



EDITORIAL

Art is the triumph over chaos (no less) and we can accomplish this only by the most vigilant exercise of choice, but in a world that changes more swiftly than we can perceive there is always the danger that our powers of reflection will be mistaken and that the vision we serve will come to nothing. We admire decency and we despise death, but even the mountains seem to shift in the space of a night and perhaps the exhibitionist at the corner of Chestnut and Elm Streets is more significant than the lovely woman with a bar of sunlight in her hair, putting a fresh piece of cuttlebone in the nightingale's cage.

John Cheever

"Art is the triumph over chaos . . ." may be reminiscent of T. S. Eliot's description of poetry as "a raid on the inarticulate" and Robert Frost's "momentary stay against confusion," and certainly it does seem that art can be served "only by the most vigilant exercise of choice." Someone said of Tennyson, "Alfred is always carrying a little chaos around in his pocket, and turning it into cosmos." The artist withdraws form from chaos by disciplining himself to the practice of the techniques of his art, and the first element that puts Michelangelo ahead of Ghirlandaio, his teacher, is a fluency of technique.

I don't think technique is all there is, to performance in an art, and I'm sure John Cheever doesn't, either. And is technique plus observation enough? Are artists and musicians and poets skilled reporters, or do they live to interpret, more than for any other reason? When Ezra Pound said that poets are the antennae of the race, I wonder if he took into account that an antenna, on an insect, does nothing to record or interpret the sensations received, although such sensations may be acted upon-but only transmits them to the brain. And I've often wondered about a statement Stanley Kunitz made in one of his lectures at Queens last year: "It is a hard and inescapable phenomenon that we are living and dving at the same time. It is my commitment to report the dialogue." Why the word "report"? It's true that a poet does report, in the sense that if he's any good he must stick to the facts insofar as he knows them, but he must, also, interpret; "Tell the truth, but tell it slant." Then, it's true that the artist must give his particular slant; and if he sees the world, or men, or his home town, or the inside of himself as primarily or conclusively chaotic, purposeless, or bestial, he must say so. But is that the highest art? Just because he says so well? Or because he substantiates such opinions with examples of, for instance, the exhibitionist on the corner of Elm and Chestnut? I think there's another question to be considered: Does it tell the truth about man? That's a question of morality, or, as one college president put it: "Never is the question of morals and letters raised without the implication or the statement that moral poetry means nothing else than poetry with a moral or precept. It seems difficult for the disputants to observe that a poem is moral if it tells the truth about men, whatever it may be, the purest examples being the tragedies of the ancients or of Shakespeare."

An artist must have skill, he must be able to observe, but he must also consider most carefully what truth he is telling, and what he is telling it about. That is "the most vigilant exercise of choice." Nobody has told us the whole truth about man, thank God, or perhaps we should sit complacently through Bach's B Minor Mass, or say "that's nice" when our best friend broke a diving record: there wouldn't be any surprise left in anything, or any awe. But there are some truths which, once emphasized, preclude the knowledge of other truths. If a child hears mostly about violence, degradation, duplicity, and perversion—all of which are true, in the sense that they do exist and are even widespread—it is going to be increasingly difficult for him to see and to feel confident that courage (Hemingway's "grace under pressure"), honor, loyalty, and heroism, also exist and are just as true.

Just as true: I wonder if they are not more true. Not for the reason that one could take a survey and say more people are courageous than are cowardly; not for the reason that one could count noses and conclude that more people in such and such a city have not beaten dogs than have beaten them. But the virtues are truer than the vices in the sense that, if one first and only studies dog-beaters, he becomes disillusioned (a word which is not quite appropriate, as it seems to imply a breaking up of an illusion rather than of something that's really so) and almost necessarily becomes unable to see the humanity of people who do not beat dogs. On the other hand, if one studies first of all those who do not beat them, his observation of the dog-beaters can exist just as accurately (even more accurately, because of his perspective on the whole truth) as the observation of the person who has concentrated only on dog-beaters. Even if ninety percent of the citizens were to beat dogs, we still ought to think first of all of the people who do not, for otherwise we'd not be able to observe wholly enough. That the first and exclusive attention to evil precludes a knowledge of good, while a knowledge of good recognizes evil and still retains good, is the only reason I can see for Isaiah VII: 15: "Butter and honey shall he eat, that he may know to refuse the evil, and choose the good." Isaiah did not say, "Butter and honey shall he eat that he may be content and satiate and uncaring for those who have never had any, and do not know what they are."

Cheever speaks of ". . . a world that changes more swiftly than we can perceive": But does it so change? We have submarines, now, yes, instead of the fleet Lord Nelson had; and we have Broadway instead of the Theatre of Dionysus. But is the instrument or physical setting so important as to prove the statement of *essential* change? Man is the one, after all, who determines the importance of the physical world. What about the basic matters—common to everyone—which "introducers" seem so fond of telling audiences that

poets write about: "birth and death and love and the passing of time and the change of seasons . . . "? As someone asked me recently, "Don't you suppose a girl in Pompeii, whose best friend had died, felt very much as you would feel, if your best friend died?" What about the Greek fear of hubris so evident in the plays of Aeschylus and Sophocles? What about the fear in the Middle Ages of the same thing? Pride is always first on the list of seven deadly sins, though the order varies after that; and now we still repeat, "Pride goeth before a fall," which is a proverb upholding humility rather than self-deprecation, and is consistent with MacArthur's prayer when his son was born, "Let my son, oh God, be gentle and forgiving in victory, as he is strong and proud in defeat." Remember the voice Macbeth heard cry after he had stabbed Duncan, "Sleep no more! Macbeth does murder sleep"; and that the Ancient Mariner was awake for seven days and nights after he had shot the albatross, until he blessed the water snakes. Now, if we worry about some mistake we have made, our friends are likely to say, "Don't lose any sleep over it-" but we often do. Charlemagne and President Kennedy both saw possibilities for their countries that their countries were too slow to realize. There is some resemblance. I think, between Ralph, in Lord of the Flies, and Woodrow Wilson. In answer to a question, "Why did Ralph cry at the end of the movie?" one might say, "For the same reason Woodrow Wilson had, when he returned from Versailles." In a sense, Wilson failed-and yet, now, how much do we owe him? That's why I cannot agree with Lord of the Flies: there is a strong and reasonable hope that we will not all leave the island to burn. Conscience and courage are still recognized in spite of Madison Avenue.

I don't think people have changed very much, as people. The physical changes set up by various civilizations must be taken into account, of course, but only in terms of what they mean to men. Nor do I think Cheever's exhibitionist is more significant than his "lovely woman,"-and if we concentrate on him we shall surely lose sight of her. I once found out, unhappily but not tragically, that if I looked at the wheatfields while driving a car, I would end up in the wheatfields. At the risk of being absolutely teachy, I'll say the place for a car is on the road, and the place for us is with the woman as well as with the exhibitionist. To carry the metaphor further, there are people who can drive perfectly well while looking at the countryside, but that is because they have had, and profited by, long experience. Only when we know in which direction we are headed and have found out and decided on some of the principles we will live by, which the best manhood has always lived by, are we prepared to help other men, or even to try. At the risk of being pompous I'll say I like John Cheever's honesty: "We admire decency and we despise death, but . . . ". I've heard people say that, and I know they are sincere in the qualification that follows. But I don't think Mr. Cheever has considered all the premises and implications of his statement, or found out that there obtain and persist for men, such certainties as resist change, regardless of the "burthen of the mystery" that men must endure.

Trivia

MOCKINGBIRDS

A mockingbird sings outside my window every morning. The call of other birds flows from his throat easily and perfectly. Sometimes, when I listen to him, I think of her. Has she no notes of her own?

-MARY MARGARET ROGAN

SMILES

People often smile at their own reflections in mirrors. When they smile at other people are they just remembering how nice they look smiling?

-BECKY BALLETINE

QUESTIONS

"Well, Linda, what grade are you in this year?" It's strange that older people never seem to remember how old you are, from one visit to another. They ask the same questions: "How do you like your teacher this year?" "What is your favorite subject?" "Will you be glad when Thanksgiving holidays come?" Before Christmas, they ask, "What did Santa Claus bring you?" Nor can they remember at exactly what age children begin finding out who the man in the red suit really is.

Later, one of their favorite subjects is, — the boy friend. If a girl doesn't admit she has any boy friend, the fun begins. They tease her about almost any boy they happen to know she knows. One day I replied, "Aunt Gertrude, I loathe the idea of holidays, because I enjoy school and studying so much! I'm going on a black coffee diet during Christmas, while studying physics! I want Santa Claus to bring me a baby giraffe for Christmas, — and I never even look at a boy, as I expect to enter a convent as soon as I am of age, and take the vows of chastity for life!" and quietly walked out of the room.

-LINDA ARNETTE

THE ANSWER

The girl breezed into the room, threw her pile of books on the bed, and said, "Three tests, two papers, and two books to read by next Friday! How in the world will I get everything done?" Then she sat down among the books and picked up her knitting.

-LINDA FOLK

STATUS SEEKERS

How much easier it would be for status seekers if manufacturers would simply sew the labels on the outside of clothes! Since they don't, the label-conscious must resort to some other way to advertise their possessions. Instead of grabbing sweaters, they grab their Villagers. They don't search under their beds in the morning for loafers, but Weejuns. They don't ask, "Do I need my raincoat today?" but "Do I need my London Fog?" How far can they go in their discreet implications?

-SUE CHALLEN

QUOTIENT

A middle-aged woman sailed into the airport. She looked down her nose at the people around her, including a tired young mother who was patiently trying to keep three small children under control. Her high heels clicked in time with the bobbing of the mink cape thrown carelessly over her arm. As she swept past me I sniffed her expensive perfume, and noticed her salon-perfect hair. Then I saw under her stylish hem-line two inches of white lace rippling in the breeze of her self-confidence.

-BETSY FUEHRER

THE BIG DANCE

How I had longed for this moment! Dreamily I whirled around the dimly-lit ballroom in the arms of my handsome date, my new red dress flowing gently back and forth. As music filled the crowded room, my heart soared to ecstatic heights! Just as we danced under the chandelier, my date whispered, "Ready to go? This collar's choking me, and I'm starved!" Leave? When the dance had only just begun? I'd waited months for this night, and now it was to be ended for a little mundane food! But what could I say? Fifteen minutes later we were sitting in a dumpy restaurant, eating hamburgers and listening to the jukebox. How I love big college weekends!

-BECKY BALLENTINE

Wilfred

Susan Hales

I don't know why all of us treated Wilfred that way. He wasn't a bad looking boy, but he always needed a haircut. His clothes were either too large or too small, and his face was covered with acne. I don't know much about the kind of boy he was. No one did, really. Oh, everyone knew that his father was dead, and that his mother worked, and that he had no brothers or sisters. But no one really knew what he thought about, or what he wanted to be, or anything like that.

When Wilfred got on the school bus that morning, long ago, no one acted any differently from usual. A few of the boys made nasty remarks, and the girls' snickering and giggling just made them say more and more. I think we really enjoyed seeing Wilfred stammer and shake his fist, and then, as though realizing he could say nothing to change the way we felt about him, take a vacant seat in the back—alone, of course. Wilfred was always alone, and eventually, everyone would forget he was even on the bus.

That morning I turned around quickly to look out the back window as our bus rattled by the future site of the fairgrounds. My eyes met Wilfred's, and my first instinct was to smile just a little. He looked so sad and so *very* alone. I didn't mean to stare, but I just couldn't help it. Why wasn't he like other boys? And why didn't he have even one friend? Most people had at least *one* friend, but Wilfred hadn't—not anyone I knew of, anyway.

When we got to school, I forgot about Wilfred—for awhile. There were so many really important things to think about. I had to show Pam my party list, and read a story for my English class, and then that was the day that try-outs were being held for a girls' sextet.

But the day didn't seem at all unusual. I went to the same classes with the same people and ate lunch at the table that was always reserved for my friends. Lunch time was my favorite period, when I could chat with friends who weren't in any of my classes, and, of course, it was the time to listen to the latest gossip, true or false. I don't think we ever thought about that much. We just liked to know a little something about everyone, and whoever wasn't there was the one we talked about.

I was almost late to English because the try-outs were right after lunch, and there must have been twenty other girls who wanted to sing for Miss Wilson, the Glee Club director. I finally had my turn, and then had to grab my books and purse and tear down the hall and up three flights of stairs to Mr. Avery's room. I liked Mr. Avery. Now I realize that he was rather a poor teacher, but I thought he was wonderful. That was probably because I did nothing to antagonize him, and made supposedly good reports. That day we were reading Jane Eyre. Or rather, Mr. Avery was reading Jane Eyre to us. Most of the class were passing notes across the aisle or gazing out the window or writing letters. No one was really interested. Then, the sudden sound of the siren—nearer and nearer—made everyone throw down his book and rush to the window. An ambulance here—at our school? Whatever for? We couldn't see anything except a big white ambulance and lots of people crowded on the football field.

Mr. Avery's curiosity got the best of him and he ran from the classroom to investigate. Meanwhile, most of the class continued to hang out the windows, and a loud hum of thirty people all talking at once filled the small room. I can't remember how much time passed before Mr. Avery came back, but when he did, his face was solemn and he looked as though he might begin to cry. I wonder if I was the only one who noticed his expression.

"What happened, Mr. Avery?"

"Why was the ambulance here?"

"Is somebody hurt?"

"Please take your seats, class!" Ordinarily, Mr. Avery might have had to say that three or four times to get any results, but that day we immediately scrambled to our desks, and sat on the edge of our chairs staring at Mr. Avery. Finally, he began to speak; and I remember the quiver in his voice as he told us that one of our schoolmates, a boy by the name of Wilfred MacVey, had fallen while running laps around the field, and died, apparently of a heart attack—but an autopsy would have to be performed to find out why.

"Wilfred MacVey? Who's he?" Only a few of us knew.

"Where did he live? Did he go around with anybody I know?"

"I knew Wilfred," Marcia Judkins said. "He rode on my school bus. I sat two seats away from him this morning!"

"You did? Gosh! What was he like?"

"Yeah, Marcia, what was he like?"

Marcia was the main attraction then, and she loved it. I felt a little sick because Marcia didn't really know what Wilfred was like. No one

did. He was always alone, and no one ever said anything to him unless it was nasty or unkind.

I was relieved to hear the bell ring so I could get out of class. I really did feel sick, but I'm sure I must have been the only one to, because the halls were as noisy as ever, and everyone seemed just like yesterday. Nothing had changed.

After another class, the school day finally ended. I walked slowly to my locker, ignoring the hellos and "what are you doing this afternoon's" from my friends. I decided that I couldn't do any homework, so I carelessly threw my books into the locker and began to walk from the school building to the bus.

The small yellow bus was waiting at the usual corner. I got on expecting that the main conversation would be about Wilfred, and that everyone would be a little quieter than this morning, considering that we had at least known who Wilfred was. But no, paper airplanes were flying, and the boys were teasing the girls. Laughter was the predominant sound. I took a seat near the rear of the bus. When it started, I had to look back to where Wilfred had been. I looked at the empty seat and tried to remember how he had looked, but I couldn't, quite. What color had his eyes been, anyway?

Wilfred's name wasn't mentioned—not once. Didn't anyone miss him? Didn't anyone care? What if I had been his friend? I had never tried to be, though. The closest I'd ever come to speaking to him was that morning. Maybe that afternoon I would have spoken to him, and maybe later we would have been friends. But Wilfred was dead, and no one was even thinking about it. I guess by now everyone has forgotten Wilfred.

Aphorisms

A shallow moon gives little light. -FRANCES MILTON Work is the best medicine for sorrow. -MARY SEXTON Honesty pays the toll on the road to happiness. -MARY SEXTON Honesty usually makes enmity. -BURWELL ATKINSON Propriety bows to expediency. -ELIZABETH FUEHRER Gloom answers gloom. -GRACE BAKER Wine is the water that kills the plants in a fool's garden. -JANE LAWTHER The most successful lie is the most flattering. -BURWELL ATKINSON Sarcasm is like an often-told joke: the more one hears it, the less one likes it. -SALLY EASTHAM Love can't be nourished on pity. —BONNIE BURGESS Unenforced laws, like empty threats to children, are mocked instead of feared. -HELEN CLARK Those who are working seek leisure, while those who are at leisure seek work. — KITTY TILGHMAN People who blow their own horns a lot are usually full of air. -SUE CHALLEN A woman can be only a wife; her children grow up and no longer need a mother. -SUSAN HALES A highly intelligent woman knows when not to look so. -LINDA FOLK If you really want to know how you look, ask a ten-year-old.

-MARTHA WINDERS

Shanti Dhara

(Mountain of Peace)
For William Beidler

Up the mountain, down the mountain we went hiking in the snow; through the deep snow from slope to slope among the small hemlocks and other trees, enjoying with our eyes the hazy mountains at a distance! Through the deep snow crossing little creeks we waded up and down to Linville Falls, in the silence of the birds and the wind. Now I was lifting my cold and numb feet up the slope, down the slope, with suddenly a sigh of relief for reaching the cabin and the fire and food and laughter out of the deep snow in the mountain peace.

-NALINI HULYALKAR

Psyche, From The Regions

How wonderful that joy, In overbearing cry Our pain outwearing.

How beautiful her eye Establishing its ray Simply through perceiving

Something beyond what daunts Immediately believing, Sin and death deceiving.

Paris will come again To steal that silken head Whose golden action flaunts

Arrogances dead Since Helen lived in pain And lovely innocence.

-PAUL B. NEWMAN

A Saturday Morning

Carole Cameron

As I sit here on a warm Saturday morning in the backyard of an American home, everything is peaceful, lazy, quiet. The flowers are making their annual debut; the greenery seems to be pushing forward to conquer all; kids are happily playing ball out front; someone is mowing his lawn with a power mower; a milk truck rides by; the smaller children are watching T.V.; the teenagers are on the phone making plans with their dates for a movie or a dance. Yes, everything is quiet, secure, stable—only an occasional plane overhead reminds me of the world beyond this neighborhood.

"The world beyond—" how strange these words, as sunlight floods the yard, and an aroma of ham and chocolate cake drifts across a lazy breeze. I cannot keep my mind from wandering into memories of this same time two years ago. It is almost impossible to believe that such things could have taken place, as took place then, or that circumstances could ever be so serious and dangerous. Yes, it is at this moment difficult to think of youth in any other terms than school, football games, formal dances, driving around in big cars and sports cars, showing off the newest styles, and being as informed as anyone, on the top bands, movie stars, location of the best pizza houses, and who is pinned and who is dating whom. But according to my memory, one nation of youth just wasn't concerned with such things.

I was then living in Korea with my family, and attending an American school on the outskirts of Seoul, along with my brother, sisters, and a small group of American friends my own age. I was still pretty green, as we had been in Korea for only seven months and one does not exactly go native in such a short period of time. Even though I had grown accustomed to the results of the Korean War—the oppressive poverty and open war scars that are still fresh upon the country and the people, and even though we were fairly used to the tension that pressed upon the city all the time, I was ignorant of the violence and terror so many had lived through before we arrived; I still thought of violence and terror in terms of the movies, or T.V.

This time two years ago, on April 19th, we had been at school attending classes, but cutting up and having a good time as we so often did. And then someone came in with a report that twelve students had been killed in riots down town. Young and naive as we were, we could hardly wait to get away and see the action; we failed to realize that human lives had been lost. We were simply excited; I suppose our thirst for adventure protected our minds from the seriousness of the event. We all sat around and speculated in our all-knowingness, and then went back to class. But as the afternoon continued to bring nothing but reports of a dangerous situation, we stopped speculating, and became uneasy. We were dismissed early, and all the parents in the nearby language school came over and formed a long convoy of jeeps and Landrovers, loaded with kids and grownups of all ages. Some of us took the long way home to avoid going through the heart of town. On the way around, by the river, we ran into several large crowds of high school boys running in orderly fashion-adding their part to the demonstrations that were going on all over the city. We noticed that in this particular section of the city, the normally crowded, teeming streets were practically deserted. We also saw a police jeep whose occupants had terrified expressions on drawn faces and were clutching machine guns as if they were going to try to avert disaster at a moment's notice. By this time, I was no longer uneasy; I was scared to death. In spite of my ignorance of political revolution and turnovers throughout history, I began to understand that something was happening that was dangerous, even for me. By the time we got to the large South Gate Market, which is only a few blocks from where I lived, thousands of people were jammed into crowds everywhere. Hundreds marched on the main street, and all heads were turned toward the new police box that was being torn apart by several students, with some older men. We had to stop moving because there was no way of pushing on, so we all waited tensely to see what was going to happen next. However, we finally made it through the mobs, by slow steady progression, and felt very relieved to be back in our seemingly safe houses.

For the rest of the afternoon we heard gunfire all over the city. Reports were flying everywhere, and we finally found out that all these demonstrations were in reaction against the present regime, that was nothing less than a police state, and against the rigged elections that had been recently held. Of course there are many complicated reasons for the political revolution which builds up over a long period of time, but that day had resulted from the rising student indignation against tyranny. The original intention had been to carry on a peaceful demonstration, but the laws of human nature had proved, as usual, stronger than good intentions, after a crowd of students had been fired on by policemen. Many were killed before the day was over.

I spent most of the afternoon behind a high wall that overlooked a main street below, trying to see anything and everything I possibly could. Every once in a while, we would dash for our old attic window to watch better from up there. Carloads of boys came by all afternoon in stolen taxis, screaming, yelling, singing and madly waving sticks and flags. They were

frightening, with white rags tied around their heads, and ragged and torn clothing, and an occasional flesh wound. They weren't just returning from a victorious football game. Not far behind them were trucks of armed soldiers ready to shoot at a moment's notice. These boys were fighting for something better than what they had, and in protest, yet they probably didn't really know what it was they were fighting for. I thought, why shouldn't they be running around in sports cars and having dates and going to pizza houses? Why shouldn't they be spending their afternoons working out for the football team? So many questions raced through my mind for the first time that afternoon—so many questions with so few answers.

The evening crept up on us in a maddening silence. By seven, the city was dead still. Only an occasional burst of gunfire broke the monotonous quiet. Ordinarily on a spring evening in our neighborhood, kids would play past dark, crowding the alleys and small patches of open land. Grownups would come outside, and in typical Oriental fashion, squat around their doorsteps and chat away together. Always about this time droves of students, all dressed alike, would come along walking and laughing, and shoving each other around. One could always hear the confusion and noises of Seoul night life and mixed-up traffic. But this night was so different—no one made a move, and we seemed to be waiting for the whole city to blow sky high.

Around ten o'clock, one of my best friends and I were outside on the stone wall near our house, talking over the happenings of the day and straining our ears to hear any sounds that might indicate some kind of human activity, or any life at all. But, there was nothing to be heard—two million people as silent as death itself. But suddenly out there in the April moonlight, the air sweet with flowers and newly green leaves, we heard a faint sound that gradually broke the still night with steady throbbing rumbles. At first I just knew we were being invaded by the Communists from the North, but then we realized tanks were rolling through the city—that marshal law had been declared by the government. All I could think of was war, war, war—and freedom. Oh yes, freedom—something I never really appreciated or understood until I saw a nation of people lose what little they had.

The nation's stability weakened, the new government never had a chance to grow, and a military coup went into effect a year later. The students had tried, but they had failed. There was no one to whom they could turn in the one great hour when Korea needed leadership. I shall never forget the agony some of my closest friends went through in watching their own people once again sink into the trenches of fear, the desperateness of whispering behind closed doors, of waiting, watching, never daring to make a move, never knowing what the next day would bring.

One evening, soon after all the riots had ended, a friend of mine, a lovely Korean girl of about twenty, was talking to me on our lawn. How could such a delicate face be produced from such turmoil and tragedy? She spoke for a while in English and then started crying. There comes a

time, even for the most self-controlled, when there is nothing left to do but cry.

"What is going to happen to my people? We have no hope left! We have no freedom, we have nothing! Tell me, what is going to happen to my people?"

How right she was. Most of her people are still caught in oppression, fear, ignorance and hunger. Their burden is written across their faces and built into their walk. They live with it everyday. Yet they keep on living, even when they burn out their hope from so much hoping.

Well, the sun is getting high now. I guess I ought to go in and see if I can help with lunch. Look at those kids playing ball, taking sides for fun; not a care in the world.

Midnight

In the dorm It's too warm and the Spring outside makes you lazy inside . . . Startling voice in the soul The phone rings in the hall Sudden halt of the eyes in the middle of a paragraph. It's for you, Theresa! O.K., thank you Sheila! Hidden stop, if you hope, Silent flop, if you mope, When the name on the wall bounces like a ball. It's so late by now. He won't call till tomorrow. Good night, Brenda! Happy dreams, Barbara . . .

-JACQUELINE POITOU

Potter Oppressed By Day

Lines of blackbirds swirl in the still Air above the linear tree of winter, Twist, compress, stretch thin And are gone.

Snow gives into water and earth.
The restless thaw rouses and begins.
Nothing changes about us

And becomes.

Men before me have mused on flesh At the fire,

Old men, drying before firing, Memory of clay also fragile, Have stared at the stubborn making hand And into the swirl making fire. What persists was made of them: Withered color, a low bowl, a round word.

We see neither flame nor formed clay
In whatever fire we have made;
We see the shapes which are to be seen,
Each however he is shaped to see.
But always the human part
Sees death and the making hand
Which outlasts nothing and dark
And the clay.

I make a round low bowl to hold me in.

-JAMES LOVELL

A Day At The Hospital

Martha Winders

"All right, nurse, pile out," John smiled, giving Marty a brotherly pat on the knee. "I'll pick you up at five o'clock."

As Marty waved good-bye she smiled self-consciously, trying to keep her upper lip over her teeth so her braces wouldn't show. She straightened her girl scout hat, and smoothed her green and white striped uniform. After all the weeks of waiting and training, her fourteenth birthday had finally come, and she could work with the scouts in the hospital. Marty grinned at her reflection in the glass door as she opened it to go up the steps to second floor for her first assignment. She felt satisfyingly old, and her mind felt full trying to remember all that the head nurse had told her. After hesitating, and wiping her clammy hands on her uniform, she opened the heavy fire door onto the second floor and walked to the nurses' station. Several nurses were working on papers but none noticed Marty. She stood awkwardly, shifting her weight from one foot to the other, not knowing how to get their attention. Finally an R.N. glanced up.

"There is your assignment sheet. Fill up all the water pitchers in all the rooms but 235, and when you get through deliver these slips," she ordered, never stopping her writing.

"Yes ma'am, thank you," said Marty, blushing.

She took the slip of paper and walked to the end of the hall, to the first room on the list.

"Hi thar cutie, what cha' doin'?" asked a bony, black-haired man, as she walked in.

Marty looked confused, "I, uh, came to fill your p-pitcher," she stammered.

"Hey, look at this 'un, ain't she cute?" the first man asked a blond, clean-cut man sitting on the edge of the other bed. He nodded and turned to stare placidly out the window. Marty hurried over and took a funny shaped metal pitcher from the bedside table, then walked out aware of the black-haired man watching every movement she made.

As she reached the utility room and started putting ice into the pitcher, a plump, white-haired practical nurse came bounding in the door.

"Hey, what the devil are you putting ice into that urinal for?" she squeaked. Marty looked at the container, and asked in amazement, "This isn't a water pitcher?" The nurse's harsh laugh penetrated the room. "You damn kids are more trouble than you're worth! The water pitchers are white plastic things. Where did you get that urinal?"

"The end room," Martha whispered.

"That's Mr. West. He can't have any water anyway. Get that thing back down there!"

Marty's heart was pounding. She took the urinal, mumbled "I'm sorry," and walked blindly down the hall, followed by the nurse's laugh.

"Oh, gosh, I've really done it now!" she thought. "What if that nurse hands in a bad report on me? Oh, I don't want to go back to that awful man!" She hesitated at the door and then walked softly in.

"Well!" the man chuckled nastily, "What's that thar thing ya' got in yer hand?"

Marty felt the blood creeping to her face. She put the urinal on the table and walked out of the room without saying anything.

"Hey cutie, you forgot to fill my friend's!" the man yelled after her. Her heart still pounding, she went into the next room, smiled at the face in the bed, and took the white plastic water jug to the utility room. "Thank goodness," she sighed, noticing that the practical nurse had left.

Marty gradually calmed down. She ran to the hospitality shop for people, filled water pitchers, and talked to those that felt like talking. By the time she got to the last few rooms on a short separate wing, she was beginning to feel self-confident.

She went by room 235, and wondering why she couldn't go in, looked through the open door. A middle-aged man lay asleep on the bed, and a small, dark-haired woman reading a magazine sat in a chair beside him. Marty worked her way up the hall, smiling and filling jugs. As she came out of one of the rooms, she noticed the light go on above the door of room 235.

The words of the head nurse during her training came into her mind. "Don't under any circumstances, answer lights," she had said, — "that is for nurses to do." But when the light started blinking Marty felt a frightening sense of urgency build up inside her. The man had to be really sick for her not to be allowed in the room! She watched the light a few minutes longer, and then impulsively sped toward the nurses' station, but not too fast for a glance into the room. The dark-haired lady was bending over the bed, frantically pushing the button that controlled the light. She looked utterly helpless and scared. Marty saw the man's wide,

horror stricken eyes, his grey lips slightly parted, and his thin hand clenching the woman's skirt.

Now a nurse came running toward her, stopped and went into the room. A pause of deadly silence followed, then a woman's screaming sobs, "No, no, no, he can't be gone! He can't be gone—no!" Several nurses came running from the station. As she passed Marty, the R.N. said, "Keep the other patients calm, and don't tell them!"

Marty tried to organize her dazed senses. She felt herself walking mechanically into a room. Two women sat at the foot of their beds.

"What happened?" asked one.

"Did somebody die?" asked the other, her eyes wide.

"I don't know," Marty replied hesitantly, avoiding looking into their eyes. "Would you like anything at the hospitality shop? Maybe a magazine or something?"

"No, I don't feel like getting anything now," one woman said weakly. The other looked off into space and didn't answer.

"Try to find out what happened, and who it was, and come back and tell us!" the first woman said pleadingly.

"All right," Marty replied as she turned to go.

She went around the corner, and watched two orderlies rolling the covered body on a stretcher. Then she walked back to the door of the room. The white-haired nurse was taking clothes out of a small grey locker. A tall, thin, strong-looking man stood behind her, crying.

"I want to thank ye fer all ya' done for us. You all been mighty nice the whole time we been here, and we 'preciate it!" Then he went down the hall to the elevator, carrying a paper bag and the clothes. He was still crying. Marty's chest grew tight. She looked at the nurse. "Can I help you?—Carry any of those things down or anything?" she asked weakly.

"No, I can do everything,—just go away!" the nurse replied. Marty turned, and seeing that it was almost time to go, went to the steps. Her body felt completely automatic, as she walked out to wait for her brother.

"The man didn't want to die,—he didn't want to die and he did!" she thought. She looked at the complete stillness and silence of the evening. The glow from the sunset cast an ungodly reddish tinge on everything. She wanted to run, but she stayed still and listened in utter fear and horror to her heart, and feeling complete loneliness, waited for it to stop. At last she saw her brother's car coming toward her. It pulled up and she reached out and grabbed the cold metal of the door handle.

"Hi,—how's the nurse?" asked her brother as she got in. Then the tears started coming, and she felt her body heaving and heard her uncontrollable sobs.

"Hey, what's the matter? What happened?" She felt her brother's arm around her shoulders. "He died, he died and he didn't want to!—oh, John!" He held her a minute before he said, "Come on,—let's go home. Everything will be all right!"

Statistics

Terman, Rorschach, and Benet
Provided us with a vast array
Of means and methods by which we
Can discover "potentiality."
Psychology's marvel, they give us a break,
Telling us which assumptions to make:
If a particular test score is low,
Progress in therapy may be slow.
It's a boon, they say, to be able to measure;
People—in numbers—are even a pleasure.
I'd been thinking how wonderful testing could be
Until the day when they tested me!

-SUE DYER





Elegy: Professor J. A. H.

It was a bright autumn day, With rust colors and sunshine and *Moby Dick*—Then he was gone.

Funny, how the fragments of memory return—
The flawless blue serge suit, white shirt, wine silk tie,
Significant of his formal manner,
The green-grey raincoat he almost never wore
But carried—meticulously—over his arm.
I wonder why I never noticed his shoes.

I remember the old leather-bound volumes of Burkhardt I wanted to buy for him.

Sixteen dollars—and I was afraid of embarrassment—his or mine. It's all gone now.

Yet, there will be
The Phrygian mode I'll always know
Even transposed,
And the sixteenth century Italian chest I'll stop to touch,
And I'll labor to make an 'e' the way he did,
And I'll know about grief.

-ANN DUNN ALDRICH

Relativity, the Quantum Theory, and Christian Theology— Some Speculations

Louise Gittings

A book of Christian theology, and a book of scientific exposition, placed side by side, seem almost to have been written in two different languages. Such terms as Jesus Christ, the lordship of the Creator, creaturely freedom, and the eternal Father are rarely seen on the same page with terms like primary causality, statistical probability, and the four-dimensional continuum. This is as it should be, for theology and science are very different disciplines, in both purposes and methods. Theology is proclamation of the Revelation, through human history, of God in Jesus Christ, and relation of that Revelation to existential situations. It is necessarily subjective, "confessional", and not empirically verifiable. Science is the attempt to find order and predictability in physical reality by means of observation, experiment, and the devising of concepts to correlate data. It is necessarily objective, requiring detachment and mathematically identical results from scientist to scientist.

The Middle Ages taught us that a science subservient to theological formulations is hardly a science at all. After the nineteenth century we have learned that a theology subservient to scientific concepts is hardly a theology at all. So called "natural theology" is, I believe, a contradiction in terms, because Revelation breaks into our experience from without. The activity of a free God in a universe contingent to Him can't be predicted "naturally." This paper is not an attempt to base theological statements on scientific principles. It will not "prove" anything.

But, although any mixing in the actual work of science and theology is likely to be detrimental to both, concepts from both combine in the thinking of the individual modern Christian, and together comprise his means of understanding and interpreting his experience. For the person who is concerned for wholeness, consistency, and relatedness of thought, separation of his science and his theology into airtight compartments is intolerable. But how are the two to be related in his thinking?

¹H. Richard Niebuhr, The Meaning of Revelation (New York, 1960), p. 40.

It is not valid to say that science deals with "facts," while it is the office of theology to establish "values." In the first place, the "facts" of science are primarily analogies to sensory experience.3 These analogies, or concepts, are objectified by mathematical formulae. But the formulae themselves are useless until applied to the prediction of phenomena expressed by their corresponding concepts. For instance, all forms of electromagnetic radiation, including visible light, are commonly understood by an analogy to what we observe when a rock is dropped into water. Waves spread in concentric circles from the point of contact of the rock with the water. We say that radiation spreads out evenly in all directions from a radiating body, as the waves spread from the rock (though in three dimensions instead of two). We have a mathematical expression, the wave length, for the distance between the crests of the waves, and this distance determines what kind of radiation is being given off (visible light, radio waves, X-ray waves, etc.). But the wave analogy can't account for all electromagnetic phenomena. Under some circumstances, radiating bodies behave as if they were emitting streams of particles rather than waves. What is light: waves or particles? Probably neither. But the fact that we must utilize both concepts in order to "understand" radiation shows us that scientific understanding is much more subjective than is commonly believed.

In the second place, "values" are only a secondary result of the work of theology. Theology proclaims "facts" of its own which must be accepted on faith and verified only existentially, not empirically. The resurrection of Jesus Christ can't be historically proved. It becomes established fact for an individual only as he is confronted by the resurrected Christ in his own experience.

It is useless to say that because scientific investigation can never find all the answers, theology must take over where science leaves off, stand across every gap in scientific knowledge and say, "Aha, here is God!" This is to make God a symbol for the ignorance science strives to overcome.

Nor can we say that theology is concerned solely with "spiritual," and science with "material" things. Science assures us that the stuff of which matter is composed is "immaterial," pure energy. And we can't observe energy. We can observe only its effects, of which matter is one. Theology makes statements about the whole universe (composed of energy in all its manifestations), which it calls created being, as distinct from self-existent being, or God. Because both scientific and theological concepts are intended to be statements about the nature of reality, they often deal with some of the same issues; but perhaps it is the frames of reference for these statements which make them different.

Theological statements deal usually with persons, as such, — their relations to God, to each other, and to things; while science attempts to determine the predictable, measurable relations of things to things. (By "things", here, I

²Roger Hazelton, New Accents in Contemporary Theology (New York, 1960), p. 34.

³Lecomte du Nouy, Human Destiny (New York, 1947), p. 17.

mean energy in all its observable effects.) This distinction would not always hold true, but it is as much as I can now say about the functions of theological and scientific concepts in my own thinking.

This paper is an attempt to understand what relationship may exist between the Christian doctrines of creation and eschatology, creaturely finitude, predestination and free will, and some externally similar concepts of Relativity and Quantum physics: the expanding universe, the finite four-dimensional continuum, and the principle of indeterminacy. I realize that any scientific concept can be interpreted either theistically or atheistically. I am not attempting to attain religious belief by means of scientific principle. Rather, I speak from the standpoint of faith, seeking understanding.⁴

Before I discuss the doctrines and concepts just mentioned, I'll try to review the major elements of both Relativity and the Quantum theory. I'll try to point out how and why they differ from the mechanistic physics which was dominant during the nineteenth century. This attempt to explain briefly, without mathematics, such extremely complex theories as these, must necessarily be inadequate for imparting any real comprehension of them. It will be only a bare summary.

By the middle of the nineteenth century, physicists had worked out a fairly comprehensive understanding of the universe, an understanding which seemed to them almost incontestable. They saw it as an infinite Euclidean space—that is, a three dimensional continuum in which the shortest distance between two points is a straight line, the sum of the angles of a triangle is 180°, a point is determined by three coordinates, etc. This space was thought to be a receptacle which contained two kinds of substance, matter and energy, which seemed to be governed very strictly by Newton's laws of mechanics. The whole universe, both empty and occupied space, was assumed to move in one absolute time-flow from the infinite past to the infinite future. All this is in perfect accordance with common sense notions gleaned from sensory experience.

It was thought that there could be no ambiguity about such concepts as "distance at a given time," or "simultaneous occurrence," or "absolute rectilinear velocity." Obviously, such concepts assume the existence of a regular, universal time-flow, absolute time, and of a medium through which the progress of an object can be measured,—absolute space. The physicists had a name for this medium—the aether. "A universe permeated with an invisible medium in which the stars wandered and through which light traveled like vibrations in a bowl of jelly, was the end product of Newtonian physics."

But the existence of the aether had never been proved, only postulated, and in 1881 an experiment performed by two Americans, Michelson and Morley, made the aether very questionable. They reasoned that if the earth were really moving through aether in its orbit around the sun, one should be able to determine the velocity of the earth through the aether in the same

⁴Fides quaerens intellectus—a motto of the high Middle Ages.

⁵Lincoln Barnett, The Universe and Dr. Einstein (New York, 1952), p. 41.

manner in which sailors determine the velocity of a ship through water, by throwing a log overboard and measuring the pull on it. The "log" which Michelson and Morley proposed to "throw overboard" was a beam of light, divided, and sent in two different directions, reflected, and brought again to a single beam by an ingenious mirror system. The light which traveled in the direction of the earth's motion should have traveled at 186,284 mps (miles per second) while the other light ray should have traveled at 186,264 mps. In fact, both traveled at exactly 186,284 mps, thus showing the earth's motion through the aether, which is the same as saying the earth's absolute motion, to be zero.

Among the people who reflected on this strange experimental result was Albert Einstein. In 1905 he published a paper offering a tentative explanation which we now know as his Special Theory of Relativity. By 1925 he had broadened the scope of the Special Theory and completed the complex mathematics involved in his General Theory of Relativity.

Einstein rejected both absolute time and absolute space. The time assigned to an event or order of events, he said, is very much more subjective and dependent on the standpoint of the observer than classical physics had assumed. Our time measurements, based on the workings of our solar system, can hardly be thought significant for the whole universe. What we call an hour is really a spatial distance, an arc of 15° through which the earth turns, a meaningless measurement for bodies outside our solar system. If I want to know what is happening "right now" in a solar system 100 light years from here, I must wait 100 years, my time, to find out, because that is the time required for a signal to reach me from that system. Statements of time carried over from one event to another widely separated from it in space have no meaning because the times of the two events are gaged to different frames of reference. For each body there is, for events in its neighborhood, a definite time order which may be called its "proper" time.

But if two bodies are at rest relative to each other, their proper times correspond, and may be considered one time order. This is true of all observable bodies on the earth's surface. But if two bodies are in rapid motion relative to each other, their proper times do not correspond, and two events which A would judge to be simultaneous, B would judge to be separated by a distinct time interval.

Suppose, for instance, that a man is sitting precisely halfway between the points at which two flashes of lightning strike. He sees the two flashes at the same instant, and therefore judges that they are simultaneous. Meanwhile, an observer sitting on top of a moving train happens, at the very instant the stationary observer judges the flashes to have occurred, to be exactly opposite the stationary observer. Will the man on the train see the flashes simultaneously? No. He will judge that the flash ahead of him occurred before the one behind him. If this doesn't seem quite right, imagine that the train is moving at the impossible rate of 186,284 mps, the speed of light. In that case, he

⁶Ibid., p. 47.

⁷Bertrand Russell, The ABC of Relativity (New York, 1958), p. 37.

would never see the flash behind him at all, because the flash would never catch him.8

We may now object that the man on the train should take the motion of the train into account and should realize that he is "wrong." But unless we believe in absolute space, it is just as accurate to say that, relative to the train, the earth is moving at a rate of 186,284 mps, or whatever, and therefore the "stationary" observer must be "wrong." If this is hard to accept, then, instead of the earth and a train, think of two meteorites passing each other in space. Say that in the neighborhood of these two meteorites, two flashes of light occur which an observer on meteorite A would judge to be simultaneous, but an observer on meteorite B would judge to be separated by a distinct time interval. It would be quite impossible to say which meteorite is "really" in motion; we could only say that because the "proper" times of the two differ, they must be in motion relative to each other. But to the observer on A it would seem that A was stationary and B in rapid motion, while an observer on B would believe the opposite to be true.

At this point we must examine a truth which seems to be hiding behind all the strange new ways of thinking to which we must accustom ourselves. This is the idea that an object in motion, relative to another object, appears to contract in the direction of its motion proportionately as its velocity increases. Thus, to the observer on A, the motions of the man on B would appear sluggish, his watch would have slowed down, and his yardstick, pointed in the direction of his motion, would measure somewhat less than a yard, by A's yardstick. To B the whole situation would seem quite different. To him it would appear that A's motions had become sluggish, etc. Our experimental evidence for this situation is the observation that beta particles (electrons) in rapid motion seem to decrease in size as their velocity increases. This is because we use our proper time and not the proper time of the electron. "The history of a physicist as observed by a beta particle would resemble Gulliver's travels."9 One consequence of the contraction of matter in motion is that nothing can ever travel faster than light, because as the velocity of a body approaches the speed of light, contraction becomes infinite.

If the concept of contraction of matter in motion is correct, we can see that we must reject both absolute space and absolute time, because any measurement of distance, as well as of time, is dependent on the state of motion of the measurer. If our reasoning ended here, we should no longer be able to speak of physics as such, because physics is concerned with quantities which are actual properties of objects, and not dependent on the condition of their measurer. Fortunately, Einstein found a series of equations, known as the Lorentz Transformation, by which it is possible to compute from an observer's measurements of both distance and time, a physical quantity which would be the same for all observers. This quantity is known as an interval in space-time.

⁸Russell, p. 37.

⁹Russell, p. 37.

The interval in space-time will seem to us not so mysterious a quantity when we consider that between any two events, such as two flashes of light, there is not only a spatial distance, but a time-lag, at least the amount of time required for light to traverse the distance between them. The equations of the Lorentz Transformation "preserve the velocity of light as a universal constant, but modify all measurements of time and distance according to the velocity of each system of reference." This is the essence of the Special Theory of Relativity—that for events whose frames of reference are moving uniformly to each other, that is, discounting gravitation, an absolute physical relationship, the interval in space-time can be determined.

But "discounting gravitation" is an important restriction to make, and greatly limits the applicability of the Special Theory. For this reason Einstein set out to understand how gravitation and inertia, which both produce non-uniform, or accelerated motion, affect the relations of the Special Theory. In these deliberations he hit upon his famous Principle of Equivalence of Gravitation and Inertia. This principle says simply that the effects on motion of gravitation and inertia are indistinguishable.

Suppose that you are inside a sealed container and have no idea where in the universe your container is located. You discover that if you release a pencil in mid-air it falls to the floor. If you throw it, it describes an arc and falls to the floor. You may well conclude that you are within some gravitational field. But, in fact, you may just as well be far from any gravitational field, and accelerating rapidly, or describing a circle, with the top of your container toward the circle's center. No instrument within your container can determine which is your situation.¹¹ The effects of gravitation and inertia are exactly the same.

By this equivalence, Einstein was able to dismiss the idea that non-uniform motion is absolute and, at the same time, to conceive a new way of understanding gravitation. Gravitation is not a force which operates at a distance to pull bodies in a given direction. Rather it is the geometry of the spacetime surrounding a gravitating body. Or, to put it another way, it is the way in which the space around a body is non-Euclidean.¹² That is, in a gravitational field, the shortest distance between two points is not a straight line, but what may be called a geodesic in space-time.¹³ Now, a geodesic is the shortest line that can be drawn between two points on a curved surface. The shape of the geodesic thus depends on the kind of surface involved. To understand the significance of this term, we must try to imagine (impossibly) a four-dimensional surface, the space-time continuum.

Compare this "surface" with a kind of surface with which we are familiar, a sandlot on which a boy is playing marbles. On this lot there are bumps and hollows which cause the paths of the marbles to be irregular. An observer

¹⁰Barnett, p. 54.

¹¹ Ibid., p. 79.

¹²E. L. Mascall, Christian Theology and Natural Science, Some Questions on Their Relations (New York, 1956), p. 108.

¹³Russell, p. 80.

high above the lot, who could see only the motion of the marbles, and to whom the lot appeared smooth, would judge that the lot was permeated by mysterious forces, which attracted the marbles toward some points and repelled them from others (Newton). An observer on the ground would judge that the marbles were simply following the shape of the surface (Einstein).¹⁴

Since the geometry of the space-time around a body is determined by that body, the shape of the universe as a whole is determined by the cumulative effect of all the matter in it. The combined distortions of the continuum have the effect that the universe bends back upon itself in a closed cosmic curve. Light rays do not, as we had supposed, travel in straight lines, but are influenced by gravitation. A light ray setting out through the universe describes a giant circle and returns to its origin after some 200 billion years, (our time). So the universe may be described as the "four dimensional analogue of the surface of a sphere." It is finite, though unbounded. Sir James Jeans has devised a helpful analogy for picturing the universe:

A soap-bubble with corrugations on its surface is perhaps the best representation, in terms of simple and familiar materials, of the new universe revealed to us by the Theory of Relativity. The universe is not the interior of the soap-bubble but its surface, and we must always remember that while the surface of the soap-bubble has only two dimensions, the universe bubble has four—three dimensions of space and one of time. And the substance out of which this bubble is blown, the soap-film, is empty space welded onto

empty time.17

This analogy helps us to understand, also, what is meant by the Theory of the Expanding Universe. Astronomers have discovered that all the galactic clusters* which we can see appear to be moving away from us and from each other at speeds increasing with their distance from us. Thus the universe appears to be expanding as our corrugated balloon would in the process of being blown up. And if this expansion has been going on for long, then there must have been a time when the universe was very much more contracted than it is now. In this state of tremendous density, there would have been temperatures not found any more, even in the interiors of stars, and of course, no matter at all, - only free subatomic particles. By the laws of dynamics, this fantastic bundle could do nothing but explode in all directions. But the theory has nothing to say about how this aggregate of matter-energy came about. Many scientists regard its coming about as "the creation," believing that no further investigations can be made in the matter. This version of the Expanding Universe is known as the Big Boom Theory, and striking evidence for it comes from results of computations based

¹⁴Barnett, p. 84.

¹⁵*Ibid.*, p. 98.

¹⁶ Ibid., p. 97.

¹⁷*Ibid.*, p. 97.

^{*} A galaxy is a group, often disc-shaped and revolving, of stars and great masses of gas. Our own galaxy contains about 100,000 million stars. A group of galaxies is known as a galactic cluster, and these appear to be fairly uniformly distributed in the universe.

on three entirely different kinds of considerations, which show that such an explosion probably began to occur some five billion years ago.¹⁸

Some regard this extremely dense state as the result of a period of contraction, after which the universe then began to "bounce back." So they see the universe as infinitely pulsating—expanding and contracting.

Most of the opponents of the Big Boom Theory hold to some kind of Steady-State Theory, such as those developed by Bondi, Gold, and Hoyle. These theories say, basically, that while the universe is expanding, the galactic clusters hurtling off into the void, etc., new matter is being continuously created (not out of radiation, but out of nothing) at a rate of one hydrogen atom per cubic meter per 300,000 years, — precisely the right amount to keep the mean density of the universe constant. Thus it can be said that the universe had no beginning in time. The main drawback to this theory is that we have no empirical evidence to support it, because, of course, we could never devise a way to detect one new hydrogen atom per cu. m. every 300,000 years.

This theory is a good example of the fact that Relativity, which I've tried to outline briefly, and Quantum theory, go hand in hand in our understanding of physical reality today. Yet strangely enough, the mathematical structures of these two great systems, both developed during our century (Relativity dealing with gravitation and the structure of the universe as a whole, the macrocosm, and Quantum theory dealing with the nature and structure of the basic units of matter and energy, the microcosm), have unrelated theoretical and empirical bases. Einstein worked throughout the later part of his life trying to achieve a Unified Field Theory which would bring together in one mathematical structure Relativity and Quantum theory, but he died not having completed his work.

Quantum theory developed as a new way of understanding and working with matter and energy. Classical physics had concluded that there were two kinds of substance in the universe, matter and energy, and that neither of them could be created or destroyed. Nor was it suspected that they were mutually convertible. Matter was defined as anything which has mass and occupies space, and energy as the ability to do work. Energy was a rather mysterious something which was propagated by waves in the aether, and matter was composed of very small, hard, elastic particles, called atoms. These ideas were first seriously questioned in 1900, when Planck, in order to work out equations solving a problem in heat radiation, had to assume that heat was emitted not in waves, but in discontinuous bundles which he called quanta. Einstein, by assuming that light was emitted as particles, which he called photons, was able to explain the Photoelectric Effect, a phenomenon which had puzzled scientists for a century.

By 1925, after physicists had worked out pretty definite ideas about atoms as miniature solar systems composed of elementary particles, a Frenchman named de Broglie came up with the idea that electrons could be

¹⁸ Ibid., p. 106.

¹⁹Mascall, p. 142.

regarded as waves rather than particles. It was soon demonstrated that electrons do show some of the same wave properties which light shows, and an Austrian named Schrodinger developed for the concept a mathematical system which came to be known as wave mechanics. So now we had waves of matter and particles of energy, as well as waves of energy and particles of matter. Then, before World War II, a mathematical scheme was devised which allows one to explain Quantum phenomena in terms either of waves, or of particles, or even, according to one facetious scientist, of "wavicles."

One important argument for the wave, rather than the particle, concept, is that we can never accurately determine both the position and the velocity of, for instance, an electron. We can state for any given electron only the probability that it is located at such and such a position, and is moving at a certain velocity. This has the effect, when applied to the aggregate of electrons, that we obtain a "wave of probability," by which we predict electron distribution. We might ask, "Why can't we determine that electron A is located at position B at a given instant and is moving with a velocity C?" Several mathematical considerations show why we can't, but to put it pictorially, imagine that a scientist has constructed a monstrously powerful super-microscope, which gives the degree of magnification necessary to see something the size of an electron. But the frequency of electrons is much higher (or the wave length is much shorter) than that of visible light; in fact, the only radiation of higher frequency (shorter wave length) than electrons (which the radiation must be if it is to make them visible) is the powerful gamma ray. Now even visible light strongly affects electrons, and a gamma ray would knock our poor specimen completely off the stage in simply trying to render it visible.21 Thus, in determining one datum (the particle's position), we have changed another datum (its velocity) "by an unspecifiable amount."22 This was precisely the hypothetical situation with which Heisenberg illustrated his famous Principle of Uncertainty, which states that the positions and velocities of individual sub-atomic particles (and atoms also when they're not in some kind of fixed position, as in a crystal) are indeterminate and unpredictable.* We are able to find order, to define dependable physical relationships, only because of the laws of probability operating on large numbers of particles.

The truth behind this dependability is a basic rule of statistics known as the root-n rule, which says that the probable error in any statistical statement about an aggregate of particles is equal to the square root of the number of particles involved.²³ Obviously, then, the proportionate probable error rapidly

²⁰Barnett, p. 31.

^{*} This indeterminacy, Heisenberg said, is not because of any crudity of our instruments, but is a basic principle of nature. Some have disagreed, notably Einstein and Planck,²⁴ saying that indeterminacy is only a gap in our present knowledge, but no one has as yet been able to bridge the gap.

²¹*Ibid.*, p. 33.

²²Mascall, p. 169.

²³*Ibid.*, p. 188.

decreases as the number of particles increases, so that for vast numbers of particles the laws are very dependable. While most of the laws governing physical phenomena are statistical, we sometimes find, notably in living organisms, units containing such a small number of particles (and the particles not in random motion, but fixed, relative to each other), that the mathematics of their relationships must be based on something other than statistical considerations. This, also, Quantum theory has been able to do.

To summarize my summary, the concepts I've tried to describe in this discussion of Relativity and Quantum theory are: the dependence on the observer of measurements of time and distance, the relativity of motion, the contraction of matter in motion, the limiting nature of the velocity of light, the interval in space-time, the equivalence of gravitation and inertia, gravitation as distortion of the space-time continuum, the expanding universe (the Big Boom, Pulsating, and Steady-State Theories), the relation between matter and energy, microscopic indeterminacy, the Heisenberg uncertainty principle, and the statistical nature of most physical laws.

You will, by now, have surmised that efforts at pictorial representation of the above concepts are, at best, inadequate. (You may wish to say something worse.) But this defiance of translation into terms of sensory experience is a characteristic of modern physics. As man looks to the microcosm and to the macrocosm for understanding of physical reality, he finds that his cleverest models fail at many points, and often he is left with only a mathematical scheme. For this reason, it is dangerous to attach great significance (particularly theological significance) to any models of scientific theories. Mascall, in speaking of popular explanations of Relativity, says:

Minkowsky's oft-quoted assertion that "henceforth space and time separately have vanished into the merest shadows, and only a sort of combination of the two preserves any reality" must have caused the spines of many people to tingle, in spite of the fact that the world went on looking very much the same as before. And the discovery that "time turns into space if you multiply it by the square root of minus one," while it can have done little to enlighten the uninstructed, did much to enhance the prestige of the scientist, to whom, it was believed, such mysteries were as clear as the day.

As time has gone on, however, Relativity has lost a good deal of its mystagogic aura. Dr. Martin Johnson has warned us against "finding philosophical profundity in geometrical convenience," pointing out that "the fact that time becomes 'imaginary' in this system has no metaphysical significance, and we recollect that multiplication by [the square root of minus one] in a physical diagram merely means a turning of the picture from horizontal to vertical."

It would be most unwise to "tie up" Christian theology, or any parts of it, with concepts which will probably change with the next generation of scientists.

²⁴Ian G. Barbour, "The Natural Sciences" in New Frontiers of Christianity, edited by Ralph C. Raughley, Jr. (New York, 1962), p. 25.

²⁵ Ibid., p. 167.

However, I think that three things can be said about the usefulness of Relativity and Quantum theory for theology. First, I believe that these theories have dealt a telling blow to the eighteenth and nineteenth, and early twentieth century practice of science-worship. During the eighteenth and nineteenth centuries, men found classical Christian doctrines extremely hard to swallow, mostly because they appeared to be in direct conflict with scientific "evidence," and with common sense. Deism attempted to resolve the conflict by scrapping all ideas of revelation, atonement, miracles, etc., and asserting simply that God created the universe, cast it into the stream of time, decreed that all things should operate according to Newton's laws, put within man a moral law, or conscience, and sat back to watch. Theology, not being able to go to the extreme of Deism and still remain theology, became increasingly positivistic and anthropocentric, this tendency reaching its peak in liberal theology at the beginning of the twentieth century.

Of course, the changes in the prevailing attitudes of our century have been the results of many factors. Relativity and Quantum theory have been two important ones. They tell us that our "common sense" is no more than an accumulation of prejudices to which we're conditioned by sensory experience, and that physical reality is not "structurally isomorphic" with the world of our perceptions.²⁶ They jerk the rug under the habits of mind of the past two centuries, and dispose us to a much humbler attitude about our own ability to know all and do all.

Also, Relativity and Quantum theory actually make some Christian doctrines more intelligible than the classical understanding they displaced.²⁷

A third thing that Relativity and Quantum theory do for theology is to provide some interesting analogies, perhaps a new slant, for the discussion of some Christian dogmas which have been, across the centuries, and of course remain, enigmas. I want now to consider some relationships of doctrine to concept, in which it seems to me that Relativity and Quantum theory either are more compatible with a certain doctrine than classical physics was, or provide useful analogies for understanding it.

The first doctrine to be considered is that of Creation, a term often used by scientists as well as theologians. If a scientist means by "creation" an event, he usually specifies that it is an event the causes of which are not treatable in scientific terms. Strangely enough, the proponents of the Steady-State theories believe that, by asserting that the universe had no beginning in time, but is constantly being replenished by the "continuous creation" of matter, they have answered the question of ultimate origin. It seems to me that they have only redistributed the question from one Big Boom to innumerable little pops at the rate of one hydrogen atom per cu. m. per 300,000 years.

But even if it were established by some more scientific means than the "continuous creation" of matter that the universe had no temporal beginning, the Christian doctrine of Creation would be unaffected.²⁸ Most people,

²⁶Ibid., p. 175.

²⁷Ibid., p. 202.

²⁸.*Ibid.*, p. 132.

because of the tremendous influence of Deism, think that "Creation" refers to an event—God's casting of the universe into a pre-existent time-stream. But Christian theology has traditionally held (e.g. St. Thomas Aquinas) that the term "Creation" is simply an abstraction for the truth that there are two kinds of being: self-existent being, or God, and contingent, or creaturely being. Time is a quality of creatures; without creatures there would be no time as we know it. The universe is contingent to God, or dependent for its existence on Him, whether or not we can discover a beginning for it.

At this point Relativity makes two important contributions to our understanding. First, it is much easier to see that the universe is contingent to God, if you have, as in the space-time continuum of Relativity, a finite universe, rather than a universe stretching away to infinity. And second, Relativity assures us that time is, in fact, a quality of matter-energy, and does not exist apart from it.

We often hear that God is timeless, or "outside of time." What do such statements mean? Time, to us, means change, or motion, and this helps us see that it is not so different from space. If a body were isolated (no bodies near it by which to judge its motion) and at absolute zero temperature (though this could never be, for dymanic reasons, which shows that time is an inherent quality of all matter-energy), completely cold and still, we would say that it was "timeless." But God is most assuredly not like that.

According to Karl Barth—and his idea is thoroughly scriptural (see Mark 13:24-37, Rom. 8:19-25, Heb. 12:25-29, and Rev. 21:1-8)—all Creation, as we know it, will be superseded by a New Order, the "close of the age," the eschaton, in which God "will be all in all." Thus, God is not timeless, but has as a quality of His self-existent being, as our time is now a quality of our contingent being, a time radically different from ours; a time which involves no change, because He does not change. Yet, He is not static; He is life itself. We will have God's time, and forget about "now." We will not be pure "spirit," or "mind," but will have bodies, though bodies very different from the ones we have "now." The Christian has enough knowledge of what this New Age will be like to look forward to it with great anticipation, because it will be a new "manifestation of effective presence," like the Resurrection of Christ and the coming of the Holy Spirit.

Barth has defined Creation as "God's freely willed and executed positing of a reality distinct from Himself," not out of caprice, not out of need, and not as a limit to Himself. God's Creation is an overflowing of Himself, which occurs just because His nature is love; and He wills to manifest love in coexistence with being other than Himself. Because the Creation is finite, and God infinite, its existence has no "right, meaning, or dignity except as a gift." This doesn't mean that God is an oppressor, begrudging the creature

²⁹Karl Barth, Dogmatics in Outline (New York, 1949), p. 155.

³⁰Karl Barth, Church Dogmatics—A Selection (New York, 1961), p. 240.

³¹ Ibid., p. 149.

³² Ibid., p. 150.

its separate existence. When it is relative to God, it participates "in His absoluteness." This is its glory. Man (and perhaps other creatures we don't know about) is asked to affirm this relativity; but he desires to be like God, having right, meaning, and dignity within himself, and this is his error. Here an analogy from Relativity is helpful. We saw that if we recognize and take account of the relativity of our observation to our standpoint and frame of reference, we do obtain an absolute and correct measurement. But if we disregard this relativity, and proceed as if our standpoint were absolute and independent, we err, and find ourselves unable to understand the phenomena around us.

This analogy also presents us with a new way of viewing that old tangler, predestination vs. free will. We may define predestination as God's correlation and placing in time and space of all "creaturely occurrence." We're forced to recognize that God is limited to no one standpoint and frame of reference, and therefore must, Himself, be analogous to the transformation formula, the absolute coordinating factor.

Mascall sees an interpretation (not merely an analogy but a possible consequence) of the Quantum principle of indeterminacy for predestination and free will.³⁴ He reminds us that any event concerning an individual sub-atomic particle is completely indeterminate. For instance, we have no way of knowing which particular uranium atom will disintegrate, or at what time. But we can determine, from the total activity of large numbers of uranium atoms, the probability that any one atom will disintegrate at a certain time. We thus have a relative autonomy, while the actual occurrence of a given event is up to God's primary causality. We might be tempted to ask Mascall what difference it makes for us that the events concerning individual sub-atomic particles are indeterminate if, on our scale, events are determined by the laws of probability. He would reply that one particle could detonate an atomic bomb.

I have not tried to do a comprehensive study of the doctrines just discussed. Nor have I made any attempt to make explicit the overall, personal theology which is the framework for the theological views implied and expressed in the course of this investigation. These undertakings would have been much too large for the scope of this paper.

Perhaps I may best conclude my speculations by remembering with gratitude the gifts of intellectual fecundity and freedom in seeking which have made possible such a study in the realm of man's attempts to understand himself and his fascinating surroundings.

This analysis is similar to one done by Paul Tillich, though their terms are very different. Tillich is speaking of what he calls "ontological polarities," of which freedom—destiny, is one. Freedom, he says, is experienced as deliberation, decision, and responsibility. A man weighs motives (thus is himself more than any motive), eliminates possibilities, and assumes responsibility. His decision is made not by anything outside of him, nor

³³Ibid., p. 134.

³⁴Mascall, p. 200.

any part of him, but by the "centered totality of his being." His destiny is what forms this "centered totality," which makes him just the man he is, and consists of his inheritance, his history, and his own previous decisions. Thus, "My destiny is the basis of my freedom, and my freedom participates in shaping my destiny." To make an analogy which takes us back to Quantum physics, an individual sub-atomic particle is, in relation to the masses of particles with which it interacts, as freedom is to destiny. Its position, and energy-state, both determine and are determined by the positions and energy-states of its surrounding mass of particles.

What have I concluded about modern physics and the three doctrines in question? For the first doctrine, Creation, I'm afraid that I must agree with Mascall that the cosmological theories derived from the concept of the expanding universe are of little consequence for the Christian understanding of Creation, except that they leave the question of ultimate origin open. But I do think that Relativity and Quantum theory are much better equipment than classical physics for tackling Biblical eschatology. Further, I decided that Relativity is more compatible than classical physics with Christian belief in the finitude and contingency of creatures. And finally, I pointed out a few analogies, and one possible consequence for the predestination—free will dispute, of physical indeterminacy.

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 - 35 Paul Tillich, Systematic Theology (Chicago, 1951), p. 184.
 - 86 Ibid., p. 184.

South of Christmas

This morning in the pale room at your coffee and my tea we sat before the round table with six empty chairs in the shallow sun that did not wince like the candle flame last night when all the carols sounded strange and thin.

There was one question and one reply before you, with a low tune on your breath, sauntered off—as far as I could see you go, then closed the door. And though I pause I shall not be long, here in the rich sun, swallowing tea.

-SHERYL OWENS

Benediction

The windows of your house turn first gold, then pink this side of the sun.

Then like the rose in the corner, shrinking from the garden, all colors close light from the sky, link darkness of soil to one petal; one cloud in repose without wind. On the brink of night one gull flies home.

-SHERYL OWENS

Being Sane

Being sane is a bird in the sky, A feathered that who tops what trees,

Sure reckoner in a world of gaps Where who breathes must look and leap

On flights defined by no kind nest, Where who leaves must leap and fall.

What then? The common world's answer Is only the rasp of images over the mind:

A darkened room and a clown for keeper, The logical sound of public objections,

A peculiar arch of eyebrow, muscle twitch, Before the rising, querulous inflection.

Beyond the window, gravel ground, And further still, the flashing traffic.

But a bird is infinite and private, Blue wheeled and cloud spoken.

-JAMES LOVELL



The Wedding

Judy Shumate

Both of us were nervous and curious, but very determined. Only that afternoon had we finally made up our minds to go to the wedding—no matter what. For days Mamma had said, "Any other time, I would have gone without even thinking twice about it; it's just the bad situation things are in now."

That Saturday afternoon was an extremely hot, sticky one, and we felt it while we both dressed as we would for any other summer afternoon wedding. I put on my newest beige silk with the tiny white polka dots, and a tremendous white hat which I always felt made me look quite incognito—especially when I added my dark glasses. I even wore my freshly cleaned white kid gloves. Mamma's pink linen dress and flowered hat to match made her look neat and cool, but not the usual "calm and collected." We tried to laugh at ourselves when we drove out of the garage forty-five minutes before the wedding was to begin, but we weren't certain where the church was, and if it had ever been important for us to be on time, this was certainly the day!

We found the street without any trouble, in the section of town that seemed to be one used car lot after another. This time we laughed without trying, for when we looked at our watches, it was three-thirty, and the invitations said four. We rode around the busy streets for about ten minutes, then slowly turned down the narrow dead-end dirt road. The church stood facing us, and we could see people already going inside. When we got out of the car, I felt more conspicuous than I ever had in my entire life. I desperately wanted to talk about something—anything—but my mind was a complete blank. A few men politely tipped their hats as we started up the steep steps, and I was a little surprised at the shy smiles of the women. Instead of taking an usher's arm, we merely followed down the aisle, knowing the whole time that we were the center of attraction. When

we sat down, I immediately picked up one of those Funeral Home fans. There was no air-conditioning, and the windows were wide open. In a few minutes, a woman came up to us and asked if we would prefer sitting closer to the front so we could see better. Mamma did all the talking, and said thank you, but that we were just fine where we were. Soon, one of the ushers brought Mamma an extra fan: we were well taken care of.

They brought the mother of the bride down the aisle, and when she saw us, a broad, happy grin came over her shiny, full face. All at once, I was terribly relieved and thrilled that we were there. The bride had seven attendants, plus an adorable flower girl, with black kinky ringlets, scattering rosebuds, and a tiny boy, in a white linen suit with short pants and kneesocks, carrying the ring on a white satin pillow. He kept his large dark brown eyes glued to that ring. You would have thought he was carrying the crown jewels. The bride looked as all brides do—gentle and radiant. Her father looked nervous and tearful. When the vows were completed and the Wedding March began, I stood there wondering how I ever could have been frightened of such a pleasant experience.

We made our way to the vestibule, and Carrie hurried over and threw her arms around us both. I'd never seen her quite so excited. She kept repeating, "I didn't know whether you would come! I'm so glad . . . I'm so glad!" So were we. Carrie was our maid and friend of many years, but more important, now, she was the mother of the bride. Mamma said, "Carrie, you ought to go talk to your friends." But she only answered, "Lawsy mercy, I can see them anytime. I'm just so glad you came!"

As she was leaving our house the day before the wedding, Carrie had told Mamma, "I just want you to know one thing. If you come tomorrow, you'll be just as welcome at that church as I am when I walk in this door to your home." She had been so right. All the nervousness had disappeared now, and we smiled as we walked down the steps toward the car.



Seasons

Martha Winders

In our backyard many redbud and dogwood trees mix with the large oaks and poplars that shade the lawn. Half of the property has been left as wild woods. A waterfall flows in the middle of the rock garden on the hill directly behind the house. The spigot, in the small top pool, gushes cool clear water that runs down around the water plants and mossy rocks to the larger pool below. When a child, through watching the seasonal changes in this backyard, I developed a feeling of closeness to the earth.

I lived in the seasons, and watched every change with a thrill of delight and anticipation. In spring the sun thawed the hard ground and made the soil smell rich and warm. The rains came more gently and steadily, and the earthworms, after a winter's absence, were washed onto the sidewalk. Green shoots of crocuses, daffodils, and hyacinths appeared. Soon faint tinges of color showed through the green at their swollen tips, and buds opened unfolding the petals beneath. Rows of red tulips in the beds near the upper pond bloomed along with the large white flowering peach trees on either side of the waterfall. New green leaves began to appear on the naked branches.

The birds' songs became full and loud, and mornings were filled with singing as birds laid claim to their territory. I watched the cardinals and bluejays fight ferociously over nesting grounds. Later, I heard baby birds scream when their mothers brought worms or bugs. I found the nests and watched the babies grow fat, and the mothers get thin and frowsy. The little bluejays became balls of blue feathers. I tried to help the mothers protect them, and I put them back into trees when they fell out. I had to protect myself once when a frightened mother jay flew at my head because she saw her baby in my hand!

As summer came the red climbing roses on the trellis near the lower pool perfumed the air of the yard. The yard was alive; the trees were full and green and the grass grew quickly. Often, I walked in front of the lawn mower and picked all of the dandelions and the purple and white wild violets that grew in the grass. The lawn mower cut some wild onions, and their sharp odor mixed with the fresh smell of the newly mown grass. I walked barefoot and felt the softness of the grass and the different textures of soil under my feet.

I liked working in the garden by the pool, placing the roots of the delicate petunia, pansy, and scarlet sage plants carefully in the rich ground,

watering them, and watching them take hold and grow.

The pond came alive too. Huge bullfrogs sat on the edge of it and sunned themselves during the day, sounding their low gutteral croak at night. The water lilies bloomed and the lily pads grew round and green. Goldfish and minnows ate the ugly mosquito and dragonfly larvae that wiggled at the top of the water. Birds came down and drank, or took a bath while sitting on a lily pad. I put some of the water under a microscope and looked at the monsters that lived in the pool. It was wondrous and terrifying that these animals could live in the pond, and yet that I couldn't see them and hadn't known they were there.

At dusk the lightning bugs flew, and I caught some and watched their lights blink. Occasionally I saw a lightning bug trapped in a spider web, and carefully unwrapped the strong, silvery strand from the bug and let it fly away, never realizing I had deprived the spider of a meal and torn up his house. Slugs came slithering out at night leaving a shiny trail. Sometimes I didn't see one and stepped on it with my bare foot. The slime stuck on my foot and gooshed between my toes like sticky jelly, coming off only with concentrated scrubbing. I had heard that salt would kill a slug, so I put salt on one and watched it writhe in pain as it died. Afterwards, I felt horror and guilt, because I had made the slug suffer so, and die.

Sometimes, just before dark, all of the birds united in frantic screaming calls. I learned that this meant a screech owl was in the yard. Even the bluejays and cardinals joined forces against the enemy and took turns diving at the seemingly undisturbed owl, trying to drive him away. The small unmoving owl followed the darting birds only by turning mechanically his brown, speckled ear-tufted head. Later than usual, when it was dark, all of the birds went to protect their individual nests. The owl flew silently from tree to tree, and finally left.

At night the shrill noise of the cicadas joined the sound of the crickets, and the whippoorwills called continually. Chrysanthemums and mountain hydrangeas bloomed, and it was fall. The wind brought a cold nip; acorns blew to the ground and got little white worms in them. The sleek squirrels carried twigs and dried leaves to their nests. Fat caterpillars fattened the birds. Milkweed pods burst open, letting their white, tufted seeds out to sail in the wind. I stepped on acorns and listened to them pop. I heard the crunch of the dry leaves under my shoes, and smelled burning leaves, rotting acorns, and persimmons.

Winter brought weeks of cold, bleak days. Birds and squirrels flocked to our feeders. I watched the cardinals crack the grey and white sunflower seeds with their beaks. Doves came and walked pigeon-style, showing off their iridescent grey feathers. The squirrels liked the center of the grains of corn, and they sat on their haunches for hours, shelling each tiny kernel. When I stood in the yard and hit two hard-shelled pecans together, one of the squirrels always took the nut from my hand. If I put the nut on my head, he would climb up and sit on my head and eat there. I never moved quickly around him, because I didn't want to do anything to break his trust in me.

Ice froze in curving patterns on the window, and icicles hung from the gutters in deadly crooked dagger shapes. The pond froze solid so I could walk on it, and the first snow fell, covering everything in a clean, glistening white. I looked at the design of the snowflakes before they melted on my coat sleeves, and delighted with their delicacy, I wished they wouldn't melt. I shook the heavy snow from the bending branches of the evergreen trees, and looked back to see the pattern my footprints had made as I walked from tree to tree. When my nose and finger tips got red and numb, I scooped some clean snow into a bowl and went inside to make snow ice cream.

The snow finally disappeared and thirsty birds flew down to the pond again. Warming winds and rains came, and the sun again thawed the frozen ground. So I lived and grew from year to year, watching the seasons come and go in my backyard. The orderliness of the seasons gave me a sense of security, because I knew what to expect of them. In every change I found something new, and learned things I'd never known before. Flowers I had never seen came up, trees grew larger, I discovered a new insect, or really saw for the first time something that had been in the yard all along. With each season much was also gone. One peach tree died, many flowers didn't bloom, the pet squirrel didn't come back, the climbing rosebush was killed by the cold. These changes made me realize that nothing stays as it is. But the experiences in the yard have become a part of me, and I can find the joys and truths I found there wherever I go.



The Release

Cathy Davis

He lay there, stretched out flat against the sand like an old, worn rug put out to air. Although the sun was hidden from direct view, it glowed through the dim, moist haze that hung heavily over the water and the beach making everything seem almost too bright.

Slowly he lifted himself up on one hand and let his blank gaze follow the waves down the shore as they foamed and folded over each other again and again.

The wind off the ocean was gusty and persistent, and he pulled up the old, faded sweater that clung around his shoulders, as if he might find warmth or comfort in doing so. As he turned his head the gusts of wind slapped at his face, seeming to try to waken him and make him come alive. He barely noticed the worrisome, light sting of occasional scatters of sand.

Looking down the expanse of beach, his eyes rested on a single figure in the distance, very close to the water, coming his way. After a moment he faced the sea again. It seemed strange to see anyone out this early in the year, long before beach weather lured the many noisy, busy summer people. But he had been alone for a long time now, and did not care much, as long as they didn't try to force him back into reality by talking or questioning. He just didn't pay attention to people and they paid little attention to him; he remained protected in his own world, simply existing—nothing more. So it rather startled him to feel a hesitant touch on his shoulder. He jerked around to find a girl standing next to him; a young girl, small boned and delicate in appearance, as if she might break if touched too roughly. Her face, and especially her eyes, betrayed a trusting and vulnerable character, and hinted of an almost unbearable youngness about her. She did not move or speak, just looked at him with a half quizzical expression.

A curious sensation came over the man as he saw again his own daughter: about the same age, and with the same eyes that were fresh and trusting. But, that had all been so long ago . . .

His thoughts came abruptly back to the child now at his side. She seemed to be waiting for something—for him to make a move; so he put on a used half-smile and asked if she shouldn't be at home indoors on a day like this, for she shivered slightly, even though the wind had subsided. His sharp glance only met the unchanged expression on her face. Annoyed, he asked again. Without a word she sat down on the sand and smiled up at him. So—she couldn't even hear.

He looked away at the sea, both confused and irritated with the intrusion, trying to fight the feeling of loss of control which began to rise within him. He had subdued it for so long, and never talked about it to anyone—merely isolated himself here by the ocean, where he felt closest to them—his wife and little girl.

The quiet child trembled next to him. As he turned, she held out a thin hand toward him, fingers half bent over something. Not knowing what else to do, he took the shell she offered. Fine and worn, chipped on the edge, it was pale pink and fragile as she was.

Then the man began to talk to her; not at her, because she seemed to understand and feel his words with her eyes. For the first time since the accident, he let down his carefully built and carefully guarded barriers and everything poured out in a tumble of words.

The three of them, his wife and daughter and he, had formed a family that was complete within itself—maybe a bit too close and dependent, but always happy. There had been only one child, though at first they had wanted many, and he and his wife built their lives around her and for her. They had considered the beach and the sea special. He remembered how his tiny daughter loved to chase and play with giant waves, brave only when he was with her, and follow the bubbly rise and ebb of water on the shore. Then, the summer she turned seven, they had finally bought a small beach house from which they could run to the beach in the daytime, and where they could fall asleep to the rhythmic beating of the ocean at night. He tried to explain to the stranger beside him how perfect it would have been, but from her wistful smile he knew that no explanation was needed at all.

He spoke of how that day had been—sunny and full of promise, as the family packed the car and started for the beach. Then everything happened so fast and hard: the awful shattering noise, and the silence afterwards. It was odd how that silence screamed at him so loudly that only the thundering of the ocean could drown it out.

He talked about the endless period of time in the hospital: the white halls and hushed noises of pity, and how when he left, he left alone—how, at last drawn back to the sea, he withdrew himself from the outside world, spending his nights and days with the memories.

As he stopped speaking, he became aware that he had been nearly shouting. A chill swept through him, suddenly sharpening the coolness of the air. His companion had not stirred, but now she stood up and extended her hand to him. Rising, he placed his thin sweater around her shoulders and took her hand. It was cold.

Together they walked on the damp sand back the way she had come. After a few minutes, he saw three people farther down the beach. One saw them and started waving his arms frantically until the other two joined him.

The child stopped and again looked up at the old man; her eyes filled with a kind of sadness, and with a shy smile she turned and walked toward those beckoning figures who now only stood motionless, waiting.

Turning to the sea once more, tears came to him at last, unchecked and unashamed. As he looked down he noticed for the first time a single jagged edge, worn white, protruding from the shell which he still held in his hand.

The Half-Prince*

I did not know you when you touched my hair; Alone in the dark floral field, we walked, Our shadows drawn by slight illumined stars; We stopped to talk and listen to each other And did not feel the humid night turn misty. In the spring of our closeness Initial purity transcended past and future. We reveled in each other's quick uniqueness, Forgetting about the summer that was to come.

-ANNE COOKE

^{*}Reprinted, because of the mistake in the last issue in the order of two lines.

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