and to be subject to the same refutation. The issue turns on what is to be understood by the term ‘awareness’ in the phrase ‘becoming *aware* of a set of demands and permissions’. It is clear that if Metaphysicus is to succeed, **becoming aware of something cannot be to make a move in a game**, for then learning a game would involve playing a game, and we are off on our regress. Yet when we reflect on the notion of being aware of propositions, properties, relations, demands, etc., it strikes us at once that these awarenesses are exactly *positions* in the **“game” of reasoning**. It may be an over-simplification to identify reasoning, thinking, being aware of possibilities, connections, etc., with playing a *language* game (e.g. French, German), but **that it is playing a game is indicated by the use of such terms as ‘correct’, ‘mistake’, etc., in commenting on them**. [10-31]

7. [The good idea in the vicinity is:] Metaphysicus sought to offer us an account in which **learning a game involves learning to do what one does *because doing these things is making moves in the game* (let us abbreviate this to ‘because of the moves (of the game)’)** where **doing what one does *because of the moves* need not involve using language about the moves**. Where he went astray was in holding that while doing what one does because of the moves need not involve using language about the moves, it does involve *being aware* of the moves demanded and permitted by the game, for it was this which led to the regress. [11-32]

8. [W]e have tacitly accepted a dichotomy between
 - (a) *merely conforming to rules*: doing A in C, A' in C' etc. where these doings “just happen” to contribute to the realization of a complex pattern.
 - (b) *obeying rules*: doing A in C, A' in C' etc., with the intention of fulfilling the demands of an envisaged system of rules.

But surely this is a false dichotomy! ! For it required us to suppose that the only way in which a complex system of activity can be involved in the explanation of the occurrence of a particular act, is by the agent envisaging the system and intending its realization. This is as much as to say that **unless the agent conceives of the system, the conformity of his behavior to the system must be “accidental”**. [12-32] [So what is needed is a conception according to which it is *not* accidental, but not consciously conceived by the agent as according to rule.]

9. What would it mean to say of a bee returning from a clover field that its turnings and wiggles occur *because* they are part of a complex dance? [14-33]

10. Roughly, the interpretation would contain such sentences as the following:

- (a) The pattern (dance) is first exemplified by particular bees in a way which is *not* appropriately described by saying that the successive acts by which the pattern is realized occur *because of the pattern*.
- (b) Having a “wiring diagram” which expresses itself in this pattern has survival value.
- (c) Through the mechanisms of heredity and natural selection it comes about that all bees have this “wiring diagram”.

It is by a mention of these items that we would justify saying of the contemporary population of bees that each step in their dance behavior occurs **because** of its role in the dance as a whole. [15-33]

11. we readily see the general lines of an account which permits us to say that learning to use a language is coming to do A in C, A' in C', etc., *because* of a system of “moves” to which these acts belong, while yet denying that learning to use a language is coming to do A in C, A' in C', etc., *with the intention of realizing* a system of moves. In short, what we need is a distinction between ‘**pattern governed**’ and ‘**rule obeying**’ behavior, the latter being a more complex phenomenon which involves, but is not to be identified with the former. Rule obeying behavior contains, in some sense, both a game and a metagame, the latter being the game in which belong the rules obeyed in playing the former game as a piece of rule obeying behavior. [16-34]
12. [T]he phenomena of **learning** present interesting analogies to the **evolution** of species.[16-34]
13. Pattern governed behavior of the kind we should call “linguistic” involves “positions” and “moves” of the sort that *would be* specified by “formation” and “transformation” rules in its meta-game if it *were* rule obeying behavior. Thus, learning to “**infer**”, where this is purely a pattern governed phenomenon, would be a matter of learning to respond to a pattern of one kind by forming another pattern related to it in one of the characteristic ways specified (at the level of the rule obeying use of language) by a ‘transformation rule’—that is, a formally stated rule of inference. [17-34]
14. I shall have achieved my present purpose if I have made plausible **the idea than an organism might come to play a language game**—that is, to move from position to position in a system of moves and positions, and to do it “**because of the system**” **without having to obey rules, and hence without having to be playing a metalanguage game** (*and a meta-metalanguage game, and so on*). [18-35]
15. Let us distinguish, therefore, between two kinds of learned transition which have status in a language game: (1) moves, (2) transitions involving a situation which is not a position in the game and a situation which is a position in the game. Moves are transitions (S-R connections) in which both the stimulus (S) and the response (R) are positions in the game functioning as such. [22-36]
16. [**L**] **language entry transitions**, as we shall call those learned transitions (S-R connections) in which one comes to occupy a position in the game (R is a position in the game functioning as such) but the *terminus a quo* of the transition is not (S is not a position in the game functioning as such). [22-36]
17. [W]e shall call **language departure transitions** these learned transitions (S-R connections) in which from occupying a position in the game (S is a position in the game functioning as such) we come to behave in a way which is not a position in the game (R is not a position in the game functioning as such). [23-36]
18. in spite of the **interesting relations** which exist in sophisticated **discourse between modal talk “in the object language” and rule talk “in the metalanguage,”** modal talk might well exist at

the level of pattern governed (as contrasted with rule obeying) linguistic behavior. Nevertheless, as we shall see, the full flavor of actual modal discourse involves the way in which sentences in the first level language game containing modal words parallel sentences containing rule words ('may', 'ought', 'permitted', etc.) in the syntactical metalanguage. This parallelism is quite intelligible once one notes that the moves which are signalized in the object language by sentences containing modal words, are *enjoined* (*permitted*, etc.) by sentences containing rule words in the syntactical metalanguage. [27-38]

19. [T]o say that it is a law of nature that all A is B is, in effect, to say that we may infer 'x is B' from 'x is A' (a *materially* valid inference which is not to be confused with the formally valid inference from 'All A is B and x is A' to 'x is B'. ...[I]t is by virtue of its *material* moves (or, which comes to the same thing, its *material* auxiliary positions) that a language embodies a consciousness of the lawfulness of things. [29-38]
20. [I]f the pragmatist's claim is reformulated as the thesis that the language we use has a much more intimate connection with conduct than we have yet suggested, and that this connection is intrinsic to its structure as language, rather than a "use" to which it "happens" to be put, then **Pragmatism assumes its proper stature as a revolutionary step in Western Philosophy**. [34-40]
21. Let us now turn our attention to *rule obeying behavior*. We have already noted that it involves a distinction between game and metagame, the former, or "object game" being played according to certain rules which themselves are positions in the metagame. Furthermore...in an object game played as rule obeying behavior, not only do the moves exemplify positions specified by the rules (for this is also true of mere pattern governed behavior where even though a rule exists the playing organism has not learned to play it) but also **the rules themselves are engaged in the genesis of the moves**. The moves occur (in part, and in a sense demanding analysis) *because* of the rules. [38-41]
22. [A]ttention must be called to the differences between

'bishop'	and	'piece of wood of such and such shape'
'My bishop is checking his king'	and	'There is an open diagonal space between this white piece of wood and that red piece of wood'
'Interpose a pawn!'	and	'Place this piece of wood between those two!'

 Clearly the expressions on the left hand side belong to the rule language of chess. [41-42]
23. [T]he piece, position, and move words of chess are, in the process of learning chess language, built onto everyday language by *moves* relating, for example, 'x is a bishop' to 'x is a -shaped piece of wood', or by means of auxiliary sentences, for example, 'x is a bishop if and only if x is a -shaped piece of wood'. In other words, chess words gain "descriptive meaning" by virtue of *syntactical relations* to "everyday" words. [43-43]
24. [W]e could say that non-chess words correlated with chess words acquire normative meaning by virtue of these syntactical relations with chess words having normative meaning. [44-44]
25. Our concern is with the most general implications of the conception of a language as a game. [48]