Pixie (novel) by Matthew Lipman

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STUDIES IN
PHILOSOPHY FOR CHILDREN
PIXIE

Edited by Ann Margaret Sharp and Ronald F. Reed
with sources and references by Matthew Lipman

EDICIONES DE LA TORRE
MADRID, 1996
PART SIX
SOURCES AND REFERENCES FOR
PIXIE

BY MATTHEW LIPMAN
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<td>1:1</td>
<td>Waiting one's turn</td>
<td>Taking turns can be understood as a form of sharing, or as a form of reciprocity. It definitely has ethical and egalitarian implications. See, for example, Bronislaw Malinowski, “The Principle of Give and Take”, in his <em>Crime and Custom in Savage Society</em>.</td>
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<td>1:3-5 Names and naming</td>
<td>Both classic and contemporary philosophy and linguistics have found this topic a rich source of ideas. See for John Stuart Mill, <em>A System of Logic</em>; Bertrand Russell, <em>Our Knowledge of the External World</em>; and Saul Kripke, <em>Naming and Necessity</em>. This passage raises such problems as whether the name one give oneself cannot be one's real name and whether one's real name must be the one given by one's parents. Children discussing this passage may get into the traditional philosophical problem of whether common</td>
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nouns are actually the names of classes in the way that proper nouns are the names of people and particular things.

There is some discussion of the origins of this word in *Looking for Meaning*. One scholar, Wolfe Mays, was of the opinion that the name "Pixie" was derived from the ancient tribe of Picts who lived in Britain. The name is also connected to the slang word "pixilated" meaning zany, daft or puckish. More remotely, the word has some resemblance to psyche or soul, and it further resembles the word "pyx" which is the box in which specimen coins are placed until the test for purity and weight. In other words, a pyx is a receptacle for criteria or standards. Literally, of course, a pixie is a puckish elf or sprite.

The problem of what is real is perhaps the central problem of all metaphysics, and few philosophers from Heraclitus and Plato down to the present have abstained from giving their opinion on the matter. A useful analysis of the alternative meanings of the word "real" is to be found in J. L. Austin's essay "Real," in his *Philosophical Papers*.

Pixie says she is the same age we are, but who are we. Obviously, Pixie's age is dependent on the age of the reference group she is addressing. If Pixie is addressing the group of individuals whom she supposes are the same age, she may simple by implying that she is the same age that they are. On the other hand, if she is addressing the reader, she could be of any age. If she is Philosophy, she is ageless.

Pixie says that you can't cross your legs and put them impossibility around your neck at the same time. One or the other but not both. She claims that it is physically impossible to do these things simultaneously, but some individuals have no difficulty in performing the feat. One may well wonder if Pixie thinks that there are physical
correlates to logical contradictions in which one or the other of the two contradictory statements may be true, but not both.

Pixie concludes that vinegar must be nice, like ice-cream. This reveals her factual inexperience. It does not seem to occur to her that her mother may be suggesting that Pixie is of a sour, if vigorous disposition.

In line 7, Pixie’s father says that she acts like she is made of rubber and in line 13, her mother says she acts like she is made of vinegar. Pixie is able to confirm her father’s comparison by describing her bodily contortions. But she is not able to confirm her mother’s comparison because she really doesn’t know what vinegar is. Notice how children will confirm an understanding they have by giving a specific application of the term in question. One could make an exercise in which one asks children (1) to construct comparisons and then to (2) act them out, apply them or exemplify them in some way. Comparisons give rise to figurative language, but children should learn to recognize when figurative language is being used accurately and when it is being use inaccurately. In other words, children can be asked how they think someone would act who is made of vinegar, of soda water, of spaghetti and cotton candy. This is helpful in encouraging them to give their imagination material in tangible form. Look at Bachelard, *The Earth and Its Dreams*.

An interesting account of the child’s search for meaning through the reading of children’s stories can be found in Bruno Bettelheim’s *Uses of Enchantment*. See also the review of Wally’s *Stories* by Gareth Matthews in *Thinking*, vol. III, no. 3-4, pp. 78-80, and Kieran Egan’s *Teaching as Storytelling*. There is also an article of major importance by Jerome Bruner “Narrative and Pardigmatic Modes of Thought”, in Elliot Eisner (Ed.) *Learning and Teaching the Ways of*
Pixie's parenthetical remark indicates that she is able to make judgements about how she has grown. Such judgements are evidence of her attempt to conform to the ancient Greek adage, "Know thyself". The child's effort connect her past and her future to her present are evidence not only of increasing maturity but of increasing rationality. See C. I. Lewis, "The Meaning of Liberty", Matthew Lipman's (Ed.) *Discovering Philosophy*, Michael Pritchard, *On Becoming Responsible* (Kansas University Press, 1990), and Jeromone Kagan, *The Second Year: The Emergence of Self Awareness* (1981).

Pixie's comment sounds very much like that of a teacher behavior addressing an unruly class. This lends support to the interpretation that she is talking to a group of children. For discussion of the way in which children internalize the behavior of adult models see Lev Vygotsky, *Thought and Language*, George Herbert Mead, *Mind Self and Society*, Sigmund Freud, *The Ego and the Id* (Freud uses the term introjection instead of internalization) and Albert Bandura, *Social Foundations of Thought and Action*.


Pixie is aware that her story is autobiographical. It is the story of the unfolding of herself. See, Alisdaire McIntyre, *After Virtue*; Richard Rorty, "The Contingency of Selfhood” in *Contingency, Knowing.* See also Lipman, *Thinking in Education*, pp. 214-218.
Sources and references

Irony and Solidarity; and Richard Wollheim, The Thread of Life. Also see “Autobiography and Self”, in Acts of Meaning by Jerome Bruner where he speaks directly of children’s stories of self. Also see W. J. T. Mitchell (Ed.) On Narrative; and Richard Rorty, Philosophy and the Mirror of Nature. Further, see P. Ricoeur, Time and Narrative (1983).

2:1-7 The story of the story In one sense, the story of a story is a matter of history, and one can learn a lot about it by reading reflections of historians on what they do. See, for example, Robin Collingwood, The Idea of History; E. H. Carr, What is History; and John Herman Randall, The Nature of Historical Knowledge. In another sense, there is the role of the story as told by the child in the course of the child’s education. A good presentation of this is described in Vivian Gussin Paley’s “Listen to the Children”, Teacher Magazine, September, 1991.

2:1-7 How many stories are there Normally, the word “history” may mean either what Pixie happened in the past or the story of what happened in the past. Since any historian could write an account of how she wrote the story, we have in fact three histories, but whether that’s the same as in this case of Pixie is another question. Pixie’s mystery story, which started it all off, is presumably an invented story and not a series of connected historical events.

2:11-13 Ambiguity Pixie’s little joke is an example of syntactical ambiguity. A term is syntactically ambiguous in a sentence if, due to grammatical structure of the sentence, two valid interpretations of the sentence are equally possible. For example, a minute after Mrs. Thatcher christened the ship, she slid on her bottom into the river. R. R. Shultz, and R. Pilon, “Development of Ability to Detect Linguistic Ambiguity”, in Child Development, 1973. Also since Pixie seems to be telling a joke, one can consult Tony Chapman and Paul McGhee (Ed.), Children’s Humor.
Sources and references

2:14-16 Children's conception of time

2:19-24 Zoos
Pioneer work in association is Locke's *Essay Concerning Human Understanding*, together with David Hume's *Treatise Concerning Human Understanding*. See also, William James, *The Principles of Psychology*.

2:25-26 Association

3:1 Remembering
See Frederick C. Bartlett, *Remembering*. As a mental act, remembering is treated by Locke as essential to the self. Without memory we would lose the temporal continuity which the self involves. See Locke's *Essay Concerning Human Understanding* as well as Henri Bergson's *Matter and Memory*.

3:12-13 Moral imagination
Pixie asks Neil to put himself in the animal's place. This requires a combination of analogical reasoning and empathetic imagination. See Erik Erickson, "The Golden Rule", in *Insight and Responsibility*.

3:14-16 Reciprocity as retaliation

3:17-19 Truth-telling and lying
Sissela Boa, *Lying*. There is also a discussion of whether one can will to make it everyone's duty to lie in Kant's *Metaphysics and Morals*.

3:26 Secrets

4:1-6 Friendship
Thought of Simone Weil", (Philosophy Today, 1986); and Raymond, *A Passion for Friends*. For a feminist interpretation of friendship, one can see Mary Daly's *Gyn-Ecology* and Hannah Arendt in *Thinking*. On friendship and education, see Patricia White's "Friendship and Education" in *Proceedings of the Philosophy of Education Society*, 1991. Also see Nancy Isenberg's *The Caring Child*.

4:23 Holding hands

Pixie seems to be saying that sometimes when you are with your best friend, you need not talk. Thinking is sufficient. A certain kind of silence is most appropriate when with friends. See, Leslie Kane's *The Language of Silence* and Bernard P. Dauenhauer's *Silence: The Phenomenon and Its Ontological Significance*. Also see Tannen and Saville-Troike's *Perspective on Silence*.

4:24 Not talking

George Berkeley in his *Treatise Concerning the Principles of Human Knowledge* argues that we impute minds to others when we observe their behaving as we do and we infer analogically that they therefore must have minds such as ours. Thomas Nagel in "What Is It Like To Be A Bat": infers that if one has a body different from the human body, one must have a mind different from the human mind. But Pixie goes a step further. She assumes that Isabel is thinking what she is thinking from Isabel's behavior. Of course, she may be very wrong. Here you can see Proust's, chapter one of *Swann's Way*. Another way of looking at Pixie's thinking is Vygotsky's theory of internalization in *Thought and Language*.

4:24 Other minds

5:9 Daydreaming

5:10-11 Body posture

Realizing something funny

When Pixie says "something funny" she doesn't mean something humorous but something strange and perplexing. The predicament she is going to relate to us is not problematic in itself. It becomes problematic for Pixie because of her confusion of literal and figurative language. The resulting experience is what Wittgenstein referring to when he talks about the bewitchment of language. Pixie is bewitched by the language she employs, and she has to work her way out of the problems she gets herself into just as for Wittgenstein, the fly has to find its way out of the flybottle.

Arm going to sleep

An arm numbed from being too long in one position is not a problem. It becomes a problem when one says that "it has gone to sleep", and proceeds to ask "if all of me is awake, how could part of me be asleep". See, Wittgenstein's Philosophical Investigations.

Feeling only a little tingle

Pixie's numb arm may be the counterpart, for her, of the medical experience of the phantom limb. When a person has had a limb amputated, she/he still feels a tingling sensation in the remaining stump of the limb. This phenomenon was analyzed extensively by the French military surgeon Ambroise Pare in the early 17th century and was subsequently commented upon by Descartes. The tingle in the stump makes the person feel that she/he still mysteriously possesses the limb that has been amputated. See, The Meditations.
5:22-24  Can what belongs to you

Once again Pixie is bewitched by language, or as some children might say "spooked" by it. She employs the phrase "belong to" in two different senses and then is puzzled because there seems to be a problem. In one sense, a thing is said to belong when it is a part of a larger whole. In another sense, it is said to belong when it is the property of an owner. Here consult Gabriel Marcel's Being and Having and The Mystery of Being. Marcel sees this paradox as a mystery and not a mere problem. Marcel permits us to see the ambiguity of belonging in its profound metaphysical richness, going beyond a merely logical or semantic ambiguity.

6:1-3  Body and self: identical

Here Pixie formulates a dilemma: either her body and or different her self are the same or they are not. She then draws consequences from each horn of the dilemma, but neither consequence seems acceptable. Pixie has been swallowed up by the body/mind problem. See Rene Descartes' Meditations. See also, Locke's essay Concerning Human Understanding, Peter Strawson's Individuals, A. J. Ayer's Concept of a Person, Bernard Williams' Problems of the Self, George Herbert Mead's Mind, Self, and Society, and Richard Rorty's "The Contingency of Selfhood" in Contingency, Irony, and Solidarity.

6:4-5  Is Pixie herself a mystery

Consider the following: in Soren Kierkegaard's Either/Or: "One ought to be a mystery, not only to others, but also to one's self. I study myself; when I am weary of this, then for a pastime I light a cigar and think: the Lord only knows what He meant by me, or what He would make out of me".

William James writes, as cited in Wyndham Lewis' The Wild Body (New York: Harcourt, Brace & World, 1928), "One need only shut oneself in a closet and begin to think of the fact of one's being there, of one's queer bodily shape in the darkness (a thing to make children scream at, as Stevenson says), of one's fantastic character and all, to have the wonder steal over the detail.
as much as over the general fact of being, and to see that it is only familiarity that blunts it. Not only that anything should be, but that this very thing should be, is mysterious”.

In Milan Kundera's *The unbearable Lightness of Being*, “Looking at herself, she wondered what she would be like if her nose grew a millimeter a day. How long would it take before her face began to look like someone else’s?

And if various parts of her body began to grow and shrink and Tereza no longer looked like herself, would she still be herself, would she still be Tereza?

Of course. Even if Tereza were completely unlike Tereza, her soul inside her would be the same and look on in amazement at what was happening to her body.

Then what was the relationship between Tereza and her body? Had her body the right to call itself Tereza? And if not, then what did the name refer to? Merely something incorporeal, intangible?

(These are questions that had been going through Tereza’s head since she was a child. Indeed, the only truly serious questions are ones that even a child can formulate. Only the most naive of questions are truly serious. They are the questions with no answers. A question with no answer is a barrier that cannot be breached. In other words, it is questions with no answers that set the limits of human possibilities, describe the boundaries of human existence).

The three quotations cited above are like the tips of the iceberg with respect to a huge body of literature devoted the experience of oneself (in the mirror or in one’s photograph, or in one’s work) where one finds oneself totally mysterious and enigmatic. Poets, novelists, philosophers have all been fascinated by problems of self-identity, self-knowledge, and self-understanding. Powerful theories about the self have been developed ranging from Freud’s “id, ego and superego” to the “I and Me” of William James and George Herbert Mead. childhood is a period
in which the problem of the self is first discovered. What is peculiar about Pixie is that she discovers the philosophical version of the problem at the same time that she experiences the problem directly.

6:6-11 “In the same way” Isabel offers Pixie a sensible way out of her dilemma: there is really no problem says Isabel, “your body belongs to you and you belong to your body”. The relationship is one of undifferentiated reciprocity. Pixie refuses to buy Isabel's proposal. She questions whether she belongs to her body in the same way that her body belongs to her. This shows that she has come to some degree of realization that there is more than one kind of belonging. This insistence by Pixie that comparisons are valid only when things being compared are compared in the same respect is reminiscent of Aristotle who argues, for example, that a statement and its denial cannot both be true simultaneously and “in the same respect”. For example, “France is larger than Denmark and France is not larger than Denmark” cannot both be true simultaneously, if the respect in which they are compared is that of population. they can both be true if the first is in the respect of population and second is in respect to size.

6:18 Choosing not to speak Brian's choosing not to speak is taken up from a psychoanalytic point of view in Virginia Axline's Dibs: In Search of Self. The actual source of the character, Brian, was the movie David and Lisa which was about two very disturbed adolescents. David either refuses to speak at all or speaks only in verse.

7:5-8 Brian's eyes Once again, Pixie is tripped up by figurative language. She notes that Brian's eyes seem to look right through her and she hears Isabel tells her that Brian has the eyes of a wolf. What she doesn't see is that these two observations have a point in common: wolves, who have very light eyes, do seem to look through us when they look
at us. This would be a way of making sense of Isabel’s comment. Pixie instead confuses the literal and the figurative.

That Brian has the “eyes of a wolf” is a particular kind of language: it is a metaphor. He doesn’t literally have transplanted wolf eyes in his head. On the other hand, Isabel’s statement is not a simile: she did not say that his eyes are like (or resemble) a wolf’s eyes.

Metaphorical language is perhaps the most powerful and the most creative of all forms of figurative language. Metaphors are dynamic because they represent willful transformation of the world, or they represent perceptions of relationship that are normally hidden from sight, but are brought into view by the metaphor itself, or the metaphor creates the bridge between unlike things where no bridge had previously existed. When we say he had hands of steel or a will of iron or feet of clay, we are employing language in a way that makes it more formidable and more expressive. Poor Pixie who seems never to be sure what is meant by a metaphorical expression and she has to constantly struggle when the figurative language is metaphorical. This should not be surprising in view of Nelson Goodman’s declaration that a metaphor is literally false but figuratively true. What is a child to make of such a formulation? For further reading about metaphor, see Max Black’s *Metaphor*, Donald Davidson and Andere Ortony’s *Metaphor and Thought*, Philip Wheelright’s *Metaphor and Reality*, Howard Gardner’s “Children’s Metaphoric Productions and Preference”, in *Journal of Child Language* (1975), M. A. McCloskey’s “Metaphor” in *Mind*, and I. A. Richards, *Philosophy of Rhetoric*.

Family resemblance

One of Pixie’s problems is that she keeps pushing language in new directions with the result that she is always encountering new problems. If Brian has “the eyes of a wolf” what is involved is a purely structural resemblance. But if Pixie has her father’s mouth, not only is
there a structural resemblance, but there is a genetic or causal explanation: Pixie is her father's child. The problem of the difference between these two kinds of situations is explored by Wittgenstein in his *Philosophical Investigations* under the heading of family resemblance. We only touch upon the problem here. We will explore it more fully later on.
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<td>8:6-9</td>
<td>Thinking as internal dialogue</td>
<td>This notion of thinking goes back to Plato in the <em>Theatetus</em>, where thinking is described with &quot;the soul conversing with itself&quot;. Later, the theme is picked up again by Platonists like Coleridge. There is a later version of it in Andre Malraux (see his <em>Museum without Walls</em>), that &quot;art is a dialogue of the artist with himself&quot;. One can also find the theme in Gilbert Ryle's article, &quot;Thinking as Self-Teaching&quot;, which originally appeared in <em>Rice University Studies</em>, (1972) and was reprinted in <em>Thinking</em>, Volume I, #3-4. One of the most penetrating analyses has been the approach through social psychology of between the &quot;I&quot; and the &quot;me&quot;. See his <em>Mind, Self and Society</em>. Also see Seyla Benhabib, &quot;The Generalized and the Concrete Other&quot;, in S. Benhabib and D. Cornell (eds.) <em>Feminism as Critique: Essays on the Politics of Gender in Late Capitalist Societies</em>.</td>
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8:8-9 If everything is possible, what follows?

Isabel claims that with Brian everything is possible. This needs to be compared with Pixie, who asserts in chapter seven that if everything is possible for her, then she is free. This idea is to be found in Sartre’s Existentialism, which itself is a gloss on Dostoevsky’s remark that “if there is no God, everything is possible”. (See, *The Brothers Karamazov*.)

8:10-12 Comparing self and other

Pixie’s statement is a sweeping generalization regarding similarities and differences and in this way somewhat resembles the opening sentence of Tolstoy’s *Anna Karenina*, “happy families are all alike, each unhappy family is unhappy in its own way”. Another comparison might be with Spinoza’s essay, “On The Improvement of The Understanding,” in which he says that we first create an ideal for ourselves, and we then identity the ways in which we meet the ideal, and the ways in which we fall short of it. Also see C. E. Osgood and M. M. Richard’s “From Yang and Yin to And and But”, *Language*, 1973, volume 39. and A. N. Whitehead, *Process and Reality*, p. 154 where he says, “The ideal, itself felt, defines what ‘self’ shall arise from the datum; and the ideal is also an element in the self which thus arises”. Also see Chapter Four, “The Selves of Psyche”, in Catherine Keller, *From a Broken Web, Separation, Sexism and Self* (Boston: Beacon Press, 1986.)

8:13-15 Comparisons

In *The Statesman*, Plato says that there are two kinds of comparisons: of things with one another, and of things with a common criteria. Thus, if we compare Florida and California, we may conclude that they are different. But if we compare them using the criteria of size, we will conclude that California is larger than Florida. In recent philosophical literature, the primacy of comparing things with one another is stressed by Gilbert Ryle, while the primacy of comparing things with an objective standard has been emphasized by David Hamlin. See Ryle’s, *Dilemmas*, pp. 93-102 and Hamlin’s *The Theory of Knowledge*, pp. 16-21. Important work in
formulation of comparisons as comparatives has been done in linguistics. See, for example, J. Huttenlocher and E. T. Higgins, "Adjectives, Comparatives and Syllogisms", *Psychological Review*, 1971, volume 78. See also, G. B. Flores d'Arcais and W. J. M. Levelt, (ed.) *Advances in Psycholinguistics*, 1970.

8:13 Does the color black have degrees? It should also be noted that Pixie sees Isabel's hair as the "blackest black." In other words, she sees the color as a range or order. This notion that everything is part of an order comes from Charles Peirce, and is developed in the "ordinal metaphysics", of Justus Buchler, in *Metaphysics of Natural Complexes*.

9:5-7 Sibling relationships Pixie claims that Miranda is not someone to confide in simply because she is in her sister, is older and sleeps in the same room. Pixie here demonstrates how she can marshal reasons in support of a conclusion. (This is sometimes called a "conductive argument"). With regard to the implications of childhood relationships see, Juliet Mitchell, *Psychoanalysis and Feminism* (1974), Nancy Chodorow’s *The Reproduction of Mothering: Psychoanalysis and the Sociology of Gender* (1978), Alice Miller, *The Drama of the Gifted Child* (1981) and D. W. Winnicott, *Playing and Reality* (1971).

9:8-11 Excluding others Children are very sensitive to being excluded by other children. See Karen Horney in *The Neurotic Personality of Our Time*. Among adults this practice is known as ostracism, of which a classic example is the Oedipus Rex of Sophocles. Also see, B. Prins, *Women, Morality and the Problem of Exclusion*, and Elizabeth Spelman, *Inessential woman: Problems of Exclusion in Feminist Thought*.

9:12-14 Objectifying persons Pixie accuses Miranda, who has been talking about Pixie in front of her, of not treating her as a person. Kant in his *Foundations of The Metaphysics of Morals* criticizes the treatment of
persons as means rather than ends. Sartre also criticizes the treatment of people as things in *Being and Nothingness* and Martin Buber in *I and Thou*.

10:1-3 Irrelevant thinking Pixie's boast about being able to do three cartwheels in a row has nothing to do with what she had been talking about previously. In logic, this kind of irrelevancy is called *non-sequitur*. Interestingly, Pixie notes that it is a fallacy as she commits it.

10:4 Looking at others This is often treated in philosophy as objectifying people by staring at them. Sartre discusses it in *Being and Nothingness*.

10:10-26 When one's leg falls asleep On one level there is the psychological experience of one's own body, as well as disturbances of that experience as when one is alienated from a part of oneself. See Paul Schilder, *Image and Appearance of the Human Body*. Pixie describes her body experience as "spooky". Sometimes when we look again at the world we take for granted, it turns out to be a very strange and puzzling world. This is the sort of experience one finds described in Williams James, *The Principles of Psychology* or Ludwig Wittgenstein, *The Philosophical Investigations* or *Culture and Value*. This change from the familiar to the strange has a dream-like quality that is reminiscent of Lewis Carroll's *Through the Looking Glass*, where the cook's baby keeps turning into a pig.

11:1-3 Analogical reasoning Pixie's analogy as stated is somewhat incomplete. The completed analogy is "If when my foot falls asleep, I think it is your foot, does it follow that when my head falls asleep, I'll think it is your head". There is a huge literature on analogical reasoning, of which two references might be consulted here: B. P. Bellows, "Running shoes are to Jogging as Analogies are to Creative / Critical Thinking", *Journal of Reading*, 1980, volume 23. See also Douglas Hofstadter,
"Metamagical Themas: How Might Analogy, the Core of Human Thinking be understood by computers?" *Scientific American*, September, 1981. Also see D. Davidson “What Metaphors Mean”, in *Inquiries into Truth and Interpretation* and Lakoff G. and Johnson, M. *Metaphors We Live By* and Women, *Fire and Dangerous Things*.

**11:4-5  Reflexiveness and self-consciousness**

Is Pixie’s treating her leg as something alien to herself analogous to the cats’ chasing its tail. G. H. Mead in *Mind, Self and Society* argues that the cat simply sees the tail as a moving part of its environment. The emergence of true self-consciousness occurs when we can see ourselves from other’s point of view and thereby become objects to ourselves. Needless to say, becoming an object to oneself in Mead’s sense does not have negative implications, but marks the emergence of oneself as a person.

**11:6-9  Problems, and questions**

Pixie indicts Miranda for being uninterested in inquiry. She never sees anything as a problem and is not interested in questions. To Dewey, in *Logic, the Theory of Inquiry*, recognizing a problem is the beginning of inquiry, and questioning is its most important instrument.

**11:8-9  Questions and answers**

In his *Autobiography*, R. G. Collingwood is critical of those who do not recognize his contention that statements are to be considered answers to questions that are presupposed. There is an entire philosophical literature on the logic of questions and answers, (Erothetic logic) ranging from L. Wittgenstein, *Philosophical Investigations*, Section 23 and 24, to Nuel D. Belnap, Jr. “Questions: Their Presuppositions and How they can fail to arise”, in K. Lambert, (ed.) *The Logical Way of Doing Things*, 1969. See John Rawls, *A Theory of Justice*, but better, see his “Justice as Fairness”, in Lipman, ed. *Discovering Philosophy*, first edition. In the same volume there is a reply by Edward Kent, “Justice as Respect for Persons”. Rawls’ theory is often

**11:18 Waiting your turn**

Taking turns is generally cited as a clear example of the golden rule. In psychology, this takes the form of reversibility or reciprocity. See Kohlberg, *op. cit.* page 485 in which he cites Habermas with regard to an ideal or "nondominative" communication situation. In such a situation, "reversible role-taking" is lived out in actual dialogue among the parties involved in a potential conflict situation with a resulting 'discursive will formation in which each individual is willing to reconstruct his or her needs or preferences in light of the needs and claims of others".

**11:23-27 Inconsistency**

First Pixie denies that Miranda has the right to push people around, and then Pixie deplores the fact that she has no one to push around. This does seem to be inconsistent. For a penetrating discussion of inconsistency, see Peter Strawson, *Introduction to Logical Theory,* Chapter One, page 12, lines 3-5.

**12:3-5 Hoping**

There is an entire literature in Catholic philosophy on the concept of hope since it is considered one of the cardinal virtues. It is
associated with such names as Teilhard de Chardin, Karl Rahner, Thomas Merton, Gabriel Marcel, Schillebeeckx, Edith Stein. The concept also has strong connections with the idea of resiliency presently being developed among psychologists working with abused children, street children and homeless children. In this connection see the work of Paulo Freire, *The Pedagogy of the Oppressed* and *Education for Critical Consciousness*. For an American point of view, see James Muyskens, *The Philosophy of Hope*.

Pixie says that some things don't seem to be one or the other. The examples she gives are those things that seem to be so trivial that we might be tempted to agree with her. However, those very things, in certain situations, might be very right or wrong. Hobbes argues in *Leviathan* that nothing is neither right nor wrong until someone in a position of authority establishes laws. Thereupon, obedience to the law is right and disobedience is wrong. Everything else is neither one thing nor the other. A great many philosophers, particularly religious philosophers, would object to this argument. See Alasdair Maclntyre, *Whose Justice? Which Rationality?* and Nietzsche's *Genealogy of Morals*.

Fibs are what children call "little white lies". From the child's point of view, they might be an example of something that is neither right nor wrong because she thinks it is inconsequential. In a discussion of fibbing, it would probably be useful to have the students deliberate upon the harm done to a person who engages in fibbing as a practice vs the harm done to others by blurting out the truth regardless of the consequences. Children's moral judgement can thus be strengthened by having them weigh fibbing vs. non-fibbing or any practice vs. its opposite. See Sissela Bok, *Lying*. 
### CHAPTER THREE

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<td>14:1-6</td>
<td>Listening</td>
<td>Listening skills are now considered quite important and within the classroom community of inquiry they are crucial. They have ethical as well as cognitive import. To be able to listen to others suggest respect and not just ability. There are many books on the phenomenology of discourse among them, Bernard P. Dauenhauer, <em>Silence: The Phenomenon and Its Ontological Significance</em>. Max Picard <em>Silence</em>. Other authors who have written on the topic are Merleau Ponty, in <em>The Visible and the Invisible</em> and <em>The Prose of the World</em>, Paulo Freire in <em>Pedagogy of the Oppressed</em> and Martin Buber in <em>I and Thou</em>. For the importance of story listening as well as children's story-telling, see Vivien Gussin Paley, &quot;Listening to the child&quot;. Also see Ronald F. Reed, <em>Talking with Children</em> and James White, <em>How to Talk to a Child</em>. Brian's having stopped talking is discussed in <em>Looking for Meaning</em> on page 76. When the children ask Mr. Mulligan about it, his answer suggests not that Brian is autistic, but that his not talking may have its roots in some profound interpersonal frustration. Virginia Axline, <em>Dibs: In Search of Self</em>. For a discussion of the pathology of autism, see Bruno Bettelheim, <em>The Empty Fortress</em>. Dewey writes in <em>Experience and Nature</em>, chapter six, “If we had not talked with others and they with us, we should never talk to and listen to ourselves”. This is an articulation of the theory found in G. H. Mead and Lev Vygotsky that speech precedes thought and that thought is the internalization of speech. For Mead's theory of internal dialogue see his <em>Mind, Self and Society</em>. For more recent philosophical treatments of the subject see Nelson Goodman, &quot;On thoughts without words&quot;, in <em>Cognition</em>,</td>
</tr>
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This is certainly a clear example of hypothetical reasoning in children as it can occur in dialogue. A useful reference would be B. Litowitz, “Hypothetical speech: a developmental perspective”, *Journal of Psycholinguistic Research*, Volume 10, 1981.

The word, “desire”, is probably the adult term closest to the child’s word, “want”. (The child’s stubborn “because I want to”, is the equivalent adult’s stubborn “because I said so”. The problem with “wanting” or “desiring” in ethics is that they are affective states that have not been reflected upon. We may desire something, but after reflection, we may not consider it desirable. See John Dewey, *Theory of the Moral Life*.

Tommy asks Pixie to suggest a secret creature he can use. The word is a rich one, implying such disparate meanings as refer, imply, and associate. In Dewey’s *Theory of Inquiry*, suggestion has an important role to play, for when we are first blocked or thwarted, our minds leap to suggestions of resolved unproblematic situations. In other words, when we are faced with a problem, we think first of the end, while neglecting to think of the means for attaining that end.

Why are some things in the zoo, and some things not. A very good explanation to children of the process of classification is a story by Millicent E. Selsam, *Benny’s Animals and How He Put Them In Order*. See also, Evelyn Sharp *Thinking is Child’s Play*. For an excellent psychological treatment, see Edward E. Smith and Douglas L. Medin, *Categories and Concepts*. 

Sources and references

1982, pp. 211-217, while for an opposing point of view see Donald Davidson, “Thought and Talk”, in *Inquiries into Truth and Interpretation*. Also see, Hannah Arendt, *The Life of the Mind: Thinking*. 

14:13-19 Isabel’s Modus Tollens Argument

14:16 Wanting and not wanting

15:7 Suggestion

15:7-9 Classification
Sources and references

For a philosophical discussion, see Gilbert Ryle, "Categories", in Proceedings of the Aristotelian Society, Volume 38, 189-206.

15:9 The ethics of zoos
Here one can consult Peter Singer's work on animal rights as well as Tom Regan, The Case for Animal Rights, Paul Taylor, A. Respect for nature, Mary Midgley, Animals and Why They Matter and Andree Collard, Rape of the Wild: Man's Violence against Animals and the Earth.

15:10 Not knowing one's reasons
See Kurt Baier, "Good Reasons", in Philosophical Studies, volume 4, 1953, pp. 1-15. In James Fishkin's Democracy and Deliberation, he points out that one of the shortcomings of opinion polls is that they get at the opinions that have not been reflected on. If there were an opportunity for deliberation, the results of the polling might be very different. Deliberation therefore is a way of helping people discover the reasons for their opinions. This has relevance for the classroom community of inquiry where the discussion often aims at eliciting reasons for one's views. The position that one can hold a true opinion but not know one's reasons for doing so goes back to The Republic of Plato.

15:23 Mythological animals
The mythology of animals has been extremely rich in both the Graeco-Roman world and in the Middle Ages. The Greeks for example had their flying horses, mermaids, centaurs, and satyrs, and the Middle Ages had their unicorns, which were animals that symbolized purity. The central role of the unicorn in medieval tapestry symbolized the killing of an innocent creature, possibly Christ. See J. Cirlot, Dictionary of Symbols.

15:23 The reality of unicorns
In medieval philosophy, the question arises whether something must exist, if it can be conceived or imagined. The classic source is St. Anselm's Ontological Argument in which he contends that to understand the meaning of the concept of God is to recognize that God exists.
Anselm, however, had to face a counter argument by Gaunilo, *A Reply on Behalf of the Fool*, in which Gaunilo tried to show that merely having a conception of an island would, in no way, cause the Island to exist. In recent philosophical literature, the case of non-existing beings such as "The present king of France", and a "gold mountain", are discussed by Bertrand Russell in his essay, "On Referring".

15:16-18 Definition

This is a vast topic which begins with Plato's *Euthyphro*, and it dealt with by virtually all philosophers ever since. See, John Stuart Mill, *A System of Logic*, book 1, chapter 8, and more recently, Richard Robinson, Definition. For the use of definition in the classroom, see B. D. Van Evera, "Definitions, Didactics and Deliberations", *The Science Teacher*, April, 1958.

16:1 Thinking

In ancient philosophical literature, it would be worthwhile to consult Plato's *Theatetus* as well as Aristotle's *De Anima*. Aristotle also speaks of thinking in the *Nicomachean Ethics*, book 5 and 6. Among 20th century writers, one thinks of Gilbert Ryle's two volume work, *On Thinking*, Hannah Arendt, *The Life of the Mind, Thinking* and Lev Vygotsky, *Thought and Language*. Of course, many contemporary treatments of the theme are still influenced by Kant, especially the *Critique of Pure Reason* and by Hegel's *Phenomenology of Spirit*. Dewey's 1933 edition of *How We Think* explains thinking as being very close to what Peirce would call inquiry.

16:9 Overgeneralization

Just because two of her teeth are coming out, Pixie concludes that they are all coming out. Some writers on informal logic consider this overgeneralization, some call it sweeping generalization. See Fearnside and Holther, *Fallacy: The Counterfeit of Argument*.

16:14-15 Hypothetical reasoning

Pixie's mother tries to calm her anxiety by telling her that all of her baby teeth will fall out. Her mother seems to take it for granted that
Pixie realizes that she'll get new ones. But Pixie doesn't have the knowledge about how teeth work that her mother does and so she is anxious. Pixie then asks what if I don't get any new ones. Here we see her not only engaging in hypothetical thinking, but asking her mother to anticipate consequences her mother has probably never thought of. In terms of Johnstone, (ed.) *Giving the Body Its Due*. In terms of concern that her mother's complacency may be ill founded, see Karl Popper, *Objective Knowledge*. Since Pixie is female and also a persistent thinkers, in many ways she is a counter-example to the usual male image of philosophical thinking. In this regard see Elizabeth Harvey and Kathleen Okruhlik (eds) *Women and Reason* and in particular Susan Bordo’s paper in this volume entitled “Feminism and the ‘maleness’ of philosophy”.

**16:17** False teeth

Are false teeth false in the same way that false statements are false? False teeth seem to be false in the sense of being artificial, rather than natural. False statements are statements which we do not have sufficient evidence for asserting. See Gilbert Ryle, *Dilemmas*. For a distinction between the artificial and the natural, see J. J. Rousseau, *Discourse on the Sciences and Arts*.

**16:20-21** Formulating questions


**16:20-24** Explanation

There are many useful texts here of which a few are: John Hospers, “What is Explanation?” in Antony Flew, (ed.) *Essays in Conceptual Analysis*.
Sources and references

16:25-17:1-2 Analogical reasoning

Robert Sternberg has written a number of books on analogical reasoning, all of which are good sources. One can also see Max Black, *Models and Metaphors*, and P. C. Wayson, and P. N. Johnson-Laird, *Psychology of Reasoning: Structure and Content*. The classic source for a treatment of analogical reasoning is Hume's essay, *Dialogues Concerning Natural Religion*. James F. Anderson, *The Bond of Being* is an excellent metaphysical treatment of analogical reasoning. One should also look at the works of Lakoff and Johnson, *Metaphors We Live By* and *Women, Fire and Dangerous Things*.

17:5-8 The story of the lizard's tail

The source of this story is Aldous Huxley's novel, *Point Counterpoint*.

17:9-10 Irrelevancy

Pixie accuses her father of not making any sense because lizard's tails have nothing to do with people's teeth. Some people jump from topic to topic and Monroe Beardsley, in his *Practical Logic*, used to call such people, "grasshopper thinkers", they commit the fallacy of non sequitur. See Fernside and Holther, *op. cit.*

17:18-26 Pixie's dream

Like myths, dreams are subject to interpretation. They may seem trivial on the manifest level, but there may be latent meanings which can be retrieved by analysis. This is one of the reasons why hermeneutical philosophy has found the Freudian approach congenial. In this case, even children might be prepared to speculate that the little tail/foot that had to decide what it was going to become might be very well be Pixie herself. Some children might even if it was any accident that Pixie should have such a dream while sleeping between her parents. This is not to say that children should be encouraged to
follow in the footsteps of Freudian psychoanalysts and assign all dream-contents some sexual significance. But children are going to find hidden meanings where the obvious meanings are puzzling. The teacher should therefore have some familiarity with the Freudian approach so as to be able to respond to the children in a manner that is professional. For Freudian discussion of gender-formation, see Freud's *The Ego and the Id*, particularly parts two and three. For more Freud on the relationship of the individual to the group, see Freud's book, *Group Psychology and the Analysis of the Ego*. For Freudian procedures with regard to the analysis of dreams, see Freud's *Interpretations of Dreams*.

18:1-5 Learning to take others into account
On the elevator, Pixie can't resist pressing all the buttons. This makes the other elevator-riders irate, so she decides she won't do that again. It is an example of learning by experience and in particular, of taking others into account. There is a childish side to Pixie in the sense that she can be more even more egocentric are at her age. But as she tells us on page 1, she is aware that she is maturing. Some of the incidents in Rousseau's *Confessions* and *Emile* are reminiscent of this experience of Pixie's. For a psychological account, see Philip N. Johnson-Laird, "Reasoning and a sense of Reality", *British Journal of Psychology*, 1972, pp. 395-400.

18:6-24 Not understanding
A useful examination of this problem is by E. M. Markman, "Realizing that you don't understand: Elementary school children's awareness of inconsistencies", *Child Development*, 1979, pp. 643-655.

18:14-26 Kinship and family relationships
There are two different concepts here. The first has to do with kinship relationships. The people coming to the party are aunts, uncles, grandparents, in-laws and so on. Children have a great deal of difficulty with kinship relationships because it is not always clear who is "in the family", and who is not. Are brothers-in-law and step-children in the family? What about
previously divorced spouses? Furthermore, some kinship terms are symmetrical and some are not. If I am your cousin, you are mine, but if I am your brother, you may not be my brother. Unfortunately, there is no rule for figuring out how to tell which kinship relationships are symmetrical and which are not. See K. Danzinger, "The Child's Understanding of Kinship Terms: A study in the Development of Relational Concepts", *Journal of Genetic Psychology*, 1957, pp. 213-232. See also, A. K. Romney and R. G. d'Andrade, "Cognitive Aspects of English Kin Terms", in A. K. Romney and R. G. d'Andrade, (eds.), "Transcultural studies in Cognition", *American Anthropologist*, 1964, pp. 146-170. Family relationships involve certain logical and metaphysical issues. A family relationship is to be distinguished primarily from an essential relationship. In class theory, a particular relationship may be essential to an entire class. For example, all dogs belong to the class of mammals. Being a mammal is essential to being a dog. On the other hand, a family relationship does not extend uniformly throughout a whole family. Certain members exhibit certain family characteristics (e.g. the Kennedy eyes, the Roosevelt chin) while other family members exhibit quite other relationships. William James noticed this phenomenon in *The Principles of Psychology*, but it was much developed by Wittgenstein in *Philosophical Investigations*. See also E. Rosch and C. B. Mervis in "Family Resemblances: Studies in the Internal Structure of Categories", *Cognitive Psychology*, 1975, pp. 573-605.

Who are our relatives? Pixie claims that our families are made up of all our relatives and only our relatives. This is equivalent to saying that one is a member of a family if and only if one is a relative. Being a relative thus becomes an essential criterion. In this instance, Pixie is treating a family as if it was a class. See John Macnamara, *Names for Things: A Study of Human Learning*.

Distinction between terms and relationships Isabel says "the people in different families are different but the relationships are the same". Ever since Greek philosophy it has been customary to point out that particulars come and go, but relationships remain the same. From year to year students come and go in the classroom, but their relationship to the teacher (is the pupil of) remains the same for all of them. This raises the possibility that relationships are more important than terms but of course this is a point on which positivists and materialists and naturalists vehemently disagree. The battle was fought very vigorously during the late 19th century when William James rejected the relational closed universe of F. H. Bradley. James argued that some things were related to some other things and some were not. All our experience told us was that things came in "clumps and bunches". See William James, *Essays in Radical Empiricism*, chapter 3 for the idealist side of the picture, see Brand Blanschard, *Reason and Analysis* as well as A. C. Ewing, *Idealism*.

Reading faces When one reads another person's face one is trying to figure out what the other person's face
expresses. In this sense, figuring out what a face expresses is similar to figuring out what a work of art expresses. Both deal with non verbal meanings which are implicit or physiognomic. (By physiognomic is meant that they are related in some fashion to human expressions with which we are familiar. Thus to call the storm angry is to see it physiognomically.) For physiognomic perception, see Heinz Werner, *Comparative Psychology of Mental Development.* For more on reading meanings, see Rudolph Arnheim's *Visual Thinking.* A good anthropological study is *Implicit Meanings* by Mary Douglas. For a more general study of meaning, see Lady Victoria Welby, *What Is Meaning?*

20:8-12  **Family membership as a part-whole relationship**

It is not at all clear that being a member of a group is being identical with being a part of a whole. Isabel is inclined to look at families as constituted of their members. “We’re members of our family and Pixie is a member of hers”. If you look at a family as a collection, then you see that the members can be fairly similar to one another, i.e. they can all be persons. A whole, by contrast, contains parts that may be radically dissimilar to one another. The parts of a house don’t resemble one another at all. The children don’t actually confront the problem of wholes and collections, but they are getting very close to it when Connie talks about “the whole family” on line 12. Cf. Evelyn Markman, “The Facilitation of Part-Whole Comparisons by Use of the Collective Noun ‘family’” *Child Development,* 1973, pp. 837-840.

20:11-13 **Category mistakes**

The notion of category mistakes became popular with the publication of Gilbert Ryle *The Concept of Mind.* Ryle tries to show in that book that many people think that a whole is something other than the sum of the parts of that whole. For example, they will see the companies, battalions and regiments on parade, and then ask, “but when will the division come by”, when
in fact the division is those very companies, battalions and regiments. Someone will visit the campus and see the lecture halls, dormitories, and administration building, and ask "where is the university?" as if the university were something other than the buildings that comprise it. Ryle's position however has never been fully accepted. Gestalt psychologists, in particular, have argued that a melody is not reducible to its notes, nor a book to the words that comprise it. See Wolfgang Kohler, *Gestalt Psychology*, Kurt Koffka, *Principles of Gestalt Psychology* and Rudolph Arnheim, "Gestalt and Art" *Journal of Aesthetics and Art Criticism*, 1943.
CHAPTER FOUR

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<td>21:1-15</td>
<td>Making, saying and doing</td>
<td>Ever since Aristotle divided the sciences into the productive, the practical and the theoretical, philosophers have been making similar divisions among the major types of human action. A similar three-fold division is employed in Buchler's <em>Towards a General Theory of Human Judgement</em>, where he distinguishes between making, saying and doing.</td>
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<td>21:2-4</td>
<td>Provocative behavior</td>
<td>This is a not a-typical example of childhood aggression in which Pixie endeavors to provoke Miranda into being the one who makes the first overt aggressive act. See John Dollard and Neil Miller, <em>Frustration and Aggression</em>, as well as <em>Personality and Psychotherapy</em>, by the same authors. It would also be useful to consult Karen Horney, <em>The Neurotic Personality of our Time</em>.</td>
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<td>21:7</td>
<td>Commands and authority</td>
<td>Miranda orders her mother to order Pixie to stop looking at her. It is a command to command. On the one hand, this raises the question of the logical status of commands, for they are not assertions, but they imply assertions. In this case, if Miranda says “Make her stop looking at me”, it may be supposed that Pixie is looking at her. On the other hand, there...</td>
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Pixie says she is just looking. But it would seem that looking here is really just a euphemism for staring. It is a commonplace that we describe what we ourselves do in more positive terms than others we would use for other people who do the same thing. As Bertrand Russell puts it "I am firm, you are stubborn, he is pigheaded". But the matter is more than one of mere etiquette. According to Sartre, there is a metaphysics of staring. In Being and Nothingness, fixing another person with a stare and thereby transforming that person into a thing. One should compare Sartre's treatment of the stare with Marilyn Frye's in The Politics of Reality: Essays in Feminist Theory. With regard to the role of the look as an instrument of knowledge, see Lorraine Code, What Can She Know? Feminist Theory and the Construction of Knowledge, pp. 142-146.

Pixie makes a fine point here that might or might not hold up. She makes a distinction but the question is, whether or not it is a distinction with a difference. See Robert Sokolowski, "Making Distinctions", Review of Metaphysics, 1978.

Pixie is trying to manipulate her mother so as to get her to punish Miranda. There is a discussion of manipulative behavior of adults by children in Dollard and Miller, Personality and Psychotherapy, pp. 127-156.

One may ask whether Pixie's mother is requesting an explanation or a reason. One should consult N. Isaac's "Children's Why Questions", in Susan Isaac's, Intellectual Growth in Young Children. Piaget tends to treat children's Why questions as requestions for explanations.

**22:2-4 Unreasonable behavior**

What Pixie is doing is putting the blame on the victim of her own aggression. First she provokes Miranda, and then she criticizes her for retaliating. In Hannah Arendt’s *Origins of Totalitarianism*, an incident is told of monumental unreasonableness. German civilians after World War II are shown looking with awe at photographs of concentration camp victims and saying, “What could they have done to have deserved such treatment”.

**22:7 Remembering**

The classic work is F. C. Bartlett, *Remembering: An Experimental and Social Study*. See also Ericksson, K. A. et. al. “Acquisition of a Memory Skill” in *Science*, June, 1980.

**22:5-9 Asking for a reason**

Pixie’s mother asks her if Miranda did anything to her that would explain Pixie’s conduct. It is not clear whether Pixie’s mother is seeking a causal explanation or a justification. See Keith S. Donellan, “Reasons and Causes”, in *Encyclopedia of Philosophy*, Volume 7, pp. 85-88, as well as Donald Davidson, “Actions, Reasons and Causes”, in *Journal of Philosophy*, 1963, pp. 425-435.

**22:9-23:4 Two perspectives**

Here we have two accounts of an event as seen from two different points of view. Apparently, there are things that Miranda knew that Pixie didn’t know, with the result that Miranda’s perspective seems broader and more plausible. For a psychological examination of perspective thinking, see John Flavell, in his 1977 work, *Cognitive Psychology*, as well as in a number of more recent studies. Also see, Ellyn Kaschak, *Engendered Lives: A New Psychology of Women’s Experience*, in particular chapter one, “Making Meaning”. In philosophy, the major source of perspectives, is George Herbert Mead in
Accident and blame


Being a sister of

In the logic of relations, there is a distinction between symmetrical and non-symmetrical relations. "Being a cousin of", is symmetrical because if I am your cousin, then you must be mine. On the other hand, it does not follow that if Mary is the sister of John, John must be the sister of Mary. So, "being a sister of" is non-symmetrical. See, Philip Wheelright, Valid Thinking, as well as H. G. Alexander, "Relations", in Language and Thinking.

Can you choose your family?

The notion of a family is a very fuzzy notion because there are no clear-cut boundary lines that determine just exactly who is in the family and who is not. Furthermore, there is a question of how much control we have in deciding who should be considered a member of the family and who should not. Thus, parents may have clear cut responsibility for choosing their children, but children do have generally choose their parents.

Family relationships

Miranda uses the term "family relationships", but she does not mean it in the Wittgensteinian sense. She means it rather as a unit of kinship.
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<th>23:20-21</th>
<th>The reality of relationships</th>
<th>The classic origins of the contention that relationships are real can be found in Plato's <em>Republic</em>, where they are identified as the Forms. But Plato questions this position in his <em>Parmenides</em>. See also G.E. Moore, &quot;External and Internal Relations&quot;, in his <em>Philosophical Studies</em>, Ernest Nagel, <em>Sovereign Reason</em>, and <em>Essays on Radical Empiricism and A Pluralistic Universe</em>.</th>
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<tr>
<td>23:22-24:7</td>
<td>The perceptibility of relationships</td>
<td>This has been dealt with at great length in Gestalt psychology. See in particular Wolfgang Kohler, <em>Gestalt Psychology</em>. The Gestaltist argues that one can actually perceive the relationships among a set of dots when one sees the pattern of those dots. One sees relationships among a number of musical sounds when one hears the melody that they form. Therefore, for the Gestaltist, relationships are perceivable. But according to British Empiricists, such as David Hume, the relationships among our sensations are mental rather than perceptual. See David Hume, <em>Enquiry Concerning Human Understanding</em>, part II.</td>
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<td>24:4-7</td>
<td>Exemplification</td>
<td>Pixie is very quick to provide examples that distinguish between height and weight which are examples of perceptual relationships in contrast with being a cousin of or being a niece of which are non-perceptual. For more on exemplification, see F. Hayes-Roth, &quot;Learning by Example&quot;, in S. Fokkema and Robert Glaser, (eds.) <em>Cognitive Psychology and Instruction</em>. An excellent work in the area of exemplification is Edwina Rissland, &quot;Example Generation&quot;, in the May, 1980 edition of <em>Proceedings of The Third National Conference of the Canadian Society for Computational Studies of Intelligence</em>.</td>
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| 24:9-13 | Family resemblances | Wittgenstein is usually cited for his critique of the Aristotelian notion that classes contain members that have certain essential traits in common. Wittgenstein in *Philosophical Investigations*, sections 304-08 argues that certain family members may share certain
similar traits, such as similarly shaped noses, while other family members might have similarly shaped chins or ears. But there is no single trait that they all have in common. A similar argument was put forward earlier by William James where he uses the illustration of a number of different runners in a relay race who carry the same baton at different times during the race. Even earlier, the family resemblance argument had been advanced by the Scottish philosopher Thomas Reid in *Essays on the Intellectual Powers of Man*. Also, see Wittgenstein, *Zettel*, section 487.

24:16-20 Criteria of reality

Miranda reflects on Pixie’s contention that something can’t be real if it can’t be seen or touched. This, in effect, would mean that sight or touch are the criteria of reality. For ancient materialists such as Lucretius in *On the Nature of Things*, touch is the “divine sense” that enables us to distinguish between reality and appearance. For example, the pillow that looks soft but is hard to the touch is really hard because touch is more to be trusted than sight. In the Renaissance, to the contrary, the criteria of reality were visual rather than tactile. Emphasis was placed on perspective, clarity and distinctness.

24:21-26 Are right and wrong mutually exclusive

Pixie assumes that those who dispute can be divided up into those who are right and those who are wrong, while her mother disagrees. Collingwood, similarly, argues that science conceives of categories as non-overlapping and exhaustive for any given domain. Philosophy, on the other hand, conceives of categories as neither mutually exclusive nor jointly exhaustive. See R. G. Collingwood, *Essay on Philosophical Method*.

25:5-8 Guessing

Charles Peirce wrote an essay entitled “Guessing” (*Collected Papers*, volume 6, p. 476) in which he argued that human guesses are probably more right than wrong because over our evolutionary history, those who had sound...
hunches where more likely to survive than those who didn't. "Animals of all races rise far above the general level of their intelligence in those performances that are their proper function, such as flying and nest-building for ordinary birds; and what is man's proper function if it be not to embody general ideas in art-creations, in utilities and above all in theoretical cognition". Peirce further pointed out the founders of modern science gave great though not decisive weight to intuitive judgements. See also Peggy A. Mendak, "Reading and the Art of guessing", in *Reading World*, May, 1983, pp. 346-351.

25:9-26:10 Excuses and reasons The word "excuse" (in English) is very resistant to analysis. There is a sense in which an excuse is simply a pretext, and there is a sense in which it is a justification. These very contrasting significations of the term are further complicated by the problematical relationship they have with the concept of "reason". J. L. Austin tries to make some sense of the confusion in his articles, "A Plea for Excuses" and "Ifs and Cans", which are to be found in his *Philosophical Papers*. Austin has a meticulous sense of the countless nuances that are involved in giving excuses and giving reasons and the reader often finishes his articles more bewildered than clarified.

27:12-13 Thinking animals Descartes distinguished between humans, who were for him machines that think, and animals who were machines that didn't think. For a discussion of traditional theories of thinking, see H. H. Price, *Thinking and Experience*. Thomas Sebeok, a semiologist, who very much follows Peirce in certain respects has strongly opposed those biological theories which see only a gradual difference between human and animal intelligence. Sebeok argues for example that all cases of animals like gorillas communicating with humans are cases in which the animals have been prompted by the humans.
Sources and references

27:14 Among the most influential accounts of the genesis of human thought are Lev Vygotsky, *Thought and Language*, and George Herbert Mead, *Mind Self and Society*. These two works are very similar in that they stress the social and communal character of interpersonal communication and the emergence of thinking in the individual as a result of the internalization of communication among members of the group with one another.

27:20-28:6 Analogical reasoning

Pixie's father says, "You don't see me run around the house screaming all the time, do you?". He apparently thinks that this is a decisive comparison, by which Pixie will be crushed. Pixie coolly responds, "but did you when you were my age?". This indicates that Pixie recognizes that the difference in the ages of the two persons compared is a relevant consideration that her father is leaving out of account. The screaming of the child relative to its age can only be compared analogically to the screaming of the adult when the adult was a child. For a discussion of analogical reasoning, see David Bohm, in Douglas Sloane, (ed.) *Education and Values*. See also R. Dreisdadt, "An analysis of the use of analogies in science", *Journal of Psychology*, 1968.

27:25-26 What makes something right

Pixie's father says that just because he may have run around screaming when he was a child, it would not follow that Pixie would be justified in doing the same thing. She agrees but goes on to argue that if it wasn't wrong for him to do it when he was a child, it may not be wrong for her to do it now. Once again she is arguing analogically as Aristotle did in the *Nicomachean Ethics* that like cases must be treated alike, and different cases differently if there is to be justice.
CHAPTER FIVE

Sources and References

We sometimes use the word polysemy to indicate that a word is rich in a variety of meanings. It can mean very different things in very different contexts. The word “go” is an example. Pixie asks where the light “goes”? She rejects the notion that it goes “out”. She assumes it travels from one place to another in the universe and she wants to know its destination. Miranda puts her off with another meaning of the word “go”. It goes to sleep, in the sense of being extinguished. When Pixie persists, Miranda says, “It goes where the dark comes from”. Miranda’s last answer, of course, is no more helpful than the preceding ones, because it simply relies on a correlative term. It is like defining a husband as a “man with a wife”, or defining hot as “whatever is not cold”. Thus, what starts off, for Pixie, as a factual inquiry turns into a series of logical evasions. For more on correlative terms, see Richard Robinson, Definitions. For more on polysemy, consult Douglas Walton, Informal Logic.

A very popular science fiction film, probably dating back to the late seventies, was called, The Blob. The movie was about an awful thing from outer space, which threatened to spread all over the world.

Both Pixie and Miranda use the phrase "believing in" on these five lines. In fact, they use the phrase four times and not once do they use the simple verb, “believe”. There is a big difference between “believing” and “believing in”. When we say “believe”, we often mean “believing that”. If someone says, “I believe better days are coming”, she is saying that she believes that, as a matter of fact, the future will be an improvement. To believe in, on the other hand, generally signifies one ought to be the
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<td>29:14-16</td>
<td>The redherring fallacy</td>
<td>Miranda evidently does not have an answer to Pixie's question and then introduces a distraction by suggesting that Pixie doesn't believe in anything. This is called the &quot;red herring fallacy&quot; for a discussion of which see Fearnside and Holther, Fallacy: The Counterfeit of Argument.</td>
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<td>30:1-2</td>
<td>Wondering about</td>
<td>Pixie asserts here that wondering about something can be compatible with believing in it at one and the same time. A child may believe in the tooth fairy and still wonder about the tooth fairy's means of carrying out its operations. Confer Sam Keen, Apology for Wonder.</td>
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<td>30:3</td>
<td>Fun</td>
<td>Pixie accuses Miranda of always trying to take the fun out of things, as if Miranda has too much of what Nietzsche calls, &quot;seriousness&quot;. Nietzsche, of course, has little use for nay-sayers and wants to celebrate in a way that is very close to Spinoza looking for the joyous aspect of life. Nevertheless, fun is a peculiar notion. J. Huizinga in Homo Ludens claims that the notion of fun can be found only in English and is untranslatable into other languages.</td>
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<td>30:5</td>
<td>Space is just a word</td>
<td>Pixie seems to be taking a nominalistic position, that is that 'space' is a word that does not correspond to a thing. Why then do people use words of this kind. According to Ryle, it is because people employ systematically misleading expressions and he argues that a lot of the case. I believe in children's rights, generally means &quot;I believe children's rights ought to be recognized&quot;. However, there is a good deal of overlapping with the concepts. See Monroe Beardsley's Practical Logic. The more interesting contrast is between the concept of &quot;know&quot; and the concept of &quot;believe&quot;. Analytic philosophers often dispute with one another as to whether one can know something, while not necessarily believing it. See Keith Lehrer, Knowledge and Belief.</td>
</tr>
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Cartesian and perhaps Newtonian blunder about space and time originate from phrases in which we locate things, and then assume that we have made a location in something called "space". For example, Ryle says that the phrase, "the top of the tree", does not refer to anything. It merely is a way of referring to a part of a tree that is higher than any other. See his article, "systematically misleading expressions", in the *Proceedings of the Aristotelian Society*, volume #32. 1931-32, pages 139-170. Also see, A. N. Whitehead *Process and Reality* and *Modes of Thought*; and Catherine Keller, *From a Broken Web: Separation, Sexism and Self*, especially the last chapter.

Here we have the pre-socratic notion of the void such as one finds in Democritus and Lucretius. Parmenides apparently denied the reality of the void, while Heidegger and Sartre claimed that "nothing is something". However, we should not equate the scientific notion of 'space' with the metaphysical notion of non-being. For Lucretius on the void, see his poem, *On the Nature of Things*. For Heidegger on nothingness, see his *Being and Time* as well as Sartre's *Being and Nothingness*.

Pixie says that she doesn't know what other mysteries she might have. She seems to be aware that much of her mind is still unknown and this means that she is aware of her own potential creativity. There is something on this sense of the unexplored terrain of one's own mind in David Perkin's *The Minds Best Work* and of the mind's mysteries in Douglas Hofstadter, *Godel, Escher, Bach*. Also see Alfred North Whitehead, *Modes of Thought*.

Pixie is thinking here of what she is conscious of: her classmates getting ready for school. She thereby illustrates what phenomenologists call intentionality. Brentano and Husserl assert that mental states are different from physical states. Sliding, standing, rusting and burning are not
about anything at all, but loving is always loving someone, perceiving is always perceiving something. This notion of intentionality is derived from Brentano and developed by Husserl in his *Ideen #1*. For a discussion of Brentano’s role see Roderick Chisholm, “Intentionality”, in *Encyclopedia of Philosophy*.

A Wittgensteinian critique of traditional metaphysics would be that space and time are taken to be substances simply because they are common nouns like “glass” or “wood” or “shoes”. Wittgenstein’s solution would be to ask how we use words like “space” and “time”: under what circumstances would we say that something is “near to” or “far from” something else. Another way of putting this, which is what Miranda does is to put the emphasis on the relationships, rather than the things. Just as we generalize from the many instances of wood that we have perceived to the concept, wood, so we generalize from the various spatial relationships we observe to the abstract concept of space. This is an insight into our procedure in concept formation which will later have a bearing on Pixie’s effort to understand the nature of her mystery creature. In dealing with complex notions such as space and time, there is a vast range of alternative possibilities that Pixie and Miranda can choose among. They apparently are not interested in Newton’s notion of space as an absolute container or receptacle nor in Kant’s notion of space and time as subjective conditions of perception. (*Critique of Pure Reason*). They seem to be closer at this point to a Leibnizian notion. Thus Leibnitz in his correspondence with Samuel Clark rejects Newton’s theory of space and says, “as for my own opinion, I have said more than once that I hold space to be something merely relative, as time is; that I hold it to be an order of co-existences as time is an order of successions... and when many things are seen together, one perceives that order of things among
Sources and references

themselves". (1717) (Leibnitz, “Correspondence with Clark”, third paper, Philosophical Papers and Letters, Volume II.) This conception of space and time as orders is echoed in the ordinal metaphysics of Justus Buchler. See his Metaphysics of Natural Complexes. Also see David Bohm, Wholeness and the Implicate Order.

Pixie says that time is just a word. For many philosophers, time is not real. Some assert for example that only eternity is real and time is illusory. Plato and Spinoza might agree with this. Kant sees time as a cognitive condition of experience; in other words, we provide the spatial and temporal frameworks into which our experience is poured, but we can have no knowledge of space and time in themselves. Bergson thinks that what is real is not something abstract, like time, but something “lived” which he calls duration. William James is close to this position and in modern feminist literature, Julia Kristeva’s article “On Time”, is noteworthy as is L. Irigaray, This Sex Which is Not One. See Bergson, Time and Free Will and Matter and Memory, and William James, Essays in Radical Empiricism. Also see Alfred North Whitehead, Process and Reality. For a philosophy of space, see Edward Casey’s Placing: A Phenomenology of Lived Space.

Miranda reformulates space and time in terms of experiential comparisons. If we compare two different dates with one another; one will be earlier and the other will be later. If we compare objects in space with our own position, some will be near to us and some will be far. It depends on what coordinates we choose. See P.T Geach, “Comparatives”, in Philosophia, October, 1983. 235-246. Dewey in his Logic, The Theory of Inquiry regrets that classical logic places so much emphasis on categorical, subject-predicate propositions, such as “all roses are red”, rather than on relational comparisons which would be closer to actual experience, such as “this rose is
rcspondence

like a light going on

in one's head

The composition of

space and time

What is a relationship

...
relationships without things. The major controversy that occupied philosophers at the turn of the century, in this respect, was whether everything was related to everything else or whether some things were totally unrelated to other things. This problem was known as the problem of internal vs. external relations. Idealist philosophers like F. H. Bradley took the position that the world is one interconnected universe, so that a change in anything would be a change in everything. Another version of this is Tennyson’s “Flower in the Cranny Wall”. In contrast, William James blasted the idealists as proposing a “block universe” and argued that our experience tells us only that things come in “clumps and bunches”. There are deep ravines and abysses which cannot be traversed. See Bradley’s, Appearance and Reality and James, Essays in Radical Empiricism. For a more formal analysis of the concept of relationship, see Bertrand Russell, Our Knowledge of the External World.

John Dewey and Arthur Bentley in Knowing and the Known use the term “connection” to apply between objects under naming whereas “relation” deals with “system among words”. Dewey reserves “relationship” for connections within subject matters, “that which is inquired into”, whereas he reserves “relation” for methodological connections within the inquiry process. Hume in his Enquiry Concerning Human Understanding (book 1, part 1, section 5) provides a very elementary explanation of what it is to be related when he says that he will think of objects A and B as being related as long as there is a relational term R such that the sentence “A R B” is true, even if A and B are not connected in any ordinary sense. In this sense, to be unlike is to be related.

Rusty says that two numbers could be the same size whereupon Chita replies they would be the same number. The first we would have to clarify
is whether Chita and Rusty are referring to numerals or numbers. Expressions with different numerals may nevertheless be identical with regard to number, thus $2=(1+1)$. Identity is fundamental in axiomatic systems. All equations express identities. Generally when logicians discuss "the logic of relations", what they have in mind are three types of relations: sameness, difference and identity. Moreover, the division of each of these types into subtypes is the same in each case. (Thus, there are symmetrical, asymmetrical and non-symmetrical relationships, etc.) The major source for this is Bertrand Russell and A. N. Whitehead, *Principia Mathematica*. The pioneer work on the logic of relations was done by Charles S. Peirce. See his *Collected Papers*.

33:3-4 Figuring things out for oneself

Pixie is exaggerating when she says that nobody tells her anything. Obviously, her classmates have helped her a lot. On the other hand, they don't tell her so much that she is spared having to figure things out for herself. On the importance of teachers' encouraging students to figure things out for themselves, see Plato's *Meno*, St. Augustines, *The Teacher* and Thomas, *Concerning the Teacher*. Also see Kant's *Logic*, on the importance of getting children to think for themselves.

33:12-19 Relationship between the word and thing

This is a referential relationship. See W. V. O. *The Roots of Reference* and *World and Object*.

33:23-34:15 Analogical forms of reference

Mr. Mulligan suggests that Brian has made an analogy between the way the word 'mountain' refers to real mountains and the way the word 'relationship' refers to near and far, before and after. Normally, we limit referring to things as represented by nouns. What Brian seems to be suggesting is that we can also refer to adverbs and adjectives. Far and near are adjectives. Slowly, and distantly are adverbs. But at the same time, they can be considered examples of relationships. If I say that "the boy slowly ate his pudding", we are not only referring to the boy and the pudding, but to the way that he ate it. See the work of Charles Peirce on semiotics. *Collected Papers*.

35:6-9 Space, time and minds

Since Mr. Mulligan has observed Brian to be drawing an analogy between references to things
and ways of doing things, Pixie in this passage invents another analogy between the way, on the one hand, that space and time are comprised of relationships and the way, on the other hand, "our minds are made up of the words and ideas that stand for those relationships". It suggests that the order of things in the mind is congruent with the order of things in the world. See Spinoza, The Ethic, Hegel, The Phenomenology of Spirit.

35:10-13 What's an analogy? See David Bohm, "Insight and Reason: The Role of Ratio in Education", as well as J. Robert Oppenheimer, "Analogical Reasoning in the Scientific Community", in Matthew Lipman (ed): Thinking Children and Education. Also see the works of Robert Sternberg on analogy.

35:20-21 Mind as dimension An argument for mind as a dimension is to be found in Samuel Alexander's book, Space, Time and Deity. In this works he argues that one can take an evolutionary view of the development of dimensions in nature. Space and time are the most primitive dimensions, but there is also matter, from which emerges the new dimension of life. Life represents a dimension of activities in the world that did not previously exist. Life, in turn, gives birth to society and in society or community there is again a new dimension which is higher than mere life. When community is internalized, there emerges something we call mind. This is the emergence of still another dimension, Alexander's book concludes that still to come is the dimension of deity. For a alternative view of mind as a dimension, see the metaphysics of J. E. Woodbridge, Nature and Mind. Among earlier philosophers one might look for the idea of emergence of God in Kant's Critique of Practical Reason; for the idea of Spirit as a dimension in Hegel's Phenomenology of Mind and in Peirce at his article, "Man's Glassy Essence", and "Evolutionary Love", and his "Neglected Argument for the Reality of God".
### CHAPTER SIX

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<tr>
<td>37:7-10</td>
<td>Hypothetical reasoning</td>
<td>Pixie thinks to herself, “If today is Tuesday, then tomorrow must be Wednesday and if tomorrow is Wednesday, then tomorrow must be the Zoo trip”. This is not strictly speaking a chain of syllogisms, it is a chain of enthymemes (syllogisms</td>
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lacking a premise). One highly useful of hypothetical reasoning is Stephen F. Barker, *Induction and Hypothesis*.

37:7-10  Equivocation

The very same lines are an example of equivocation. This is a type of ambiguity in which the same word appears more than once in the same sentence, but has a different meaning on each occasion. It is also called, therefore, "shift of meaning". The term that shifts its meaning here is the word "Wednesday". At first it means any Wednesday, then it means a specific Wednesday, the Wednesday of the Zoo Trip. For a good source on equivocation, see Douglas Walton, *Informal Logic*.

38:6-11  Appearance and reality

Pixie is never sure whether Miranda is asleep when she seems to be. This raises the metaphysical question of appearance and reality. It is a favorite question among pre-Socratic Greek philosophers such as Democritus, who held that atoms alone are real, and other qualities, like taste and odor are mere appearance. Another Pre-Socratic philosopher, Gorgias, formulated the relationship of a kind of paradox: "Nature is a being that makes you think it is only a seeming; and Art is a seeming that makes you think it is a being". Plato, of course, continued the interest in appearance and reality, particularly in *The Republic*, where the Forms are the reality, while our perceptions are of mere appearances.

38:12-14  Are there colors in the dark?

Pixie asks herself how she can distinguish among the colors of her socks in the dark. One solution of the problem would be to utilize Berkeley's approach in his *New Theory of Vision*, as well as in his *Treatise Concerning the Principles of Human Knowledge*. Since for Berkeley, to be is to be perceived, what is not perceived, does not exist. Therefore, if we do not perceive different colors in the dark, they are not distinguishable. But Berkeley is willing to acknowledge that if the light were turned on, the colors would reappear.
38:20-23 Having a problem

Pixie's problem is that one shoe fits and the other does not. She is assuming, of course, that the two shoes she is trying on comprise the same pair of shoes, and in this she is mistaken. Very often, problems are insoluble because of some error that is made at the time of their formulation. For more on problem formulation, see John R. Hays, *The Complete Problem-Solver*, Arthur Whimbey and Jack Lockhead, *Problem Solving and Comprehension*, and the classic work, Carl Duncker, "On Problem Solving", *Psychological Monographs*, Volume 58, 1945.

38:23-25 Hypothesis formation

Pixie formulates a hypothesis which, if true, would solve her problem. Her hypothesis is that her left foot has turned into her right foot. Fortunately for her this hypothesis is false and she will have to come up with a different one. Again, see Stephen F. Barker, *Induction and Hypothesis*.

39:3-6 Seeing oneself as others see us

Pixie begins to imagine how she would look if she went hopping around the zoo on one foot. She thinks they would infer that she was a stalk. For more on such inferences, see M. H. Feffer, and V. Gourevitch, "Cognitive Aspects of Role-Taking in children", *Journal of Personality*, 1960, pp. 383-396.

39:12 The locus of the self

Pixie addresses her mother as if her mother resides somewhere in the interior of her body. Children often come up with widely different interpretations of the locus of the self. See Paul Schilder, *The Image and the Appearance of the Body* and Mark Johnson, *The Body in the Mind*.

39:25 Body-image changes

Schilder in the source just cited reminds us that body imagery is highly labile. In sculptures of themselves by the blind, the hands are shown as disproportionately large and the eyes as small. The construction of the body image is based on which parts have been used and which have not been used, as well as on borrowings from the body imagery of others. There is a community
of body imagery, Schilder points out. The comic aspect of Pixie's predicament, that her feet seems to keep changing, is captured by an episode in Charlie Chaplin's *Limelight* where one of his legs keeps getting longer and shorter while he is giving a violin concert.

Pixie's father explains how Pixie's mistake must have happened. For more on explanation, see R. B. Braithwaite, *Scientific Explanation* as well as Leonard F. Swift, "Explanation", in B. O. Smith and R. H. Ennis, (eds.) *Language and Concepts in Education*.

One type of metaphor involves depicting a person's acting as if that person was something else, like some kind of animal. Here Miranda, according to Pixie, "hogs" all the covers. We also say, "dogging one's footsteps", "fishing for compliments", and "horsing around". See Andrew Ortony, *Metaphor*. A metaphor is the shortest most compact way of making a comparison. For example, for someone who is slovenly, we might say, "Johnny is a pig". Instead of using the noun, we could use the verb, "the hungry boys all pigged out".

In science models are indispensable because they permit an analysis of structure while changing other aspects of the subject matter. Thus, the model of a molecule is larger than the thing it represents, while the model of the solar system is smaller. See Max Black, *Models and Metaphors: Studies in Language and Philosophy*.

Isabel calls attention to the relationships that the parts of a thing have to one another. Any object can be analyzed into its constituents, and these can then be compared and contrasted with one another. The hand can be analyzed into its fingers and palms, and so on. For classic works on relationships, see Locke, *Essay Concerning Human Understanding*, Book II, chapters 25-28; Hume, *Treatise on Human
Sources and references


40:21 Are children models of adults? This question is discussed in Philippe Aries, *Centuries of Childhood*.

41:1-3 Same and different When we use language, we call attention to differences by means of words like "but", "except", and "unless". These words are difference markers, while "like" is a similarity marker. See C. E. Osgood and I. M. Richards, "From Yang and Ying to And and But", *Language*, 1973, pp. 380-412. See also Rupert Crawshay-Williams, *Methods and Criteria of Reasoning*.


41:23 Analogy (See page 35, An additional reference would be Douglas R. Hofstadter, "Meta-magical Themes: How Might Analogy, the Core of Human Thinking, be understood by computers?", *Scientific American*, September, 1981. Also see Mary B. Hesse, "Models and Analogies" in *Science*.)


Pixie here says if you never went to school how would you find out what you were doing all along. One person who learns what he has been doing all along is Moliere's M. Jourdain, who learns that all along he has been speaking prose. See Moliere's Le Bourgeoise Gentilhomme. Another version is to be found in Plato's Meno, when he argues that we learn only what we already know.

Ruth Saw in "Conversation and Communication", in Lipman's Thinking Children and Education makes an effort to define conversation that is very controversial. See Michael Oakeshott, "The Voice of Poetry in the Conversation of Mankind", in Rationalism and Politics. Also see Richard Rorty, Philosophy and The Mirror of Nature, and Annette Baier, Postures of the Mind: Essays on Mind and Morals in which she discusses the importance of the second person in doing philosophy. Also see Jane Roland Martin, Reclaiming a Conversation: The Ideal of the Educated Woman. A commendable effort to deal with conversation in academic contexts is Sophie Haroutunian-Gordon,
Because relationships are so readily overlooked in our concentration upon the concepts we have of things, it is necessary that we give special attention to the literature dealing with relational terms and relational concepts. Some useful sources are: J. F. Phillips and E. G. Thompson, "An Analysis of the Conceptual Representation of Relations", in the *Journal of Theoretical Social Behavior*, October, 1977, pp. 161-184. Also see J. R. Hayes (ed.) *Cognition and Development of Language* in which there are two excellent articles: R. J. Wales and Margaret Donaldson "On the Acquisition of Some Relational Terms", and H. H. Clark, "The Primitive Nature of Children's Relational Concepts".

The behavioral acts by which we attend to relationships are comparisons. We compare things with one another and discern their relationships. We then make distinctions, based upon observed differences or we call attention to similarities. See R. J. Wales, and R. N. Campbell, *The Ontogenesis of Comparisons*. In linguistics, comparisons are expressed by means of such comparatives as "taller than", "faster than", "sweeter than". See H. H. Clark, "Comprehending Comparatives", in G. B. Flores d'Arcais and W. J. M. LeVelt (eds.) *Advances in Psycholinguistics*.

Pixie says she compares Chita and Jenny in terms of speed. This is because comparisons must be made "in the same respect", as Aristotle says in *Metaphysics*. You can't compare John's height and James' weight. The phrase "in the same respect" therefore means "using the same criteria". An insistence that we compare only what
Sources and references

44:4-5  "This morning was as long as the Amazon" What we have here is called a "type-crossing". The term that specifies the respect in which the comparison is made ("as long as") is ambiguous. It could be understood as either temporal or spatial and Brian is playing with that duality of meanings. Cf. T. Drange, Type-Crossing; M. Cometa, and M. E. Eson, "Logical Operations and Metaphor Interpretation", in Child Development, 1978, pp. 649-659; Howard Gardner, et al., "The Development of Figurative Language", in K. Nelson (ed.) Children's Language, volume I, 1978; H. Lesser and C. Drouin, "Training in the Use of Double Function Terms", journal of Psycholinguistic Research, 1975, pp. 285-302; and H. Warner and B. Kaplan, Symbol Formation.

44:12  Different ways Isabel says that time and space are both long, and Pixie replies that sure but in different ways. This could be another way of saying "in different respects". But the word "way" is very rich and also implies a method or procedure from the Greek "methodos" which stresses the path to be pursued as well as the activity of pursuing it. (This is very similar in Eastern thought to what is meant by Tao.) It is important to see that Pixie persistently invokes this consideration, as when she says on page six, "sure, but do I belong to my body in the same way, as my body belongs to me." For more on the importance of "way" see Justus Buchler, The Concept of Method. Also see Sandra Harding and Merrill Hintikka (eds.), Discovering Reality: Feminist Perspectives on Epistemology, Methodology and Philosophy of Science, and Mary F. Belenky, et al., Women's Ways of Knowing, The Development of Self, Voice and Mind.

45:2  Ratio The notion of ration is of great importance in mathematical logic. See G. Polya, Induction and Analogy in Mathematics: Mathematics and Plausible Reasoning.
45:5-8  **Similar words and different contexts**  
Pixie says that "like" is a kid’s word and "as" is a grown-up’s word. This once again reveals Pixie’s sensitivity to contextual differences. For more on the context dependence of our rational judgements, see Stephan Toulmin, et al., *An Introduction to Reasoning*, Second Edition. Toulmin concludes (p. 256) that field considerations are all important and therefore context determines criteria.

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45:9-20  **Similes**  

45:22-27  **Metaphor**  
Metaphor is another form of figurative language in which one thing is said to be another. This is a very controversial area since some theorists argue that a metaphor is a category mistake, being "figuratively true but literally false", (Nelson Goodman) while others argue that the metaphor identifies a respect in which the one thing is appropriately described in terms of the other. Thus, when we say that "John is a horse", this may be taken as a category mistake or it may be that certain aspects of John’s behavior are better described in the language reserved for equines than for humans. For some helpful sources on metaphor, see Philip Wheelright, *Metaphor and Reality*; R. M. Billow, "Metaphor: A Review of Psychological Literature", *Psychological Bulletin*, 1977, pp. 81-92; J. J. Jenkins, “Remember that Old Theory of Metaphor? Well Forget it!”, *American Psychologist*, 1974, 785-789, and Mark Johnson, and Glenn W. Erickson, “Toward a New Theory of Metaphor” *Southern Journal of Philosophy*, Fall, 1980, pp. 289-300.
What is a fact?


Using other people's ideas against them

The most familiar example of this sort of practice is cited by Karl Marx in *The Communist Manifesto* when he predicts that the intellectual weapons with which the bourgeoisie felled the monarchy would eventually be turned against the bourgeoisie by the proletariat. Thus concepts like freedom and justice with which the middle class achieved political dominance would be used by the working class with the same result. In the history of argumentation, a prime example would be Socrates, who delights in taking the ideas of opponents and turning it against them. See for example the way in which in *Republic*, he makes use of the ideas of Thrasyphras to undermine and eventually destroy Thrasyphras' argument.
### CHAPTER SEVEN

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<tr>
<td>49:2</td>
<td>Pixie's father's boss</td>
<td>Since children are often excluded from their parent's workplace, they often have only hazy ideas about the economic relationships that obtain in those situations. See K. Danzinger, “Children's earliest conceptions of economic relationships”, <em>Journal of Social Psychology</em> (Australia) 1958, pp. 231-240.</td>
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<td>49:13</td>
<td>We’re free</td>
<td>In this context, what Pixie exclaims seems to mean that we are free of rules and regulations. Rules and regulations come from parents and when the parents are away, Pixie contends, one can do whatever one pleases. There is a long history to this contention. Hobbes in <em>Leviathan</em> maintains that there are no laws or rules until people decide to establish a lawmaker. And Dostoevsky corroborates this when he says “if God does not exist, everything is possible”. (<em>The Brothers Karamozov.</em>)</td>
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<td>49:18</td>
<td>Family rules</td>
<td>Miranda maintains that there are family rules that remain in force even when the parents are away. This is possible because the rules</td>
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announced by the parents are internalized by the children. The internalization of rules and of authority generally, is sketched out in Max Weber's essay, *Protestantism and the Spirit of Capitalism*. Internalization of values as a symptom of maturity is to be found in Erik Erikson, *Insight and Responsibility*, as well as in Carl Rogers' *Becoming a Person*. There is also an extensive treatment of internalization of rules and values in Daud Riesman's *The Lonely Crowd*, in which he tries to show that "inner-directed people" are those who have internalized the standards, ideals and commands imposed upon them by their parents. It might also be useful to read John Rawls' "Two Concepts of Rules", in *The Philosophical Review* (1955).


Just what do children mean when they use the word "good"? Very often children use the word good to mean what everyone esteems or appreciates, in contrast to what one evaluates or estimates. See Terry! Joan Anderson, "Education and the Activities of Prizing", *Educational Theory*, volume 27, Fall, 1977.

This is a statement that would normally be considered a tautology and therefore meaningless. But some tautologies acquire a conventional meaning such as "business is business". In this case, what Miranda says is rather equivalent to saying "rules are meant to be obeyed, not broken". See W. V. Quine, in "Methodological Reflections on Current Linguistic Theory", in Donald Davidson and Gilbert Harmon (eds.), *Semantics of Natural Language*. 
50:10  “What Mama meant”  Pixie’s interpretation appeals to the intention with which the rule was made, just as jurists often appeal to the intent of the framers of the Constitution. Cf. Lon Fuller, *The Nature of the Law*.

50:12  Kooks  This is an example of a slang word that belongs to an order of similar terms. One could make an exercise out of this by asking children to arrange all the synonyms they can think of in order of irrationality. You could give them terms like oddball, jerk, wimp, nerd, dope, jackass, donkey, nut, weirdo, dweeb, eccentric and creep.

50:17  Argument  This is a word that in some contexts may be found to be ambiguous because it lends itself to two quite different meanings. An argument can mean a verbal combat among several people, or it can mean a combination of reasons leading to a conclusion. See Robert Fogelin, *Understanding Argument*. For an analysis of the logical approach to the topic. For consideration of a more general notion of argument and argumentation see Chaim Perelman, *The Realm of Rhetoric*.

50:21  Free to be me  In the famous song, “free to be me”, the message is that one must do what one has to do in order to be true to oneself. This is similar to the position of self-realization ethics, such as are to be found in the works of Abraham Maslow’s *Religion, Values and Peak Experiences* and *Toward a Psychology of Being*, Victor Frankl, *Search for Meaning*, and Rollo May, *Discovery of Being and Existential Psychology*.


51:1-5  On not doing to others  Earlier Pixie had done to her by Neal what she now does to Brian. On ethical reciprocity, see

Kinds of rules

True
What does Pixie mean when she tells Rusty that what he said was true? Is the test of the truth of a statement that it corresponds with reality or that we feel certain about it. See Willard Quine, “Language and Truth”, in *Word and Object* as well as Peter Strawson, “Meaning and Truth”, in Ted Honderich and Miles Burnyeat (ed.) *Philosophy as It Is*.

Numbers
With regard to numbers, see Claude Burrill, *Foundations of Real Numbers* and Ian Morton Niven, *Numbers: Rational and Irrational*, as well as G. B. Matthews, *Theories of Numbers*.

Rules and principles

Concept formation

Make up
Make up in this context is another way of saying "create" or "invent". See Victor Lowenfeld, *The Nature of Creative Activity*, and Jerome Bruner, “Some Elements of Discovery”, in *Learning by Discovery: A Critical Appraisal*. 
Mr. Mulligan tells the children to imagine. George Berkeley in his *Treatise on Human Understanding* argues that we can imagine only what our previous experience has given us the materials to imagine with. Thus imagine can not go beyond experience, although it can recombine the elements of experience. A very rich theory of imagination is offered by Kant in his *Critique of Judgement*.

The idea of invoking Adam comes from David Hume in *An Abstract of a Treatise of Human Nature*. Hume's purpose like Pixie's is to show that reason alone cannot judge between two equally implausible accounts, which would have been likely to have taken place. Only experience can do this. Hume writes, "Suppose I see a ball moving in a straight line toward another. I immediately conclude that they will shock, and that the second will be in motion. This is the inference from cause to effect, and of this nature are all our reasonings in the conduct of life... Were a man such as Adam created in the full..."
vigour in understanding, without experience, he would never be able to infer motion in the second ball from the motion and impulse in the first. It is not anything that reason sees in the cause which makes us infer the effect... It would have been necessary for Adam (if he was not inspired) to have had experience of the effect. It follows then that all reason concerning cause and effect are found in our experience and that all reasonings from experience are founded on the supposition that the course of nature will continue uniformly the same”.


Remembering

The classic study of remembering is by E.C. Bartlett, *Remembering: An Experimental and Social Study*, 1932. In it, Bartlett develops the notion of remembering as employing schemata, a concept which goes on to become quite important in the analysis of cognitive processing. Also see, from a philosophical point of view, John Cascardi, "Remembering", *Review of Metaphysics*, December, 1984. A more psychological approach is to be found in K. A. Ericsson, et al., "Acquisition of a Memory Skill", in *Science*, June, 1980.

Figure out

Isabel's remark that from the word "student" one could figure out that such a person studies, is an example of informal inference. For more informal reasoning, see Douglas Walton, *Informal Logic* (1992), and Stephen N. Thomas, *Practical Reasoning in Natural Language*, (1981).

Unbelievability, belief and truth

Many contemporary philosophers think of knowledge as *justified true belief*. On the other hand, others question whether the connection between knowledge and belief is a necessary one. The most well known effort to refute the connection is an article by Edmond Gettier, "Is Justified True Belief Knowledge?", in *Analysis*, 1963. The focus on page 57 is the question whether the credibility of a story is necessarily a criterion of its truth. What Pixie seems to be trying to show, as she says on lines 23 and 24, is that "what's true can be just made up". Her argument consists in pointing out that the actual manner in which people grow up is just as bizarre, on the face of it, as a completely fantastic account, such as Robert's, that we were once as tall as mountains but have been shrinking ever since. Only the evidence of experience permits us to choose one unbelievable story over another. A view that would be critical of this Humean position would be a coherence theory of empirical knowledge. Classic presentations would be Brand Blanshard *The Nature of Thought* (1939), Keith Lehrer, *Knowledge* (1974).
## CHAPTER EIGHT

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<td>59:4</td>
<td>Value terms</td>
<td>The adjectives “nice-looking” and “pretty” are value terms. Value terms indicate different types of approval or disapproval (ethical, aesthetic, etc.) or else they may be taken as different types of qualities (ethical, aesthetical, etc.). One wonders whether Pixie thinks some colors are intrinsically pretty, and others are not. Also, does she assume that having pretty colors is a criterion for concluding that certain birds are “nice-looking”? See R. M. Hare, “Language and Moral Education”, in G. Langford and D. J. O'Connor (ed.), <em>New Essays in the Philosophy of Education</em> (1973). Also, see C. I. Lewis, <em>An Analysis of Knowledge and Valuation</em>, and John Dewey, <em>Theory of Valuation</em> (1938).</td>
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<td>59:5</td>
<td>Interested</td>
<td>Dewey has written on <em>Interest and Discipline in Education</em>. For Dewey, interest is very important because it is the subjective counterpart to the quality of the situation. The quality performs a guiding role in inquiry when it provokes our interest and we inquire into the subjectmatter in order to see how the problem can be solved. For Martin Buber, on the other hand, interest may at times have a negative role. For example, in <em>Between Man and Man</em>, he writes that the artist distrusts that which is interesting, because it seduces him away from perceiving what is essential. Of course, Dewey and Buber may be referring to quite different aspects of the concept of “interest”.</td>
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<td>59:6-7</td>
<td>Pixie leaves the bird house</td>
<td>How does Pixie know that she is not going to find what she came to see as long as she stays in the bird house? Evidently, birds don't possess some characteristics which she is sure her “mystery creature” must have. We get a further insight into her understanding when, on page 64, line 17-18, she tells us the characteristics of</td>
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her creature. Presumably, she is engaging in this kind of thinking:

All "creatures that have these characteristics" are "my mystery creature".
No "birds" are "creatures that have these characteristics".
Therefore, no "birds" are "my mystery creature".


Pixie comes to the conclusion that Jenny has found her mystery creatures because "she can't tear herself away from a big old parrot". And further, we are led to believe that she also thinks Tommy has found his mystery creature, because he is imitating one by standing on one leg. But her reasoning doesn't necessarily follow. They might have found their mystery creatures awhile ago, and just now became interested in these animals. Her reasoning doesn't follow in the sense that she has too little evidence for drawing a reliable inference. This fallacy is sometimes called "jumping to conclusions", or "hasty generalization". See Fearnside, W. W., and Holther, *Fallacy: The Counterfeit of Argument*, pp. 13-17.

Evidently Tommy identifies so much with the flamingos that he stands on one leg, just like they do. Among children, such identification
can be frequent and overt. Seeing a person limp, they will limp, and seeing a horse prance, they will prance. See Paul Schilder, *Image and Appearance of the Human Body*, in which there are frequent references to a “community of body imagery”.

60:1 Command

See R. M. Hare, “Imperative Sentences”, in *Practical Inferences* 1972.

60:19-20 Responding when addressed

According to Buber (*Between Man and Man*) there are times when a person is confronted and addressed not just in verbal terms but by some aspect of the world. A child or a dog may look at you, he says, and you are “answerable for its glance”. In order words, for Buber, our ethical responsibility is linked to our capacity to respond when addressed. What would seem to be the case here is that Brian’s remark is, as it were, wrenched out of him by the giraffe’s behavior, and is proportionate to it.

61:1 Silence


61:5 Experimenting

In the first three lines she reacts as if she were jealous and in the next three lines she talks like an experimental psychologist. Part of Pixie’s
charisma is her rapid shuttling from role to role and her arbitrariness and unpredictability. When we do something to "see what happens", we are experimenting.


With regard to charisma, see M. Lipman and S. Pizzurro, "Charismatic Participation as a Sociopathic Process", *Psychiatry*, 1956.


61:15  Pixie requesting explanation

61:24-25  What's happened that Brian has started talking?

Pixie first makes a statement of fact, "You're talking now". She then goes on to infer, "So you think it makes a difference now". If we were to ask Brian what that difference is, perhaps he would tell us that it has something to do with being an active member of a community of inquiry, a community that has taken his views seriously, treated him with respect, and built upon his ideas in a constructive manner. Unlike the adults in his life previously, his peers and Mr. Mulligan have truly listened to him, and he has found the discussions that they have had important to him personally. For more on the cognitive and affective dimensions of what it is to belong to a community of inquiry, see Ann Margaret Sharp "What is a 'Community of Inquiry'?", *J. of Moral Education*, Vol. 16, No. 1, Jan. 1987, as well as "Is There an Essence of Education?", *J. of Moral Education*, Vol. 15, N.o 3, Oct. 1986.

61:15-25  Kinds of reasoning

First, Pixie assumes that animals and people are complimentary terms, so that if Brian didn't stop talking to animals, he must have stopped talking
Sources and references


62:5  Exaggeration  Obviously, Pixie is exaggerating when she says she never stops talking. Exaggeration is not often dealt with in the philosophical literature, surprisingly. Nevertheless, Strawson takes exaggeration as inherently capable of dealing only with differences of degree rather than differences of kind. Thus, he says, with regard to the comment, “My brother is 15 feet tall”, another child might reply, “Aren’t you exaggerating?”, but to the comment “I passed history this semester”, it would be inappropriate to
reply, "you're exaggerating." See George Pitcher (ed.), Truth, for this article by Peter Strawson on exaggeration.

62:11 Signs

See Ernst Cassirer, Philosophy of Symbolic Forms and Charles Morris, Sign, Symbol and Human Behavior. The most extensive analysis of the epistemological function of signs would be found in Charles Peirce, Collected Works, especially those parts dealing with indexes and icons.

62:11 Missing what is there

Psychologists sometimes talk of "selective inattention" to describe conduct in which we screen out things we don't want to see. Another version of this is to be found in George Simmel's essay on "The Metropolis", in which he discusses "blase behavior" to describe the way in which urban life predisposes people not to see a great deal of what surrounds them in their experience of the city—particularly the unpleasant aspects of the experience—. Charles Peirce says that what is in the forefront of our experience may be so habitually present that we are not aware of it; however, he adds when we do become aware of it, it seems to stare at us and we cannot imagine how we ever missed it.

62:14 Appearances

The problem of the separation (or apparent separation) of appearance and reality goes back to the pre-Socratics. The atomists in particular (see Democritus and Lucretius) were concerned to show that reality consisted in the interaction of atoms, but the qualities of our experience are all "mere appearance". This battle continues throughout the history of philosophy, with Descartes siding with the atomists, with regard to sense qualities being mere appearances, and Berkeley arguing that the qualities we experience are real but that any claim that matter underlies them and is the cause of them must be false. In modern philosophical literature, see Bertrand Russell, Our Knowledge of the External World. Ernest Nagel, "Bertrand Russell's Theory of
To recognize involves identifying something or someone we previously knew. It therefore involves recollection which is, itself, a major philosophical issue. Plato deals with the matter of knowledge as recollection in his dialogue *The Meno*.

With regard to how we would recognize something of which we had no previous experience, one of the most famous examples in philosophical literature would be Aristotle's explanation (Book I, *Nicomachean Ethics*) in which he discusses how we would recognize the Supreme Good if we encountered it.

Pixie assumes that her creature is in the zoo and that it has a sign. Is it necessary for Pixie to make these assumptions? Children don't assume, when they go to a zoo, that they will find domesticated animals there, like cats and dogs and horses. So not all animals are in the zoo. On the other hand, perhaps she is right to assume that if the zoo should display an animal, they should name it.

This is an odd construction because it suggests that Pixie realizes that realization is a process that takes place over time. What is interesting is that realizing is usually considered an "achievement" or a "success" word, rather than a process word. (Running is a process that takes place over time. Winning is an achievement that occurs...
instantaneously. One cannot run instantaneously and win over a period of time. See Gilbert Ryle's *Concept of Mind.*

62:25 Everyone but me

To a child that everyone else has something he doesn't have can be very poignant. It's an example of how the all only distinction has an intense affective aspect.

63:2 Admitting

Pixie's choice of this word is interesting because it indicates her ability to make fine discriminations with regard to speech acts. Instead of using the all-purpose verb, "say", she chooses a word that involves a more explicit type of verbal behavior. See J. L. Austin, *How to Do Things With Words,* and J. L. Searle, *Speech Acts.*

63:6-7 "What if"

Pixie's "what if" is an alternative form of supposing. She raises a possibility that hasn't happened yet, but she apparently dreads to spread out the consequences. And so she doesn't make them explicit.

63:8 Missed

Pixie assumes that she missed her mystery creature. Here is an example of Pixie engaging in metacognition. She reviews her own actions and thinking and decides that she was at fault. J. H. Flavell and H. M. Wellman "Metamemory", in Kail and Hagen, *Perspectives on the Development of Memory.* See also, E. M. Markman, "Realizing That You Don't Understand", in *Elementary School Children's Awareness of Inconsistencies,* *Child Development* (1979), pp. 643-645.

63:12 Figured

The way Pixie uses the word "figured" here is closer to assume or guess, whereas figured out is like solve or realized.

63:15 Exemplification

The guard points to a gorilla as an example of a mammal. Pixie rejects the possibility that the gorilla instantiates the mammal as she perceives it to be. Obviously, there is either something wrong with the guard's exemplification or with Pixie's concept formation.
There's no sense

Sit down on the grass in a circle

Rule-breaking

Definition

Do mammals exist?

Pixie doesn't tell us whether or not she revealed her disgust to the zoo guard. When we feel a strong emotion such as disgust, it is usually “written all over our faces”, and we display our feelings to the world, whether we want to or not. This is why Lewis Carroll's *Twist in the Hunting of the Shark* is so bizarre. “But neither betrayed by a sound or a word, the disgust that appeared in his face”.

Pixie here uses an idiomatic expression which means "there is no sense to or there is no point to".

Philosophical discussions don't take place only in the classroom. They can also take place in a shady grassy spot, as here as in the *Phaedrus*.

Mr. Mulligan reminds Pixie that they agreed to a rule. That's a convention. It suggests that the relationships within the class, with respect to the rule, that they all agree to abide by are of the nature of convention. See David Lewis, *Convention*.

Mammalian characteristics. Pixie offers four characteristics which are usually cited as essential to all mammalian creatures. She is trying to lay bare the essential structure of the concept mammal by which the concept is to be distinguished from other concepts. In effect, Pixie is offering a definition and for the classical treatment of definition, one should consult Aristotle's *Posterior Analytics*, pages 101b-102a.

Pixie assumes that because Mr. Mulligan is familiar with the word “mammal”, he has confirmed her belief that mammals exist. We know that Pixie knows about unicorns and about mammoths. The first creature never existed, but was purely imaginary. The second, mammoths, once existed, but have become extinct. The case of the mammal is a third type of non-existence, that in which a logical
class does not exist even though its members exist.

65:14 Family relationships A family is made up of relatives. The logical structure of families is very complex and is often perplexing to children. Since the family is such a vivid part of the child's experience there is no way for most children to avoid having to deal with the subtle distinctions which kinship relationships involve. A useful educational instrument for instructing children about family relationships is part of the Feurstein Instrumental Enrichment Program.

65:24-27 Isabel's analogy See Robert Sternberg, Intelligence Information Processing and Analogical Reasoning. For exercises in analogical reasoning, see Arthur Whimby and Jack Lochhead, Problem Solving and Comprehension. Isabel seems to be saying that a family is to relatives as mammals are to . That is, families are made up of relatives, and mammals are made up of some kind of membership.

66:3 Class Mr. Mulligan corrects Pixie by pointing out that a mammal is not a family word but a class word. For a readable version of the traditional logic of classes that has come down to us from Aristotle, see Francis Parker and Henry Veatch. Logic as a Human Instrument, pp. 70-76. Here is a chart which illustrates the process of subdivision into more and more specific class divisions.

66:16-26 Does a class have the essential feature of the members of the class This is a part-whole fallacy that is a fallacy of composition to assume that what is true of the part is also true of the whole, and that in this case, what is true of class members is also true of the class itself. As Kate says, “the class of red-headed people isn’t itself red-headed. But this does not mean that what is true of the part cannot be true also of the whole”. Wittgenstein in the Foundation of Mathematics points out, for example, that the class of classes is itself a class.

66:26-27 Do classes exist? Aristotle, in Categories, asserts that what he calls
"primary reality", is to be found only in concrete individuals, such as John, Mary, Rover or other specific identifiable individuals. As for the ascending level of classes and sub-classes, Aristotle ascribes to them what he calls "secondary reality". A similar distinction is made by Bertrand Russell who states that things exist but mathematical and logical entities, such as classes, merely "subsist".

Pixie here thinks in terms of comparatives and superlatives. She vows to make her story better than it now is, and in fact to make it the best story possible. In so doing, she satisfies the two kinds of criteria which Plato singles out, in *The Statesman* as of utmost importance, comparison of things with one another, and with an ideal standard.

This line suggests that Pixie sees story construction as a process of inquiry that requires constant revision and self-correction. It's possible that Pixie had already devised a story as to how thinking starts. She claims on page 27 that she had such a story already made up. Here she says that she is going to change it, so it is possible that this is where she begins to compose the story which she will tell some of her friends in Chapter Nine.

Pixie shows off some of her intellectually precise expertise when she plans to explain to her mother the difference between classes and families and when she explains to the reader the identity between the sound of the mother cat and the sound that she makes when she wants to get into her mother's lap. Pixie then proceeds to a more elaborate form of reasoning—a refutation of her mother's claim that she is getting too big to sit in her mother's lap. Essentially it is the kind of reasoning that is called *a fortiori*. She says that everyone else in the class sits on their mother's laps and they are all bigger than she is. Therefore, we are to infer, if it is all right for them, then it
must be all right for her. If they can do it, and they're so much bigger, then surely she can do it.

Pixie thought that when she understood families and classes, everything would fall into place. Here she discovers that she must also take into account the notion of "kind". Within the same kind, there may be a subdivision into males and females, and these of course have different characteristics. What bothers Pixie is that mammals are identified by characteristics that belong only to one portion of the members of that classification. For some contemporary discussion of the notion of natural kind, see Bas Van Fraassen in The Scientific Image.


Some comparisons can be very precise. For example, you can have precise analogies such as Mr. Mulligan employs on page 45: two is to three as four is to six. Most analogies are looser and stress a similarity of relationships. For example, toes are to feet as fingers are to hands. It would seem that answering a question with a question is in effect a very loose analogy. One might preface the second question with "that's like saying...". Thus, if one child were to ask another how come we have toes on our feet, the other might reply how come we have fingers on our hands? It is implied that the explanation of the one is the explanation of the other.

Thus, analogy is a pedagogical tool in calling attention to the similarity between the relationships. It is a reasoning device because when you give a reason for something, you're
introducing a more plausible statement in support of a less plausible one, where the less plausible follows logically from the more plausible.

When you answer a question with a question, the answer is a question to which the listener is more likely to give assent than to the original question, although what holds for one seems to also hold for the other.

Pixie asks why is nothing simple. We can interpret her literally as claiming that everything is complex and that nothing in the universe is irreducible. In this case, Pixie is expressing a position traditionally held by Anaxagoras. On the other hand, she may be wrong in assuming that nothing is simple, thus, Spinoza, in *The Ethic* insists that simple and complicated are relative to our understanding; what we find difficult to understand, we call complex, and what we find easy to understand, we call simple.

The answer given by Pixie’s mother implies that the universe is constructed teleologically, and the complexity in it was put there for the purpose of making human beings think. This is akin to saying that trees were put in the world to give people shade, and that cantaloupes are marked off into divisions which will show people the proper portions to cut.
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<td>Description and explanation</td>
<td>The first four paragraphs show us Pixie identifying and describing a set of symptoms</td>
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<td>(aching bones, headaches, vomiting) behavior (running to the bathroom) and offering</td>
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<td>explanatory hypotheses (virus and indigestion). For some useful treatments of the notion</td>
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<td>of explanation, see John Hospers &quot;What is explanation?&quot;, in Anthony Flew, <em>Essays in</em></td>
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<td><em>Conceptual Analysis</em>, pp. 94-119. See also, Alisdair MacIntyre, &quot;The Antecedents of</td>
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<td>Action&quot; in Bernard Williams and Alan Montefiore (eds.), <em>British Analytic Philosophy</em>,</td>
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<td>pp. 201-211. For linguistic aspects of causal relations, see George A. Miller, and</td>
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<td>71:14</td>
<td>Can people have the same headache?</td>
<td>In ordinary usage where an illness is contagious, it is common to speak of it as being</td>
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<td>the same illness, as in &quot;I caught your cold&quot;. But because headaches are pains in</td>
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<td>physically separated heads, it does not seem that they could qualify as being strictly</td>
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<td>identical (Leibniz's Principle of Identity of Indiscernibles holds that if two things</td>
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<td>exhibit no discernible difference, they are one thing). See also Wittgenstein, <em>Philosophical</em></td>
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<td><em>Investigation</em>. This phrase is a kind of gallows humor, in that it is so morbid.</td>
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<td>71:18</td>
<td>Lucky You</td>
<td>Another example, harking back to the above discussion of the sharing of diseases, would</td>
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<td>be S. J. Perelman's remark, &quot;I have Alzheimer's disease and he has mine&quot;.</td>
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<td>72:2</td>
<td>Logic of commands</td>
<td>Commands are not assertions, strictly speaking, and so they are not generally considered</td>
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<td>to be either true or false. Nevertheless, some logicians argue that some commands</td>
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<td>contain implicit declarative content, so that it is possible to draw inferences from</td>
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<td>them. For example, it could be</td>
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said, when Pixie’s mother says, “Get up and get dressed”, she is implying that Pixie is neither up nor dressed. It may be well to note also that commands are sometimes given in the form of predictions, such as “You’re both going to the doctor”.

**72** Speech acts

This page seems to contain a broader variety of speech acts than any page we have seen so far a range from “saying”, (line 2) to “squawking” (line 5), “telling” (line 12), “giggling” (line 19), “hollering” (line 23), and “screaming” (line 25). See John Searle, *Speech Acts*.

**72:6** Very funny

Many children probably have no experience of doctors making house calls. Some parents probably remember clearly that house calls by doctor were nothing unusual. The irony Pixie’s mother sees is in the social change that has occurred in just a few years, at least in some countries.

**72:22-26** Pixie’s argument

When Dr. Richards says he will give Pixie a shot only if he has to, Pixie voices skepticism. She implies that doctors always try to justify what they do by claiming that they had to do it. This is an echo of the argument by Thrasmacus of Book I of *The Republic* that the rulers of a country always act in their own interest, and yet, for public consumption, whatever they do, they call good.

**73:1-5** Appeal to flattery

One of the informal fallacies identified by traditional rhetoric is that involved in persuading someone to accept a statement as true by flattering the other person. Contemporary sociologists would simply see it as a form of manipulation. For a complete inventory of fallacies, see the article by Baruch Brody in the *Encyclopedia of Philosophy*, entitled “Fallacies”.

**73:20-23** Shared experience

Pixie had been looking forward to telling her own story and hearing the other’s stories. This was very important to her. See Collingwood on
Pixie’s father attempts to help Pixie solve her problem. She tries out his suggestion but Isabel doesn’t seem to think it is going to work. She doesn’t think that the classmates are going to be interested in coming to hear her “’ol’ story”.

See Fernside and Holther, Fallacy, page 124 for a discussion of appeals to pity. They call this fallacy a demand for special consideration.

Pixie expects the whole class to come to her bedroom. She will sit on the bed, and like the great story tellers of old, she will tell them all a great story. Historically, when the whole group comes together, history begins, with certain cultural events such as the formation of myths, and these are then handed down from generation to generation and with each generation they undergo significant modifications while still recalling in some sense or other the original legends or stories or themes. The best account of this transmission is told by Gilbert Highet in the book, The Classic Tradition.

In this sense, what the class does with Pixie’s story is a microscopic recapitulation of this process, the way in which ancient legends are transmitted hereditarily through various cultures up to the present day. Since Pixie’s classmates transmit her story orally, their procedure resembles what happened in Homeric times more than what is likely to happen nowadays.
## CHAPTER TEN

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<td>Paul Ricoeur, &quot;Time and Narrative&quot;, in Lipman, <em>Discovering Philosophy</em>, 2nd edition. This article is important for its hermeneutical approach to alternative texts (such as the four Gospels) that describe a single event.</td>
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<td>79</td>
<td>Jocko and Bozo</td>
<td>There is a rich tradition of clowning puppets of which one example is Punch and Judy. French puppet clowns probably date back to the Renaissance. Many of our pairs of comedians like Laurel and Hardy, the Three Stooges and the Marx Brothers, are indebted to that tradition. The same is true of Becket's <em>Waiting for Godot</em>. Circus clowns have also participated in the tradition.</td>
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<td>80</td>
<td>The movie version</td>
<td>It is a question in aesthetics as to how closely the movie or play version of a book must resemble the original. This is even more true in the case of a musical version. Nelson Goodman, <em>Languages of Art</em>.</td>
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<td>82</td>
<td>The Lady and the Magician</td>
<td>The popular circus act of the Lady and the Magician made use of the illusion that the head extending from one end of the box and the feet extending from the other end belong to the same individual, with the result that when the magician would saw through the box, the audience would gasp in horror.</td>
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<td>82-83</td>
<td>Particles falling in the void</td>
<td>The major source of the treatment here would be Democritus (following the testimony of Aristotle). According to Aristotle, Democritus held that the particles move about in the void, brush against or bump against one another, and</td>
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being of different shapes become interlocked, with the result that they form perceptible objects.

83:22-23 Colors The account of the origin of colors seems to differ from that of the atomists who held that taste and color do not exist in reality (only the atoms and the void are real).

84:8 Arms and legs wandered alone This is taken directly from Empedocles, fragment 58 "limbs wandered alone".

80 Hurricane Empedocles describes the process of a whirling and eddying in which some things mix together and some things separate out. (Fragment 35.)

84:10-15 Fingers look for wandered alone Empedocles talks about a double process: in which the many become one, and the one become many. But the elements remain the same, even though they become different things at different times. (Fragment 17.)

86:13-15 Replacement and identity The favorite Sophist formulation of this problem poses the question of whether a ship that has its boards replaced one by one is at the end of that process still the same ship. (The Ship of Theseus.)

87:8-21 Arguments These arguments are a variant on the claims made in Plato’s Republic that injustice is disharmony among the parts, and that in an organically constituted society, each part would do what it was best fitted to do, and that alone. Workers would work and not try to rule, rulers would rule and not try to work, etc.

84:10-13 Parts looking for one another It will be recalled that in The Symposium, Plato has Aristophanes tell a story of how human beings were once split into two and spent their lives searching for their other half, all the while looking like a bunch of flat fish.
**CHAPTER ELEVEN**

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<tr>
<td>90:23</td>
<td>Brian's story</td>
<td>The basic theme in Brian's story is derived from Plato's theory of recollection which is to found in <em>Phaedo</em> 72e to 77a. The theory of forms which also runs through the story is to be found in <em>The Republic</em> VI 502C-509C. Plato's own critique of the Theory of Forms is to be found in <em>Parmenides</em> 127D-136E.</td>
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<td>91:23-24</td>
<td>Ideas of icky things</td>
<td>Pixie asks if there were ideas of hate, ugliness and baldness, and were there ideas of mud, hair and dirt. Her words are taken verbatim from <em>Parmenides</em>.</td>
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<td>93:16-17</td>
<td>Theory of participation</td>
<td>For a discussion of the theory of participation, see <em>Republic</em> VI 598 where there is a discussion of our relationship to the Forms or Ideas. Brian refers to these as sharing; Plato talks about our participation in the Forms or Ideas. Later, St. Augustine in <em>The Teacher</em> will talk about participation in the Divine Intellect, as well as the immanent <em>Logos</em>.</td>
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<td>93:23-24</td>
<td>The role of story</td>
<td>With regard to the role that stories can play in helping us see the philosophical, especially the moral, dimension of human experience, see Martha Nussbaum's <em>Love's Knowledge: Essays on Philosophy and Literature</em> (Oxford, 1990).</td>
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<td>97</td>
<td>Robert's objection</td>
<td>Robert professes in lines 2-6 and 10-12 a materialistic theory of cognition and a correspondence theory of knowledge. See the work of D. M. Armstrong's <em>Belief, Truth and Knowledge and Perception and the Physical World</em>, and Frederick Engel's <em>Letters on Historical Materialism</em> for an exposition of this theory. Also, see John Locke's <em>An Essay Concerning Human Understanding</em>. For something more current, see Daniel Dennett, <em>Consciousness Explained</em>, and James K. Feibleman, <em>Adaptive Knowing</em>.</td>
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Neil asks Pixie to tell the class which of the four stories is her story. Pixie declines to do so. If we wanted to know which of her stories was closest to the truth, how would we proceed? One could also ask the question, if one wanted to know which of the four Gospels is the true one, how would one proceed? Is there one Gospel that is more true than the others? Paul Ricoeur recommends the hermeneutical method in his The Conflict of Interpretation: Essays in Hermeneutics (1974), Interpretation Theory (1976), and Time and Narrative, 3 Volumes (1984-88). Hans-Georg Gadamer has written on the same method in his Truth and Method (1975).

Throughout the entire story, Pixie, there has been an emphasis on mystery. Pixie told us in Chapter One that perhaps she herself might be a mystery creature. With regard to mystery, see Gabriel Marcel, Being and Having, and The Mystery of Being; Milton Munitz, The Mystery of Existence; James Bacik, Apologetics and the Eclipse of Mystery: A Mystagogy According to Karl Rahner (1980); Walter James Lowe, Mystery and the Unconscious: A Study in the Thought of Paul Ricoeur, and Earl D. Brewer, Transcendence and Mystery (1975).
genetically, "How do we know?", rather than in terms of traditional theories of knowledge such as Kant's "What can we know?". Pixie seems to be hovering on the brink of psychological, rather than philosophical, explanation of knowledge. But by now, we have been Pixie explore so many dead ends that we cannot be sure which way she is going to go from here.