

Payne's wife hated to watch her husband think without understanding his work in physics. Why, she asked, couldn't he make her see a proton? It was really quite a bore.

BIRTH OF A GARDENER

by Doris Pitkin Buck

PAYNE KNEW THAT WHEN HE got home he would find Lee still spraining her mind over *A Non-Mathematical Approach to Physics*. A woman with Lee's hair didn't have to be intellectual. After all, she had a green thumb. Why couldn't his wife—Payne tried to put it with all charity—reconcile herself to the fact that his interests were off limits?

He turned into his driveway and kicked a pebble. Then he smiled. Here he was—Fermi Researcher at the Droxden Foundation, famous in two hemispheres for his work on anti-matter—acting like a bad-tempered child because he knew no way to manage a beautiful, stupid, absurdly stubborn wife.

His smile grew rather fixed. Why did she have to keep asking questions night after night when he got home tired from his laboratory! Lee never understood the answers when he did give them to her. Why—

He had an obscure, entirely irrational feeling that tonight his fatigue held some sort of menace both to him and to his wife; that barriers melted in his weariness, as they melt away in sleep; that what comes out when they are down is anyone's horrified guess. Payne did not shiver, but for a moment he thought he was going to. Then he told himself that he knew what was wrong. He had not admitted until this evening how dreary his marriage was growing.

He stopped where elms arched over the drive and made a green tunnel of sorts that held its own twilight. Lee's flowerbeds lay beyond the end of the tube, suggesting something on a slide under a microscope, or at least he was sure Lee, if she were around, would see them that way.

Payne looked at drifts of peonies and iris with a few weedy spears of grass reaching upward for light. He stopped by a clump and gathered some flowers. Fagged

though he was, he walked toward the house with a purposeful swing to his stride. He held the bunch behind his back, like a surprise for a child.

When he opened the front door, he found Lee sitting beyond the living room, her dark head bent over the non-mathematical approach. The rooms, as so often happened now, appeared messy out of all proportion to their actual disorder. Payne knew, even though he did not see, where dust had gathered behind furniture in the corners.

"Lee," he walked toward her, speaking more sharply than he meant, "give it up!"

She held out her book with its gaily diagrammatic cover, her dark eyes those of a stricken small-girl. "You mean . . . give up this?"

"Exactly. You aren't going to be an intellectual because you try to read something elementary on physics." Wearing the smile, he sat down near her. "Remember the Chinese saying—"

She shook her head.

"If you would be happy for an hour, get drunk; happy for an evening, roast a pig; happy for three days, get married." She winced and Payne with a slight flourish produced the yellow blooms. "If you would be happy for life, plant a garden."

She startled him by saying, "That wasn't why I evoked you."

"Evoked me?"

"You can call it that. Don't you see? I always wanted you even when I was little, though I didn't know then *exactly* how you'd look. I kept adding details: hair just as bright as brass and all lovely and shiny; a straight way of standing; large hands but with an awfully nice shape. I just thought very hard and—finally one day, there you were."

"Nonsense. I happened to be passing by when you were going into the subway and dropped some nickels. I never realized until tonight that you dropped them on purpose."

"But I didn't. Things just happened, after I . . ." She took his flowers and added them without interest to some already in a vase, while she explained, "Things do happen sometimes in the most marvellous way. But now they go . . ." the words came out like a barely heard sigh, "they go all wrong."

He tried stroking her hand. "Naturally they're wrong while you prefer physics to flowers. Stop playing around with a rigorous logic that isn't your style."

"Rigorous logic!" She pulled her hand back. "Rigor mortis!"

Payne's eyes opened wide. For a moment they looked like blue rifts in a glacier. "Oh, are you familiar enough with my theories to criticize them?"

Lee was instantly humble. "I

only meant—I don't know what I meant. I think I wanted to say: Isn't there some way you could teach me to *see* physics? I—I skipped to the back of the book and was reading about—" she brought the term out proudly, "about neutrinos. I can see them all round."

"You can? Really? I congratulate you, Rosalie. You're more advanced than any of the men at the Foundation."

"But I can see them." Her tone was slightly injured. "They're like the Cheshire Cat's grin that stayed on in the air after the Cat vanished. You know, in *Alice in Wonderland*."

"Go on. I'm fascinated."

Lee only said in a changed voice, "If I'm not your real companion, if you won't let me be, I'm not anything—not anything at all. Perhaps I shall . . ."

She put her hand with her handkerchief to her mouth suddenly. She choked back whatever she might have told Payne. Finally she spoke intensely, "I'm trying so hard, so hard, to get where we can talk together, or at least where I can listen."

"Listen? How can I talk with you about my work? Tonight I want to figure why a pi meson, a negative one, decays the way it does when you shoot it through liquid hydrogen." He added, "I'd like to go on thinking about that right now."

She laid her hands on his arm. "But . . . but our marriage—"

"No problem at all. Anyway, I told you how to solve it. Why don't you listen to what I say about the garden instead of talking about Cheshire Cats?"

"I didn't mean to annoy you."

For some reason that touched off a train of irritations. "Can't you see that the way you skip all over the book and never master any of it is a huge annoyance, particularly when I come in tired? Then you cover up with something silly. What were you saying last week? Weren't you inventing some kind of story about people who lived in a world of anti-matter, as if what I work on were a fairy tale?"

She looked away.

"Weren't you?"

"I was thinking about . . . electrons." She used the word with awe. It could have been the secret name of a deity. "Then I thought about anti-electrons, and people, and anti-people, and even," she gulped a little, "galaxies and anti-galaxies. There could be anti-galaxies. It says so here." She hugged the book.

"Don't be defensive. You've gotten more than I expected. Now be a sensible girl and leave it right there." He looked at her face and added, "Or if you have to tell fairy tales about your anti-universe, go out and tell them to your iris. You have a real way with

flowers, and you're letting the whole garden go. It used to be trim as a manicured hand. Today it's unkempt."

"I know."

"By July what's it going to look like? See, you belong there. Why, the borders need you to care for them."

She cried desperately, "Can't you see what you're doing? Don't make me evoke someone twice."

"Twice?" His lips curved down in contempt. "Now is that quite worthy of you? But go on *evoking* if you want to. I shan't be jealous."

Her eyes were close to misting. "Jealous! I don't mean anything like that. I want to say— This time I'm scared of what I think about. Scared, Robert, really scared. But I might do it if you make me." Her voice dropped as if she confessed something shameful. "I find myself adding detail to detail, the way I used to, and sort of beaming it out—somewhere." She straightened suddenly. Her chin tilted up. She finished, "But then I stop."

Payne's tone was stiff. "Better think over what I said about the garden."

"You're turning it into an exile. If I'm sent away from you—" She did not finish but asked, "Aren't we ever going to be married, really married?"

Again his irritations mounted. "Not," he said sharply, "if our

being married depends on your understanding that book in your hand."

A kind of panic crept into her eyes. He tried to be reasonable. "Oh all right. Forget what I said about the garden. Tell me about your anti-world if you want to."

"I don't believe I remember now what I made up about the people in it. They were like us, exactly like us—"

He made a pretense of listening. But his mind slipped off to a series of equations. Would changing plus and minus signs affect the gravitational field of an anti-earth? He came back to their conversation as Lee garbled something she must have heard. "—and we're looking at it through a telescope that's at right angles to any dimension we know. Only what we see is Now," she capitalized it with an inflection, "Now, not millions of years ago. So with all the parts of the anti-atoms exactly like our atoms, only reversed—"

"With the electrical charges reversed."

She brushed that aside. "You see the people, since everything they're made of is the same, would be—"

Payne broke in, "Everything isn't the same. The proton isn't."

She put her finger against her forehead and tilted her head up in a way he had once found charming. "There's something about it. Here. On this page." She

spoke carefully. "It's about the mass—that's right, isn't it—the mass of—Is it a nucleus? It's twice as much as ours. Does that make anti-matter different from matter? Please tell me—"

"Don't go begging me to clarify. It doesn't do any good. I've tried."

She implored, "Couldn't you make . . . a picture?"

He shook his head. "If we can only find how atoms keep accounts of their income and output, we shan't need to bother about what they look like. Besides, I prefer to bypass pictures. I work analytically. While I do, if you dream about your anti-world, don't make it exactly like this one." His eyes narrowed a shade. "A variation here and there, due to that variation in the proton, might improve the anti-earth, don't you think?"

"You're making fun of me."

"Tonight," he snapped, "I'm too exhausted to make fun of anybody."

He saw her go into one of her painful efforts to think. "If we don't find our true relationship—the one we were meant to have—there'll be a . . . a flaw in the universe."

"Most improbable."

She flared, her hair a swirl of darkness round her head and her eyes full of sparks, "What do you really know about the universe?" In that moment she was a Lee he had never seen, her impatience with him matching his with her.

"You haven't even gotten any real sort of order out of an atom—you and all the other geniuses. Can you predict what would happen to people like us in an anti-world? What they're like? What they do?"

He felt one of her fairy tales in full spate again. He faced her squarely. He held her eyes with his lighter ones till he was sure he had her attention completely. Then he said, very gently and very softly, "Darling, you bore me."

The perfect oval of her face did not change. But everything else about her altered subtly until she stood before her husband impersonal as print—the same woman and not the same woman. He heard her tell him in a toneless voice that she wasn't hungry, that her head ached, that she wanted—again Payne waited through one of her pauses—wanted to go to bed.

Payne stayed up reading until late. He had a guilty twinge because he didn't feel badly about wounding Lee; anyone with eyes like hers was sure to be vulnerable. Finally, he went upstairs.

As he passed Lee's open door he saw her lying in the moonlight, pale in her sleep. She was still sleeping when he went to the laboratory next morning. That evening as though he had been ordered by something, someone not himself, he went in to her room, leaned over, and touched her white cheek.

An odd thing happened. He seemed to smell mold. He began to tremble, chill with the certainty that Lee would never wake.

An embolism, the doctor said, scouting the idea of suicide. The neighbors were tender to Payne, as if he were a lost child. But actually he felt closer to Lee than when she had been alive. The shadowiness of her eyes stayed with him, hauntingly, like the eyes of a memorable portrait. At any instant he could visualize her hair, a turbulence of darkness. If there were whirlwinds in the depths of space— He broke off. That was how Lee's mind worked. Had worked, he corrected himself. It was never his way, he reflected while he kept physical memories of her before him, because behind them he knew something lay that would torture him all his life if he ever faced it.

One evening Payne walked home along the shaded drive that led to the garden. His mood was one of almost exhilarated content; his work at the Foundation had gone better than well. Abstruse calculations had been something to play with. He had never experienced such a sense of power, nor had he ever known power to give him a feeling of prelude.

He looked joyously down the dark tube of boughs and tree boles. At that second he caught sight of— No, it couldn't be. But it was.

Lee! She stood against the border of flowers, shadowy against dimming bloom. Payne—stockstill, yards away—stared down the tunnel that led straight to her.

She tilted up her head; seeing him, he was sure. Her lips—delicate and of so live a coral that she never used makeup—curved into a smile, half welcome, half wistfulness.

His eyes swam. In that second the blooms behind her blurred into spiralling blue and red. He could have sworn that long, snaking arms of a galaxy formed her background. He did not try to make any meaning of it. He hurried forward—

For a half-instant there was a snowstorm of flaking light. Then Payne saw neglected flowers. Nothing more.

He felt a stab of reproach, keener than anything he had known at his wife's death. Here where he had seen, truly seen Lee, he would tidy the beds as they had never been tidied. He would leave nothing faded, nothing weed-choked. The rank growth around a delphinium seemed desecration. He yanked the intruding weeds out savagely.

Vaguely, a worry gnawed him. The day had been almost too keyed up. His formulations had come with unnatural ease. On top of that, this hallucination. The word *hallucination* irked him. He substituted *hallucinatory experi-*

ence and felt considerably better.

As he weeded, he considered seeing a psychiatrist, then decided he had not that much time to spare. Besides, he had a dark suspicion a psychiatrist might dissolve Lee into nothingness. The idea was enormously painful.

With his pocket knife he trimmed off wilted roses; each time he made a slanting cut. Somewhere, he was certain, he had heard that was the right way. *If you would be happy for life . . .* "Lee," he muttered, "if you come back a second time, this place will be in shape for you."

He pulled some crabgrass from the neighborhood of a rose. "Darling," he asked, "do you think I called you? I seem to be falling in love with you all over again."

Lee did not reappear in the garden. Payne saw her, through a doorway in his own house, as he raised his head suddenly from a work on mathematics. Oddly, he could have been looking down a shaft trained on her. His heart did something in waltz time; she was much nearer than she had been before.

Tonight she sat hunched on a large hassock. The position would have been ungraceful for anyone else. She did not look at Payne. He made no move toward her for fear she would disappear. But he fidgeted. She was unaware of him, lost in her book.

That was Lee for you, he thought. Ghost or dream or whatever she was, Lee held stubbornly to her ruling idea. He guessed what she was reading. An unfamiliar pity swept over him as she bent her splendid head over the pages. He caught glimpses of diagrams, not enough to be sure exactly what the plates showed, but enough to see that his guess was right. Lee was reading physics.

He wished he could explain whatever it was to her, for once. Experimentally he called, "Lee." She never raised her head. She only moved her hand, which soundlessly turned the pages. Speech between them was evidently out.

Yet Payne got Lee's simpler reactions, though how he did not know. He sensed to a split second when she would shut her book and look off dreamily into space. Was she still struggling with *A Non-Mathematical Approach*?

The closed volume was on her knee. Its name, Payne noted, was lettered in gold, clear and legible: *On the Validity of Thought Patterns as Determined by Their Elegance*. Payne blinked. Automatically, he checked the author's name and read below the title, *Rosalie Payne*.

After Payne had his one glance at *The Validity of Thought Patterns*, Lee eluded him. He would walk home expectantly through

the shady alley. He kept his eyes on the ground until the space between him and the flower border was shorter than the distance between him and Lee in the different rooms. The space between them had shortened once; it seemed reasonable it would shorten again—more than reasonable, for Payne felt the intensity of his own wishes was a factor. But when he lifted his eyes, he saw only the last white chrysanthemums tinged with lavender that bloomed their best after a touch of frost.

If, thought Payne, he went into the house and picked up what he had been reading the night he saw Lee, perhaps—His heartbeat quickened. He concentrated on—he used Lee's term—"evolving" her. He altered techniques. He tried not to think about her at all. He went to absurd tricks of stage setting and adjusting lights. Finally he ordered a blank volume from a bookbinder and had it made up with the title he had seen in gold. He specified that *Rosalie Payne* be stamped beneath that title. If he could have reproduced the contents, he had a hunch Lee would surely have returned. He had little hope when he laid the unwritten book on a hassock. Nothing happened, as he foresaw.

When the hollow way did open, Payne was working late in his office, his mood exhilarated contentment. As he leaned back, still

analyzing a photograph of particles in a bubble chamber, Lee was so close she could have been on the other side of the wall—only there was no wall. Payne was conscious of a dark rim bounding what he saw, making Lee's universe somehow beyond all reaching, though right at hand. She, eager as a child holding a wrapped present, studied a photograph too; he tried to see of what. All he got was a feeling of something slightly, and in no expected way, unfamiliar. But he found it hard, even craning his neck, to look. It was far more interesting to study Lee's intent face. He told himself she ought not to go at things so hard. After all, during these rare glimpses, she might be interested in him.

Payne had never been a vain man, but now he tried to see the figure he would cut before her. He wanted her to look, a wanting so desperate he was sure it would get through to her. While he sat rigid, she lifted her head, turning in his direction. She knitted her brows impatiently, a little as though he were a pet animal demanding attention. Then she smoothed her forehead with an unconscious gesture, smiled, and bent over the photograph again.

He could find some way to get to her, he told himself, some way that would not make her vanish, some way that would put them in actual communication. He had

his chance now. It might never come again.

He influenced her a little, obviously. But making her look in his direction got him nowhere. Well, since she was now absorbed in physics on something like his level, he would reach her through their shared curiosity.

Payne took a fresh sheet of paper and wrote some equations he had found of real interest. Though no complete formulation of his theories on anti-matter and on fields that could affect it, they were still suggestive.

Briefly, he hesitated. If his mathematics were beyond her hopelessly, she might be discouraged. After all, he did not know how far her studies had taken her. His fingers reached for the edge of the paper, to tear it up.

But, he reflected, his figures would be a good reaction test. He held the formulae up in front of him. Once more he willed Lee to be attentive.

Her resistance became almost tangible. Payne concentrated against her concentration. Again she frowned, and he concentrated harder. After all, he was sure she was interested and he had something breathtakingly new to show. Briefly he felt a pride in his work that almost made him forget her.

She stopped frowning and turned toward him. He raised the sheet of figures. He saw her read what he had written.

Her glowing, vibrant expression dimmed to weariness. Quickly, while she watched, he wrote out something simpler, and waited for a flash of recognising delight. But Lee looked away from the figures straight into his face. Payne could not fathom her expression.

Then with a shock of joy he felt Lee reach out for *his* attention. Something in their minds seemed to interlock. All the while Lee went about some business of her own. He saw her tack a large piece of paper to the wall, select a crayon and begin to draw.

What grew under her hand was an arabesque in depth, a figure beyond the calculus of matrices. Correspondences and symmetries were clear as in the work of a great mathematician. Yet music could not have been more moving. She glanced at him as she added the last touch.

Payne stared. He began to understand. The Atom! Still staring, he saw what she must intend to represent the proton. Wrong, for the rest of the arrangement! Of course, it would be. Trust Lee to be confused. Its cross section was twice—

Payne drew in his breath with a gasp. There was no confusion except his own. Suddenly it came clear. Lee's atom was not matter, but anti-matter.

He felt a little dizzy, and though he was sitting down, he grasped the edge of the desk. Anti-

matter, so like, so nearly the same as matter! Anti-matter, his own field of study! He knew with absolute certainty, their minds still interlocking, that he stared at some small part of a universe which almost but not quite duplicated his own in reverse.

He remembered his brief impression of a nebula when he stood in his garden. But he found himself saying an author's name, "Lee. Lee Payne." So this Lee had been married. His whole body shook with jealousy. She was his Lee. They had a unique relationship wherever, whatever, she was.

Impressions surged through him, growing clearer. No, she was not his Lee. He was suddenly sure of that. She was what his wife had brought him across uncounted parsecs. Lee's epocation must have been incredibly strong to linger like a vibration beyond her own death. Why? Why? Was this new Lee a last scarcely believable gift to him?

But while Payne questioned he no longer felt the contact of mind with mind. Instead he met resistance ten times stronger than before. He heard himself shouting and realized that in Lee's anti-world the silence was unruffled. He saw her speaking to him. Yet he

heard nothing. The two worlds were as still, each to each, as stars to some gazer with his eyes at an instrument.

But if this Lee were speaking, there was some way to understand. There must be.

It came in one flash that if he formed the words with his lips, Lee could talk to him, speaking with his very voice. He studied her face.

He copied.

"Darling," his own mouth formed the word for her. She watched him and spoke again, very slowly.

He echoed aloud, "Darling, you bore m—"

Payne never finished. He felt a bitter humiliated impulse to lash out. Only there was no way. Lee turned her back and walked out of sight.

He thought of all the ways in which a physicist might destroy himself. It could look like an accident. A freak accident. Grimly he resolved that he would never do that for any woman in any universe. Suicide—never! He could, he would be happy in spite of everything. Savagely, he resolved that tomorrow he would spend the whole day bedding the garden down for the winter.

