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A PROBLEM WITH WITTGENSTEIN'S "FAMILY RESEMBLANCE"

Paul Alfred HAZARD

WITTGENSTEIN introduces the idea of family resemblance as a way of refuting the position that all things called by the same name possess some one feature or set of features in common. In the *Philosophical Investigations*¹ his initial concern is with the activities termed "language":

Instead of producing something common to all that we call language, I am saying that these phenomena have no one thing in common which makes us use the same word for all, — but that they are *related* to one another in many different ways. And it is because of this relationship, or these relationships, that we call them all "language".²

As an illustration he adduces the examples of the things we call "games":

What is common to them all? — Don't say: "There *must* be something common, or they would not be called 'games'" — but *look and see* whether there is anything common to all. — For if you look at them you will not see something that is common to *all*, but similarities, relationships, and a whole series of them at that. To repeat: don't think, but look! — Look for example at board-games; with their multifarious relationships. Now pass to card-games; here you find many correspondences with the first group but many common features drop out, and others appear. When we pass next to ball-games, much that is common is retained, but much is lost... And we can go through the many, many other groups of games in the same way; we can see how similarities crop up and disappear.

And the result of this examination is: we see a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail.

I can think of no better expression to characterize these similarities than "family resemblances"; for the various resemblances between members of a family: build, features, color of eyes, gait, temperament, etc., etc. overlap and criss-cross in the same way. — And I shall say: "games" form a family.³

1. Ludwig WITTGENSTEIN, *Philosophische Untersuchungen (Philosophical Investigations)*, trans. G. E. M. Anscombe (New York: Macmillan, 1956.) References to paragraphs in Part I of this work will be in the following form: *PI*, # 37.

2. *PI*, # 65. Author's italics.

3. *Ibid.*, ## 66-67. Author's italics.

Another instance of family resemblance is found in the uses of the word "number":

Why do we call something a "number"? Well, perhaps because it has a — direct — relationship with several things that have hitherto been called number; and this can be said to give it an indirect relationship to other things we call the same name.⁴

To the objection that he has thus defined number as "the logical sum of the individual interrelated concepts: cardinal numbers, rational numbers, real numbers, etc.", he replies:

It need not be so. For I *can* give the concept "number" rigid limits in this way, that is, use the word "number" for a rigidly limited concept, but I can also use it so that the extension of the concept is *not* closed by a frontier. And this is how we do use the word "game". For how is the concept of a game bounded? What still counts as a game and what no longer does? Can you give the boundary? No. You can *draw* one; for none has so far been drawn. (But that never troubled you before when you used the word "game".)

... We do not know the boundaries because none have been drawn. To repeat, we can draw a boundary — for a special purpose. Does it take that to make the concept usable? Not at all! (Except for that special purpose.)⁵

In short the drawing of a boundary, the positing of a definition — that is, the definitive statement of the "essence" or common feature — is impossible (except on a purely arbitrary basis), simply because there *is* no "essence" or common feature (or common set of features) belonging to those things we call numbers, or games, or languages.

Three arguments are offered to support this position:

1° You cannot actually point out the supposed common feature or set of features.

2° In explaining how we use "game" we do not in fact give a rigid definition:

Isn't my knowledge, my concept of a game, completely expressed in the explanations I could give? That is, in my describing examples of various kinds of game; showing how all sorts of other games can be constructed on the analogy of these; saying that I should scarcely include this or that among games; and so on.⁶

And so

If someone were to draw a sharp boundary I could not acknowledge it as the one that I too always wanted to draw, or had drawn in my mind. For I did not want to draw one at all. His concept can then be said to be not the same as mine, but akin to it.⁷

Thus if you claim to be able to point out something common, you are merely drawing a boundary for your own special purpose (where no boundary existed before), whereas Wittgenstein doesn't choose to draw one at all.

4. *Ibid.*, # 67.

5. *Ibid.*, ## 68-69. Author's italics.

6. *Ibid.*, # 75.

7. *Ibid.*, # 76.

3° What purpose could you have in looking for "something common"? Surely you don't claim that you need to discover the mysterious "common feature" in order to be able to use the word in ordinary speech.

The practical consequences of Wittgenstein's position might be summed up in this way: when you want to know the meaning of a word, simply recall how you use it in everyday speech. If the word turns out to have more than one meaning (because it has many uses), the only thing that can be said about this variety of meanings is that they exhibit a family resemblance. Any effort to discern more precisely what is common to these many meanings will quickly lead you into pseudo-problems — because in effect you will then be trying to determine what the word means when it is not being used.⁸



My problem is this: generally speaking, these statements seem to be true in what they assert about the use of words; but at the same time *they seem to impose an unnecessary limitation on what we can know and say about the multiple uses of a particular word.*

Surely it is true that words like "language", "game" and "number" have diverse uses; that there is no one meaning common to each use of such words; that we have here a "complicated network of similarities", "blurred boundaries", "family resemblances", etc. But to deny these assertions would be to claim that words are always used univocally — i.e., that there is one feature or set of features common to *all* the objects to which a particular word is used to refer. It is implausible that anyone would make that claim seriously.

What interests me is this: given the fact that each of these words has different uses, *why* do we use the same word in these different situations? Perhaps I am being perverse, but for me it is not sufficient to say, "We just do," or "That's just the way we use them," or "Because of the network of similarities," or "Because of the family resemblances." I do not deny that such statements are true, but I do deny that nothing more can be said. Why can't we ask and answer questions such as, "*What is the relationship between these two or more sets of uses, or among the members of this set of uses, in virtue of which we find the same word being used rather than two or more different words, one for each distinct use?*"

While participating in a summer workshop on analytic philosophy⁹ I found myself troubled by this particular aspect of Wittgenstein's teaching — that is, that one can say about multiple uses of a word no more than that they exhibit a family resemblance.¹⁰ This position seemed both contrary to fact (apparently, at least, any

8. "The confusions which occupy us arise when language is like an engine idling, not when it is doing work." (*Ibid.*, # 132.)

9. Carnegie Summer Institute in Analytic Philosophy, University of Notre Dame, June-July 1968. I am grateful to the Carnegie Foundation for the stipend which made my attendance possible.

10. Perhaps the very fact that my problem is one form of the classical philosophical problem of the One and the Many is enough to stamp it as a typical example of philosophical puzzlement. I believe, however, that it is not rightly subject to that indictment, since I am not looking for some one *thing* or

dictionary has more to say about the multiple uses of a word than the simple comment, "family resemblance"¹¹), and not necessarily entailed by his very perceptive insights regarding language as a form of life, the importance of ordinary language, and the relation of meaning to use.

*
* *

Accordingly I set myself the task of constructing an argument against this seemingly unnecessary restriction — an argument which, hopefully, might appeal to an orthodox Wittgensteinian. The argument has three parts.

The first step was to recall as many examples as I could of ordinary uses of the word "time", and to write them down just as they occurred to me, without any effort to arrange them in any way or even to eliminate apparent duplications. An attempt was made to include enough context so that circumstances of actual usage could readily be imagined by the reader. The word "time" was chosen as an example for several reasons: it obviously has numerous uses in everyday language; it chanced to be the example employed when Wittgenstein's doctrine on meaning and use was first presented to me; and it is pleasingly classical — St. Augustine wondered about time too.

Secondly I attempted to discern similarities and differences in these various uses of the word "time", with a view to arriving at categories into which *some* of these uses might be put. The classification was not intended to be exhaustive; that would have been impossible, and furthermore unnecessary for my purpose, which was to show only that *some* uses could usefully be categorized. In other words, there was to be no claim of establishing rigid or all-inclusive categorial boundaries, as if to say: this is *the* meaning (or these are *the* meanings) of the word. Nor was there a prior assumption that there must be "something common", a common feature or set of features which the word signifies each time it is used — nor did I discover such a common feature as a result of my efforts at categorizing.

Thirdly, the question of purpose had to be faced. Even if I had shown that a classification of some of the uses of a word was possible, was it necessary? Could it be of any possible use? As Wittgenstein points out very forcefully, we can certainly use words in ordinary conversation without undertaking to draw such definite boundaries, without setting up these categories of usage:

common feature to which "game", for example, refers in each of its uses — rather I am trying to see why this one word has so many uses. — Wittgenstein, having perceived the failure of his effort to find a unity (a "general form of the proposition") in all uses of language, seems to have concluded that every such enterprise was futile. I would agree that since language is a form of life and therefore, practically speaking, infinitely variable, it is impossible to give an account of all language-games that is at once comprehensive and unified. But this does not entail the impossibility of giving a coherent account of particular *parts* or areas of language.

11. To the objection that the lexicographer merely notes the "surface grammar" (*PI*, # 664.) of words, I would reply that a good lexicographer, in addition to the surface grammar, also records and arranges the various *uses* a word has in common speech. He reminds himself (*Ibid.*, # 89.) of the actual uses of the word; he does not create meanings *ex nihilo*. He then often arranges the uses in some sort of order — e.g., proper, analogous, figurative uses.

When I give the description: "The ground was quite covered with plants" — do you want to say I don't know what I am talking about until I can give a definition of a plant?...

One might say that the concept "game" is a concept with blurred edges. — "But is a blurred concept a concept at all?" — Is an indistinct photograph a picture of a person at all? Is it even always an advantage to replace an indistinct picture by a sharp one? Isn't the indistinct one often exactly what we need?

Frege compares a concept to an area and says that an area with vague boundaries cannot be called an area at all. This presumably means that we cannot do anything with it. — But is it senseless to say: "Stand roughly there"?¹²

The remainder of this essay consists therefore of three parts: a collection of ordinary language expressions containing the word "time"; an attempt to categorize some of these expressions; and finally, an assessment of the value (i.e., usefulness) of such categorizations, together with further reflections on the relevance of this project to Wittgenstein's remarks concerning family resemblance.

A DISORDERLY COLLECTION OF EXPRESSIONS CONTAINING THE WORD "TIME"
TO WHICH ARE APPENDED A SELECTION OF POETICAL REFERENCES TO TIME¹³
AND A FEW MORE OR LESS RELEVANT STATEMENTS ABOUT TIME.¹⁴

As previously mentioned, these expressions are set down in the order in which I was able to remind myself of them. No effort has been made to impose any sort of order on them, and very little effort was made to avoid duplication. I have tried to make each example long enough so that a context in ordinary speech might easily be

12. *Ibid.*, §§ 70-71.

13. Wittgenstein would most likely not accept poetic references to time as part of ordinary language. I have therefore listed them separately, and have formed my categories without relying on them. However these are in fact among the language games that people play. It seems as though Wittgenstein is not entirely consistent with his own notion about the indefinitely large number of language games. In some of these games we are relatively *passive* with regard to the pieces (words) and the rules; we simply absorb them from our particular environment. In games of this sort problems about word use can indeed usually be solved by recalling ordinary usage. But sometimes we play a more active role, by inventing new words or using old ones in new ways. Scientific neologisms, for example, are used for new discoveries or for more precise communication. Slang is often employed by juvenile, oppressed or criminal groups with the aim of restricting communication to members of the in-group. The poet also occasionally uses words in new ways, perhaps to express a nuance of his feelings, perhaps because he finds the sound of the word aesthetically apt in the new context he gives it. I believe that Wittgenstein tends to overlook this active, creative aspect of our language games. Sometimes we do more than simply recall the rules of existing language games. Occasionally we invent new games.

14. Wittgenstein would almost certainly regard statements about time — what it is, what it is like, and so forth — as prime examples of metaphysical befuddlement, because (he would claim) we do not use the word "time" that way in ordinary speech. Accordingly I have listed these separately also. They are included simply because people do sometimes say that sort of thing; it is one of the language games we actually play with "time", and hence should not be excluded entirely from our consideration.

imagined. Except in the poetry section I have, in order to set some limit to this enterprise, confined this collection to uses of the word "time" only (as noun and verb), leaving aside compound words and synonyms.

1° COMMON EXPRESSIONS CONTAINING THE WORD "TIME"

1. Time's up.
2. Snack time.
3. Wonder if that pyramid will be done on time.
4. Time to rise and shine.
5. There'll be a hot time in the old town tonight.
6. There's a time and place for that sort of thing.
7. Try this number in waltz time.
8. Time passes.
9. A time goes by.
10. Time carries everything with it in its flow.
11. Time flows equably.¹⁵
12. Just wait till next time.
13. Just one more time, then I'll have to go.
14. How many times have I told you not to do that in public?
15. Time was when the dollar was worth something.
16. You got here just in time.
17. Did you have a good time at the party?
18. I had the time of my life.
19. What time is it?
20. We don't have much time left.
21. For the last time, are you coming or not?
22. How much time is left?
23. What do you do in between times?
24. You mark my words — there's hard times a-comin'.
25. Once upon a time there lived a beautiful princess...
26. ... For the times, they are a-changing. (Folk song.)
27. I never saw time pass so quickly.
28. Time flies.
29. Time passes slowly for prisoners.
30. Now that I've done my time I'm going straight.
31. Time stood still.
32. This is the third time in a year you have been arrested for speeding.
33. Most of the time he's in a drunken stupor.
34. Laugh if you will, but my time will come.
35. He picked up a copy of *Playboy* in the dentist's office, and just to pass the time he analyzed the centerfold into its logical atoms.
36. She had nothing else to do, so to make the time go more quickly she taught herself Sanskrit.

15. Examples 1-11 were proposed by Professor Harry Nielsen, now of the University of Windsor. He characterized ## 8-11 as exhibiting the "flowing or riverine configuration." Prof. Nielsen cannot be blamed for the conclusions of this paper, for he disagrees with them; but I appreciate deeply the challenge and encouragement he provided. Dr. Ernan McMullin, Chairman of the Department of Philosophy at the University of Notre Dame and Director of the Carnegie Summer Institute, was also of great help, both in helping to shape the original project and by means of his subsequent critical comments.

37. He has invested a lot of time and energy in this project.
38. That model railroad of his represents a lot of time and money.
39. The music of Charles Ives was ahead of its time.
40. Railroad executives, by and large, are way behind the times.
41. It's time to go.
42. Nothing happened for a long time.
43. He's only a part-time voyeur ; the rest of the time he peddles dope.
44. My time is worth \$25 an hour.
45. Every Thursday, time out of mind, the peasants had come to buy and sell their wares in the little market town.
46. Town and gown have been squabbling from time immemorial.
47. Time whereof the memory of man runneth not to the contrary. (Blackstone's translation of a Latin legal phrase, referring to the time needed to give a custom the force of law — defined by statute as running from the beginning of the reign of Henry II in 1148 up to the present.)
48. I've got time on my hands.
49. You've already wasted a lot of time.
50. His watch keeps very good time.
51. She has absolutely no sense of time.
52. Now is the time for all good men to come to the aid of the party.
53. Only time will tell whether we've made the right choice.
54. Time will assuage their grief.
55. This time I mean it.
56. Time is on our side.
57. Time and tide wait for no man.
58. No, that was the time before last.
59. Take all the time you need.
60. That's two times you have done that, which is one time too many.
61. Two times two equals four.
62. This is the time of the topless.
63. This is the time he's going to fall flat on his face.
64. We'll make the most of the time available.
65. They get time-and-a-half for overtime.
66. Rocket guidance computers operate on a real-time basis.
67. He ran out of time before he could finish.
68. I'm a busy man ; I have no time for that sort of nonsense.
69. The plane took off on time and arrived ahead of time.
70. She finished the dishes in record time.
71. You have the best time so far. (Said to someone who has already competed in the sort of race in which the contestants don't all start at the same time.)
72. We'll time the Ferrari on its next lap.
73. Your engine timing is off.
74. How can we measure time more accurately ?
75. I'll get the time from the radio.
76. *The New York Times* and *Time Magazine* are not noted for timeless prose.
77. It's Howdy Doody time !
78. My time is my own.
79. It's a little corner of the world that time has passed by.
80. Some suburban housewives play golf and bridge all the time.
81. Every time I wash my car it rains.
82. He kept growing all the time he was in the Army.
83. Don't fool around on company time.
84. OK, send them in one at a time.
85. It's going to be a race against time.
86. Speed is a ratio of distance travelled to time.

87. In my time I was the best rail-splitter in Sangamon County.
88. She wanted to get married, but at the same time she wanted to practice her profession.
89. For the time being just lean it against the wall.
90. Will we get there in time for the last show?
91. We made good time between Chicago and Detroit.
92. Saturday morning would be a good time to get the lawn mowed.
93. We could get more time for the quarterback on pass plays by using one more blocker.
94. This would give the ends more time to get downfield.
95. He timed his arrival so as to find her just ready to leave.
96. Time after time the spider tried and failed to swing over to the next rafter.
97. This is my time to relax.
98. For some time the decapitated snake went on coiling and uncoiling.
99. Sometimes they come very early.
100. Sometimes the door stands open all day.
101. Some times are more hectic than others.
102. May you live in interesting times. (Ancient Chinese curse.)
103. In the fullness of time God sent his Son.
104. A long time ago the Indians used to pass this way.
105. The amount of leisure time available to most Americans is increasing rapidly.
106. You can fool all of the people some of the time... (Lincoln).
107. These are troubled times.
108. It was the wrong time to tell her.
109. In the market for a used car? We're overloaded with late-model, low-mileage, one-owner beauties people have been trading for our fast-selling new Bloatmobile, and the right time to make a red-hot Bickersteth Bloatmobile bargain deal is now!
110. Now is the acceptable time.
111. At no time was he out of my sight.
112. Father Time sometimes isn't very paternal.
113. Since time began no man before myself had trod these sands.
114. Time is money. (B. Franklin)
115. I'll be true to you till the end of time.
116. At times we eat in a nearby restaurant.
117. In time they'll catch up with him.
118. He bought the car on time.
119. Beware! She has reached that certain time of life.
120. Busy as he was, he would always take a minute to pass the time of day with me.
121. Did you punch the time clock?
122. Let's set a time limit for each move.
123. I keep my manuscript on the hidden essence of language in a safe with a time lock.
124. Did you make any time with her?
125. Will that route save any time?
126. Time out!
127. They have only one time out left.
128. Mr. Galbraith did time-motion studies when he wasn't having children.
129. Elkhart County is in the Eastern Time Zone.
130. One of these clocks runs on local time; the other is set to Greenwich Mean Time.
131. They were married in Helsinki at exactly the same time we were being married in St. Paul.
132. In love and in golf, timing is all-important.
133. Far back in colonial times one can discern the beginnings of a sense of nationhood.
134. Her time has almost come.
135. Einstein regards time as the fourth dimension of a space-time continuum.
136. The time of the game was two hours and forty-seven minutes.
137. They fixed that pothole finally, and high time, too.
138. She's actually finished putting on her make up? It's about time.
139. About this time last year we had two feet of snow on the ground.

140. Double time — march !
141. They couldn't seem to march in time with the band.
142. He kept time by tapping his foot.
143. He'll give you more time if you ask for it.
144. We made it with time to spare.
145. I need all that time if I'm ever going to get finished.
146. This took more time than I thought it would.
147. It's about time to go.
148. Don't give me a hard time, or I'll knock your block off.
149. I had a hard time deciding what to do.
150. The teacher gave him a rough time.
151. I'll do twenty one-handed pushups for you any time you want, any time at all.
152. Any time I can be of help, let me know.
153. I'll set up an appointment for whatever time is convenient for you.
154. I did four cross-word puzzles just to kill time.
155. It took a lot of time for the river to carve out the Grand Canyon.
156. At the tone, the time will be exactly 3 pm.
157. What will we do if the Gay Liberation candidates demand equal time on network television?

2° REFERENCES TO TIME IN POETRY AND RHETORIC

Let the day perish wherein I was born,
And the night in which it was said, There is a man child conceived.

...

As for that night, ...

Let it not be joined unto the days of the year,
Let it not come into the number of the months.

Job 3

Man that is born of woman
Is of few days, and full of trouble.
He cometh forth like a flower, and is cut down :
He fleeth also as a shadow, and continueth not.

Ibid. 14

To every thing there is a season,
And a time to every purpose under heaven :
A time to be born, and a time to die ;
A time to plant, and a time to pluck up what is planted ; ...
A time to keep silence, and a time to speak ;
A time to love, and a time to hate ;
A time of war, and a time of peace.

Ecclesiastes 3

O tempora ! O mores !

Cicero, Oratio in Catalinam

Can ye not discern the signs of the times :

Matt. 16

P. A. HAZARD

Sumer is icumen in,
Lhude sing cuccu.

Anon., 13th cent.

Who hath time hath life.

John FLORIO, *First Frutes*, 1578

Cowards die many times before their death ;
The valiant never taste of death but once.

SHAKESPEARE, *Julius Caesar*

And one man in his time plays many parts,
His acts being seven ages.

SHAKESPEARE, *As You Like It*

The time is out of joint.

SHAKESPEARE, *Hamlet*

For who would bear the whips and scorns of time,
The oppressor's wrong, the proud man's contumely...
When he himself might his quietus make
With a bare bodkin ?

Ibid.

Tomorrow, and tomorrow, and tomorrow,
Creeps in this petty pace from day to day
To the last syllable of recorded time ;
And all our yesterdays have lighted fools
The way to dusty death.

SHAKESPEARE, *Macbeth*

No, Time, thou shalt not boast that I do change !

...

This I do vow, and this shall ever be :
I will be true, despite thy scythe and thee.

SHAKESPEARE, *Sonnets* 123

Had we but world enough, and time,
This coyness, Lady, were no crime.

Andrew MARVELL, "To His Coy Mistress"

Take time while time is, for time will away.

Thomas FULLER, *Gnomologia*, 1732

... The poet binds together by passion and knowledge the vast empire of human society, as it is spread over the whole earth, and over all time.

William WORDSWORTH

One crowded hour of glorious life
Is worth an age without a name.

Sir Walter SCOTT, "Old Mortality"

Give me that old time religion.

Protestant hymn

And Time the ruined bridge has swept
Down the dark stream that seaward creeps.

Ralph Waldo EMERSON, "Concord Hymn"

I wish I was in de land of cotton,
Old times dar are not forgotten...

Daniel EMMETT, "Dixie"

I fled Him, down the nights and down the days;
I fled Him, down the arches of the years...

Francis THOMPSON, "The Hound of
Heaven"

Those who try to kill time will discover that time can stand the racket longer than they can.

H. L. MENCKEN

Everything passes — even time.

Noel COWARD

3° STATEMENTS ABOUT TIME

Our time is a very shadow that passeth away.

II *Proverbs* 3

Tempus edax rerum. (Time devours all things.)

Latin proverb

Do you not see even stones yield to the power of time, lofty towers fall to decay, and rocks
molder away?

LUCRETIUS, *De rerum natura*

Time is like a river. As soon as a thing is seen it is carried away and another takes its place, and
then that other is carried away also.

Marcus AURELIUS, *Meditations*

Time is the nurse and breeder of all good.

SHAKESPEARE, *Two Gentlemen of Verona*

The illimitable, silent, never-resting thing called time, rolling, rushing on, swift, silent, like an all embracing ocean tide, on which we and all the universe swim like exhalations, like apparitions which *are*, and then *are not*: this is forever very literally a miracle; a thing to strike us dumb.

Thomas CARLYLE, "Heroes and Hero-Worship," 1840

Time is a great legalizer.

H. L. MENCKEN

A CLASSIFICATION OF SOME USES OF THE WORD "TIME"

Not without trepidation I shall begin simply by setting forth my classification of some uses of the word "time". This will hopefully make the subsequent discussion of the bases of categorization somewhat easier to follow. (Numbers following a colon refer to time-expressions listed in Part I of the preceeding section.)

- 1 "Time" used to refer to the *period* or *duration* of a process, movement, change, activity; "time" used to "clock" a process (cf. Ryle) — e.g., *how long* did it take?
- 1.1 period with *definite* limits, specified or unspecified (emphasis on the *limits*): 1, 16 (You got here just in time.), 20, 22, 30, 67, 82 (He kept growing all the time he was in the Army.)
- 1.11 period with definite limits established by comparison with the period of some other activity: 70 (She finished the dishes in record time.), 71.
- 1.111 (verb) to discover or determine the average speed of a movement by measuring the period it occupies: 72 (We'll time the Ferrari on its next lap.)
- 1.1111 speed so established, average speed: 91 (We made good time between Chicago and Detroit.)
- 1.12 process occurring during a definite period (especially work): 65b (They get time-and-a-half for *overtime*.), also, "I haven't put in enough time with this company to retire at 60."
- 1.121 pay for work done in a specified period: 65a (... time-and-a-half...)
- 1.13 period with definite limits established by God: 103 (In the fullness of time God sent his Son.)
- 1.2 period with *indefinite* limits (emphasis usually on *process* or *activity* whose duration is referred to).
- 1.21 period with limits that are indefinite but more or less accurately *specifiable*: 6 (There's a time and place for that sort of thing.), 34, 37 (He's invested a lot of time and energy in this project.), 38, 45, 46, 47, 64, 83, 87, 89, 97, 119.
- 1.211 historical era or period: 15, 24 (You mark my words — there's hard times acomin'.), 26, 39, 40, 62, 101, 102 (May you live in interesting times.), 107, 133 (... colonial times...).
- 1.2111 record or report of events or processes occurring within an era; hence a newspaper or journal: 76 (... *Time Magazine*...).
- 1.212 period with limits measurable by comparison with some expected or standard period, by comparison with "the usual time": 49, 93 (We could get more time for the quarterback...), 94, 125 (Will that route save any time?), 143.

- 1.22 period (with indefinite limits) regarded as *divisible* or as *disposable*, i.e., as allocatable or as actually allocated to various activities: 33 (Most of the time he's in a drunken stupor.), 43a, 43b, 48 (I've got time on my hands.), 68, 78, 80, 105, 114, 128, 144, 145, 146.
- 1.23 period (with indefinite limits) characterized by the quality of events or processes occurring within it: 5, 17 (Did you have a good time at the party?), 18, 148 (Don't give me a hard time...), 149, 150.
- 2 "Time" used to refer to *instant*, or *instance* (both from Latin *instare*, to be at hand, to be present; hence an instance is that which is at hand now, that which is the case now (at this instant), that to which attention is now directed); "time" used to "date" an occurrence or event (cf. Ryle) — e.g., *when* did it happen?, or to count, enumerate events — *how often* does this happen?
- 2.1 instant which is *limit* of period (beginning or end): 2, 3, 4 (Time to rise and shine.), 23, 41 (It's time to go.), 52, 77, 90.
- 2.2 "time" used to *enumerate*, *compare*, *specify* instants or instances: 12, 13, 14 (How many times have I told you not to do that in public?), 21, 32 (This is the third time in a year you been arrested for speeding.), 55, 58, 60, 61 (Two times two equals four.), 63, 81 (Every time I wash my car it rains.), 96, 99, 100, 108, 109, 110, 111 (At no time was he out of my sight.), 116, 131, 139.
- 2.3 "time" used to designate *indefinite* instance(s): 25 (Once upon a time...), 84, 151a, 151b, 152 (Any time I can be of help, let me know.), 153.
- 2.4 "time" used to designate an *instant* which is beginning, end, or intermediate point of a period, and which is "*dated*" (designated, denominated) *by comparison with the point reached in some regular movement used as a standard* or "clock" (e.g., earth's diurnal rotation, radiation frequency of cesium atom, most commonly motion of the hands of a particular clock or watch) — i.e., the instant of time as indicated by some sort of clock: 19 (What time is it?), 75, 156 (At the tone, the time will be exactly 3 pm.).
- 3 "Time" used to refer to a *system of measuring duration of periods, based on comparison of period to be measured* (as determined or limited by points traversed in some movement or activity) *with some regular movement* (Aristotle's standard movement was the rotation of the sphere of the fixed stars; for other standards see category 2.4, above.)
- 3.1 a type of such a system, or a part of one: solar time, daylight saving time, etc., 129, 130 (One of these clocks runs on local time and the other is set to Greenwich Mean Time.).
- 4 Figurative or transferred uses of "time".
- 4.1 time spoken of as *equivalent to change or motion*: poetic metonymy (time's power to destroy, etc.).
- 4.2 time *spacialized*, spoken of as existing all at once, as a line does: talk about anything moving through time, or along a time-line; time represented as a spacial dimension on a chart, etc.
- 4.21 time spoken of as the fourth dimension of a space-time continuum — i.e., as a dimension somehow similar to the three spacial dimensions: 136.
- 4.22 time spoken of as though it existed all at once — the totality of all periods of the universe, of the earth, or of history: 113, 115, "the last syllable of recorded time."
- 4.3 time spoken of as a *moving thing*, as flowing through space or moving past us more or less quickly (the "riverine figuration"): 8, 9, 10, 11, 27, 28 (Time flies.), 29 (Time

passes slowly for prisoners.), 31, 35, 36 (... to make the time go more quickly...), poetry about time flow.

4.4 time *personified*: 112, Shakespeare's Sonnet 123.

In summary, the four major categories discovered are: 1) "time" used to refer to a period or duration; 2) "time" used to refer to an instant or an instance; 3) "time" used to refer to a system of measuring duration; and 4) figurative uses — time spoken of as though it were movement, or space, or a moving thing, or a person.

Remarks on the purpose of this classification and the method used to elaborate it will be found in the concluding section of this essay. At this point I would like to comment on the categories themselves.



The first major distinction which became clear was between those uses of "time" which refer to the *period* or *duration* of some activity or process, and those uses which have reference to an *instant* or *instance*. An example of the first would be, "You're taking too much time to eat your spinach"; of the second, "What time did you start?"

These two uses of "time" are roughly analogous to "line" (regarded as continuous and extended, not — as in calculus — as composed of points everywhere dense) and "point", i.e., that which begins, ends, or divides a line. More precisely, "time" in the first sense (t_1) refers to the duration of a process, activity, task; whereas "time" in the second sense (t_2) refers to the term or limit of that duration, the instant of its beginning or ending. We might say that t_1 and t_2 are related as the duration of a process and the limits (starting and finishing points) of that process.

And since at the finishing point we have the result of the process, something achieved by it, we find that "time" (t_2) is also used with the sense of "instance" — that which is actual, which is the case, *quod instat*: "He has crossed the border illegally six times."¹⁶ "Time" used in this way stresses the aspect of enumerability somewhat more, perhaps, than does "instance", but otherwise the two words can be used more or less interchangeably. (E.g., "There have been six instances of illegal crossing by him.") In short, "time" as *instance*, i.e., as actuality, as result of a process, is closely related to "time" as *instant*, i.e., as final limit of the duration of a process.

"Time as period or duration (t_1) answers the question, "How long did it take?" "Time" as instant (t_2) answers the question, "When did it occur?" "It" in the first question refers to some process; "it" in the second question refers to an event or actuality — which is usually, though not always, the result or final product of a process. Consider for example the difference between the time spent in walking, and the time of arrival. Walking is a process which is "clocked" by t_1 ; arriving is an

16. "Climbing the wall" or "tiptoeing through the mine-field" refer to processes which may or may not reach a successful conclusion; "crossing the border" refers to achievement, success.

achievement, an actuality which is "dated" by t_2 .¹⁷ Walking is a process which *takes* time (t_1); arriving is a result, an event (etymologically "event" is equivalent to "outcome") which *occurs at* a time (t_2), but which *takes* no time (t_1) at all.¹⁸

Various subsets of time-expressions are pointed out in the classification under each of these two main headings. We are, in fact, beginning to perceive and to articulate a few of the family resemblances in some detail.

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The third major category of uses of "time" (t_3) includes those which refer to a *system of measuring time* (t_1 , period). Any measuring would seem to involve comparing the thing to be measured, in this case the duration of an activity, to a standard of some sort. This implies that the period has to be relatively definite or determinate, so that we can point out more or less precisely (using the degree of exactness appropriate to our purpose in speaking) the times (t_2) when the period begins and ends. Since it is the period or duration of some activity we are measuring, the limits of the period are usually taken from the limiting points of the activity — its beginning and end. (It is also possible to take any recognizable intermediate point in the activity as the initial or final limit of a period.)

It is important to note that we have a great deal of latitude in specifying the period to be measured. We can choose to measure the duration of any activity or process, or of any part of a process; and we can furthermore decide to measure the period roughly or precisely (with any degree of precision) — depending on the purpose of the measurement. For example, a casual inquiry about the driving time between Chicago and Minneapolis might well be answered thus: "About seven and a half hours." But people involved in a race over the same distance would probably want the time measured much more precisely, perhaps to the nearest hundredth of a second.

The standard against which we measure the period we have determined is the duration of some regular movement. Thus, it takes as long to drive from Chicago to

17. These very useful distinctions are drawn from Gilbert Ryle's book *The Concept of Mind* (New York: Barnes & Noble, 1949), esp. pp. 130-131, 149-153, 301-304. I believe that Ryle errs, however, in the application of his own distinction: "... [R]eaching a conclusion, like arriving in London, solving an anagram and checkmating the king, is not the sort of thing that can be described as gradual, quick or instantaneous." (*Ibid.*, p. 302.)

Reaching a conclusion is not a process and is therefore not properly described as quick or slow. But why can it not be instantaneous? If "instant" refers to the (dimensionless) point in time which terminates a period, then perhaps "instantaneous" is properly used to refer to an achievement. Thus if someone asks, "How long did it take?", it makes sense to answer, "It was instantaneous, quick as a flash." — because such an answer means it didn't take any time (t_1) at all. ("Quick as a flash", when used as an answer to "How long?", is ordinarily used to *deny* that a length of time is involved, since even though in fact light is not transmitted instantaneously, to the ordinary observer it seems to be.) In short I think Ryle makes a category mistake by including "instantaneous", which describes achievements, in the class of words used to describe processes.

18. For these further elaborations of Ryle's distinction I am indebted partly to Aristotle and partly to an article by J. J. C. SMART, "The River of Time," in *Essays in Conceptual Analysis*, ed. A. Flew (London: Macmillan, 1956), pp. 213-227. Smart's main point is that in ordinary language *things* are said to *change*, or to *become* something or other; *events happen* or *occur*. He takes "event" to be a victory or achievement word, in Ryle's sense.

Minneapolis as it takes for the minute hand to complete seven and a half circuits of a clock dial. The duration of the trip is measured by the duration of the minute hand's movement. We can choose any regular movement for our standard, and historically many have been chosen: the apparent motion of the sun, of the moon, of the "sphere of the fixed stars," and more recently the vibration frequency of the cesium atom. In practice we very often use the movement of the hands of a particular clock or watch as our standard, and we strive to make this movement as regular as possible. The only requirement is that the movement chosen as the standard be regular — that is, that it cover equal distances in equal times.¹⁹

In short, "time" (t_3) is used to refer to a system of measuring definite periods of time (t_1) — definite because limited by more or less precisely established times (t_2) or instants of commencement and completion — against the duration of some regular movement.²⁰



The last major category is that of figurative or transferred uses of "time" (t_4) — uses which might be called, following J. J. C. Smart, areas of "shifted syntax".

In working with the list of time-expressions I noticed that there seemed to be quite a few common ways of using the word that did not easily fit into the three categories already described. Though it was never intended that the classification be complete (I had always believed that to be impossible), it turned out to be possible to characterize some of these other uses in ways which showed them to be related to the uses previously categorized.

Using a theory about the nature of time and motion, I was able to discern how some of these figurative uses were interrelated and also to explain (hypothetically) their relationships with the uses found in the first three major categories. The theory is essentially Aristotelian, embellished with borrowings from Professor Smart.²¹ It is not presented here as a true account of the nature of time and motion; it is proposed solely

19. This seems to involve us in an infinite regress: The regular movement used as a standard is one that covers equal distances in equal times. But how can we know that the times are equal without measuring them against a standard other than the one whose regularity is in question? And then how can we tell that this other standard is regular without reference to a third — and so *ad infinitum*.

In practice we rely on experience (the movement *seems* regular), and on cross-checking. We measure one standard against another: the motion of the clock hands against the apparent movement of the sun, or phases of the moon, or both. If one apparently regular motion is discovered to vary its speed when compared to the others commonly used, these others meanwhile not changing their relationships with one another, we would conclude that the first motion was not in fact regular. Of course there would be no way for us to know about it if all our "clocks" — celestial, biological, atomic and artificial — were to change speed without varying their ratios to one another. But this seems to be a meaningless supposition since it postulates an unknowable standard, a contradiction in terms.

20. Time in this sense is clearly conventional, as is any system of measuring. The standard of measure, the particular period to be measured and the amount of precision sought all depend on the choice of the person doing the measuring, though his choice may be restricted by the limitations and conventions of his particular culture.

21. ARISTOTLE, *Physics*, Bks. I-IV, esp. the sections on the moveable, motion, the continuum, place, and time; SMART, *art. cit.* in note 18 above.

as an hypothesis to account for various interesting linguistic phenomena, namely certain rather peculiar uses of "time". (The expression "to account for" is equivalent here to "to discern relationships," or "to describe more fully particular family resemblances.") The intention is only to examine the ways in which we commonly *speak* about motion, space and moving things, since such ways of speaking appear strikingly similar to some ways of speaking about time: often time is said to flow or pass (like a moving thing); again we speak of moving through time, as though it were a distance to be traversed. Let us begin by recalling how we talk about moving things.

In ordinary speech things are said to move or change. Very often the change, especially if it is called a movement, is said to take place over a certain space or distance; the moving thing itself is said to move over or traverse a particular distance. The distance covered has a certain dimension, and can be represented by a line.²² This line is to be regarded as made up of little lines, *not* of points everywhere dense; note that we are employing a model significantly different from that used in calculus. The assumption is that no number, however large, of zero-dimension points can be added together to produce a line.²³

Change (as understood here) is movement or motion, process, actualizing of potential, activity.²⁴ This sort of change is continuous rather than instantaneous, because it takes place — or can be seen as taking place — over a continuous, extended distance.²⁵ The end or result of change (the "end of the line", not always reached) is achievement, success, victory, actuality.²⁶

22. The line may be either straight or curved, but since no difference in principle is involved and the account of a straight line is simple we shall generally assume that the line is straight.

23. You can't get something from nothing; accordingly the component parts of a line, which itself must be extended in one dimension, must also have dimension themselves — i.e., they must be "little lines". In this view there is an important difference between a very short line, which must have some dimension, and a point, which has none.

The function of points, in this theory, is to mark the beginning and end of lines; you cannot begin or end a line except at some point. Once a line is drawn you may also designate or mark off ("point out") additional points along the line, but such intermediate points are not automatically actualized merely by drawing the line. The line contains them only potentially — until you mark them off. (The component "little lines" also are said to exist in the line only potentially; they become actual parts only when you actually divide the line by designating one or more intermediate points.)

24. Several distinctions need to be made here:

a) The change discussed here is what Aristotle calls accidental change — change of quantity, quality or location. This sort of change is continuous, it takes time; in short it is process, not achievement.
b) "Change" may also be used as the equivalent of "result" — e.g., "the change in him". This change is not now going on, but is presumably the result (achievement) of a previously completed change (process).
c) Talk about a thing changing or moving can be ambiguous: (1) The thing may be moving *something else*, e.g., pushing it, so that it is said to be the cause of that other thing's being in motion. (2) When the thing *itself* is in a state of motion it is also said to be moving.

25. This language is used most often of local motion, but the same or similar remarks can be made regarding change of quantity or quality. We can say there is a "distance" between an apple's being small and being large, being green and being ripe — that is, the apple moves from one of these states to the respective opposite not instantaneously, but by a gradual, continuous process.

26. In Aristotelian language, winning is an actualization, not a process." (SMART, *art. cit.*, p. 219.) In the interest of clarity I would rather say that winning is an actuality, while running is an actualization —

Change and time are seen as intimately related by Aristotle: "Time is number of movement [change, in the sense explained] in respect of the before and after, and is continuous since it is an attribute of what is continuous [i.e., change]." ²⁷ Number is a type of measurement, and the idea seems to be that we remember the past condition (the "before") of a moving thing, compare that with its present condition (the "after"), and get time — a measure ("number") of the duration of the motion in question. ²⁸ And since we commonly speak of remembering the past conditions of things, perceiving their present state, and making predictions about their future, ²⁹ we often find it convenient to *imagine* that time is like motion, that motion is like space, and that time and motion exist all at once, as space does (i.e., a line once drawn is all there together at one time (t_1). In fact the time (t_1) of any motion, and the motion itself, do *not* exist all at one time (t_2). But nevertheless we speak of them as spacial, and often represent them by means of a certain space — on charts, for example.

We speak of time *as though* it were motion, or space, or a moving thing — even though we know it is none of these. In so doing we are, I believe, speaking figuratively, metaphorically. The implied simile is that time is *like* motion, etc., in certain respects: time, like motion and a line (or the space it covers), is continuous and not composed of dimensionless, indivisible instants; I can designate an instant in time just as I can designate a point on a line or a point reached in an ongoing motion. Professor Smart characterizes this sort of talk — about time flowing, moving quickly or slowly, or about ourselves moving through time — as an area of "shifted syntax". ³⁰ I prefer to describe it as figurative speech.

Thus if we were to say that change (process) has the power to destroy, ³¹ we might also say that time (t_1 , the period of a change — imperceptible without change and thus closely associated with it) has the same power. Space is usually spoken of as something which endures while things move through it. Time is associated with space by means of change: motion takes time, motion (more properly, a moving thing) traverses a spacial distance. We can see then why time might be spoken of as though it were space: time is that through which things (are said to) move over a certain

i.e., a process of bringing something potential to actual existence. Admittedly "actualization", like many other words with "-tion" and "-sion" endings, can be used to refer either to a process or to the result of a process.

27. *Physics*, Bk. IV, 220 a 24-25, in *The Basic Works of Aristotle*, ed. R. McKeon (New York: Random House, 1941), p. 293. — This definition might seem circular since it uses "before" and "after", apparently time-words, in the definition of "time". But it is not, since the reference is to the "before" and "after" of *change* — i.e., to points which are closer to or farther from the start of the change.

28. This differs from measuring the distance covered by the motion because we see that the same distance may be covered more or less quickly. Relative quickness or speed is measured by taking the time of some regular motion and using it as a standard for measuring the time of other, often irregular motions. John is said to be quicker than Henry because he can get from Detroit to Chicago in one day while Henry takes two. Here the regular motion used as a standard is the apparent motion of the sun.

29. The point is not whether we can actually do these things, but only that we say we can.

30. SMART, *art. cit.*, pp. 225-227.

31. This expression is itself a figure of speech. The decay that affects material things as they age is an instance rather than a cause of change. Sometimes however we do say that change in the material out of which something is made causes that thing to decay: "Rotting wood caused the collapse of the bridge."

"distance", it is spoken of as a quasi-spacial dimension which can be used to measure motion just as the other (properly spacial) dimensions can. Also, a moving thing moves through space during a period of time. Time itself then is figuratively spoken of as a thing moving through space, flowing, passing quickly or slowly, etc. Lastly, the personification of time is obviously figurative.³²

Of course we must remember, as Professor Smart reminds us, that time is not space, nor a moving thing — when we speak literally. That is, we must be careful to separate literal from figurative speech, at least to the extent of being aware of the difference between them.

And now, having attempted to elucidate the categories employed in the above classification, we shall conclude with remarks on the nature and purpose of such an enterprise, the method used, and the relevance of the undertaking to Wittgenstein's comments on "family resemblance".

REFLECTIONS AND CONCLUSIONS

The method employed is based on Wittgenstein's own exhortation to remind oneself of ordinary language when problems of meaning, which are really problems of word use, happen to arise. After quoting Augustine's "*Quid ergo est tempus?*", he notes, "We remind ourselves [not of phenomena themselves, but] of the *kind of statement* that we make about phenomena. Thus Augustine recalls to mind the different statements that are made about the duration, past present or future, of events."³³

I would agree fully that problems of meaning cannot possibly be dealt with if one abstracts from the uses a word actually has in everyday speech. Whether a word has one or several uses (i.e., whether there is "something common" to all its uses), and if several, whether there are discernable relationships between some of these uses — these are questions to be resolved only by attention to actual usage. There is no way to decide *a priori* how many uses a word might have, and I did not begin the investigation with the assumption that there had to be one "common feature" referred to in each use of the word "time". It seemed further that the collection of ordinary-language uses of "time" should be fairly extensive, if possible, since I wanted it to be evident that the examples were not being selected to fit a pre-existing hypothesis. (As previously mentioned, there was no effort or claim to be exhaustive.)

This method is, I believe, appropriate to the purpose of the undertaking, which was to show that beginning with the attention to ordinary language which Wittgenstein so cogently advocates, one could *discern* (not impose) relationships between various groups of uses, *and* that one could say more about these relationships than

32. Smart's areas of "shifted syntax" are simply two of the categories of figurative speech about time. The examples he discusses fall into two main subclasses: those in which time is spoken of as a *space* through which we move, and those in which time is assimilated to a *moving thing*, like a river flowing past the observer's viewpoint — as though we could see time flowing through space. (*Ibid.*, p. 213.)

33. *PI*, # 90. Author's italics. On method see *ibid.*, ## 89–137, esp. ## 89–90, 94, 96–98, 100, 106–109, 116–117, 120, 124, 127, 129–133.

Wittgenstein says in calling them family relationships. (As to whether I discerned or imposed the relationships set forth in the foregoing classification, I can only ask the reader to remind himself of ordinary usage as he works through the categories there described.)

With respect to the results obtained, I was quite surprised at the number and diversity of time-expressions to be found in common speech, and again surprised by the relatively small number of major categories which emerged. I was *not* surprised at the relationships observable between and within these major categories — else why would we find only one word used in so many different ways?

In general the results might be characterized as follows: many of the various uses of "time" turned out to be related more or less closely, in different and *specifiable*³⁴ ways, to various aspects of change. We might speculate about why this is so — that is, why there are so many time-expressions, and why they seem to be connected in various ways with change.³⁵ But whatever the reason might be, the investigation indicates clearly that this linkage of these expressions with change is a linguistic fact.

But does this amount to a claim that all time-expressions refer to "something common"?³⁶ I believe it does not, since the uses are clearly diverse in the ways in which they are related to change or process. "Time" is used differently, has a different grammar, for clocking and for dating. The third major category of its uses contains references to the various conventional systems of clocking and dating. And finally we have the widely, even wildly, diverse category of its figurative uses. There does not appear to be any determinate common feature here — that is, something actually or virtually the same, some "essence" to which each time-expression refers.³⁷ Instead we have what Wittgenstein would call family resemblances between the various uses of "time".³⁸

34. It will be noted that the categories themselves, together with the subsequent explanatory material, do indeed specify the particular relationships.

35. This note should perhaps be mentally bracketed since it contains conjecture about the real world. Elsewhere I have attempted to engage only in analysis of common speech, with no assumptions about the world as such — other than the assumption that I can distinguish common from uncommon usage. Change seems to be a basic condition of human life. The world around us is constantly in flux: human beings are material things as well, subject to processes of growth and decay, fated eventually to die. Since change affects us all in this very personal way it is not surprising that we speak of it so frequently. It seems as though all human activities, all the forms of life which Wittgenstein wants us to take as basic in our speculations (E.g., see *PI*, II, p. 226.), occur in a changing world, and all or most of the activities themselves involve change. They may therefore be "timed" — clocked and/or dated; though the extent to which this is actually done varies from culture to culture.

This hypothesis is of course open to dispute. But if we attend simply to ordinary usage I think it is undeniable that many time-expressions are used in contexts having something to do with change.

36. *Ibid.*, §§ 65–67.

37. For a good discussion of determinate and determinable common features see "Common Names and 'Family Resemblances'" by Haig KHATCHADOURIAN in *Wittgenstein, The Philosophical Investigations: A Collection of Critical Essays*, Ed. G. Pitcher (Garden City: Doubleday Anchor, 1966), pp. 205–230, esp. pp. 207–208.

38. It seems, however, Wittgenstein to the contrary notwithstanding, that at times a common noun may indeed refer to "something common" each time it is used. Dr. Khatchadourian argues persuasively (*art. ult. cit.*) that all activities called games have in common a definite purpose or capacity — namely to serve the particular human need of pleasure or enjoyment under "standard" conditions or in "normal" contexts. (*Ibid.*, pp. 209–214.) He holds further that the same conclusion applies, *mutatis*

While I agree that this description of the relationships is accurate (at least with regard to *this* word), the question raised by this essay is whether that is, or ought to be, the *limit* of what can be legitimately said about these relationships. Now the orthodox Wittgensteinian reaction to such a problem would likely be: Why should anyone do more than note the family resemblances? What point, what purpose could there be for the sort of detailed examination undertaken here? Of what use could it be to anyone?

Such questions about purpose are very serious ones; Wittgenstein's recognition of their importance is one of his most significant contributions to analytic philosophy. We must attempt to face them squarely.

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Wittgenstein urges us to be quite careful about the purpose or goal of any analysis we might undertake. If the goal of analysis is to remove philosophical problems, it follows that there is no one best way of analyzing a word or expression. Rather the appropriate analysis will be the one that deals most effectively with the particular problem that a particular individual happens to have. The goal of philosophical analysis is not to construct an "ideal" (in the sense of "exact," "unambiguous") language,³⁹ but rather to remove philosophical problems by reminding oneself or others of how words are ordinarily used, by merely describing ordinary usage.⁴⁰

It would seem then that one should *not* respond to such a problem in the way I have done, by listing and then categorizing a large number of uses of the word in question, because then one could easily fall into the error of supposing that he can find, or has found, *the* meaning of the word. Instead one should ask, "Which use of the word troubles you?" This method is the only way to give philosophy peace, because it can easily be broken off whenever the questioner ceases to be troubled: "Problems are solved (difficulties eliminated), not a *single* problem. There is not *a* philosophical method, though there are indeed methods, like different therapies."⁴¹ If the goal of analysis is simply therapeutic, then a person who does not have a problem would have

mutandis, to all other man-devised activities, to man-devised processes, and to man-made objects, like cooking, writing, furniture, instruments, tools, machines. That is, in the case of all activities, processes, or objects of this sort which are called by the same name (in the same literal sense), we find a common capacity or common capacities to serve, directly or indirectly, some human need or some human purpose, the capacity or capacities for being used in the same kind of way. (*Ibid.*, p. 214.) With respect to the activities called games I would argue further (though Khatchadourian would not agree, see *ibid.*, p. 209) that besides a common purpose they have also a relatively determinate common feature — rules of some sort. You can't have a game without rules.

I would say that "game" is used as a genus (in Aristotelian logical terminology) when it refers univocally (i.e., in the same literal sense) to the various types or species of games. That is, it seems to refer to "something common" in each, or at least in most, of its uses. I am not however making the same claim about the uses of "time". There we find "family resemblances" rather than "something common".

39. *PI*, §§89–108. — The analysis of "exact" or "inexact" will depend on the goal one has proposed in a particular context; no single notion or ideal of exactness is given to us *a priori*. (*Ibid.*, # 88.)

40. *Ibid.*, §§ 109–133, esp. §§ 109, 124, 126–127, 132–133.

41. *Ibid.*, # 133. Author's italics.

no need of an analysis. Ninety-nine percent of native English speakers, perhaps, including many young children, will never become acquainted with the sort of analysis presented in this essay, and yet they know perfectly well how to use the word "time".

The objection, in short, would be that neither the ordinary speaker of English nor even someone troubled by philosophical problems would seem to have any need for the sort of analysis I have undertaken; indeed such an analysis could create insoluble problems where none existed before.⁴²

In response, I would first admit that no such analysis is required for the ordinary use of "time". Surely everyone who can speak English can and does use the word without reference to any such analytical scheme. But then I would insist that there are several good reasons for attempting this sort of analysis.

Let us consider first this passage from P. F. Strawson's review of the *Philosophical Investigations*: One of the ways, he says, in which Wittgenstein's conception of philosophy may seem unduly restrictive

is the idea that the *sole* purpose of the distinctions we draw attention to, the descriptions we give of the different ways in which words function, is to dispel particular metaphysical confusions; and, associated with this, an extreme aversion from a systematic exhibition of the logic of particular regions of language. Now, even if we *begin* with a therapeutic purpose, our interest might not exhaust itself when that purpose is achieved; and there can be an investigation of the logic of sets of concepts, which starts with no purpose other than that of unravelling and ordering complexities for the sake of doing so. The desire to present the facts systematically here becomes important in proportion as therapeutic aims become secondary.⁴³

Why would anyone "desire to present the facts systematically"? Perhaps simply because they enjoy tackling puzzles. Why do people work crossword puzzles? In a word, there is nothing wrong or *per se* illegitimate with doing the sort of analysis undertaken in this essay simply for fun, because a person happens to enjoy it.

Now Wittgenstein might reply that there is always a danger involved of believing that such an analysis could reveal the "hidden essence", the "one common feature" of

42. Wittgenstein's position on the proper limits and methods of analysis provides the basis for O. K. Bouwsma's article "The Mystery of Time (Or, The Man Who Did Not Know What Time Is)," in his *Philosophical Essays* (Lincoln, Neb.: University of Nebraska Press, 1965), pp. 99-127. In it we find a) the attempt to answer the question "What is time?" by reminding the questioner how the word "time" is ordinarily used; b) a story designed to show how strange, how unlike ordinary experience and behavior it would be for someone really not to know how to use "time"; c) a reminder of how complicated and various are the uses of this word, and how intertwined with the uses of other words; and d) an attempt to account for the apparent mysteriousness of time (actually an attempted *reductio ad absurdum* of the effort to answer the question "What is time?"). Time turns out to be like aether; indeed aether, he claims, is nothing but condensed time. All of which sounds, as it is intended to, like a lot of hot air.)

Bouwsma sees this sort of question as a pseudoquestion; since the question itself involves a misuse of the word "time", nothing but non-sense can result from the effort to answer it. The only proper response is to indicate some of the ways the word is actually used in ordinary speech. His purpose is thus to defend Wittgenstein's position on the proper limits of analysis; whereas I — illustrating my contentions with time-expressions, as does Bouwsma — am attempting to attack Wittgenstein's limits.

43. P. F. STRAWSON, "Review of Wittgenstein's *Philosophical Investigations*," in the Pitcher anthology cited above (in note 37), pp. 22-64. The passage quoted is from p. 34; author's italics. This review first appeared in *Mind*, vol. LXIII (1954), pp. 70-99.

all the things designated by the word. But that belief is not necessarily entailed by this sort of classification. It is quite possible to engage in this activity with an awareness that one is examining the *uses* of the word in question, the ways it functions in various language games, that one is not attempting to unearth a "hidden essence", that one is not confusing words with things. His belief that confusion of this sort is probably unavoidable stems, in my estimation, from his own bewitchment by logical atomism and the vehemence of his subsequent reaction to that theory.

A second purpose for such a study might be the aid it could provide in our attempts to express ourselves clearly, precisely, unambiguously. Is it not the case that even native speakers of a language often have trouble expressing their ideas clearly, so as to communicate accurately what they intend to communicate? One of the means of achieving this, it would seem, is the sort of careful attention to and comparison of the different uses of a word, the comparison of its uses with the uses of other words, etc. — the sort of things for which even native speakers of a language find dictionaries useful. Wittgenstein himself accepts this as a legitimate purpose:

We want to establish an order in our knowledge of the use of language: an order with a particular end in view; one out of many possible orders; not *the* order. To this end we shall constantly be giving prominence to distinctions which our ordinary forms of language easily make us overlook. This may make it look as if we saw it as our task to reform language.

Such a reform for particular practical purposes, an improvement in our terminology designed to prevent misunderstandings in practice, is perfectly possible. But these are not the cases we have to do with. The confusions which occupy us arise when language is like an engine idling, not when it is doing work.⁴⁴

As long, then, as we do not propose to undertake a general or overall reform of language so as to make it conform more closely to some supposedly "ideal" language, as long as we attend to language "when it is doing work", Wittgenstein would, I believe, have no objection.⁴⁵

Thirdly, Wittgenstein might claim that what is achieved by such a classification is simply recalling how we use the word "time" in ordinary speech — i.e., what he himself recommends. But this sort of analysis does differ from simple recall, it seems to me, by being explicit rather than implicit, by being clear and orderly rather than vague and indistinct. It is knowing the same thing (i.e., the uses of a word), but knowing it better.

And for whom would this "better" knowledge be useful? For anyone seriously studying some subject matter which is affected by or closely connected to time: the theoretical physicist, the historian and the historiographer, the moral philosopher, or the Christian theologian, among others. I would maintain that this usefulness for

44. *PI*, # 132. Author's italics.

45. Wittgenstein is speaking here of establishing an order for a particular practical purpose; he is making room for new terminology when that might be useful. I suspect that his notion of a legitimate "particular purpose" might be narrower than mine — his would include only the prevention of misunderstandings in practice, while mine would include enjoyment as well, and possibly others. Note that he is not concerned with discovering and recording whatever order might already exist in ordinary language.

particular subject matters, while limited (it is certainly not necessary for everyone), is nonetheless real.

Fourthly, as a result of his "extreme aversion from a systematic exhibition of the logic of particular regions of language" which Strawson noted, I believe that Wittgenstein thoroughly obscures, if he doesn't actually deny, the referring or mentioning function⁴⁶ that some words have. Expressions such as common nouns preceded by "the", proper names, personal, impersonal and demonstrative pronouns are often used to refer to one or more persons, places, things, processes or states of affairs. When so used they often, though not always, function as the grammatical subject of a sentence. Referring to something implies, but does not assert, that that thing exists in some way or other — such that it can be talked about, such that assertions can be made about it, such that the speaker can assume that whoever he is addressing can know what he is talking about.

In his early period Wittgenstein equated the meaning of a word or expression to the object to which it "pointed", the thing it mirrored or stood for; he supposed that a perfectly clear or "ideal" language had to have its words in one-to-one correspondence with things. When he later rejected this as being an inadequate account of real or "ordinary" linguistic phenomena, he came to regard the referring or "pointing" function of language as something not to be discussed, since to him it seemed an integral part of the misleading picture of language whose spell he had just escaped. He saw questions about what words referred to as almost unavoidably generative of pseudoproblems. And he would respond to them not by a further effort to designate the object or objects referred to, but by urging the questioner simply to contemplate the ways in which the word is used in the contexts it has in ordinary speech. I think he was mistaken in this. He erred by failing to distinguish between an *expression* (which has a meaning) and the various *uses* of that expression — among which, sometimes, we find its referring use.⁴⁷

It was an important step forward for contemporary philosophy when Wittgenstein realized that the declarative or descriptive use of language was only one among the many diverse language games we play. But from this insight of his it does not follow that we can or should say nothing about the (very common) referring use that many expressions have. I would claim that many language games simply cannot be played without employing, explicitly or implicitly, words that *refer*. It would seem to make little difference whether you are asserting, asking, commanding, praising,

46. "The mentioning function of a word" is here taken as equivalent to "the referring function of a word;" i.e., to mention something is to refer to it. I am aware of the distinction between the use and the mention of a word, between formal and material supposition. However I am not talking about the mention of a word, but the *use* of a word to mention (= refer to) some thing.

47. The meaning of an expression is here taken as equivalent to the rules or conventions governing all its uses, and is to be carefully distinguished from the actual particular uses it might have. Among the particular uses are often uses of the expression to refer to something. The referring function of a meaningful expression (of the sort capable of exercising that function) — i.e., whether or not it actually refers to something — depends upon the context of each particular use. "This book" is a meaningful expression since there are ordinary language conventions governing its use. But whether it refers to a particular book depends on who says it, where and how it is said, the linguistic context (the kind of language game being played), and often on the *physical* context — whether or not there is a book at hand to which the speaker can be seen to be referring.

boasting, taunting, etc. — unless some of the words you use have a reference you could never communicate with someone else, because they would not know *what you are talking about*. Your purpose in speaking (asking, commanding, or whatever) cannot be grasped by your hearers unless they are able to discern — from linguistic and physical context plus the linguistic conventions governing reference — *what* you are asking about, assenting to, *whom* you are praising and *for what qualities*, etc.⁴⁸

I am not claiming to give a unified account of all language games by stressing their dependence on reference. The fact of reference says nothing about the various purposes one might have in speaking, nor about the different grammatical structures which might sometimes correspond with the various purposes. My point is only that reference is a *necessary* (not sufficient) condition for many uses of language, and that Wittgenstein's attempt to restrict analysis tends to obscure it. To refocus attention on the referring function that many words have is, I would claim, another legitimate function of detailed analysis.⁴⁹ For it might lead us to look more carefully at the thing or things referred to.⁵⁰

Four purposes for detailed analysis have been suggested here; there may well be others.⁵¹

48. Wittgenstein certainly emphasizes context dependence, but his concern was mainly with *linguistic* context, the particular language game being played. He has little to say about *physical* context — the existing physical situation in which the expression "this book", for example, would have or fail to have a referring function (in many different language games, and regardless of the speaker's general purpose in speaking.)

49. See Strawson's excellent article "On Referring," in *Classics of Analytic Philosophy*, ed. R. Ammerman (New York: McGraw-Hill, 1965), pp. 315–334. The five paragraphs preceding this note, on the referring use of words, contain extensive borrowings from this article. (It is worthy of note that Strawson here uses the verb "mention" as the equivalent of "refer to"; see above, note 46.)

50. This fourth purpose is thus related to the third mentioned above. — I believe Strawson had this study of the referring function of words in mind when he wrote,

It is surely over-puritanical to hold that, just because the claims made for such new ways [of looking at the world — i.e., logical atomism] were too large, we should be concerned solely with preventing ourselves from seeing the world afresh. We might make room for a purged kind of metaphysics, with more modest and less disputable claims than the old. ("Review of Wittgenstein's *Philosophical Investigations*," in the Pitcher anthology cited above, note 37; p. 34.)

51. This answer to Wittgenstein is also an answer to Bouwsma (see above, note 42.) Professor Bouwsma is surely correct in saying that time-language is intertwined with the languages of other things. But without denying the possibilities of confusion that make this area of language both "playground" and "labyrinth", I want to stress the possibility, and utility, of drawing a map. A map makes no claim to be a comprehensive picture, but it can delineate some of the principal features of the area, show a few pathways, prevent people from getting completely lost.

I believe the analysis presented here is, in fact, that sort of map. It indicates a way of dealing with the question "What is time?" that offers a genuine alternative to dismissing it as an instance of linguistic confusion, because this way of handling it is based on very careful attention to common use; and it suggests an answer to that question which seems to me neither meaningless nor unduly confusing: "Time" (t₁) is used to refer to a system of measuring the duration or period of an activity by comparing that duration with the duration of some regular motion or apparent motion. The latter functions as a standard of measurement, a "yardstick" — or more precisely, as a clock.

This answer, though perhaps not found *ipsissimis verbis* in ordinary language, is certainly based on ordinary language and thoroughly consistent with it. One has only to recall the common answers to two sets of questions: a) What time is it? or, How long did such-and-such an activity take? Then, after an ordinary response: b) How do you *know* (what time it is, or how long it took)? Are you sure? The ordinary response to this is a statement regarding the standard or "clock" employed — and the use of a standard of measurement always implies a system or convention for measuring.

What is time, then? Time is a system of measuring... Q. E. D.

In conclusion I shall restate briefly the thesis of this paper, then attempt to show where I agree with Wittgenstein, and where I disagree.

Wittgenstein states that the various uses of a word display what he calls a "family resemblance", that is, "a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail."⁵² And that, he believes, is *all* one should say about the different uses a word might have. Any effort to say more, to describe these uses and their mutual relationships in more precise terms is most likely inspired by an unhealthy (because futile and confusing) desire to uncover the "hidden essence" referred to by the word in question.⁵³ All that is really necessary is to recall the common uses of the word, and note (if one is so inclined) that they bear a family resemblance one to another.

My contention is that while Wittgenstein's assertion about family resemblance is often true, it is a) not the limit of what can be said about the different uses of a word, and b) inadequate for various legitimate purposes. The first point is demonstrated by specifying these uses and their interrelationships in some detail — relying at every step, of course, on the recall of common usage which Wittgenstein demands. The second is proved by pointing to several legitimate⁵⁴ purposes a more intensive analysis might have.

Wittgenstein's error then is to restrict unnecessarily the range of analysis. One possible consequence would be a neglect of grammar, of linguistic structure. This has not turned out to be serious; in fact structural analysis has not been neglected. Another result is the refusal to regard any form of metaphysical question as more than the product of linguistic confusion. I am inclined to disagree here, since such a position does not actually take common language seriously. In fact, common speech does often tend towards metaphysical speculation of one sort or another, and it is not *per se* evident that all such speculation results from linguistic confusion. Only a prior assumption about the possibility of metaphysical knowledge — prior, that is, to any examination of ordinary language — could lead to such a conclusion; such prior assumptions are usually based on some philosophical or scientific theory about human knowledge rather than on careful attention to what people actually say.

Though I accept many of Wittgenstein's main points,⁵⁵ my position differs in assigning more value to the study of linguistic structure; it differs by regarding

52. *PI*, #66.

53. Of course Wittgenstein does concede the possibility of "reforming" language, of pointing out commonly overlooked distinctions — for particular practical purposes. We may examine and classify our uses of a word, improve our terminology, in order to prevent misunderstandings in practice. (*Ibid.*, # 132.) This is equivalent to the clarity of expression which I proposed as one of the legitimate purposes of extensive analysis. But the question raised in this essay is whether there are other legitimate purposes, and on that I think there is substantial disagreement.

54. By "legitimate" I mean purposes a) which are useful or enjoyable in common life, and b) which do not necessarily entail the pseudoproblems which result from lack of attention to the purpose and content of particular utterances.

55. The position taken in this paper is argued solely from premises proposed by Wittgenstein himself, and agrees with him in holding that meaning appears only in the uses a word has, that language is a human activity and as such irreducible to any single logical pattern or scheme, that careful attention to the particular uses of words in common speech can dispel many puzzlements or pseudoproblems, and that the analysis of any word or expression is incomplete unless one considers the purpose and context of what is said.

meaning as the general directions or guidelines for the correct use of a word, rather than as equivalent to each use; and it differs, at least to some extent, with regard to the legitimate purposes of detailed analysis. The very fruitful development of ordinary language philosophy in the years since Wittgenstein's death, a development stemming chiefly from his insights about the central importance of common usage, is clear evidence that many of his closest disciples have rejected as unjustified the limits to analysis he sought to impose.