

FOUNDATION'S FRIENDS

*Stories in Honor of Isaac Asimov*

Edited by Martin H. Greenberg

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**To Isaac, with love**

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## Preface

by Ray Bradbury

ONE OF MY FAVORITE STORIES AS A CHILD WAS THE ONE ABOUT the little boy who got a magical porridge machine functioning so wildly that it inundated the town with three feet of porridge.

In order to walk from one house to the other, or head down-street, one had to head out with a large spoon, eating one's way to destinations near or far.

A delightful concept, save that I imagined tomato soup and a thick slush of crackers. Going on a journey and making a feast, all in one!

I imagine the name of the little boy in that tale should have been Isaac Asimov. For it seems to me that since first we met at the First World Science Fiction Convention in New York City the first week in July 1939, Isaac has been journeying and feasting through life, now at the Astronomical tables, now in a spread of other sciences, now in religion, and again in literature over a great span of time. One could call him a jackdaw, but that wouldn't be correct. Jackdaws focus on and snatch bright objects of no particular weight. Isaac is in the mountain-moving business, but he does not move but eat them. Hand him a book and a few hours later, like that above-mentioned porridge, Isaac comes tunneling out the far side, still hungry. Is there a body of literature he hasn't taken on? I severely doubt it.

And now here, with this book, we have Asimov's honorary sons and daughters. Their machines may not run amok and inundate a city, but they are producing, nevertheless, and looking to Papa Asimov and us for approval, which will not be withheld.

To say more would be to call attention to my comparable size, a mole next to a fortress or a force of nature. I would add only a final note. People have said Isaac is a workaholic. Nonsense. He has gone mad with love in ten dozen territories. And there are a few dozen virgin territories left out there. There will be few such virgins left, when Isaac departs earth and arrives Up There to write twenty-five new books of the Bible. And that's only the first week!

One night two years ago, I dreamed I was Isaac Asimov. Arising the next day, it was noon before my wife convinced me that I should not run for President.

Bless you, Isaac. Bless you, Isaac's children, found herein.

February 21, 1989

# The Nonmetallic Isaac *or* It's a Wonderful Life

by Ben Bova

ASTROPHYSICISTS (TO START WITH A SCIENTIFIC WORD) CLASSIFY the universe into three chemical categories: hydrogen, helium, and metals.

The first two are the lightest of all the hundred-some known elements. Anything heavier than helium, the astrophysicists blithely call "metals." Hydrogen and helium make up roughly ninety-eight percent of the universe's composition. To an astrophysicist, the universe consists of a lot of hydrogen, a considerable amount of helium, and a smattering of metals.

Now, although Isaac Asimov is known throughout this planet (and possibly others, we just don't know yet) as a writer of science fiction, when you consider his entire output of written material—all the four-hundred-and-counting books and the myriads of articles, columns, limericks, and whatnots—his science fiction is actually a small percentage of the total. As far as Asimov's production is concerned, science fiction tales are his "metals."

Science *fact* is his mettle.

It is the "nonmetallic" Asimov that I want to praise.

Remember the classic movie *It's a Wonderful Life!*? The one where an angel shows suicidal James Stewart what his hometown would be like if Jimmie's character had never been born?

Think of what our home planet would be like if Isaac Asimov had never turned his mind and hand to writing about science.

We narrowly missed such a fate. There was a moment in time when a youthful Isaac faced a critical career choice: go on as a researcher or plunge full-time into writing. He chose writing and the world is extremely happy with the result.

Knowing that science fiction, in those primeval days, could not support a wife and family, Isaac chose to write about science fact and to make that his career, rather than biomedical research.

But suppose he had not?

Suppose, faced with that career choice, Isaac had opted for the steady, if unspectacular, career of a medium-level research scientist who wrote occasional science fiction stories as a hobby.

We would still have the substantial oeuvre of his science fiction tales that this anthology celebrates. We would still have "Nightfall" and "The Ugly Little Boy," the original Foundation trilogy and novels such as *Pebble in the Sky*. We would, to return to the metaphor we started with, still have Isaac's "metallic" output.

But we would not have his hydrogen and helium, the huge number of books that are nonfiction, mainly books about science, although there are some marvelous histories, annotations of various works of literature, and lecherous limericks in there, too.

If Isaac had toiled away his years as a full-time biomedical researcher and part-time science fiction writer, we would never have seen all those marvelous science books. Probably a full generation of scientists would have chosen other careers, because they would never have been turned on to science by the books that Isaac did not write. Progress in all fields of the physical sciences would have slowed, perhaps disastrously.

Millions of people allover the world would have been denied the pleasure of learning that they *could* understand the principles of physics, mathematics, astronomy, geology, chemistry, the workings of the human body, the intricacies of the human brain—because the books from which they learned and received such pleasures would never have been written.

Entire publishing houses would have gone into bankruptcy, no doubt, without the steady, sure income that Isaac's science books have generated for them over the decades. And will continue to generate for untold decades to come. The wood pulp and paper industry would be in a chronic state of depression if Isaac had not turned out all those hundreds of books and thousands of articles. Canada might have become a Third World nation, save for Dr. Isaac Asimov.

To make it more personal, I would have never started to write popularizations of science if it had not been for Isaac's works—and for his personal encouragement and guidance. The gods themselves are the only ones who know how many writers have been helped by Isaac, either by reading his books or by asking him for help with science problems that had them stumped.

Blighted careers, ruined corporations, benighted people wandering in search of an enlightenment that they cannot find—that is what the world would be like if Isaac had not poured his great energies and greater heart into nonfiction books about science.

A final word about a word: popularization.

In the mouths of certain critics (including some professional scientists) “popularization” is a term of opprobrium, somewhat akin to the sneering “pulp literature” that is still sometimes slung at science fiction. “Popularizations” of science are regarded, by those slandering bastards, as beneath the consideration of dignified persons.

Such critics regard themselves as among the elite, and they disdain “popularizations” of science with the same lofty pigheadedness that George III displayed toward his American subjects.

To explain science is probably the most vital task any writer can attempt in today’s complex, technology-driven society. To explain science so well, so entertainingly, that ordinary men and women all over the world clamor for your books--that is worthy of a Nobel Prize. Too bad Alfred Nobel never thought about the need to explain science to the masses. I’m certain he would have created a special prize for it.

Isaac Asimov writes about science (and everything else) so superbly well that it looks easy. He can take any subject under the sun and write about it so lucidly and understandably that any literate person can grasp the subject with hardly any strain at all.

For this incredible talent he is sometimes dismissed as “a mere popularizer.” As I have offered in the past, I offer now; anyone who thinks that what Isaac does is easy is welcome to try it. I know I have, with some degree of success. But easy it is not!

Thanks be to the forces that shape this universe, Isaac decided *not* to be a full-time researcher. He became a full-time writer instead. While he is famous for writing science fiction, his “nonmetallic” output of science fact is far larger and far more important--if that word can be applied to writing--than his deservedly admired and awarded fiction.

If all this adds up to the conclusion that Isaac Asimov is a star, well, by heaven, he is! One of the brightest, too.

# Strip-Runner

by Pamela Sargent

THE THREE BOYS CAUGHT UP WITH AMY JUST AS SHE REACHED the strips. "Barone-Stein," one boy shouted to her. She did not recognize any of them, but they obviously knew who she was.

"We want a run," the smallest boy said, speaking softly so that the people passing them could not hear the challenge. "You can lead and pick the point."

"Done," she said quickly. "C-254th, Riverdale localway intersection."

The boys frowned. Maybe they had expected a longer run. They seemed young; the tallest one could not be more than eleven. Amy leaned over and rolled up the cuffs of her pants a little. She could shake all of them before they reached the destination she had named.

More people passed and stepped onto the nearest strip. The moving gray bands stretched endlessly to either side of her, carrying their human cargo through the City. The strip closest to her was moving at a bit over three kilometers an hour; most of its passengers at the moment were elderly people or small children practicing a few dance steps where there was space. Next to it, another strip moved at over five kilometers an hour; in the distance, on the fastest strip, the passengers were a multicolored blur. All the strips carried a steady stream of people, but the evening rush hour would not start for a couple of hours. The boys had challenged her during a slower period, which meant they weren't that sure of themselves; they would not risk a run through mobs of commuters.

"Let's go," Amy said. She stepped on the strip; the boys got on behind her. Ahead, people were stepping to the adjoining strip, slowly making their way toward the fastest-moving strip that ran alongside the localway platform. Advertisements flashed around her through the even, phosphorescent light, offering clothing, the latest book-films, exotic beverages, and yet another hyperwave drama about a Spacer's adventures on Earth. Above her, light-worms and bright arrows gleamed steadily with directions for the City's millions: THIS WAY TO JERSEY SECTIONS; FOLLOW ARROW TO LONG ISLAND. The noise was constant. Voices rose and fell around her as the strip hummed softly under her feet; she could dimly hear the whistle of the localway.

Amy walked up the strip, darted past a knot of people, then crossed to the next strip, bending her knees slightly to allow for the increase in speed. She did not look back, knowing the boys were still behind her. She took a breath, quickly stepped to the next strip, ran along it toward the passengers up ahead, and then jumped to the fourth strip. She pivoted, jumped to the third strip again, then rapidly crossed three strips in succession.

Running the strips was a lot like dancing. She kept up the rhythm as she leaped to the right, leaned into the wind, then jumped to the slower strip on her left. Amy grinned as a man shook his head at her. The timid ways of most riders were not for her. Others shrank from the freedom the gray bands offered, content to remain part of a channeled stream. They seemed deaf to the music of the strips and the song that beckoned to her.

Amy glanced back; she had already lost one of the boys. Moving to the left edge of the strip, she fainted, then jumped to her right, pushed past a startled woman, and continued along the strips until she reached the fastest one.

Her left arm was up, to shield her from the wind; this strip, like the localway, was moving at nearly thirty-eight kilometers an hour. The localway was a constantly moving platform, with poles for boarding and clear shields placed at intervals to protect riders from the wind. Amy grabbed a pole and swung herself aboard.

There was just enough room for her to squeeze past the standing passengers. The two remaining boys had followed her onto the localway; a woman muttered angrily as Amy shoved past her to the other side.

She jumped down to the strip below, which was also moving at the localway's speed, hauled herself aboard the platform once more, then leaped back to the strip. One boy was still with her, a few paces behind. His companion must have hesitated a little, not expecting her to leap to the strip again so soon. Any good striprunner would have expected it; no runner stayed on a localway or expressway very long. She jumped to a slower strip, counted to herself, leaped back to the faster strip, counted again, then grabbed a pole, bounded onto the localway, pushed past more people to the opposite side, and launched herself at the strip below, her back to the wind, her legs shooting out into a split. Usually she disdained such moves at the height of a run, but could not resist showing her skill this time.

She landed about a meter in front of a scowling man.

"Crazy kids!" he shouted. "Ought to report you--" She turned toward the wind and stepped to the strip on her left, bracing herself against the deceleration as the angry man was swept by her on the faster strip, then looked back. The third boy was nowhere to be seen among the stream of people behind her.

Too easy, she thought. She had shaken them all even before reaching the intersection that led to the Concourse Sector. She would go on to the destination, so that the boys, when they got there, could issue another challenge if they wished. She doubted that they would; she would have just enough time to make her way home afterward.

They should have known better. They weren't good enough runners to keep up with Amy Barone-Stein. She had lost Kiyoshi Harris, one of the best strip-runners in the City, on a two-hour run to the end of Brooklyn, and had reached Queens alone on another run after shaking off Bradley Ohaer's gang. She smiled as she recalled how angry Bradley had been, beaten by a girl. Few girls ran the strips, and she was better than any of the others at the game. For over a year now, no one she challenged had ever managed to shake her off; when she led, nobody could keep up with her. She was the best girl strip-runner in New York City, maybe in all of Earth's Cities.

No, she told herself as she crossed the strips to the expressway intersection. She was simply the best.

Amy's home was in a Kingsbridge subsection. Her feeling of triumph had faded by the time she reached the elevator banks that led to her level; she was not that anxious to get home. Throngs of people moved along the street between the high metallic walls that enclosed some of the City's millions. All of Earth's Cities were like New York, where people had burrowed into the ground and walled themselves in; they were safe inside the Cities, protected from the emptiness of the Outside.

Amy pushed her way into an elevator. A wedding party was aboard, the groom in a dark ruffled tunic and pants, the bride in a short white dress with her hands around a bouquet of flowers made of recycled paper. The people with them were holding bottles and packages of rations clearly meant for the reception. The couple smiled at Amy; she murmured her congratulations as the elevator stopped at her level.

She sprinted down the hall until she came to a large double door with glowing letters that said PERSONAL--WOMEN. Under the sign, smaller letters said SUBSECTIONS 2H-2N; there was also a number to call in case anyone lost a key. Amy unzipped her pocket, took out a thin aluminum strip, and slipped it into the key slot.

The door opened. Several women were in the pleasant rose-colored antechamber, talking as they combed their hair and sprayed on makeup by the wall of mirrors. They did not greet Amy, so she said nothing to them. Her father, like most men, found it astonishing that women felt free to speak to one another in such a place. No man would ever address another in the Men's Personals; even glancing at someone there was considered extremely offensive. Men would never stand around gossiping in a Personal's antechamber, but things were not quite as free here as her father thought. Women would never speak to anyone who clearly preferred privacy, or greet a new subsection resident here until they knew her better.

Amy stood by a mirror and smoothed down her short, dark curls, then entered the common stalls. A long row of toilets, with thin partitions but no doors, lined one wall; a row of sinks faced them on the other side of the room.

A young woman was kneeling next to one toilet, where a small child sat on a training seat; Amy could not help noticing that the child was a boy. That was allowed, until a boy was four and old enough to go to a Men's Personal by himself or with his father, an experience that had to be traumatic the first time around. She thought of what it must be like for a little boy, leaving the easier, warmer atmosphere of his mother's Personal for the men's, where even looking in someone else's direction was taboo. Some said the custom arose because of the need to preserve some privacy in the midst of others, but psychologists also claimed that the taboo grew out of the male's need to separate himself from his mother. No wonder men behaved as they did in their Personals. They would not only be infringing on another's privacy if they behaved otherwise, but would also be displaying an inappropriate regression to childhood.

Amy kept her eyes down, ignoring the other women and girls in the common stalls until she reached the rows of shower heads. Two women were entering the private stalls in the back. Amy's mother had been allowed a private stall some years ago, a privilege her husband had earned for both of them after a promotion, but Amy was not allowed to use it. Other parents might have granted such permission, but hers were stricter; they did not want their daughter getting too used to privileges she had not earned for herself.

She would take her shower now, and put her clothes in the laundry slot to be cleaned; the Personal would be more crowded after dinner. Amy sighed; that wasn't the only reason to linger here. Her mother would have received the message from Mr. Liang by now. Amy was afraid to go home and face her.

Four women were leaving the apartment as Amy approached. She greeted them absently, and nodded when they asked if she was doing well in school. These were her mother's more intellectual friends, the ones who discussed sociology and settled the City's political problems among themselves before moving on to the essential business of tips for stretching quota allowances and advice on child-rearing.

Amy's mother stepped back as she entered; the door closed. Amy had reached the middle of the spacious living room before her mother spoke. "Where are you going, dear?"

"Er--to my room."

"I think you'd better sit down. We have something to discuss."

Amy moved toward one of the chairs and sat down. The living room was over five meters long, with two chairs, a small couch, and an imitation leather ottoman. The apartment had two other rooms as well, and her parents even had the use of a sink in their bedroom, thanks to her father's Civil Service rating. They both had a lot to protect, which meant that they would scold her even more for her failures.

"You took longer than usual getting home," her mother said as she sat down on the couch across from Amy.

"I had to shower. Oh, shouldn't we be getting ready to go to supper? Father'll probably be home any minute."

"He told me he'd be late, so we're not eating in the section kitchen tonight."

Amy bit her lip, sorry for once that her family was allowed four meals a week in their own apartment. Her parents wouldn't have been able to harp at her at the section kitchen's long tables in the midst of all the diners there.

"Anyway," her mother continued, "I felt sure you'd want to speak to me alone, before your father comes home."

"Oh." Amy stared at the blue carpet. "What about?"

"You know what about. I had a message from your guidance counselor, Mr. Liang. I know he told you he'd be speaking to me."

"Oh." Amy tried to sound unconcerned. "That."

"He says your grades won't be good at the end of the quarter." Her mother's dark eyes narrowed. "If they don't improve soon, he's going to invite me there for a conference, and that's not all." She leaned back against the couch. "He also says you've been seen running the strips."

Amy started. "Who told him that?"

"Oh, Amy. I'm sure he has ways of finding out. Is it true?"

"Um."

"Well, is it? That's even more serious than your grades. Do you want a police officer picking you up? Did you even stop to think about the accidents you might cause, or that you could be seriously injured? You know what your father said the first time he heard about your strip-running."

Amy bowed her head. That had been over two years ago, and he had lectured her for hours, but had remained unaware of her activities since then. I'm the best, she thought; every runner in the City knows about me. She wanted to shout it and force her mother to acknowledge the achievement, but kept silent.

"It's a stupid, dangerous game, Amy. A few boys are killed every year running the strips, and passengers are hurt as well. You're fourteen now--I thought you were more mature. I can't believe--"

"I haven't been running the strips," Amy said. "I mean, I haven't made a run in a while." Not since a couple of hours ago, she added silently to herself, and that wasn't a real run, so I'm not really lying. She felt just a bit guilty; she didn't like to lie.

"And your grades--"

Amy seized at the chance to avoid the more hazardous topic of strip-racing. "I know they're worse. I know I can do better, but what difference does it make?"

"Don't you want to do well? You used to be one of the best math students in your school, and your science teacher always praised--"

"So what?" Amy could not restrain herself any longer. "What good is it? What am I ever going to use it for?"

"You have to do well if you want to be admitted to a college level. Your father's status may make it easier for you to get in, but you won't last if you're not well prepared."

"And then what? Unless I'm a genius, or a lot better than any of the boys, they'll just push me into dietetics courses or social relations or child psychology so I'll be a good mother someday, or else train me to program computers until I get married. I'll just end up doing nothing anyway, so why should I try?"

"Nothing?" Her mother's olive-skinned face was calm, but her voice shook a little. "Is what I do

nothing, looking after you and your father? Is rearing a child and making a pleasant home for a husband nothing?"

"I didn't mean nothing, but why does it have to be everything? You wanted more once--you know you did. You--you--".

Her mother was gazing at her impassively. Amy jumped up and fled to her room.

She lay on her narrow bed, glaring up at the soft glow of the ceiling. Her mother should have been the first to understand. Amy knew how she once had felt, but lately, she seemed to have forgotten her old dreams.

Amy's mother, Alysha Barone, was something of a Medievalist. That wasn't odd; a lot of people were. They got together to talk about old ways and historical bookfilms and the times when Earth had been humanity's only home. They dwelled nostalgically on ancient periods when people had lived Outside instead of huddling together inside the Cities, when Earth was the only world and the Spacers did not exist.

Not that any of them could actually live Outside, without walls, breathing unfiltered air filled with microorganisms that bred disease and eating unprocessed food that had grown in dirt; Amy shuddered at the thought. Better to leave the Outside to the robots that worked the mines and tended the crops the Cities demanded. Better to live as they did, whatever the problems, and avoid the pathological ways of the Spacers, those descendants of the Earthpeople who had settled other planets long ago. They could not follow Spacer customs anyway. In a world of billions, resources could not be wasted on private houses, spacious gardens and grounds, and all the rest. Alysha Barone, despite her somewhat Medievalist views, would not be capable of leaving this City except to travel, safely enclosed, to another.

Her mother had, however, clung to a few ancient customs, with the encouragement of a few mildly unconventional friends. Alysha Barone had insisted on keeping her own name after her marriage to Ricardo Stein, and he had agreed when she asked that Amy be given both their names. The couple had been given permission to have their first child during their first year of marriage, thanks to their Genetics Values ratings, but Amy had not been born until four years later. Both Alysha and Ricardo had been statisticians in New York's Department of Human Resources; it made sense to work for a promotion, gain more privileges, and save more of their quota allowances before having a child. They had ignored the chiding of their own parents and the friends who had accused them of being just a little antisocial.

Amy knew the story well, having heard most of it from her disapproving grandmother Barone. The two had each risen to a C-4 rating before Alysha became pregnant; even then, astonishingly, they had discussed which of them should give up the Department job. Only the most antisocial of couples would have tried to keep two such coveted positions. There were too many unclassified people without work, on subsistence with no chance to rise, and others who had been relegated to labor in the City yeast farm levels after losing jobs to robots. Her parents' colleagues would have made their lives miserable if they both stayed with the Department; their superiors would have blocked any promotions, perhaps even found a way to demote them. Someone also had to look after Amy. The infant could not be left in the subsection nursery all day, and both grandmothers had refused to encourage any antisocial activity by offering to stay with the baby.

So Alysha had given up her job. Her husband might be willing to care for a baby, but he could not nurse the child, and nursing saved on rations. Ricardo had won another promotion a few years after Amy's birth, and they had moved from their two-room place in the Van

Cortlandt Section to this apartment. Now Amy's father was a C-6, with a private stall in the Men's Personal, a functioning sink in his room, larger quota allowances for entertainment, and the right to eat four meals a week at home.

Her parents would have been foolish to give up a chance at all that. How useless it would have been for Alysha to hope for her position at the Department; they would have risked everything in the end.

The door opened; her mother came inside. Amy sat up. Her small bed took up most of the room; there was no other place to sit, and Alysha clearly wanted to talk.

Her mother seated herself, then draped an arm over Amy's shoulders. "I know how you feel," she said.

Amy shook her head. "No, you don't."

Her mother hugged her more tightly. "I felt that way myself once, but couldn't see that I'd be any better off not trying at all. You should learn what you can, Amy, and not just so that you'll be able to help your own children with their schoolwork. Learning will give you pleasure later, something you'll carry inside yourself that no one can take from you. Things may change, and then--"

"They'll never change. I wish--Things were better in the old days. "